

# fitCTVARMx: External Tests

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## Tests

```
#> test-external-fitCTVARMx-fit-ct-var-id-mx-sigma-diag
#> Running CTVAR with 12 parameters
#>
#> Beginning initial fit attempt
#> Running CTVAR with 12 parameters
#>
#> Lowest minimum so far:   -535.979545303293
#>
#> Solution found
```

```
#>
#> Solution found!   Final fit=-535.97955 (started at -495.99832)   (1 attempt(s):
1 valid, 0 errors)
#> Start values from best fit:
#> -0.286419758609655,0.895144996218525,-0.0284412423732209,-0.0082640609232989,-3.08775726898311e-
#> Running CTVAR with 12 parameters
#>
#> Beginning initial fit attempt
#> Running CTVAR with 12 parameters
#>
#> Lowest minimum so far:   -561.070716085788
#>
#> Solution found
```

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#>
#> Solution found!   Final fit=-561.07072 (started at -535.26324)   (1 attempt(s):
1 valid, 0 errors)
#> Start values from best fit:
#> -0.816068043984246,1.47244363457974,-0.638888238600876,0.372705117936146,-1.81489687102436,1.109
#> Running CTVAR with 12 parameters
#>
#> Beginning initial fit attempt
#> Running CTVAR with 12 parameters
```

```
#>
#> Lowest minimum so far: -529.082648162144
#>
#> Solution found
```

```
#>
#> Solution found! Final fit=-529.08265 (started at -479.46733) (1 attempt(s):
1 valid, 0 errors)
#> Start values from best fit:
#> -0.810295084841163,0.37530637164248,-1.04076109315336,0.204110779103599,-0.453115249664412,1.192
#> Running CTVAR with 12 parameters
#>
#> Beginning initial fit attempt
#> Running CTVAR with 12 parameters
#>
#> Lowest minimum so far: -560.612123099411
#>
#> Solution found
```

```
#>
#> Solution found! Final fit=-560.61212 (started at -537.64217) (1 attempt(s):
1 valid, 0 errors)
#> Start values from best fit:
#> -0.778335518500668,0.831095092290686,-0.207879892147311,-0.0650537129275512,-0.321991140206117,0.
#> Running CTVAR with 12 parameters
#>
#> Beginning initial fit attempt
#> Running CTVAR with 12 parameters
#>
#> Lowest minimum so far: -524.94033866583
#>
#> Solution found
```

```
#>
#> Solution found! Final fit=-524.94034 (started at -496.403) (1 attempt(s): 1
valid, 0 errors)
#> Start values from best fit:
#> -0.346744768682544,0.658770854369149,-0.086874188707888,0.110578141833681,-0.415205685165933,0.8
#> Running CTVAR with 12 parameters
#>
#> Beginning initial fit attempt
#> Running CTVAR with 12 parameters
#>
#> Lowest minimum so far: -512.634087885478
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#>
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```
#> Solution found
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#>
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```
#> Solution found! Final fit=-512.63409 (started at -444.71109) (1 attempt(s):  
1 valid, 0 errors)
```

```
#> Start values from best fit:
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```
#> -0.55128594759575,0.761763101404336,-0.198710838385083,-0.355055492596023,-0.566584315572436,0.7
```

```
#> Running CTVAR with 12 parameters
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#>
```

```
#> Beginning initial fit attempt
```

```
#> Running CTVAR with 12 parameters
```

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#>
```

```
#> Lowest minimum so far: -547.990828868771
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#>
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```
#> Solution found
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#>
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```
#> Solution found! Final fit=-547.99083 (started at -488.54129) (1 attempt(s):  
1 valid, 0 errors)
```

```
#> Start values from best fit:
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```
#> -0.102312429278226,0.942780876960757,-0.414655497055917,-0.24104564728416,-0.850071497419234,0.6
```

```
#> Running CTVAR with 12 parameters
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#>
```

```
#> Beginning initial fit attempt
```

```
#> Running CTVAR with 12 parameters
```

```
#>
```

```
#> Lowest minimum so far: -542.960696002023
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#>
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```
#> Solution found
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#>
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```
#> Solution found! Final fit=-542.9607 (started at -464.98637) (1 attempt(s): 1  
valid, 0 errors)
```

```
#> Start values from best fit:
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```
#> -0.20889468718131,1.03008309264961,-0.673263442423876,-0.0471430350633757,-0.552485551212291,0.8
```

```
#> Running CTVAR with 12 parameters
```

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#>
```

```
#> Beginning initial fit attempt
```

```
#> Running CTVAR with 12 parameters
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#>
```

```
#> Lowest minimum so far: -544.500050620907
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#>
```

```
#> Solution found
```

```

#>
#> Solution found! Final fit=-544.50005 (started at -504.33797) (1 attempt(s):
1 valid, 0 errors)
#> Start values from best fit:
#> -0.372334980581452,1.74757424131736,-0.463795442453169,-0.0261470039428471,-1.38292940485458,1.2
#> Running CTVAR with 12 parameters
#>
#> Beginning initial fit attempt
#> Running CTVAR with 12 parameters
#>
#> Lowest minimum so far: -558.031184104828
#>
#> Solution found

```

```

#>
#> Solution found! Final fit=-558.03118 (started at -456.43272) (1 attempt(s):
1 valid, 0 errors)
#> Start values from best fit:
#> -1.76198015722375,1.24886373827479,0.00234347786462007,0.763068443644726,-0.758216525285823,0.41
#>
#> Means of the estimated paramaters per individual.
#>      phi_11      phi_21      phi_31      phi_12      phi_22      phi_32
#> -0.60346714  0.99638260 -0.37509264  0.07077535 -0.71154962  0.87403070
#>      phi_13      phi_23      phi_33      sigma_11      sigma_22      sigma_33
#> -0.08404499 -0.04892543 -0.89351644  0.09710037  0.10292187  0.09831419
#>
#> Estimated paramaters per individual.
#>      phi_11      phi_21      phi_31      phi_12      phi_22      phi_32
#> [1,] -0.2864198  0.8951450 -0.028441242 -0.008264061 -3.087757e-14  0.7522675
#> [2,] -0.8160680  1.4724436 -0.638888239  0.372705118 -1.814897e+00  1.1097920
#> [3,] -0.8102951  0.3753064 -1.040761093  0.204110779 -4.531152e-01  1.1922940
#> [4,] -0.7783355  0.8310951 -0.207879892 -0.065053713 -3.219911e-01  0.9113343
#> [5,] -0.3467448  0.6587709 -0.086874189  0.110578142 -4.152057e-01  0.8250235
#> [6,] -0.5512859  0.7617631 -0.198710838 -0.355055493 -5.665843e-01  0.7264666
#> [7,] -0.1023124  0.9427809 -0.414655497 -0.241045647 -8.500715e-01  0.6574175
#> [8,] -0.2088947  1.0300831 -0.673263442 -0.047143035 -5.524856e-01  0.8643121
#> [9,] -0.3723350  1.7475742 -0.463795442 -0.026147004 -1.382929e+00  1.2911569
#> [10,] -1.7619802  1.2488637  0.002343478  0.763068444 -7.582165e-01  0.4102427
#>      phi_13      phi_23      phi_33      sigma_11      sigma_22      sigma_33
#> [1,]  0.08972252 -0.57112310 -0.7928190  0.09260981  0.11268120  0.08862439
#> [2,] -0.19328161  0.39175848 -0.6372763  0.07901290  0.10805787  0.10499608
#> [3,]  0.04816415 -0.16981551 -1.4175193  0.10627541  0.12259931  0.08605712
#> [4,]  0.07018085  0.07615759 -0.7164280  0.09066660  0.09443070  0.09134324
#> [5,] -0.03730923 -0.55992842 -0.8478083  0.12613772  0.10134113  0.08618941
#> [6,]  0.33619397  0.04325559 -0.7512464  0.10530428  0.09255979  0.12505678

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#> [7,] -0.12195616 -0.44584338 -0.5712409 0.09375297 0.09432193 0.09468333
#> [8,] 0.01495990 0.09131346 -1.2149274 0.10492951 0.09940646 0.08756682
#> [9,] -0.04044610 0.52486114 -1.2188836 0.07154667 0.11069829 0.12930534
#> [10,] -1.00667823 0.13010990 -0.7670152 0.10076783 0.09312197 0.08931941
#> Test passed
```

```
#> Running CTVAR with 12 parameters
#>
#> Beginning initial fit attempt
#> Running CTVAR with 12 parameters
#>
#> Lowest minimum so far: -535.979545303292
#>
#> Solution found
```

```
#>
#> Solution found! Final fit=-535.97955 (started at -516.0749) (1 attempt(s): 1
valid, 0 errors)
#> Start values from best fit:
#> -0.286419759477208,0.89514526877191,-0.0284412598060402,-0.00826412280061554,2.2250738585072e-30
#> Running CTVAR with 12 parameters
#>
#> Beginning initial fit attempt
#> Running CTVAR with 12 parameters
#>
#> Lowest minimum so far: -561.070716085796
#>
#> Solution found
```

```
#>
#> Solution found! Final fit=-561.07072 (started at -550.31747) (1 attempt(s):
1 valid, 0 errors)
#> Start values from best fit:
#> -0.816068033419094,1.4724432933283,-0.638887851446413,0.372705278098248,-1.8148964718354,1.10979
#> Running CTVAR with 12 parameters
#>
#> Beginning initial fit attempt
#> Running CTVAR with 12 parameters
#>
#> Lowest minimum so far: -529.082648162143
#>
#> Solution found
```

```
#>
#> Solution found! Final fit=-529.08265 (started at -515.49081) (1 attempt(s):
1 valid, 0 errors)
```

```

#> Start values from best fit:
#> -0.810294783906773,0.375306460017436,-1.04076108582465,0.204110751549053,-0.45311520868845,1.192
#> Running CTVAR with 12 parameters
#>
#> Beginning initial fit attempt
#> Running CTVAR with 12 parameters
#>
#> Lowest minimum so far: -560.612123099413
#>
#> Solution found

```

```

#>
#> Solution found! Final fit=-560.61212 (started at -552.13253) (1 attempt(s):
1 valid, 0 errors)
#> Start values from best fit:
#> -0.778335633643543,0.831095158757084,-0.207880116253813,-0.0650535813732113,-0.321991284424586,0.
#> Running CTVAR with 12 parameters
#>
#> Beginning initial fit attempt
#> Running CTVAR with 12 parameters
#>
#> Lowest minimum so far: -524.94033866583
#>
#> Solution found

```

```

#>
#> Solution found! Final fit=-524.94034 (started at -515.48459) (1 attempt(s):
1 valid, 0 errors)
#> Start values from best fit:
#> -0.346744737271842,0.658770957119251,-0.0868742779570846,0.110578078336794,-0.415205716415459,0.
#> Running CTVAR with 12 parameters
#>
#> Beginning initial fit attempt
#> Running CTVAR with 12 parameters
#>
#> Lowest minimum so far: -512.634087885479
#>
#> Solution found

```

```

#>
#> Solution found! Final fit=-512.63409 (started at -504.20914) (1 attempt(s):
1 valid, 0 errors)
#> Start values from best fit:
#> -0.551285939569459,0.761763084271664,-0.198710800475859,-0.355055595541156,-0.566584200583811,0.
#> Running CTVAR with 12 parameters

```

```

#>
#> Beginning initial fit attempt
#> Running CTVAR with 12 parameters
#>
#> Lowest minimum so far:  -547.99082886877
#>
#> Solution found

```

```

#>
#> Solution found!  Final fit=-547.99083 (started at -540.95527)  (1 attempt(s):
1 valid, 0 errors)
#> Start values from best fit:
#> -0.102312493268101,0.942780770618847,-0.414655459662668,-0.241045604517094,-0.850071391943233,0.8
#> Running CTVAR with 12 parameters
#>
#> Beginning initial fit attempt
#> Running CTVAR with 12 parameters
#>
#> Lowest minimum so far:  -542.960696002028
#>
#> Solution found

```

```

#>
#> Solution found!  Final fit=-542.9607 (started at -534.0984)  (1 attempt(s): 1
valid, 0 errors)
#> Start values from best fit:
#> -0.208894894724266,1.0300830921788,-0.673263392600758,-0.0471430013244983,-0.552485559825697,0.8
#> Running CTVAR with 12 parameters
#>
#> Beginning initial fit attempt
#> Running CTVAR with 12 parameters
#>
#> Lowest minimum so far:  -544.500050620922
#>
#> Solution found

```

```

#>
#> Solution found!  Final fit=-544.50005 (started at -529.27184)  (1 attempt(s):
1 valid, 0 errors)
#> Start values from best fit:
#> -0.372334812098574,1.74757409195524,-0.463795380066834,-0.0261471229672713,-1.382929380614,1.291
#> Running CTVAR with 12 parameters
#>
#> Beginning initial fit attempt
#> Running CTVAR with 12 parameters

```

```

#>
#> Lowest minimum so far: -558.031184104825
#>
#> Solution found

#>
#> Solution found! Final fit=-558.03118 (started at -540.5606) (1 attempt(s): 1
valid, 0 errors)
#> Start values from best fit:
#> -1.7619792495282,1.24886330640017,0.0023436197205935,0.763067929811907,-0.758216149668633,0.4102427

#>
#> Means of the estimated paramaters per individual.
#>      phi_11      phi_21      phi_31      phi_12      phi_22      phi_32
#> -0.60346703  0.99638255 -0.37509260  0.07077530 -0.71154954  0.87403071
#>      phi_13      phi_23      phi_33      sigma_11      sigma_22      sigma_33
#> -0.08404492 -0.04892544 -0.89351640  0.09710037  0.10292186  0.09831419
#>
#> Estimated paramaters per individual.
#>      phi_11      phi_21      phi_31      phi_12      phi_22      phi_32
#> [1,] -0.2864198  0.8951453 -0.02844126 -0.008264123  2.225074e-308  0.7522675
#> [2,] -0.8160680  1.4724433 -0.63888785  0.372705278 -1.814896e+00  1.1097913
#> [3,] -0.8102948  0.3753065 -1.04076109  0.204110752 -4.531152e-01  1.1922940
#> [4,] -0.7783356  0.8310952 -0.20788012 -0.065053581 -3.219913e-01  0.9113345
#> [5,] -0.3467447  0.6587710 -0.08687428  0.110578078 -4.152057e-01  0.8250235
#> [6,] -0.5512859  0.7617631 -0.19871080 -0.355055596 -5.665842e-01  0.7264667
#> [7,] -0.1023125  0.9427808 -0.41465546 -0.241045605 -8.500714e-01  0.6574175
#> [8,] -0.2088949  1.0300831 -0.67326339 -0.047143001 -5.524856e-01  0.8643122
#> [9,] -0.3723348  1.7475741 -0.46379538 -0.026147123 -1.382929e+00  1.2911573
#> [10,] -1.7619792  1.2488633  0.00234362  0.763067930 -7.582161e-01  0.4102427
#>      phi_13      phi_23      phi_33      sigma_11      sigma_22      sigma_33
#> [1,]  0.08972260 -0.57112322 -0.7928190  0.09260981  0.11268121  0.08862439
#> [2,] -0.19328145  0.39175840 -0.6372761  0.07901290  0.10805787  0.10499604
#> [3,]  0.04816393 -0.16981557 -1.4175192  0.10627541  0.12259930  0.08605711
#> [4,]  0.07018079  0.07615775 -0.7164282  0.09066661  0.09443070  0.09134325
#> [5,] -0.03730923 -0.55992841 -0.8478082  0.12613771  0.10134113  0.08618940
#> [6,]  0.33619410  0.04325555 -0.7512465  0.10530428  0.09255979  0.12505679
#> [7,] -0.12195610 -0.44584326 -0.5712410  0.09375296  0.09432192  0.09468333
#> [8,]  0.01496003  0.09131341 -1.2149276  0.10492951  0.09940647  0.08756682
#> [9,] -0.04044612  0.52486127 -1.2188832  0.07154667  0.11069828  0.12930536
#> [10,] -1.00667772  0.13010968 -0.7670151  0.10076782  0.09312197  0.08931940
#> Test passed

#> test-external-fitCTVARmx-fit-ct-var-id-mx-sigma-full-iota
#> Running CTVAR with 21 parameters
#>
#> Beginning initial fit attempt

```



```

#> Running CTVAR with 21 parameters
#>
#> Lowest minimum so far: -544.478694984783
#> Not all eigenvalues of the Hessian are positive: 5732114.80891431, 4485877.57111916,
3863675.35250955, 38016.2420781636, 20517.5662598474, 17537.4923262942, 5366.3840890061,
3561.39290359617, 2070.40248712926, 364.120146117598, 230.027405684697, 190.043065566766,
43.1628026863241, 27.0811836997524, 21.1631675113213, 18.475962882866, 11.3233810497218,
9.72703374050177, 2.83176906168203e-13, 3.70902872795064e-14, -4.13791850897149e-14
#>
#> Beginning fit attempt 1 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Lowest minimum so far: -544.478694984843
#>
#> Solution found

#>
#> Solution found! Final fit=-544.47869 (started at 34.488312) (2 attempt(s): 2
valid, 0 errors)
#> Start values from best fit:
#> -0.323004386825247,0.961809967890977,0.012773170698661,0.0168089453766794,2.2250738585072e-308,0
#> Running CTVAR with 21 parameters
#>
#> Beginning initial fit attempt
#> Running CTVAR with 21 parameters
#>
#> Lowest minimum so far: -562.517817572177
#> Not all eigenvalues of the Hessian are positive: 7719757.51447015, 4021532.53981664,
3580432.1247707, 24784.7391006264, 22795.9603061863, 17970.7034283455, 5621.07478928911,
3718.93377589892, 2927.29093251331, 44.2726839509289, 38.5827973257977, 31.0035834601897,
19.3942931678222, 17.2343788838151, 14.2773836286808, 3.56781296924306, 3.21475294542588,
2.39237437161722, -2.85456092840819e-14, -7.59046095274651e-14, -2.14341835979981e-12
#>
#> Beginning fit attempt 1 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Lowest minimum so far: -562.517817572177
#>
#> Solution found

#>
#> Solution found! Final fit=-562.51782 (started at 3.4673123) (2 attempt(s): 2
valid, 0 errors)
#> Start values from best fit:
#> -0.821787522769684,1.45822648504923,-0.739214713141285,0.387372907228649,-1.81655368927212,1.145

```

```

#> Running CTVAR with 21 parameters
#>
#> Beginning initial fit attempt
#> Running CTVAR with 21 parameters
#>
#> Lowest minimum so far: -530.128797998671
#> Not all eigenvalues of the Hessian are positive: 6318947.981377, 4211283.06961938,
3720142.15266799, 21998.0927735434, 17317.0681335994, 14747.5712307323, 3056.68862390187,
2816.73563505347, 2749.35875405562, 235.737094255979, 180.037022211146, 154.230406636835,
18.312496066195, 14.6479573049569, 12.9038046174066, 7.25258970150644, 5.27889266612149,
4.77786907799846, 2.70953889562402e-13, -1.54160338970518e-13, -2.70004334193373e-13
#>
#> Beginning fit attempt 1 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#> Not all eigenvalues of the Hessian are positive: 6318947.981377, 4211283.06961938,
3720142.15266799, 21998.0927735434, 17317.0681335994, 14747.5712307323, 3056.68862390187,
2816.73563505347, 2749.35875405562, 235.737094255979, 180.037022211146, 154.230406636835,
18.312496066195, 14.6479573049569, 12.9038046174066, 7.25258970150644, 5.27889266612149,
4.77786907799846, 2.70953889562402e-13, -1.54160338970518e-13, -2.70004334193373e-13
#>
#> Beginning fit attempt 2 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 3 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#> Not all eigenvalues of the Hessian are positive: 6318947.45367415, 4211273.70272405,
3719776.24865075, 21998.0483082908, 17316.3454295892, 14747.0571010012, 3056.39747180244,
2816.74685829482, 2749.36825121692, 235.741584199274, 180.035965030871, 154.234648052154,
18.3178108748005, 14.6625583007275, 12.9131123763799, 7.25995208992035, 5.28776206099784,
4.78219770345631, -9.5185423693811e-15, -1.89643463302964e-13, -4.52427890802995e-13
#>
#> Beginning fit attempt 4 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 5 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 6 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters

```

```

#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 7 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 8 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 9 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 10 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 11 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 12 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 13 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 14 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 15 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters

```

```
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 16 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 17 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 18 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 19 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 20 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 21 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 22 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 23 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 24 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
```

```

#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 25 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 26 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 27 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 28 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 29 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 30 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 31 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 32 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 33 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters

```

```

#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 34 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 35 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 36 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 37 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 38 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 39 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 40 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Solution found

```

```

#>
#> Solution found! Final fit=-530.1288 (started at 28.931579) (41 attempt(s): 4
valid, 37 errors)
#> Start values from best fit:
#> -0.806461284909232,0.354219544431754,-1.11170180636719,0.213381261305657,-0.469259900491463,1.23
#> Running CTVAR with 21 parameters
#>

```

```

#> Beginning initial fit attempt
#> Running CTVAR with 21 parameters
#>
#> Lowest minimum so far: -560.731484809766
#> Not all eigenvalues of the Hessian are positive: 7625969.98567692, 6149975.05815003,
4167985.57993079, 24374.8714248819, 23243.703265794, 22279.1373697988, 4415.44881173434,
3924.46065874008, 3760.47899730625, 192.135188969166, 188.658997121096, 177.482696418731,
18.6849877324175, 18.1741303889139, 17.3364983825787, 7.48107561792751, 6.80842137842472,
6.4727498959391, 3.37827561456701e-13, 5.7459895804673e-14, -2.01161986397964e-12
#>
#> Beginning fit attempt 1 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Lowest minimum so far: -560.731484809775
#> Not all eigenvalues of the Hessian are positive: 7625950.16851303, 6149975.0912616,
4167985.59018883, 24374.8711543996, 23243.706529623, 22279.1334537184, 4415.46093898169,
3924.47265194117, 3760.4836645619, 192.132120311685, 188.676064006136, 177.47819518485,
18.7054709248856, 18.1891550963029, 17.3511464224016, 7.5035541072219, 6.82492099144065,
6.48667300191218, 3.6253536182148e-13, -1.14249988773998e-13, -4.10453422875394e-12
#>
#> Beginning fit attempt 2 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#> Not all eigenvalues of the Hessian are positive: 7625950.16851303, 6149975.0912616,
4167985.59018883, 24374.8711543996, 23243.706529623, 22279.1334537184, 4415.46093898169,
3924.47265194117, 3760.4836645619, 192.132120311685, 188.676064006136, 177.47819518485,
18.7054709248856, 18.1891550963029, 17.3511464224016, 7.5035541072219, 6.82492099144065,
6.48667300191218, 3.6253536182148e-13, -1.14249988773998e-13, -4.10453422875394e-12
#>
#> Beginning fit attempt 3 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 4 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 5 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 6 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters

```

```

#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 7 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Lowest minimum so far: -560.731484817688
#> Not all eigenvalues of the Hessian are positive: 7625699.88180786, 6149924.25046122,
4168029.59458766, 24374.5116708457, 23243.6899623794, 22279.2617490501, 4415.49289831349,
3924.50876370966, 3760.46482902501, 192.132406887819, 188.669216083917, 177.47823283211,
18.6994097953261, 18.1793853994664, 17.3443708944278, 7.49447889800589, 6.81777617227157,
6.48263301061408, 9.87411163201344e-13, 1.17877933798279e-13, -4.68813491110079e-12
#>
#> Beginning fit attempt 8 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#> Not all eigenvalues of the Hessian are positive: 7625699.88180786, 6149924.25046122,
4168029.59458766, 24374.5116708457, 23243.6899623794, 22279.2617490501, 4415.49289831349,
3924.50876370966, 3760.46482902501, 192.132406887819, 188.669216083917, 177.47823283211,
18.6994097953261, 18.1793853994664, 17.3443708944278, 7.49447889800589, 6.81777617227157,
6.48263301061408, 9.87411163201344e-13, 1.17877933798279e-13, -4.68813491110079e-12
#>
#> Beginning fit attempt 9 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 10 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 11 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 12 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 13 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors

```



```
#>
#> Beginning fit attempt 14 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 15 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 16 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 17 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 18 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 19 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 20 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 21 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 22 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
```

```

#>
#> Beginning fit attempt 23 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 24 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 25 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 26 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 27 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 28 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 29 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 30 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 31 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors

```

```

#>
#> Beginning fit attempt 32 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 33 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 34 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 35 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 36 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 37 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 38 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 39 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#> Not all eigenvalues of the Hessian are positive: 7625495.52952577, 6150155.54120994,
4168002.92100714, 24375.1324313633, 23243.6770824742, 22278.7993956556, 4415.38351741817,
3924.42358086093, 3760.55338360695, 192.13607143162, 188.665250227101, 177.473161497541,
18.6923921622017, 18.167254251738, 17.3388601624587, 7.48516702731699, 6.8143331210585,
6.47292604969362, -1.14591247946842e-13, -8.39580839762402e-13, -8.815834198551e-13
#>
#> Beginning fit attempt 40 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters

```

```

#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 41 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 42 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 43 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 44 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 45 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 46 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 47 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 48 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 49 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters

```

```

#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 50 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 51 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 52 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 53 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 54 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 55 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 56 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 57 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 58 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters

```

```
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 59 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 60 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 61 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 62 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 63 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 64 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 65 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 66 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 67 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
```

```

#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 68 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 69 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 70 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 71 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 72 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 73 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 74 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 75 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 76 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters

```

```

#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 77 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 78 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 79 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 80 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 81 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 82 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 83 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 84 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Lowest minimum so far: -560.73148481777
#> Not all eigenvalues of the Hessian are positive: 7625707.62122711, 6149917.2177569,
4168050.17625368, 24374.4846920452, 23243.7383490891, 22279.2847239728, 4415.47274247667,
3924.52331331114, 3760.45951390667, 192.133692611277, 188.672705436147, 177.477440486235,

```



```

18.6987148127958, 18.175351277811, 17.3458489933116, 7.49141176732204, 6.81592801778795,
6.47739742469853, 5.36028587398097e-13, 4.36170936439342e-14, -5.2382539777379e-12
#>
#> Beginning fit attempt 85 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Lowest minimum so far: -560.73148481777
#> Not all eigenvalues of the Hessian are positive: 7625707.62069418, 6149917.22410292,
4168050.18094253, 24374.4877428664, 23243.7418832166, 22279.2858947431, 4415.47913216359,
3924.53342665893, 3760.46172694369, 192.134821857627, 188.675659487045, 177.477330153016,
18.7055068675887, 18.1819615699713, 17.3545034681323, 7.50062639337742, 6.82000737450436,
6.48076476237732, 1.81974955011685e-14, -1.6971512809897e-13, -2.73681280578223e-12
#>
#> Beginning fit attempt 86 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#> Not all eigenvalues of the Hessian are positive: 7625707.62069418, 6149917.22410292,
4168050.18094253, 24374.4877428664, 23243.7418832166, 22279.2858947431, 4415.47913216359,
3924.53342665893, 3760.46172694369, 192.134821857627, 188.675659487045, 177.477330153016,
18.7055068675887, 18.1819615699713, 17.3545034681323, 7.50062639337742, 6.82000737450436,
6.48076476237732, 1.81974955011685e-14, -1.6971512809897e-13, -2.73681280578223e-12
#>
#> Beginning fit attempt 87 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 88 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 89 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 90 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 91 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#> Not all eigenvalues of the Hessian are positive: 7625880.44340558, 6150836.62810727,
4167778.77037889, 24375.5003880173, 23245.3748327471, 22279.6929040266, 4415.41730768062,
3924.77554330388, 3760.9502118124, 192.141098275884, 188.67747743959, 177.474314470932,

```

```

18.7098679071438, 18.1852339177235, 17.3550063657955, 7.50402660579702, 6.82537550483701,
6.48925071570007, 6.20870656397566e-13, -1.73671746388669e-13, -1.92816880882533e-12
#>
#> Beginning fit attempt 92 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 93 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 94 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 95 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 96 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 97 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 98 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 99 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 100 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters

```

```

#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 101 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 102 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#> Not all eigenvalues of the Hessian are positive: 7625696.48453901, 6149902.88245813,
4168029.97346452, 24374.4926751199, 23243.6689245539, 22279.2456906956, 4415.49060770746,
3924.5129723756, 3760.44841879741, 192.134272145825, 188.672944921468, 177.475081954894,
18.6987785592311, 18.1771394013131, 17.34731426514, 7.49381970231858, 6.81784094708889,
6.47743228409166, 1.52298781076256e-13, -3.24786411199321e-13, -9.94829432952321e-13
#>
#> Beginning fit attempt 103 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 104 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 105 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 106 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 107 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 108 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors

```

```

#>
#> Beginning fit attempt 109 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 110 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 111 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 112 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 113 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 114 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 115 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 116 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 117 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors

```

```

#>
#> Beginning fit attempt 118 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 119 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 120 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 121 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 122 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#> Not all eigenvalues of the Hessian are positive: 7625336.10469633, 6149665.71200042,
4167955.78744041, 24373.4456447267, 23242.8318475951, 22278.9299632924, 4415.47748619686,
3924.42051588126, 3760.31283506059, 192.1302029956, 188.672188586457, 177.47854341369,
18.705149414972, 18.1846556271923, 17.3529127234181, 7.49962781411122, 6.82600409665226,
6.48209475217889, 2.93172156538173e-12, 8.17720048961482e-13, -1.20414074616688e-13
#>
#> Beginning fit attempt 123 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 124 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 125 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 126 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters

```

```

#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 127 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 128 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 129 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 130 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 131 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 132 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 133 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 134 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 135 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters

```

```

#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 136 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 137 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 138 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 139 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 140 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 141 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 142 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 143 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 144 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters

```

```

#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 145 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 146 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 147 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 148 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 149 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 150 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 151 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 152 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 153 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters

```



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#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 154 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 155 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 156 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 157 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 158 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 159 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 160 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 161 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 162 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters

```

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#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 163 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 164 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 165 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 166 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 167 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 168 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 169 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 170 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 171 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters

```

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#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 172 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 173 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 174 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 175 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 176 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 177 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 178 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 179 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 180 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters

```

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#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 181 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 182 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 183 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 184 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 185 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 186 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 187 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 188 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 189 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters

```

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#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 190 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 191 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 192 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 193 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 194 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 195 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 196 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 197 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 198 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters

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#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 199 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 200 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 201 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 202 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 203 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 204 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 205 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 206 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 207 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters

```

```

#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 208 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#> Not all eigenvalues of the Hessian are positive: 7625700.39473606, 6149904.20559513,
4168022.05889212, 24374.4851275818, 23243.6331974681, 22279.2263965012, 4415.49708401435,
3924.50071166347, 3760.44732765077, 192.128163811323, 188.671827380124, 177.480388333312,
18.6925643157649, 18.175391862137, 17.3400447795877, 7.49040051438039, 6.81269613862716,
6.47046236413729, 2.48405729331726e-12, 6.6438056822861e-13, -1.29699901305131e-13
#>
#> Beginning fit attempt 209 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 210 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 211 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 212 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 213 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 214 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 215 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors

```

```

#>
#> Beginning fit attempt 216 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 217 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 218 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 219 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 220 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 221 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 222 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 223 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 224 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors

```



```

#>
#> Beginning fit attempt 225 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 226 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 227 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 228 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 229 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 230 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 231 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 232 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 233 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors

```

```

#>
#> Beginning fit attempt 234 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 235 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 236 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 237 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 238 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 239 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 240 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 241 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 242 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors

```

```

#>
#> Beginning fit attempt 243 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 244 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 245 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 246 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 247 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 248 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 249 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 250 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 251 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors

```

```

#>
#> Beginning fit attempt 252 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 253 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 254 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 255 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 256 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 257 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Solution found

```

```

#>
#> Solution found! Final fit=-560.73148 (started at 11.961722) (258 attempt(s):
14 valid, 244 errors)
#> Start values from best fit:
#> -0.773897460794452, 0.831528621016774, -0.186012398289653, -0.0681110497414997, -0.311854884386893, 0.
#> Running CTVAR with 21 parameters
#>
#> Beginning initial fit attempt
#> Running CTVAR with 21 parameters
#>
#> Lowest minimum so far: -528.031988585337
#> Not all eigenvalues of the Hessian are positive: 6843263.03222863, 5287149.73341118,
3138694.69147305, 21295.144372613, 17193.3193606532, 14559.8826687506, 4810.75641775446,
2262.38571805118, 1600.50198346083, 71.4710415715974, 49.3004902045175, 37.4577061949467,

```

```

27.9140996410063, 20.2493631737783, 13.8592306263215, 10.8032629790512, 8.88402092563668,
6.87982253023571, -1.91642684229703e-14, -2.6203235838176e-13, -8.05489939348602e-13
#>
#> Beginning fit attempt 1 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Lowest minimum so far: -528.031988585338
#>
#> Solution found

```

```

#>
#> Solution found! Final fit=-528.03199 (started at 10.679318) (2 attempt(s): 2
valid, 0 errors)
#> Start values from best fit:
#> -0.297596828022915, 0.588803649495887, -0.0203989481699172, -0.00192472325953657, -0.360878720143291,
#> Running CTVAR with 21 parameters
#>
#> Beginning initial fit attempt
#> Running CTVAR with 21 parameters
#>
#> Lowest minimum so far: -515.647049027499
#> Not all eigenvalues of the Hessian are positive: 6038451.87101318, 5874910.55421333,
3116390.31852341, 21710.7970032877, 18198.1288917709, 11404.4951816863, 5293.25779295145,
3929.41968288062, 2567.54960678576, 94.8754225377637, 77.4543874483113, 60.0470796035371,
51.0045136491699, 40.9416308011753, 32.2288832215134, 26.3099632799034, 21.1990402604591,
16.6574470918489, 1.63228148143509e-12, -6.67014791369135e-15, -7.60636575518316e-13
#>
#> Beginning fit attempt 1 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Lowest minimum so far: -515.6470490275
#> Not all eigenvalues of the Hessian are positive: 6038451.61519009, 5874910.46247849,
3116390.72572693, 21710.8024413261, 18198.1305510641, 11404.4986162095, 5293.26751895817,
3929.42330819829, 2567.5544484263, 94.8780145445022, 77.4566269301067, 60.0556199326431,
51.0012576888636, 40.9422158977906, 32.2280902393157, 26.3210444037523, 21.2073305420671,
16.6694963884899, -2.70265891464471e-14, -1.46836068066704e-13, -7.68050591494085e-13
#>
#> Beginning fit attempt 2 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#> Not all eigenvalues of the Hessian are positive: 6038451.61519009, 5874910.46247849,
3116390.72572693, 21710.8024413261, 18198.1305510641, 11404.4986162095, 5293.26751895817,
3929.42330819829, 2567.5544484263, 94.8780145445022, 77.4566269301067, 60.0556199326431,
51.0012576888636, 40.9422158977906, 32.2280902393157, 26.3210444037523, 21.2073305420671,
16.6694963884899, -2.70265891464471e-14, -1.46836068066704e-13, -7.68050591494085e-13

```

```

#>
#> Beginning fit attempt 3 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 4 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 5 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 6 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 7 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 8 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 9 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 10 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 11 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors

```

```

#>
#> Beginning fit attempt 12 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 13 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 14 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 15 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#> OpenMx status code 6 not in list of acceptable status codes, (0,0)
#> Not all eigenvalues of the Hessian are positive: 6038188.03619611, 5874642.56496158,
3116493.79514777, 21710.1891530091, 18201.0571915216, 11404.8723974749, 5292.984881806,
3929.50697544804, 2567.64408161909, 94.879187533631, 77.4507624048874, 60.0521007767595,
51.0026714104136, 40.9385906381771, 32.2315222053039, 26.3151788692418, 21.2014843631786,
16.6607579644997, 9.37182079521136e-13, 2.80535804007316e-14, -7.21874828649335e-13
#>
#> Beginning fit attempt 16 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 17 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 18 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 19 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 20 of at maximum 1000 extra tries

```

```

#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 21 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 22 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 23 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 24 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 25 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 26 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 27 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 28 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 29 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters

```



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#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 30 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 31 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 32 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 33 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 34 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 35 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 36 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 37 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 38 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters

```

```

#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 39 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 40 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 41 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 42 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 43 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 44 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 45 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 46 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 47 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters

```

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#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 48 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 49 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 50 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 51 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 52 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 53 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 54 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 55 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 56 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters

```

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#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 57 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 58 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 59 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 60 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 61 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 62 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 63 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 64 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 65 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters

```

```

#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 66 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 67 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 68 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 69 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 70 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 71 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 72 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 73 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 74 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters

```

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#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 75 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 76 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 77 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 78 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 79 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 80 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 81 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 82 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 83 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters

```

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#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 84 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 85 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 86 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 87 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 88 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 89 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 90 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 91 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 92 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters

```

```

#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 93 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 94 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 95 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 96 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 97 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 98 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 99 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#> Not all eigenvalues of the Hessian are positive: 6038451.78827961, 5874914.40890276,
3116395.01985225, 21710.8042721863, 18198.1312175459, 11404.491820134, 5293.26037915901,
3929.41597143135, 2567.5508044498, 94.8740115558502, 77.4514214503793, 60.0447217047307,
51.002573048938, 40.9422453356612, 32.2260669647755, 26.3114498249685, 21.19884422213,
16.6581514292221, -2.84204270375386e-14, -1.76866574583927e-12, -4.5890277105593e-12
#>
#> Beginning fit attempt 100 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#> Not all eigenvalues of the Hessian are positive: 6038454.13911546, 5874913.15815648,
3116387.52586471, 21710.8093943583, 18198.1198489265, 11404.4765780208, 5293.26741453122,
3929.41517053761, 2567.54979373118, 94.8727486867132, 77.4502421423172, 60.0460679107993,

```



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51.003277698787, 40.9422646068623, 32.2256066453428, 26.3120966750457, 21.2014686081015,
16.6605040559923, 8.86267720782598e-15, 7.79197760191989e-16, -2.55001218614091e-13
#>
#> Beginning fit attempt 101 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 102 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 103 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 104 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 105 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 106 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#> Not all eigenvalues of the Hessian are positive: 6038449.19263574, 5874909.01263885,
3116391.64668614, 21710.7961461304, 18198.1259520364, 11404.5039637831, 5293.2595551903,
3929.41804483915, 2567.55508122891, 94.875722913739, 77.4538902779402, 60.0496060099442,
51.0041374391528, 40.9408856669041, 32.2280946414176, 26.3149161148051, 21.2055892684691,
16.6636704792811, -1.72474348139364e-14, -2.76864057887066e-13, -1.05003613439981e-12
#>
#> Beginning fit attempt 107 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 108 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors

```

```

#>
#> Beginning fit attempt 109 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 110 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 111 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 112 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 113 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 114 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 115 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 116 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 117 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors

```

```

#>
#> Beginning fit attempt 118 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 119 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 120 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 121 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 122 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#> Not all eigenvalues of the Hessian are positive: 6038447.5435395, 5874902.76880234,
3116384.77683686, 21710.7814695322, 18198.113611601, 11404.481210366, 5293.26696164526,
3929.41635875533, 2567.55210132426, 94.8797216884766, 77.4613586773551, 60.0552657596006,
50.9983748762394, 40.9420120441274, 32.232556592334, 26.322374857215, 21.2112737567843,
16.6688673438829, 9.12513514314868e-14, -4.29218840168878e-14, -1.36649794920426e-12
#>
#> Beginning fit attempt 123 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 124 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 125 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 126 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters

```

```

#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 127 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 128 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 129 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 130 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 131 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 132 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 133 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 134 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 135 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters

```

```

#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 136 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 137 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 138 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 139 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 140 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 141 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 142 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 143 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 144 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters

```

```

#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 145 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 146 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 147 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 148 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 149 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 150 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 151 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 152 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 153 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters

```

```

#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 154 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 155 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 156 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 157 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 158 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 159 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 160 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 161 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 162 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters

```

```

#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 163 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 164 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 165 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 166 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 167 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 168 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 169 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 170 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 171 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters

```



```

#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 172 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 173 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 174 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 175 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 176 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#> Not all eigenvalues of the Hessian are positive: 6038452.22553588, 5874910.5597202,
3116389.14684724, 21710.7987661301, 18198.1331285685, 11404.5008571158, 5293.26320363847,
3929.41600426355, 2567.55155032578, 94.8729439615212, 77.4520952424902, 60.0459787234663,
51.0044501945855, 40.9411296238308, 32.2253332541185, 26.3136755195458, 21.1986518429885,
16.6628344547166, 2.0473211105097e-12, 3.74760415683401e-13, -1.18985140286392e-14
#>
#> Beginning fit attempt 177 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 178 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 179 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors

```

```

#>
#> Beginning fit attempt 180 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 181 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 182 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 183 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 184 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 185 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 186 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 187 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 188 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors

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#>
#> Beginning fit attempt 189 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 190 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 191 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 192 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 193 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 194 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 195 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 196 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 197 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
```

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#>
#> Beginning fit attempt 198 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 199 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 200 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#> Not all eigenvalues of the Hessian are positive: 6038448.8780437, 5874907.05372609,
3116388.87852187, 21710.7921770288, 18198.1162052382, 11404.4966733609, 5293.26401503466,
3929.41636848936, 2567.54855824611, 94.8742583484519, 77.4559566438296, 60.0495554477264,
51.0029397995899, 40.9383771832154, 32.2273147010927, 26.3172461800481, 21.2029507627104,
16.6627097681871, -1.62543086962756e-14, -3.77063563781197e-13, -1.32741683366294e-12
#>
#> Beginning fit attempt 201 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 202 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 203 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 204 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 205 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 206 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters

```

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#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 207 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 208 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 209 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 210 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 211 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 212 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 213 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 214 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 215 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
```

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#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 216 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 217 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 218 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 219 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 220 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 221 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 222 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 223 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 224 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
```

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#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 225 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 226 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 227 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 228 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 229 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
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#> Beginning fit attempt 230 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
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#> Beginning fit attempt 231 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 232 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 233 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters

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#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 234 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 235 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 236 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 237 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 238 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 239 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 240 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 241 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 242 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters

```



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#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 243 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 244 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 245 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 246 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 247 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 248 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 249 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 250 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 251 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters

```

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#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 252 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 253 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#> Not all eigenvalues of the Hessian are positive: 6038451.08904164, 5874909.61058082,
3116391.74728872, 21710.8001816609, 18198.1279165364, 11404.4952909688, 5293.2649849337,
3929.41662844806, 2567.54995908979, 94.872082532775, 77.4506921275074, 60.0447889526914,
51.0058976090165, 40.9416615638262, 32.2281025575121, 26.3086419894092, 21.1988055118775,
16.6570193906871, -8.35981024834372e-14, -1.7353971078955e-13, -8.84727290040999e-13
#>
#> Beginning fit attempt 254 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 255 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 256 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 257 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 258 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 259 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors

```

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#>
#> Beginning fit attempt 260 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 261 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 262 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 263 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 264 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 265 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 266 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 267 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 268 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors

```

```

#>
#> Beginning fit attempt 269 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 270 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 271 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 272 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 273 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 274 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 275 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 276 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#> Not all eigenvalues of the Hessian are positive: 6038425.10448521, 5874921.93976298,
3116366.67836714, 21710.7866381094, 18198.0654103999, 11404.497804498, 5293.23988841381,
3929.44802904643, 2567.53892603229, 94.885209113293, 77.4636476487113, 60.0580441078022,
50.9979718988221, 40.9469536384789, 32.2310577453653, 26.3233705560866, 21.2093148023689,
16.6690609168658, 3.51367622129831e-13, 6.18221953112126e-14, -1.51275516012006e-12
#>
#> Beginning fit attempt 277 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters

```

```
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 278 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 279 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 280 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 281 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 282 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 283 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 284 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 285 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 286 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
```

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#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 287 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 288 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 289 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 290 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 291 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 292 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#> Not all eigenvalues of the Hessian are positive: 6038445.95741416, 5874909.10065158,
3116393.16240249, 21710.7923289977, 18198.1290615613, 11404.504090565, 5293.26100033588,
3929.41880940135, 2567.55465881946, 94.8786455816406, 77.4573628920412, 60.0483970158931,
51.0005106535926, 40.9426166102189, 32.2299086831203, 26.3154302505219, 21.2044238912388,
16.6619006530973, 6.62794905823982e-13, 4.20194797258115e-14, -4.68447991149099e-13
#>
#> Beginning fit attempt 293 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 294 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors

```

```

#>
#> Beginning fit attempt 295 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 296 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 297 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 298 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#> Not all eigenvalues of the Hessian are positive: 6038440.03057091, 5874904.99438851,
3116393.95873443, 21710.7782499443, 18198.0953764831, 11404.4784066194, 5293.25669367559,
3929.41663755348, 2567.55048805322, 94.8731565482514, 77.4515851869963, 60.0446480959772,
51.0033950736722, 40.9430478946376, 32.2275406267147, 26.3154561919241, 21.2035891861996,
16.6601877618467, 1.40542390685114e-14, -9.55302419244846e-13, -1.56285997128014e-12
#>
#> Beginning fit attempt 299 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 300 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 301 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 302 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 303 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters

```

```

#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 304 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 305 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 306 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 307 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 308 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 309 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 310 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 311 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 312 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters

```



```

#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 313 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 314 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 315 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 316 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 317 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 318 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 319 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 320 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 321 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters

```

```

#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 322 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 323 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 324 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 325 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 326 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 327 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 328 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 329 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 330 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters

```

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#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 331 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 332 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 333 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 334 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 335 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 336 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 337 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 338 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 339 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters

```

```

#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 340 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 341 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 342 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 343 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 344 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#> Not all eigenvalues of the Hessian are positive: 6038448.13405838, 5874907.58766097,
3116392.68318638, 21710.7911451065, 18198.1213899733, 11404.5000050311, 5293.2602942791,
3929.41629896367, 2567.5534045604, 94.8733807162169, 77.4533153314102, 60.0490342862336,
51.0070676948909, 40.9395701023002, 32.22820815918, 26.3123595951684, 21.2029891082015,
16.6627408372914, 3.95334866798742e-13, -9.06296041556318e-14, -9.69064082083403e-13
#>
#> Beginning fit attempt 345 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 346 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 347 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors

```

```

#>
#> Beginning fit attempt 348 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 349 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 350 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 351 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 352 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 353 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 354 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 355 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 356 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors

```

```

#>
#> Beginning fit attempt 357 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 358 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 359 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 360 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 361 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 362 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 363 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 364 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 365 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors

```

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#>
#> Beginning fit attempt 366 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 367 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 368 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 369 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 370 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 371 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 372 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 373 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#> Not all eigenvalues of the Hessian are positive: 6038450.27428467, 5874909.77865038,
3116388.69205291, 21710.7982431202, 18198.1180255562, 11404.4905155736, 5293.26235117184,
3929.4149189634, 2567.55241860166, 94.8748950424919, 77.4527712182072, 60.0471730293121,
51.0029032266947, 40.9426696035512, 32.2237204976288, 26.3151733421648, 21.1985513887868,
16.6637223074584, 1.63181623073523e-12, -3.40340747990797e-14, -2.17154645860007e-12
#>
#> Beginning fit attempt 374 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters

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#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 375 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 376 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 377 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 378 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 379 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 380 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 381 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#> Not all eigenvalues of the Hessian are positive: 6038342.4754232, 5874813.854603,
3116357.15722535, 21710.3548400993, 18197.7176732408, 11404.4834500525, 5293.1919067365,
3929.33329577908, 2567.5249576711, 94.8801176498908, 77.4579589406712, 60.0518432653473,
51.0025512955613, 40.940310417457, 32.2318146262632, 26.3157220750133, 21.2085286226184,
16.6695183483712, -8.04958768220631e-14, -6.34621938583493e-13, -1.4037438757486e-12
#>
#> Beginning fit attempt 382 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors

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#>
#> Beginning fit attempt 383 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 384 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 385 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 386 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 387 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 388 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 389 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 390 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 391 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors

```

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#>
#> Beginning fit attempt 392 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 393 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 394 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 395 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 396 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 397 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 398 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 399 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 400 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors

```

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#>
#> Beginning fit attempt 401 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 402 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 403 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 404 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 405 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 406 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 407 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 408 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 409 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors

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#>
#> Beginning fit attempt 410 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 411 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 412 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 413 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 414 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 415 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 416 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 417 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 418 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors

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#>
#> Beginning fit attempt 419 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 420 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 421 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 422 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 423 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 424 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 425 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 426 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 427 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#> OpenMx status code 6 not in list of acceptable status codes, (0,0)
#> Not all eigenvalues of the Hessian are positive: 6039290.9256777, 5874458.32060692,
3116741.17482193, 21711.7960156019, 18197.8984117418, 11403.8029095626, 5294.90312299742,

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3928.42567761483, 2567.87755124726, 94.8783763392501, 77.4599834412145, 60.0502563733053,
51.0012177545069, 40.9424026712707, 32.2281890695342, 26.313459010606, 21.2043251220748,
16.6628330063228, 7.73312801018441e-13, -1.76218010406894e-15, -4.39816030296002e-13
#>
#> Beginning fit attempt 428 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 429 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 430 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 431 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 432 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#> Not all eigenvalues of the Hessian are positive: 6038442.72549918, 5874933.51450285,
3116408.94439539, 21710.8367131783, 18198.1384399971, 11404.5365303147, 5293.25835848351,
3929.43555036998, 2567.56827730073, 94.8752259955218, 77.4580337868499, 60.0496493069786,
51.0023654760912, 40.9406423621734, 32.2318738413742, 26.3164772416882, 21.2064055386556,
16.6626317689338, -1.00639256087853e-13, -9.63023617968296e-13, -1.58710609378891e-12
#>
#> Beginning fit attempt 433 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 434 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 435 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors

```

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#>
#> Beginning fit attempt 436 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 437 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 438 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 439 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 440 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 441 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 442 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 443 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 444 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors

```

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#>
#> Beginning fit attempt 445 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 446 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 447 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#> Not all eigenvalues of the Hessian are positive: 6038431.02958826, 5874871.80980915,
3116378.92544336, 21710.6987029556, 18198.0910588302, 11404.4375835086, 5293.26348937855,
3929.38733767638, 2567.54902764283, 94.8795596356378, 77.4610369718733, 60.0556988614701,
50.9999052413934, 40.9428997782478, 32.230540916142, 26.3160889237563, 21.2069350766109,
16.6661481873555, 2.43267125086541e-13, -2.08864097857879e-14, -1.20503912549728e-12
#>
#> Beginning fit attempt 448 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 449 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 450 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 451 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 452 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 453 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters

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#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 454 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 455 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Solution found

#>
#> Solution found! Final fit=-515.64705 (started at 63.430627) (456 attempt(s):
21 valid, 435 errors)
#> Start values from best fit:
#> -0.542108067043096, 0.782001530052192, -0.181883172642053, -0.32968527374852, -0.552601601403839, 0.7
#> Running CTVAR with 21 parameters
#>
#> Beginning initial fit attempt
#> Running CTVAR with 21 parameters
#>
#> Lowest minimum so far: -558.720937777153
#> Not all eigenvalues of the Hessian are positive: 6601089.39751735, 5884924.63808948,
4997188.00356087, 33835.7219413868, 25546.9954494891, 19029.4886076034, 6415.76001259732,
5532.81512082874, 4129.73205423884, 182.000190808711, 100.602518291728, 94.7718429182052,
79.9394602951209, 53.5090739905276, 44.8244759205541, 42.8387218199019, 25.6224033078806,
20.3723100264725, 2.1079580800099e-13, -5.17668234655145e-13, -1.30458550520095e-12
#>
#> Beginning fit attempt 1 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Lowest minimum so far: -558.72093777781
#> Not all eigenvalues of the Hessian are positive: 6601114.80924619, 5884961.35191255,
4997198.73790025, 33835.7671935006, 25547.0406971667, 19029.5554078384, 6415.76057941822,
5532.83643566678, 4129.7376888103, 181.990222551722, 100.614736384863, 94.7827234136554,
79.9480309837909, 53.5199474024552, 44.8252232596661, 42.8531030944861, 25.6248264145587,
20.3828474925283, 1.23826093129998e-12, -2.68450141518992e-14, -3.08790823859772e-13
#>
#> Beginning fit attempt 2 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Lowest minimum so far: -558.72093777781
#> Not all eigenvalues of the Hessian are positive: 6601114.81137195, 5884961.35848123,

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4997198.75215046, 33835.7694298183, 25547.0448699406, 19029.5641270087, 6415.77544899202,
5532.84450665967, 4129.74470227391, 181.97962003654, 100.623109926918, 94.7898665955338,
79.9591989946992, 53.5303288659659, 44.832140729664, 42.866636295993, 25.6385295402174,
20.3963153995933, -5.05571605632536e-14, -5.24312525540226e-13, -6.41224385879389e-13
#>
#> Beginning fit attempt 3 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#> Not all eigenvalues of the Hessian are positive: 6601089.45526684, 5884923.98432523,
4997187.56741139, 33835.7146023697, 25547.0130175081, 19029.499434258, 6415.7662148132,
5532.82225044654, 4129.73772886391, 181.986864423274, 100.618671476308, 94.7831838350331,
79.9517582726906, 53.526730241892, 44.8307585303838, 42.8594990073618, 25.6321984245321,
20.3876011831766, 7.45641601935142e-13, 2.27625516886658e-13, -9.4746147496031e-13
#>
#> Beginning fit attempt 4 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 5 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 6 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 7 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 8 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 9 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#> Not all eigenvalues of the Hessian are positive: 6601089.73566733, 5884924.38484542,
4997187.92842263, 33835.7145165463, 25547.0077989942, 19029.4974911277, 6415.76977061638,
5532.8212339859, 4129.74147629387, 181.988035722833, 100.617661474104, 94.7827057237205,
79.9503275807053, 53.5194245021573, 44.828274466955, 42.8546150417229, 25.6256358365843,
20.385036409685, 2.52645883717752e-13, -8.37788566127471e-14, -4.91857120398897e-13

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#>
#> Beginning fit attempt 10 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 11 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 12 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 13 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 14 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 15 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 16 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 17 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 18 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors

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```
#>
#> Beginning fit attempt 19 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 20 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 21 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 22 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 23 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 24 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 25 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 26 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 27 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
```

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#>
#> Beginning fit attempt 28 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 29 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 30 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 31 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 32 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 33 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 34 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 35 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 36 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors

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```

#>
#> Beginning fit attempt 37 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 38 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 39 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 40 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 41 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 42 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 43 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 44 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 45 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors

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```
#>
#> Beginning fit attempt 46 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 47 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 48 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 49 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 50 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 51 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 52 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 53 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 54 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
```

```

#>
#> Beginning fit attempt 55 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 56 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 57 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 58 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 59 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 60 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 61 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 62 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 63 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors

```



```
#>
#> Beginning fit attempt 64 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 65 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 66 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 67 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 68 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 69 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 70 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 71 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 72 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
```

```

#>
#> Beginning fit attempt 73 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 74 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 75 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 76 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#> Not all eigenvalues of the Hessian are positive: 6601090.43264401, 5884921.08303717,
4997183.60213083, 33835.6699616673, 25546.9758606144, 19029.4660965429, 6415.75662893852,
5532.80427237417, 4129.72109273352, 181.995736236969, 100.609164362175, 94.7734977300576,
79.9438273506203, 53.5160576323905, 44.8233337911662, 42.8467008335077, 25.6253345219459,
20.3793961228039, 5.42093775643903e-13, 1.86810579679249e-13, -1.91732124041449e-13
#>
#> Beginning fit attempt 77 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 78 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 79 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 80 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 81 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters

```

```
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 82 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 83 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 84 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 85 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 86 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 87 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 88 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 89 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 90 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
```

```

#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 91 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 92 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 93 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 94 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 95 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 96 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 97 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#> Not all eigenvalues of the Hessian are positive: 6601089.22331323, 5884924.93848989,
4997187.75563912, 33835.7215484413, 25547.0057123315, 19029.4954745189, 6415.7727497076,
5532.82138165585, 4129.73978669039, 181.990825116179, 100.615935852681, 94.7773641529547,
79.9469677876441, 53.5201066163606, 44.8288314872887, 42.848841840881, 25.6293953625187,
20.3812296863374, 1.63560073524071e-12, -1.91259930757473e-13, -7.25114360369224e-13
#>
#> Beginning fit attempt 98 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors

```

```

#>
#> Beginning fit attempt 99 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 100 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 101 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#> Not all eigenvalues of the Hessian are positive: 6601086.87530294, 5884926.40497265,
4997185.51256852, 33835.7065871349, 25546.9816499938, 19029.4751260278, 6415.76134376365,
5532.79872846991, 4129.72951785473, 181.988216530669, 100.616748184631, 94.7767867347335,
79.9458521097042, 53.5159039712088, 44.8296834266529, 42.8455835663835, 25.6291778698312,
20.3795654057848, 1.29563855712461e-12, -3.16077031341515e-14, -4.13135288171083e-13
#>
#> Beginning fit attempt 102 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 103 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 104 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 105 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 106 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 107 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters

```

```

#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 108 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 109 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#> Not all eigenvalues of the Hessian are positive: 6601087.66903566, 5884909.09308684,
4997177.47261631, 33835.6732767513, 25546.9727482125, 19029.4584812236, 6415.74196323634,
5532.814082896, 4129.73384975468, 181.995547817889, 100.609305898185, 94.7761149366123,
79.9455179914944, 53.5131303867297, 44.8269331282458, 42.8486590836077, 25.6210205959345,
20.380609610338, -7.0699895344569e-14, -6.49492319986364e-13, -2.08279864391299e-12
#>
#> Beginning fit attempt 110 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 111 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 112 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 113 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 114 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#> Not all eigenvalues of the Hessian are positive: 6601086.45011402, 5884921.93621821,
4997186.29781902, 33835.7019954772, 25546.9835790863, 19029.4887236144, 6415.75890673292,
5532.81757118224, 4129.73378509152, 181.991465833005, 100.608289315021, 94.7800217663345,
79.9463061530672, 53.5185214014292, 44.8242084447986, 42.8504007172186, 25.6253392228572,
20.379844456904, 1.17121636656388e-13, -7.70278182942088e-14, -2.5817983242278e-13
#>
#> Beginning fit attempt 115 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters

```

```

#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 116 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 117 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 118 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 119 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 120 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 121 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 122 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 123 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 124 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters

```

```

#> Not all eigenvalues of the Hessian are positive: 6601089.29485073, 5884926.02976723,
4997192.35142447, 33835.7600270699, 25547.0239011309, 19029.486632423, 6415.76950701866,
5532.81242392832, 4129.74025589999, 181.998565499708, 100.608253719427, 94.7729887426923,
79.941230788901, 53.5141162808399, 44.8223646011175, 42.8446853424989, 25.620275775278,
20.3796086205917, 3.30611925112002e-13, 1.14787971644823e-13, -5.2797412187753e-13
#>
#> Beginning fit attempt 125 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 126 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 127 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 128 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 129 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 130 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 131 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 132 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors

```



```

#>
#> Beginning fit attempt 133 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 134 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 135 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 136 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 137 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 138 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 139 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 140 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 141 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors

```

```

#>
#> Beginning fit attempt 142 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 143 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 144 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 145 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 146 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 147 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 148 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 149 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 150 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors

```

```

#>
#> Beginning fit attempt 151 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Solution found

#>
#> Solution found! Final fit=-558.72094 (started at 38.520388) (152 attempt(s):
12 valid, 140 errors)
#> Start values from best fit:
#> -0.103705453398831, 0.915457161163697, -0.428670833865616, -0.227607192324662, -0.794292229810997, 0.
#> Running CTVAR with 21 parameters
#>
#> Beginning initial fit attempt
#> Running CTVAR with 21 parameters
#>
#> Lowest minimum so far: -543.888428582115
#> Not all eigenvalues of the Hessian are positive: 6150256.70300708, 5566658.39469311,
4514588.7491788, 23590.0521800995, 20860.311892495, 18411.1813813934, 3791.71759906402,
2926.3215770223, 2777.85926556668, 288.127919395158, 235.234027317679, 198.134248170511,
108.297873127831, 89.1803339836224, 74.6120042797664, 18.4415731850444, 16.4251537751406,
13.8418799613952, 1.94030533702975e-12, 1.1929802294042e-15, -2.44716714913186e-13
#>
#> Beginning fit attempt 1 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#> Not all eigenvalues of the Hessian are positive: 6150256.70300708, 5566658.39469311,
4514588.7491788, 23590.0521800995, 20860.311892495, 18411.1813813934, 3791.71759906402,
2926.3215770223, 2777.85926556668, 288.127919395158, 235.234027317679, 198.134248170511,
108.297873127831, 89.1803339836224, 74.6120042797664, 18.4415731850444, 16.4251537751406,
13.8418799613952, 1.94030533702975e-12, 1.1929802294042e-15, -2.44716714913186e-13
#>
#> Beginning fit attempt 2 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 3 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 4 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors

```

```

#>
#> Beginning fit attempt 5 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 6 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Lowest minimum so far: -543.88842858346
#> Not all eigenvalues of the Hessian are positive: 6150267.76565188, 5566641.32273924,
4514598.2239694, 23589.9314381284, 20860.3274242092, 18411.1377008812, 3791.69434039441,
2926.31627509344, 2777.839556636, 288.127894483493, 235.223103865, 198.144062050219,
108.305293482243, 89.1861838681614, 74.6108713764385, 18.4441723186677, 16.4298941381404,
13.8426736962744, 1.00624954743796e-13, -1.96475997286452e-15, -1.9864001612565e-12
#>
#> Beginning fit attempt 7 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Lowest minimum so far: -543.888428585592
#> Not all eigenvalues of the Hessian are positive: 6150284.18696705, 5566819.36412583,
4514600.87109189, 23590.1153103175, 20860.392567388, 18411.3012804741, 3791.70365809453,
2926.32402780826, 2777.86193129115, 288.132502657442, 235.223821127241, 198.143916974701,
108.30133953401, 89.1875573247724, 74.6183219145338, 18.4476861709752, 16.4292023797329,
13.851903738742, 4.86152993210962e-13, 3.63308687922319e-14, -1.72874635797718e-13
#>
#> Beginning fit attempt 8 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Lowest minimum so far: -543.888428585592
#> Not all eigenvalues of the Hessian are positive: 6150284.18791462, 5566819.36536499,
4514600.87316956, 23590.1167513482, 20860.395955735, 18411.3021171368, 3791.70778408362,
2926.32569322231, 2777.86283557136, 288.134475573097, 235.221654189993, 198.145689924034,
108.305436325429, 89.1913211594582, 74.6216220752812, 18.450221382211, 16.4296408290777,
13.8545440502647, 1.93837827645444e-12, -6.94666542287529e-14, -1.3191219156288e-13
#>
#> Beginning fit attempt 9 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#> Not all eigenvalues of the Hessian are positive: 6150291.53186994, 5566713.40553803,
4514595.84219155, 23590.1492561405, 20860.4517737552, 18411.2897815111, 3791.73923565511,
2926.32973948996, 2777.86989570696, 288.131170275057, 235.22881440172, 198.141257091581,
108.298003223141, 89.1812072619064, 74.6084907849009, 18.4441571609054, 16.4314580322022,
13.8447318437492, 3.56713365230461e-13, 8.05074543213506e-14, -1.78122524807703e-13
#>
#> Beginning fit attempt 10 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters

```

```

#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 11 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 12 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 13 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 14 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 15 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 16 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 17 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 18 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 19 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters

```

```

#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 20 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#> Not all eigenvalues of the Hessian are positive: 6150254.57685774, 5566656.62139476,
4514590.9006318, 23590.0521591171, 20860.3308869006, 18411.1822669965, 3791.7303335131,
2926.32263046224, 2777.85777926105, 288.128474844694, 235.227234718422, 198.141344179267,
108.30057408191, 89.1861988965517, 74.6137635128462, 18.4418300349933, 16.4273167235049,
13.8442092054612, 1.23057356887207e-12, -1.55172826352672e-13, -2.42011833387146e-13
#>
#> Beginning fit attempt 21 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 22 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 23 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 24 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 25 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 26 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#> Not all eigenvalues of the Hessian are positive: 6150261.43267417, 5566653.96407977,
4514589.1785329, 23590.059578913, 20860.3120542761, 18411.1636272365, 3791.73472578837,
2926.30918833775, 2777.85755458264, 288.129998525827, 235.228328077643, 198.13729852039,
108.303481468387, 89.1826914126008, 74.6148436137761, 18.4455672272424, 16.4249326987618,
13.846347074959, 2.79463131356051e-12, -8.53294099480791e-14, -2.61121361214633e-13
#>
#> Beginning fit attempt 27 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters

```

```

#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 28 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 29 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 30 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 31 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 32 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 33 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#> Not all eigenvalues of the Hessian are positive: 6150258.77436649, 5566642.78151375,
4514586.15833039, 23590.0459670069, 20860.2984661685, 18411.1713731464, 3791.71327011393,
2926.30778176486, 2777.85913853791, 288.125519580622, 235.231037800853, 198.134029163886,
108.292715331381, 89.178173980974, 74.6072321338447, 18.4352316512815, 16.4219489732649,
13.8409050367828, -1.48178700220997e-14, -2.29070618114055e-13, -6.7487657843705e-13
#>
#> Beginning fit attempt 34 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#> Not all eigenvalues of the Hessian are positive: 6150253.08789559, 5566656.72535536,
4514590.08823733, 23590.0472289534, 20860.3169102146, 18411.1733365951, 3791.72745703933,
2926.31702397149, 2777.86006654871, 288.132340396337, 235.22952145333, 198.137441930353,
108.300125471018, 89.1824704939548, 74.6150524830199, 18.4442691305486, 16.4260105546159,
13.8459832608638, 1.85625513670392e-12, -2.92697326351621e-14, -1.27983363986565e-13
#>
#> Beginning fit attempt 35 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters

```

```

#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 36 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 37 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 38 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 39 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 40 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 41 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 42 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 43 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 44 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters

```



```

#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 45 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 46 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 47 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 48 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 49 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 50 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 51 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 52 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 53 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters

```

```

#> Not all eigenvalues of the Hessian are positive: 6150273.64767746, 5566665.27280787,
4514588.04363618, 23590.0314060929, 20860.2374132692, 18411.1385125, 3791.69893356904,
2926.29629450767, 2777.85060983672, 288.117942790553, 235.240099204419, 198.123080144897,
108.291133845505, 89.1709849753423, 74.5986488498841, 18.4346612198405, 16.4149854651055,
13.830214932659, 1.319325839652e-12, 3.76476866097909e-13, -5.48815338819107e-15
#>
#> Beginning fit attempt 54 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 55 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 56 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 57 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 58 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 59 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 60 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 61 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors

```

```

#>
#> Beginning fit attempt 62 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 63 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 64 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 65 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 66 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 67 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 68 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 69 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#> Not all eigenvalues of the Hessian are positive: 6150271.2453578, 5566666.33382242,
4514603.10116809, 23590.0936349255, 20860.3473923245, 18411.147817277, 3791.73283767488,
2926.30822698893, 2777.85216583881, 288.127943136043, 235.223752097388, 198.140354671317,
108.302378418952, 89.1829202159437, 74.6100907053462, 18.443181609122, 16.4257014858074,
13.8446941347327, 2.29919751427666e-12, 6.40285041225277e-14, -6.23165625825013e-14
#>
#> Beginning fit attempt 70 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters

```

```

#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 71 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 72 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 73 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 74 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 75 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 76 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 77 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 78 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 79 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters

```

```
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 80 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 81 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 82 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 83 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 84 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 85 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 86 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 87 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 88 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
```

```

#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 89 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 90 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 91 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 92 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 93 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 94 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#> Not all eigenvalues of the Hessian are positive: 6150258.71541768, 5566669.54420738,
4514539.4930985, 23590.01860007, 20860.251658127, 18411.1009444795, 3791.72500627906,
2926.29726482789, 2777.84596219766, 288.126591353874, 235.225418104602, 198.135896505303,
108.300039569413, 89.1831246907055, 74.6092801701007, 18.4369346342868, 16.424943236463,
13.8431565516965, 1.90509162057193e-12, 8.08935555383439e-15, -1.27081935563787e-13
#>
#> Beginning fit attempt 95 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 96 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors

```

```

#>
#> Beginning fit attempt 97 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 98 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 99 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 100 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 101 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 102 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 103 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 104 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 105 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors

```

```
#>
#> Beginning fit attempt 106 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 107 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 108 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 109 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 110 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 111 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 112 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 113 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 114 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
```



```

#>
#> Beginning fit attempt 115 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 116 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 117 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 118 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#> Not all eigenvalues of the Hessian are positive: 6150382.41744144, 5566715.79067879,
4514585.9909157, 23590.2641946067, 20860.311012853, 18411.2621249881, 3791.78625698732,
2926.32755573005, 2777.86966573448, 288.133899691654, 235.225740269157, 198.142092496136,
108.3049256731, 89.1894400962091, 74.6134409950352, 18.4449639504751, 16.4282725440349,
13.847739167478, 3.62836298140645e-12, 2.93876804483722e-13, -6.26751881145811e-16
#>
#> Beginning fit attempt 119 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 120 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 121 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 122 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 123 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters

```

```

#> Not all eigenvalues of the Hessian are positive: 6150255.87984086, 5566656.38616803,
4514590.48491554, 23590.0463821439, 20860.2998306531, 18411.1719793718, 3791.71612305292,
2926.30752532869, 2777.85341535401, 288.121320018813, 235.23542668202, 198.12880222251,
108.289668855257, 89.1712602285784, 74.6017350746418, 18.4310807556187, 16.4215915726192,
13.831387970839, 1.03767442666261e-12, 6.76218863759546e-14, -2.13953766790777e-13
#>
#> Beginning fit attempt 124 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 125 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 126 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 127 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 128 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 129 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 130 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 131 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors

```

```

#>
#> Beginning fit attempt 132 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 133 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 134 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 135 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 136 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 137 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 138 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 139 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 140 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors

```

```

#>
#> Beginning fit attempt 141 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 142 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 143 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 144 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 145 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 146 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 147 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 148 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 149 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors

```

```

#>
#> Beginning fit attempt 150 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 151 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 152 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 153 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 154 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 155 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 156 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 157 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#> Not all eigenvalues of the Hessian are positive: 6150279.70028375, 5566654.53105899,
4514591.84715044, 23590.0739396522, 20860.3615768177, 18411.1762172841, 3791.73438303256,
2926.3186868775, 2777.85873148305, 288.128144148247, 235.22904064733, 198.136963537931,
108.299180358808, 89.1863186474518, 74.6092906115712, 18.441968717749, 16.4228642807465,
13.8401696873948, 3.55108613430792e-12, 6.36968052037706e-14, -8.08320299071238e-14
#>
#> Beginning fit attempt 158 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters

```

```

#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 159 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 160 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 161 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 162 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 163 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 164 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 165 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 166 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 167 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters

```

```

#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 168 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 169 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 170 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 171 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 172 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 173 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 174 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 175 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 176 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters

```

```

#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 177 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 178 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 179 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 180 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 181 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 182 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#> Not all eigenvalues of the Hessian are positive: 6150257.19490661, 5566656.00427996,
4514589.2511789, 23590.0490031465, 20860.3179477697, 18411.175654548, 3791.72411197843,
2926.31605507312, 2777.85746156317, 288.12527080413, 235.226935868999, 198.136408081898,
108.293960055196, 89.1816326914041, 74.6125120503549, 18.4413312470134, 16.4245244159312,
13.8425472675266, 2.15183683480562e-12, 9.68236811062757e-14, -3.45427399479218e-14
#>
#> Beginning fit attempt 183 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 184 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors

```



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#>
#> Beginning fit attempt 185 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 186 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 187 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 188 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#> Not all eigenvalues of the Hessian are positive: 6150265.74529143, 5566663.49721,
4514583.08005873, 23590.0834437965, 20860.3051340702, 18411.1732343511, 3791.72215132903,
2926.30589275275, 2777.8573825578, 288.12167252918, 235.232560173969, 198.13331467479,
108.291059241058, 89.1784341948147, 74.6059697100006, 18.4325016339609, 16.4238758212333,
13.8344066910143, 8.94215974715908e-13, 1.8196655708023e-13, -1.88614737826339e-13
#>
#> Beginning fit attempt 189 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 190 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 191 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 192 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 193 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters

```

```
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 194 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 195 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 196 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 197 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 198 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 199 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 200 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 201 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 202 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
```

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#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 203 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 204 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 205 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 206 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 207 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 208 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 209 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 210 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 211 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters

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#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 212 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#> Not all eigenvalues of the Hessian are positive: 6150260.28323765, 5566658.41852766,
4514589.74213019, 23590.0494104585, 20860.3170538827, 18411.179558969, 3791.72513315984,
2926.31929752269, 2777.85857857436, 288.132714448398, 235.223654144281, 198.142101168005,
108.301939453617, 89.1849608020291, 74.6132605678127, 18.4425350478602, 16.4251332719965,
13.8450035548354, 1.09331643431139e-14, -8.54339992659207e-14, -1.34974877663941e-12
#>
#> Beginning fit attempt 213 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 214 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 215 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 216 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 217 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 218 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 219 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors

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#>
#> Beginning fit attempt 220 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 221 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 222 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 223 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#> Not all eigenvalues of the Hessian are positive: 6150256.06699244, 5566655.7450762,
4514591.06609266, 23590.055550174, 20860.3128040829, 18411.1769936514, 3791.72329769469,
2926.31027697591, 2777.85900340925, 288.127492052108, 235.229906556204, 198.137799421114,
108.296586240113, 89.1797550677975, 74.6055614544095, 18.4391356544236, 16.4232626603625,
13.8407240034149, 5.20710773849693e-13, 1.32123048639409e-13, -3.90849070146393e-15
#>
#> Beginning fit attempt 224 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 225 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 226 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 227 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 228 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters

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#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 229 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 230 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 231 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 232 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 233 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 234 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 235 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#> Not all eigenvalues of the Hessian are positive: 6150258.58328373, 5566655.58337352,
4514592.44602087, 23590.0476023969, 20860.3150883022, 18411.1814192686, 3791.71480109724,
2926.30669348886, 2777.85764045716, 288.123462224702, 235.233474712888, 198.129520251226,
108.292297811534, 89.1731629643871, 74.6052952136354, 18.4353662740388, 16.4205280033642,
13.8340753232368, 2.27506863394535e-12, -8.9322350333144e-14, -3.06721572698449e-13
#>
#> Beginning fit attempt 236 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors

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#>
#> Beginning fit attempt 237 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 238 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 239 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 240 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 241 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 242 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 243 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 244 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 245 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors

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#>
#> Beginning fit attempt 246 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 247 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 248 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 249 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 250 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 251 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 252 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 253 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 254 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors

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#>
#> Beginning fit attempt 255 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 256 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 257 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 258 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 259 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 260 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 261 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 262 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 263 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors

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#>
#> Beginning fit attempt 264 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 265 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 266 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 267 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 268 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 269 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 270 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 271 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 272 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors

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#>
#> Beginning fit attempt 273 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 274 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 275 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 276 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 277 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 278 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 279 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 280 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 281 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
```

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#>
#> Beginning fit attempt 282 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 283 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 284 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 285 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 286 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 287 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 288 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 289 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 290 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors

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#>
#> Beginning fit attempt 291 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 292 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 293 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 294 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 295 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 296 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 297 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 298 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 299 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#> Not all eigenvalues of the Hessian are positive: 6150259.17764954, 5566653.44072572,
4514598.68797821, 23590.0661635018, 20860.3244081388, 18411.1977099405, 3791.71594892482,
2926.32073927852, 2777.86469987147, 288.127369694978, 235.228736036978, 198.137379553289,

```

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108.302958891816, 89.1820421119802, 74.6055882094915, 18.4425639702339, 16.4231916309432,
13.838885293625, 2.2068169795629e-14, -2.28342444237895e-13, -3.50622825321797e-12
#>
#> Beginning fit attempt 300 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 301 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 302 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 303 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 304 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#> Not all eigenvalues of the Hessian are positive: 6150284.76650769, 5566653.75277643,
4514569.84301895, 23590.0708075093, 20860.3201661724, 18411.1655712923, 3791.73184745489,
2926.31681120934, 2777.85959086175, 288.132536086791, 235.22585933969, 198.144971112893,
108.306381695402, 89.1871209433194, 74.6167782395185, 18.4458562046833, 16.4285920010338,
13.8485248288556, 2.93416823865052e-14, -1.98715432996669e-14, -1.19649284161365e-12
#>
#> Beginning fit attempt 305 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 306 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 307 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors

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#>
#> Beginning fit attempt 308 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 309 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 310 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 311 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 312 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 313 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 314 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#> Not all eigenvalues of the Hessian are positive: 6150263.34264303, 5566637.42727495,
4514572.6910563, 23589.9901101872, 20860.2880349367, 18411.1137067895, 3791.69601984109,
2926.30648622388, 2777.84931950884, 288.127173059659, 235.22663162698, 198.14165471458,
108.298134088314, 89.178669475659, 74.609644848457, 18.4426431580807, 16.426426429877,
13.8407228115409, 8.59181579781505e-13, -9.67217379926439e-14, -2.83814955221275e-13
#>
#> Beginning fit attempt 315 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 316 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters

```

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#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 317 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 318 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#> Not all eigenvalues of the Hessian are positive: 6150255.59084091, 5566656.67194225,
4514585.21796212, 23590.054517119, 20860.3176387175, 18411.1691772041, 3791.73218987518,
2926.31590806265, 2777.85812145282, 288.127475840228, 235.227739081883, 198.142258924493,
108.305247132079, 89.1825930706303, 74.6129486392601, 18.4427335898425, 16.4259378227335,
13.8437758360325, 3.40763019372156e-13, 6.04811643292067e-14, -1.70578399705466e-12
#>
#> Beginning fit attempt 319 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 320 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 321 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 322 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 323 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 324 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors

```



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#>
#> Beginning fit attempt 325 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 326 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 327 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 328 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 329 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 330 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 331 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 332 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 333 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#> Not all eigenvalues of the Hessian are positive: 6150250.09169619, 5566657.85501572,
4514588.50792046, 23590.0439015852, 20860.3011470503, 18411.1799664307, 3791.72090077711,
2926.31104100656, 2777.85697940229, 288.126890803808, 235.230591480774, 198.136171906604,

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108.294423006157, 89.1784622123109, 74.6108801786612, 18.4378820963772, 16.4248050796955,
13.8395259257741, 1.62637931628558e-13, -1.7390247910938e-14, -6.72267625204024e-14
#>
#> Beginning fit attempt 334 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 335 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 336 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#> Not all eigenvalues of the Hessian are positive: 6150258.29324139, 5566658.48071143,
4514590.21744324, 23590.0432322146, 20860.3082447683, 18411.1699077831, 3791.71925786973,
2926.31323109494, 2777.85646973444, 288.125844039533, 235.232020389951, 198.134354554512,
108.295226869722, 89.1795721531117, 74.6021014721901, 18.4389259800367, 16.4239581696413,
13.8406024903737, 2.2557263913489e-13, 8.89038861787359e-14, -7.52762455806708e-15
#>
#> Beginning fit attempt 337 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 338 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#> Not all eigenvalues of the Hessian are positive: 6150259.2080157, 5566656.75301562,
4514590.62904229, 23590.0568412722, 20860.3191576144, 18411.1803814671, 3791.72462238976,
2926.31141728265, 2777.8619929197, 288.130075750617, 235.227217625954, 198.140547992872,
108.294703485083, 89.184241870271, 74.6092967783866, 18.4407722346081, 16.4235769367425,
13.8451981951582, 3.69696829139306e-13, -2.3922642213053e-14, -5.31847568260518e-13
#>
#> Beginning fit attempt 339 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 340 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 341 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters

```

```

#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 342 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 343 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 344 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 345 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 346 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 347 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 348 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 349 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 350 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters

```

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#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 351 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 352 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 353 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 354 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 355 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 356 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 357 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 358 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 359 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters

```

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#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 360 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 361 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 362 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 363 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 364 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 365 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 366 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 367 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 368 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters

```

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#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 369 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 370 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 371 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 372 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 373 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 374 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 375 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 376 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 377 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters

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#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 378 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 379 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 380 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 381 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#> Not all eigenvalues of the Hessian are positive: 6150291.03254215, 5566655.62446201,
4514586.78195363, 23590.014732994, 20860.2739887676, 18411.1361230293, 3791.70878271189,
2926.31124592587, 2777.84414734289, 288.130483529175, 235.222892363015, 198.14280751484,
108.305414098578, 89.1848089496821, 74.6138147771641, 18.4457233388783, 16.4268759188944,
13.845675721492, 2.0235234334248e-12, 1.85949720108899e-13, -9.37766473293759e-14
#>
#> Beginning fit attempt 382 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 383 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 384 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 385 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors

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#>
#> Beginning fit attempt 386 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 387 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 388 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 389 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 390 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 391 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 392 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 393 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 394 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#> Not all eigenvalues of the Hessian are positive: 6150267.0158613, 5566693.47300676,
4514598.67365862, 23590.0932845277, 20860.3550635052, 18411.2167956896, 3791.72340003913,
2926.3196902184, 2777.86227794471, 288.131366613806, 235.225969763774, 198.141290874676,

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108.294948998499, 89.1818498762093, 74.6121747015993, 18.4399112223657, 16.4269959213308,
13.8440826679049, 1.31450339115381e-12, -9.96269666787457e-14, -3.33081795218177e-13
#>
#> Beginning fit attempt 395 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 396 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 397 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 398 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 399 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 400 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 401 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 402 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 403 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters

```

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#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 404 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 405 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 406 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 407 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#> Not all eigenvalues of the Hessian are positive: 6150247.50781827, 5566668.55485882,
4514584.56012721, 23590.0099130732, 20860.3039114766, 18411.160942383, 3791.72722293811,
2926.30923146998, 2777.85102509854, 288.129833805004, 235.223476882998, 198.143241792094,
108.298706872711, 89.1838530077332, 74.616479056366, 18.4433951990897, 16.4283360543406,
13.8484079602358, 1.55108745357806e-13, -1.44522701659625e-13, -1.06446525029858e-12
#>
#> Beginning fit attempt 408 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 409 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#> Not all eigenvalues of the Hessian are positive: 6150253.29317825, 5566671.24960532,
4514593.29853656, 23590.0703229079, 20860.2575228757, 18411.1556831599, 3791.69823242135,
2926.31637279787, 2777.8591663152, 288.126817891172, 235.224726094985, 198.140275439246,
108.29978980856, 89.1869142490377, 74.6114130443794, 18.4386987033832, 16.4228108034557,
13.8472383165779, 3.44040922166282e-14, -1.86388052499858e-14, -1.28419509586347e-12
#>
#> Beginning fit attempt 410 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 411 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters

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#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 412 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 413 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 414 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 415 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 416 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 417 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 418 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 419 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#> Not all eigenvalues of the Hessian are positive: 6150258.09629747, 5566655.90386705,
4514589.78833693, 23590.0531223257, 20860.3175397191, 18411.1779551199, 3791.71977665798,
2926.30810645546, 2777.85798081487, 288.126093840421, 235.229450188424, 198.133192918072,
108.293421555538, 89.1754190626475, 74.6101400555948, 18.4411976497322, 16.4218673540554,
13.8412135812547, 2.95698975808599e-12, 1.29002991101395e-13, -2.13540486313012e-13

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#>
#> Beginning fit attempt 420 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 421 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 422 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 423 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 424 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 425 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 426 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 427 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 428 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors

```

```

#>
#> Beginning fit attempt 429 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 430 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 431 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#> Not all eigenvalues of the Hessian are positive: 6150258.38497599, 5566659.87979438,
4514587.36320809, 23590.039486709, 20860.3026570442, 18411.181051718, 3791.71728501236,
2926.31426419858, 2777.8604030464, 288.131857324916, 235.226652179507, 198.141322976762,
108.301310225756, 89.1845179299941, 74.6144482314717, 18.4428399616534, 16.4284255454455,
13.84434156966, 1.29049063224748e-13, 3.32566958220404e-14, -9.19894196033965e-13
#>
#> Beginning fit attempt 432 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 433 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 434 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 435 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 436 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 437 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters

```

```

#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 438 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#> Not all eigenvalues of the Hessian are positive: 6150248.9933353, 5566662.79241452,
4514591.11825284, 23590.0503457348, 20860.3177082486, 18411.1821467886, 3791.72922620521,
2926.31621962157, 2777.85910126988, 288.129137726803, 235.227624524636, 198.139170318774,
108.298642196551, 89.184400984981, 74.6141407410168, 18.4427326819916, 16.4243578991101,
13.844477757858, 7.54532737554505e-13, 2.16854919217218e-13, -2.87527994053545e-14
#>
#> Beginning fit attempt 439 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 440 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 441 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 442 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 443 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 444 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 445 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors

```

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#>
#> Beginning fit attempt 446 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 447 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 448 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 449 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 450 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 451 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 452 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 453 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 454 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors

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#>
#> Beginning fit attempt 455 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 456 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 457 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 458 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 459 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 460 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 461 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 462 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 463 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors

```



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#>
#> Beginning fit attempt 464 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 465 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 466 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 467 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 468 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 469 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 470 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 471 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 472 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors

```

```

#>
#> Beginning fit attempt 473 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 474 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#> Not all eigenvalues of the Hessian are positive: 6150294.82994249, 5566636.8220659,
4514576.09984086, 23590.0723856279, 20860.3110104498, 18411.1329582616, 3791.73100782128,
2926.30467138089, 2777.85352305874, 288.127229990142, 235.227342384953, 198.138081969496,
108.2992389177, 89.183995858473, 74.6109911467431, 18.440054317398, 16.4230156244895,
13.8436949913079, 8.13242104012403e-13, 1.89366063914439e-13, -7.42396788098397e-14
#>
#> Beginning fit attempt 475 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 476 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 477 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 478 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 479 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 480 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#> Not all eigenvalues of the Hessian are positive: 6150259.09174489, 5566661.96722874,
4514591.52869614, 23589.9912140553, 20860.3187293314, 18411.1458032589, 3791.70260206386,
2926.32343876102, 2777.85409666381, 288.134199638485, 235.219616691048, 198.146001288076,
108.303425890003, 89.1932377583805, 74.6193281986904, 18.4474757313664, 16.4296551113061,
13.8553050853908, 1.13302580246719e-13, -6.67688159368133e-16, -1.93026428461081e-12

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```

#>
#> Beginning fit attempt 481 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 482 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 483 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 484 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 485 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 486 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 487 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 488 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 489 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors

```

```

#>
#> Beginning fit attempt 490 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 491 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 492 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 493 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 494 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 495 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 496 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 497 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 498 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors

```

```

#>
#> Beginning fit attempt 499 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#> Not all eigenvalues of the Hessian are positive: 6150276.1096952, 5566663.45095048,
4514589.46220963, 23590.0636818115, 20860.3340147977, 18411.2035744801, 3791.71938734956,
2926.31835868242, 2777.86811236982, 288.131693173461, 235.224022576596, 198.144329176718,
108.305856371311, 89.1878173735918, 74.6170451699956, 18.4455344293289, 16.4289552734554,
13.8447536132109, 1.80386936944548e-13, -2.13871940974005e-13, -3.64740393609531e-12
#>
#> Beginning fit attempt 500 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 501 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 502 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 503 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 504 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 505 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 506 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 507 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters

```

```

#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 508 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 509 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 510 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 511 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 512 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 513 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 514 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 515 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 516 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters

```

```
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 517 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 518 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 519 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 520 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 521 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 522 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 523 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 524 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 525 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
```

```

#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 526 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 527 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 528 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 529 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 530 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 531 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 532 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Solution found

```

```

#>
#> Solution found! Final fit=-543.88843 (started at 45.193342) (533 attempt(s):
39 valid, 494 errors)
#> Start values from best fit:
#> -0.227028715811984, 1.04493480559843, -0.664506078931205, -0.0243771398205023, -0.56022920352864, 0.8
#> Running CTVAR with 21 parameters
#>

```



```

#> Beginning initial fit attempt
#> Running CTVAR with 21 parameters
#>
#> Lowest minimum so far: -547.617460308703
#> Not all eigenvalues of the Hessian are positive: 8022791.41505352, 5072966.35480945,
3355384.64255966, 27440.8692048692, 20923.2235062279, 12695.7442941859, 6269.64274725667,
2529.53220378815, 2351.63646094183, 184.953169579174, 120.336804425874, 91.3357371921166,
29.7531130060257, 19.8743650698107, 14.9750748987006, 5.23935684772746, 2.94917181929767,
2.60382856591197, 1.16351170894581e-12, -7.3415595796018e-14, -3.36485398396537e-13
#>
#> Beginning fit attempt 1 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Lowest minimum so far: -547.617460310448
#> Not all eigenvalues of the Hessian are positive: 8022795.47585846, 5073150.02292954,
3355386.68463112, 27441.1329638493, 20923.2885820692, 12695.8636600834, 6269.65028618748,
2529.55039912764, 2351.65010802138, 184.955598539755, 120.333479028086, 91.3374043963269,
29.7605258694865, 19.8777709767225, 14.9699894715279, 5.25125926989543, 2.95127189610202,
2.60539484665236, 1.19103293136084e-13, 8.79473131797546e-15, -2.99361564857588e-13
#>
#> Beginning fit attempt 2 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#> Not all eigenvalues of the Hessian are positive: 8022795.47585846, 5073150.02292954,
3355386.68463112, 27441.1329638493, 20923.2885820692, 12695.8636600834, 6269.65028618748,
2529.55039912764, 2351.65010802138, 184.955598539755, 120.333479028086, 91.3374043963269,
29.7605258694865, 19.8777709767225, 14.9699894715279, 5.25125926989543, 2.95127189610202,
2.60539484665236, 1.19103293136084e-13, 8.79473131797546e-15, -2.99361564857588e-13
#>
#> Beginning fit attempt 3 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 4 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 5 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 6 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters

```

```

#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 7 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 8 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 9 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 10 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 11 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 12 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 13 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 14 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 15 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters

```

```

#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 16 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 17 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 18 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 19 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 20 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 21 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 22 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 23 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 24 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters

```

```

#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 25 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 26 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 27 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 28 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 29 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 30 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 31 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#> Not all eigenvalues of the Hessian are positive: 8022839.60774071, 5072952.0344094,
3355295.16957018, 27441.1962950077, 20923.1372993763, 12695.7802551966, 6269.68365719507,
2529.56251048993, 2351.67989537384, 184.951781232465, 120.340624023406, 91.3334349022822,
29.7530467678528, 19.8735840004472, 14.9711664549788, 5.24017806050999, 2.94605610149166,
2.60079821275841, 3.47663858721086e-13, 4.27363124232053e-14, -2.42213153743403e-13
#>
#> Beginning fit attempt 32 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors

```

```
#>
#> Beginning fit attempt 33 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 34 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 35 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 36 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 37 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 38 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 39 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 40 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 41 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
```

```

#>
#> Beginning fit attempt 42 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 43 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 44 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 45 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 46 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 47 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 48 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 49 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 50 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors

```

```

#>
#> Beginning fit attempt 51 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 52 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 53 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 54 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 55 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 56 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 57 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 58 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 59 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#> Not all eigenvalues of the Hessian are positive: 8022839.9859004, 5072945.31802519,
3355294.72855184, 27441.1847966853, 20923.101846563, 12695.7530841807, 6269.68713161038,
2529.56808411512, 2351.67467921012, 184.956103611301, 120.335622926546, 91.3357832439512,

```

```

29.7545583178161, 19.8748266601168, 14.9757590398167, 5.24374070083067, 2.949846946218,
2.60384780777852, -1.08347348564348e-13, -6.3365485003595e-13, -7.44706128807694e-13
#>
#> Beginning fit attempt 60 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 61 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 62 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 63 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 64 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 65 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 66 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 67 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 68 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters

```



```

#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 69 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 70 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 71 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 72 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 73 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 74 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 75 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 76 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 77 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters

```

```

#> Not all eigenvalues of the Hessian are positive: 8022837.71276988, 5072943.83493884,
3355293.64758449, 27441.1922049011, 20923.1315044887, 12695.768207658, 6269.68511014852,
2529.56666400818, 2351.67830000547, 184.955195435317, 120.339989865846, 91.335014231398,
29.7542399844071, 19.8731117276941, 14.9740926248133, 5.24185801308571, 2.9484302423622,
2.60355583614258, 3.4031432564843e-13, 1.64026990732882e-14, -8.49938810710449e-13
#>
#> Beginning fit attempt 78 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 79 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 80 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 81 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 82 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 83 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 84 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 85 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors

```

```

#>
#> Beginning fit attempt 86 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 87 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 88 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 89 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 90 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 91 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 92 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 93 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 94 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors

```

```

#>
#> Beginning fit attempt 95 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 96 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 97 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 98 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt worse than current best:  -547.617413090606 vs -547.617460310448
#>
#> Beginning fit attempt 99 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 100 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 101 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 102 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 103 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors

```

```

#>
#> Beginning fit attempt 104 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 105 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 106 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 107 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#> Not all eigenvalues of the Hessian are positive: 8022848.94108817, 5072942.13025085,
3355295.85443675, 27441.1882438674, 20923.1258802839, 12695.7567303583, 6269.68791692405,
2529.56046589289, 2351.67542465702, 184.950994916398, 120.343636123985, 91.3326641068945,
29.7489054707393, 19.8721611902247, 14.9711947466898, 5.23963679797438, 2.94686624731599,
2.60018319652255, 2.35411266094668e-14, -7.2302964738254e-14, -1.72071932262841e-13
#>
#> Beginning fit attempt 108 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 109 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 110 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#> Not all eigenvalues of the Hessian are positive: 8022812.39790683, 5072957.86778926,
3355274.59147828, 27441.0170455719, 20923.0383979203, 12695.7481899259, 6269.65044828021,
2529.54780669138, 2351.65641196396, 184.954732510756, 120.337840629159, 91.3342532838748,
29.7536927234133, 19.8728545471337, 14.9720965924609, 5.24437260595819, 2.94958432517007,
2.60345282237591, 7.04877376674828e-14, -6.67217805515696e-13, -8.67695738042141e-13
#>
#> Beginning fit attempt 111 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors

```

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#>
#> Beginning fit attempt 112 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 113 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 114 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 115 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 116 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 117 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 118 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 119 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 120 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors

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#>
#> Beginning fit attempt 121 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 122 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 123 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 124 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 125 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 126 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 127 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 128 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 129 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors

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#>
#> Beginning fit attempt 130 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 131 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 132 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 133 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 134 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 135 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 136 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 137 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 138 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors

```



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#>
#> Beginning fit attempt 139 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 140 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 141 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 142 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 143 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 144 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 145 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 146 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 147 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors

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#>
#> Beginning fit attempt 148 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 149 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 150 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 151 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 152 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 153 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 154 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 155 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 156 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors

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#>
#> Beginning fit attempt 157 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 158 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 159 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 160 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 161 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 162 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 163 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 164 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 165 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors

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#>
#> Beginning fit attempt 166 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 167 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 168 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 169 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 170 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 171 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 172 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 173 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 174 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors

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#>
#> Beginning fit attempt 175 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 176 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 177 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 178 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 179 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 180 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 181 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 182 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 183 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors

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#>
#> Beginning fit attempt 184 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 185 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 186 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 187 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 188 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 189 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 190 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 191 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 192 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors

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#>
#> Beginning fit attempt 193 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 194 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 195 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 196 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 197 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 198 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 199 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 200 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 201 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors

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#>
#> Beginning fit attempt 202 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 203 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 204 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 205 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#> Not all eigenvalues of the Hessian are positive: 8022554.64191989, 5073137.8139464,
3355242.40364811, 27440.7061056094, 20922.1237852386, 12695.0600508942, 6269.58246426319,
2529.3845973135, 2351.49645550953, 184.946864398871, 120.341089559762, 91.3298880498714,
29.7532845617869, 19.8718381844016, 14.9704712286456, 5.24142594731622, 2.94727612915445,
2.60091415771938, 2.26342537174141e-13, 9.54706003331568e-14, -1.36535999458991e-13
#>
#> Beginning fit attempt 206 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 207 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 208 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#> Not all eigenvalues of the Hessian are positive: 8022828.9569694, 5072942.62743301,
3355294.73463196, 27441.1738605539, 20923.113732075, 12695.7633099278, 6269.67961644046,
2529.56688138418, 2351.6785150133, 184.955126414657, 120.342488700416, 91.3336136370591,
29.7492773379641, 19.8691842087249, 14.9737821375906, 5.24114095099229, 2.95058770004833,
2.60014705015823, -1.32052609006835e-13, -3.16226861268602e-13, -5.40077497637207e-13
#>
#> Beginning fit attempt 209 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors

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#>
#> Beginning fit attempt 210 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 211 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 212 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 213 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 214 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 215 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 216 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#> Not all eigenvalues of the Hessian are positive: 8022828.5384934, 5072943.91896169,
3355295.9054532, 27441.19490666, 20923.1207889325, 12695.7662319815, 6269.68424860441,
2529.57075508154, 2351.68283476037, 184.958448171834, 120.334977561009, 91.3372819698584,
29.7589097007532, 19.8750928844303, 14.9752781575219, 5.25424522750874, 2.95023114765495,
2.60750737127387, 1.48553658485001e-12, 7.41649258845486e-14, -1.63998515653618e-13
#>
#> Beginning fit attempt 217 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#> Not all eigenvalues of the Hessian are positive: 8022834.43017673, 5072945.671265,
3355292.36274011, 27441.1834703319, 20923.1241516721, 12695.7611711348, 6269.68133066558,
2529.56799893396, 2351.67962950731, 184.959701273368, 120.332868775567, 91.3374763654235,
29.7627024461831, 19.8775583916252, 14.9757110810768, 5.24868865000645, 2.95104660218441,
2.60610195100688, 1.32958442914723e-12, 7.14700069222319e-14, -6.59682198469403e-13

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#>
#> Beginning fit attempt 218 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 219 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 220 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 221 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 222 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 223 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 224 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#> OpenMx status code 6 not in list of acceptable status codes, (0,0)
#> Not all eigenvalues of the Hessian are positive: 8019637.02327766, 5074128.67238511,
3355158.287814, 27434.4479268361, 20921.0388457241, 12696.0493992898, 6267.32539038864,
2529.30079978753, 2351.40794300472, 184.931800908548, 120.330615496619, 91.3349663273454,
29.7468493567179, 19.8689951854394, 14.9702622731345, 5.23808487594258, 2.94425929599983,
2.60053876285769, 9.62453252155661e-14, 6.04396015210165e-14, -6.39604878253034e-14
#>
#> Beginning fit attempt 225 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 226 of at maximum 1000 extra tries

```

```

#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 227 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 228 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 229 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 230 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 231 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 232 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 233 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 234 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 235 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters

```

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#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 236 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 237 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 238 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 239 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 240 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 241 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 242 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 243 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 244 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters

```

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#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 245 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 246 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#> Not all eigenvalues of the Hessian are positive: 8022842.68004132, 5072952.33436031,
3355295.47280774, 27441.1993339003, 20923.0893090707, 12695.793506103, 6269.68579649021,
2529.56221102146, 2351.67782329377, 184.954200900487, 120.336268263313, 91.3357654758969,
29.7563643834987, 19.8751622555937, 14.9721855318874, 5.24444402483807, 2.9493403228221,
2.60228753555912, 2.9280403884182e-13, 1.89805136962027e-14, -4.30772707285862e-13
#>
#> Beginning fit attempt 247 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 248 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 249 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 250 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 251 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 252 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors

```

```

#>
#> Beginning fit attempt 253 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 254 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 255 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 256 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 257 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 258 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 259 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 260 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 261 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#> Not all eigenvalues of the Hessian are positive: 8022825.57687413, 5072944.79085962,
3355302.23459823, 27441.1847826169, 20923.1318253329, 12695.7760164134, 6269.66872248687,
2529.57155865864, 2351.67900144912, 184.953172165928, 120.34402679269, 91.3326801787913,

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29.7503445886656, 19.8699639785983, 14.9668063448298, 5.23780662749687, 2.94951404375503,
2.59779462812999, 1.58634588625078e-13, -2.3570630244974e-13, -3.30532794567406e-13
#>
#> Beginning fit attempt 262 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 263 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 264 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 265 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 266 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 267 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 268 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 269 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 270 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters

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#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 271 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 272 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 273 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#> Not all eigenvalues of the Hessian are positive: 8022839.9136991, 5072949.82460929,
3355289.98499326, 27441.2007431592, 20923.1244413851, 12695.7650837176, 6269.68765248452,
2529.57297982892, 2351.68031263495, 184.956461402563, 120.333711715708, 91.3375114769371,
29.7633821158711, 19.88032149705, 14.9764360586533, 5.24742508466224, 2.95129038775358,
2.60546627143876, 5.32156802901908e-13, 6.69561879274755e-14, -2.28153022229748e-14
#>
#> Beginning fit attempt 274 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 275 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 276 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 277 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 278 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors

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#>
#> Beginning fit attempt 279 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 280 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 281 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 282 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 283 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 284 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 285 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 286 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 287 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors

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#>
#> Beginning fit attempt 288 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 289 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 290 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 291 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 292 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 293 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 294 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 295 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 296 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors

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#>
#> Beginning fit attempt 297 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 298 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 299 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 300 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 301 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 302 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 303 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 304 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 305 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
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#>
#> Beginning fit attempt 306 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 307 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 308 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 309 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#> Not all eigenvalues of the Hessian are positive: 8022835.66447865, 5072941.50837102,
3355292.24510294, 27441.1714375686, 20923.1220355164, 12695.7534841499, 6269.68809259983,
2529.56359874563, 2351.67576056516, 184.960341385642, 120.332779037695, 91.3381943753754,
29.7627795453643, 19.8777602024812, 14.9753475607145, 5.25150122460336, 2.9514032676407,
2.60446096525543, 6.56558708400823e-13, 7.37264051952424e-14, -3.75718668552215e-14
#>
#> Beginning fit attempt 310 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 311 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 312 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 313 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#> Not all eigenvalues of the Hessian are positive: 8022826.77113524, 5073096.51844978,
3355312.62062703, 27441.4789761958, 20923.2032598042, 12695.9093722098, 6269.68850324932,
2529.58559381331, 2351.7037021701, 184.954476156439, 120.339994920042, 91.3340969613641,
29.7542579317475, 19.8711107154687, 14.970200223265, 5.24239852989399, 2.94778513929095,
2.59971141764815, 3.68332254879071e-13, 2.3091823411982e-13, -2.75194502126126e-15

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#>
#> Beginning fit attempt 314 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 315 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 316 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 317 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 318 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#> Not all eigenvalues of the Hessian are positive: 8022782.96220269, 5072967.08931186,
3355309.031342, 27441.1325435408, 20923.1553231008, 12695.7744521285, 6269.63355347281,
2529.57106164533, 2351.68377394408, 184.955491479025, 120.338534794814, 91.3343591921157,
29.7555797817175, 19.8729655618312, 14.9722596131843, 5.24171792739552, 2.95023714156198,
2.60354108029407, -8.3785278587235e-14, -3.60608750730585e-13, -5.31299459958151e-13
#>
#> Beginning fit attempt 319 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 320 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 321 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 322 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters

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#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 323 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 324 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 325 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 326 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 327 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 328 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 329 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 330 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 331 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters

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#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 332 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 333 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 334 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 335 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 336 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 337 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 338 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 339 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 340 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters

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#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 341 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 342 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 343 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 344 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 345 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 346 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 347 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 348 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 349 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters

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#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 350 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 351 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 352 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 353 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 354 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 355 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#> Not all eigenvalues of the Hessian are positive: 8022736.85912576, 5072937.42374307,
3355275.94595796, 27441.0778506678, 20922.9569257372, 12695.7235692109, 6269.60711986028,
2529.56450713454, 2351.68296792294, 184.952079660865, 120.34174414077, 91.3321717832199,
29.7508144599722, 19.8746422277697, 14.9661144172054, 5.23733816132709, 2.94812231546686,
2.59927691591337, 7.7151473537322e-13, 1.11449028798687e-13, -4.97344457026463e-14
#>
#> Beginning fit attempt 356 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 357 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#> Not all eigenvalues of the Hessian are positive: 8022823.5692995, 5072942.98973782,
3355290.38344552, 27441.1609463095, 20923.1025908058, 12695.7559103176, 6269.67264421437,
2529.56512969935, 2351.67774983355, 184.955801006447, 120.335889472157, 91.3362778431057,

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29.7580450111285, 19.8767173461278, 14.9725218953112, 5.24122155189731, 2.94815858489454,
2.60346000260198, 6.1415851697036e-14, -2.82532002583229e-13, -6.1360503058841e-13
#>
#> Beginning fit attempt 358 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 359 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 360 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#> Not all eigenvalues of the Hessian are positive: 8022833.29988115, 5072944.62356318,
3355293.77010383, 27441.1769654836, 20923.1174867322, 12695.7658265173, 6269.67821592721,
2529.56220857976, 2351.67713936287, 184.952012913393, 120.340008469915, 91.3335127172928,
29.750215277675, 19.8731341563377, 14.9693157312735, 5.23919825407354, 2.94641404125654,
2.60044200854247, 3.75894813635134e-13, 6.1737844575177e-14, -1.11718018211338e-13
#>
#> Beginning fit attempt 361 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 362 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 363 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 364 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 365 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#> Not all eigenvalues of the Hessian are positive: 8022902.45728036, 5072966.30067436,
3355514.21867172, 27441.8293231361, 20924.2112110698, 12696.5714972422, 6269.72279628851,
2529.79317599992, 2351.87594467039, 184.951436757127, 120.345908517359, 91.334552574697,

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29.752601054352, 19.8703154419845, 14.9688809730899, 5.23838770955089, 2.9466622303289,
2.59966361439821, 1.10991102627342e-12, -1.10073523953151e-13, -1.43905214582735e-12
#>
#> Beginning fit attempt 366 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 367 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 368 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 369 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 370 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 371 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 372 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 373 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 374 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters

```

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#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 375 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 376 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 377 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 378 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 379 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 380 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 381 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 382 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 383 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters

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#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 384 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 385 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 386 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 387 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 388 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 389 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 390 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 391 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 392 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters

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#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 393 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 394 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 395 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 396 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 397 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 398 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 399 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 400 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 401 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters

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#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 402 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 403 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 404 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 405 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 406 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 407 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 408 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 409 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 410 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters

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#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 411 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 412 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 413 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#> Not all eigenvalues of the Hessian are positive: 8023083.96798012, 5073041.68139366,
3355316.42474234, 27441.2381917562, 20923.3237292151, 12696.044436489, 6269.87395576215,
2529.52062311419, 2351.63650044484, 184.952763179397, 120.33780352958, 91.3331494438516,
29.7560380751696, 19.8746709829698, 14.968223355611, 5.24045070620152, 2.94440676118862,
2.5990091501725, 5.90478827539553e-13, 3.50646453304891e-13, -1.04462944235613e-13
#>
#> Beginning fit attempt 414 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#> Not all eigenvalues of the Hessian are positive: 8022830.45567956, 5072945.31544767,
3355294.92971068, 27441.1774598591, 20923.1208269425, 12695.7641522827, 6269.67731286828,
2529.56219338919, 2351.67969178059, 184.95291913939, 120.346030581543, 91.3321972072405,
29.7473699148601, 19.8695007978565, 14.9666329473786, 5.2357050015588, 2.94630090928477,
2.5981810888919, 6.39503597292719e-13, 9.10178541538461e-14, -1.05629211341999e-12
#>
#> Beginning fit attempt 415 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#> Not all eigenvalues of the Hessian are positive: 8022830.30141756, 5072947.40281025,
3355292.729225, 27441.1777979033, 20923.1118740528, 12695.7640060452, 6269.68369841029,
2529.56943352407, 2351.67721421845, 184.954025411897, 120.339424671794, 91.3343800175941,
29.7538972385142, 19.8732917728618, 14.9746034974631, 5.24481858233208, 2.95065057632499,
2.60479064657135, 1.8408637325215e-13, -6.76255870948263e-13, -8.56869438753952e-13
#>
#> Beginning fit attempt 416 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 417 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors

```



```
#>
#> Beginning fit attempt 418 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 419 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 420 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 421 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 422 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 423 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 424 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 425 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 426 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
```

```

#>
#> Beginning fit attempt 427 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 428 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 429 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 430 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 431 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#> Not all eigenvalues of the Hessian are positive: 8022831.12787599, 5072943.80603181,
3355294.22866109, 27441.1726019058, 20923.1108086935, 12695.7562469662, 6269.67156281399,
2529.55502398679, 2351.67517769721, 184.944172488317, 120.353958501577, 91.3273440017105,
29.7458793308413, 19.8642203146888, 14.9645973020056, 5.23038031140875, 2.94108941252314,
2.59644677558077, 5.89136940555447e-13, 2.18599046720013e-13, -1.63504791307224e-13
#>
#> Beginning fit attempt 432 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 433 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 434 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 435 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters

```

```

#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 436 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 437 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Solution found

```

```

#>
#> Solution found! Final fit=-547.61746 (started at 19.898216) (438 attempt(s):
29 valid, 409 errors)
#> Start values from best fit:
#> -0.315165623634394, 1.61648616127341, -0.629250142610585, -0.108104272215708, -1.31408965516014, 1.49
#> Running CTVAR with 21 parameters
#>
#> Beginning initial fit attempt
#> Running CTVAR with 21 parameters
#>
#> Lowest minimum so far: -562.12219272471
#> Not all eigenvalues of the Hessian are positive: 5852050.36486895, 5628224.50006606,
3556266.44426115, 28722.1186198196, 20348.0673659394, 18806.3857739813, 5970.48525972001,
3744.25014126405, 3476.20869998045, 452.019053526571, 359.604015738212, 288.289537305564,
154.101492776116, 122.705787969253, 98.0773604212524, 3.42419745303025, 2.81695311023179,
2.20823657813007, 1.97206584134278e-12, -5.76728777350541e-13, -1.00276220327559e-12
#>
#> Beginning fit attempt 1 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#> Not all eigenvalues of the Hessian are positive: 5852050.36486895, 5628224.50006606,
3556266.44426115, 28722.1186198196, 20348.0673659394, 18806.3857739813, 5970.48525972001,
3744.25014126405, 3476.20869998045, 452.019053526571, 359.604015738212, 288.289537305564,
154.101492776116, 122.705787969253, 98.0773604212524, 3.42419745303025, 2.81695311023179,
2.20823657813007, 1.97206584134278e-12, -5.76728777350541e-13, -1.00276220327559e-12
#>
#> Beginning fit attempt 2 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 3 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters

```

```

#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 4 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 5 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 6 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Lowest minimum so far: -562.122192724726
#> Not all eigenvalues of the Hessian are positive: 5852057.60799011, 5628247.11826331,
3556268.54427448, 28722.1510923525, 20348.1183945898, 18806.4286436847, 5970.49421709099,
3744.25559846774, 3476.21883785553, 452.021637242729, 359.601588566089, 288.29233323181,
154.101420867425, 122.710913359897, 98.0770923766828, 3.42852153757632, 2.81741854743714,
2.2081988181557, 1.00777299238398e-13, -3.63370681151369e-13, -8.68890413671289e-13
#>
#> Beginning fit attempt 7 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#> Not all eigenvalues of the Hessian are positive: 5852057.60799011, 5628247.11826331,
3556268.54427448, 28722.1510923525, 20348.1183945898, 18806.4286436847, 5970.49421709099,
3744.25559846774, 3476.21883785553, 452.021637242729, 359.601588566089, 288.29233323181,
154.101420867425, 122.710913359897, 98.0770923766828, 3.42852153757632, 2.81741854743714,
2.2081988181557, 1.00777299238398e-13, -3.63370681151369e-13, -8.68890413671289e-13
#>
#> Beginning fit attempt 8 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 9 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 10 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors

```

```

#>
#> Beginning fit attempt 11 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 12 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 13 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 14 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 15 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 16 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 17 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 18 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 19 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors

```

```

#>
#> Beginning fit attempt 20 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 21 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 22 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 23 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 24 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 25 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 26 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 27 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 28 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors

```

```

#>
#> Beginning fit attempt 29 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 30 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 31 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 32 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 33 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 34 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 35 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 36 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 37 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors

```

```

#>
#> Beginning fit attempt 38 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 39 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 40 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 41 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 42 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 43 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Solution found

```

```

#>
#> Solution found! Final fit=-562.12219 (started at 74.447526) (44 attempt(s):
5 valid, 39 errors)
#> Start values from best fit:
#> -2.01047915734318,1.47186753307002,-0.00747151354881808,0.910608360674611,-0.884385358680524,0.4
#>
#> Means of the estimated paramaters per individual.
#>      phi_11      phi_21      phi_31      phi_12      phi_22
#> -6.221235e-01  1.002534e+00 -3.956336e-01  7.683618e-02 -7.064145e-01
#>      phi_32      phi_13      phi_23      phi_33      iota_1
#>  8.988041e-01 -8.421361e-02 -2.719114e-02 -8.834113e-01  3.539427e-02
#>      iota_2      iota_3      sigma_11      sigma_21      sigma_22
#>  1.666431e-02  3.025409e-03  9.659030e-02 -2.095991e-03  1.004935e-01
#>      sigma_31      sigma_32      sigma_33      theta_11      theta_22

```



```

#> -2.758547e-03 -3.679377e-03 9.099518e-02 3.745112e-05 1.240382e-04
#>      theta_33
#> 3.730771e-04
#>
#> Estimated paramaters per individual.
#>      phi_11  phi_21  phi_31  phi_12  phi_22  phi_32
#> [1,] -0.3230044 0.9618100 0.012773171 0.016808945 2.225074e-308 0.7921399
#> [2,] -0.8217875 1.4582265 -0.739214713 0.387372907 -1.816554e+00 1.1455490
#> [3,] -0.8064613 0.3542195 -1.111701806 0.213381261 -4.692599e-01 1.2350237
#> [4,] -0.7738975 0.8315286 -0.186012398 -0.068111050 -3.118549e-01 0.8917350
#> [5,] -0.2975968 0.5888036 -0.020398948 -0.001924723 -3.608787e-01 0.7364017
#> [6,] -0.5421081 0.7820015 -0.181883173 -0.329685274 -5.526016e-01 0.7027484
#> [7,] -0.1037055 0.9154572 -0.428670834 -0.227607192 -7.942922e-01 0.7225860
#> [8,] -0.2270287 1.0449348 -0.664506079 -0.024377140 -5.602292e-01 0.8493981
#> [9,] -0.3151656 1.6164862 -0.629250143 -0.108104272 -1.314090e+00 1.4992775
#> [10,] -2.0104792 1.4718675 -0.007471514 0.910608361 -8.843854e-01 0.4131818
#>      phi_13  phi_23  phi_33  iota_1  iota_2  iota_3
#> [1,] 0.08840653 -0.56469388 -0.8385260 0.00000000 0.00000000 0.00000000
#> [2,] -0.21946474 0.40963276 -0.5594901 0.00000000 0.00000000 0.00000000
#> [3,] 0.01544074 -0.10582368 -1.4436538 0.02762017 -0.25332581 -0.43802169
#> [4,] 0.07325027 0.06433415 -0.7024459 0.25778704 0.21563014 0.32775340
#> [5,] 0.06546216 -0.62831729 -0.7519715 0.00000000 0.00000000 0.00000000
#> [6,] 0.34728184 0.02252450 -0.7352229 0.08227551 0.01296693 -0.26987138
#> [7,] -0.05791345 -0.34737321 -0.4894475 0.28786228 -0.46890953 -0.17008727
#> [8,] -0.02391942 0.10602886 -1.1807767 -0.08928377 0.13889323 0.48992874
#> [9,] 0.01917597 0.52664085 -1.3606621 0.09300493 0.23906159 0.18193975
#> [10,] -1.14985597 0.24513551 -0.7719167 -0.30532347 0.28232655 -0.09138747
#>      sigma_11  sigma_21  sigma_22  sigma_31  sigma_32  sigma_33
#> [1,] 0.09309783 -0.0141015168 0.11274567 -0.012693994 -0.0195610612 0.08900848
#> [2,] 0.07913217 0.0010628700 0.10770442 0.005563508 -0.0019679382 0.08113560
#> [3,] 0.10626605 0.0031712990 0.12280054 0.005864468 -0.0082857447 0.08628961
#> [4,] 0.09019871 -0.0005127232 0.09434098 -0.001198879 0.0030143891 0.09122126
#> [5,] 0.12551625 0.0160645106 0.10067434 -0.007690592 0.0091246551 0.07460178
#> [6,] 0.10523958 -0.0125212873 0.09245907 -0.010971000 0.0092606169 0.12486557
#> [7,] 0.08686138 -0.0002922270 0.07460211 -0.018127570 -0.0199066536 0.06560763
#> [8,] 0.10514624 -0.0074256082 0.09664963 0.004135567 0.0007558214 0.07699410
#> [9,] 0.07120942 0.0117933827 0.10860444 0.001672465 -0.0152978634 0.13090988
#> [10,] 0.10323539 -0.0181986077 0.09435422 0.005860555 0.0060700054 0.08931791
#>      theta_11  theta_22  theta_33
#> [1,] 2.225074e-308 2.225074e-308 2.225074e-308
#> [2,] 2.225074e-308 2.225074e-308 1.177300e-03
#> [3,] 2.225074e-308 2.225074e-308 2.225074e-308
#> [4,] 2.148495e-05 2.225074e-308 2.225074e-308
#> [5,] 2.272941e-18 1.311093e-18 5.878033e-04
#> [6,] 4.250930e-19 2.225074e-308 2.225074e-308
#> [7,] 3.530263e-04 1.024967e-03 1.441503e-03

```

```

#> [8,] 2.675040e-20 1.355285e-04 5.241646e-04
#> [9,] 2.225074e-308 7.988726e-05 2.225074e-308
#> [10,] 2.225074e-308 2.225074e-308 2.225074e-308
#> Test passed

#> Running CTVAR with 21 parameters
#>
#> Beginning initial fit attempt
#> Running CTVAR with 21 parameters
#>
#> Lowest minimum so far: -544.478694982103
#> Not all eigenvalues of the Hessian are positive: 5732167.46687085, 4485874.39018347,
3863673.88944318, 38016.1282432565, 20517.4536912817, 17537.6210154967, 5366.40075525685,
3561.40105634946, 2070.37031605516, 364.122239859895, 230.025389311353, 190.035653451768,
43.1574858221885, 27.080900924813, 21.1597160045453, 18.4751421321204, 11.3205269802318,
9.72691645562079, 1.50621932424421e-12, 6.01063736676908e-14, -2.47380751943664e-13
#>
#> Beginning fit attempt 1 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Lowest minimum so far: -544.47869498386
#> Not all eigenvalues of the Hessian are positive: 5732139.1880258, 4485887.55480835,
3863678.70782667, 38016.2566861296, 20517.5839446754, 17537.5189882883, 5366.37844413249,
3561.39016087288, 2070.39667731347, 364.124915228341, 230.022239095798, 190.038735842042,
43.1599407731697, 27.0781054071102, 21.15803789327, 18.4716424076344, 11.3138049159489,
9.72068960970248, -1.09558525493202e-13, -3.33328722178565e-13, -2.08064969425983e-12
#>
#> Beginning fit attempt 2 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#> Not all eigenvalues of the Hessian are positive: 5732139.1880258, 4485887.55480835,
3863678.70782667, 38016.2566861296, 20517.5839446754, 17537.5189882883, 5366.37844413249,
3561.39016087288, 2070.39667731347, 364.124915228341, 230.022239095798, 190.038735842042,
43.1599407731697, 27.0781054071102, 21.15803789327, 18.4716424076344, 11.3138049159489,
9.72068960970248, -1.09558525493202e-13, -3.33328722178565e-13, -2.08064969425983e-12
#>
#> Beginning fit attempt 3 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 4 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 5 of at maximum 1000 extra tries

```

```

#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 6 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 7 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 8 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 9 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 10 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 11 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 12 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 13 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 14 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters

```

```

#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 15 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 16 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 17 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 18 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 19 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 20 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 21 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 22 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 23 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters

```

```

#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 24 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 25 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 26 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 27 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 28 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 29 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 30 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 31 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 32 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters

```

```

#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 33 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 34 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 35 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 36 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 37 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 38 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 39 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 40 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 41 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters

```

```

#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 42 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 43 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 44 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 45 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 46 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 47 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 48 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 49 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 50 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters

```

```

#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 51 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt worse than current best: -544.478663497895 vs -544.47869498386
#>
#> Beginning fit attempt 52 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 53 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 54 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 55 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 56 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 57 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 58 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 59 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters

```



```

#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 60 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 61 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 62 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 63 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 64 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 65 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 66 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 67 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 68 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters

```

```

#> Not all eigenvalues of the Hessian are positive: 5732162.76321836, 4485901.8138452,
3863707.33349988, 38016.4990652909, 20517.7396849243, 17537.6541583531, 5366.43342681899,
3561.43327447039, 2070.40218305091, 364.130229982306, 230.022548272448, 190.037153663912,
43.1556428201752, 27.0774969842916, 21.1571938799566, 18.4735046057385, 11.3112791422632,
9.72359407801747, 4.51417360926349e-13, -4.76006415232802e-13, -1.09629212426278e-12
#>
#> Beginning fit attempt 69 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 70 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 71 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 72 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 73 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 74 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt worse than current best: -544.478663338463 vs -544.47869498386
#>
#> Beginning fit attempt 75 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 76 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors

```

```

#>
#> Beginning fit attempt 77 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 78 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 79 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 80 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 81 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 82 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 83 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 84 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 85 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors

```

```

#>
#> Beginning fit attempt 86 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 87 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 88 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 89 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 90 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 91 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 92 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 93 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Lowest minimum so far: -544.4786949848
#> Not all eigenvalues of the Hessian are positive: 5732110.98015295, 4485874.84251536,
3863672.41730681, 38016.2021221119, 20517.5465342121, 17537.4785548169, 5366.36914522927,
3561.39167954735, 2070.39588599806, 364.125612978158, 230.021895008067, 190.036228744456,
43.1568139472385, 27.0753987856186, 21.15465667473, 18.4728444114783, 11.3199599320915,
9.72349167165059, 1.52963077588134e-12, 2.21569768818387e-13, -3.71526416002472e-13

```

```

#>
#> Beginning fit attempt 94 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#> Not all eigenvalues of the Hessian are positive: 5732110.98015295, 4485874.84251536,
3863672.41730681, 38016.2021221119, 20517.5465342121, 17537.4785548169, 5366.36914522927,
3561.39167954735, 2070.39588599806, 364.125612978158, 230.021895008067, 190.036228744456,
43.1568139472385, 27.0753987856186, 21.15465667473, 18.4728444114783, 11.3199599320915,
9.72349167165059, 1.52963077588134e-12, 2.21569768818387e-13, -3.71526416002472e-13
#>
#> Beginning fit attempt 95 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 96 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 97 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 98 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 99 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 100 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 101 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 102 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters

```

```
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 103 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 104 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 105 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 106 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 107 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 108 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 109 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 110 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 111 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
```

```

#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 112 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 113 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 114 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 115 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 116 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 117 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 118 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 119 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 120 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters

```

```

#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 121 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 122 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 123 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 124 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 125 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 126 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 127 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 128 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 129 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters

```



```

#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 130 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 131 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 132 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 133 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 134 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 135 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 136 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 137 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 138 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters

```

```

#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 139 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 140 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 141 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 142 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 143 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 144 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 145 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#> Not all eigenvalues of the Hessian are positive: 5732111.61428429, 4485880.17491197,
3863675.06747898, 38016.1865929906, 20517.5575712416, 17537.4824729336, 5366.36351703375,
3561.38345571794, 2070.38713091413, 364.135036347763, 230.016332037098, 190.028781255164,
43.1500709952581, 27.0689573021943, 21.1518807180499, 18.4707693830062, 11.3093134240031,
9.71755475796299, 3.38089326795533e-13, -4.20395517822819e-14, -1.14972409702715e-13
#>
#> Beginning fit attempt 146 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors

```

```

#>
#> Beginning fit attempt 147 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 148 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 149 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 150 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 151 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 152 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 153 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 154 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 155 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors

```

```
#>
#> Beginning fit attempt 156 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 157 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 158 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 159 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 160 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 161 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 162 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 163 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 164 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
```

```

#>
#> Beginning fit attempt 165 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Lowest minimum so far: -544.478694984841
#> Not all eigenvalues of the Hessian are positive: 5732114.20571077, 4485880.42589894,
3863675.93851211, 38016.2437696271, 20517.5610422458, 17537.4860218626, 5366.37929149024,
3561.39359325892, 2070.40274822337, 364.118913488749, 230.027000636023, 190.041736903879,
43.1586796133433, 27.0821397037579, 21.157347260792, 18.4739661476125, 11.3218216635012,
9.72744885604391, 6.69676702485749e-14, -4.14154478653885e-13, -5.10127413158091e-13
#>
#> Beginning fit attempt 166 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#> Not all eigenvalues of the Hessian are positive: 5732114.20571077, 4485880.42589894,
3863675.93851211, 38016.2437696271, 20517.5610422458, 17537.4860218626, 5366.37929149024,
3561.39359325892, 2070.40274822337, 364.118913488749, 230.027000636023, 190.041736903879,
43.1586796133433, 27.0821397037579, 21.157347260792, 18.4739661476125, 11.3218216635012,
9.72744885604391, 6.69676702485749e-14, -4.14154478653885e-13, -5.10127413158091e-13
#>
#> Beginning fit attempt 167 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 168 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 169 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 170 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 171 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 172 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters

```

```

#> Not all eigenvalues of the Hessian are positive: 5732101.76033639, 4485845.79042801,
3863631.00568073, 38015.9212024149, 20517.4688425539, 17537.3639532315, 5366.37724937743,
3561.34824919345, 2070.39597397636, 364.117954860451, 230.031180433224, 190.040912923703,
43.1625249420092, 27.0840511856344, 21.1580835188709, 18.4801012314036, 11.3198088882593,
9.72521163718678, 5.1578440191095e-14, -3.62467338796873e-13, -1.58936883945944e-12
#>
#> Beginning fit attempt 173 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 174 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 175 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 176 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 177 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 178 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 179 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 180 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors

```

```

#>
#> Beginning fit attempt 181 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 182 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 183 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 184 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 185 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 186 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 187 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 188 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 189 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors

```

```

#>
#> Beginning fit attempt 190 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 191 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 192 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 193 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 194 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 195 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 196 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 197 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 198 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors

```



```

#>
#> Beginning fit attempt 199 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 200 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 201 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 202 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 203 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 204 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 205 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 206 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 207 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors

```

```

#>
#> Beginning fit attempt 208 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 209 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 210 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 211 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 212 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 213 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 214 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 215 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 216 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors

```

```

#>
#> Beginning fit attempt 217 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 218 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 219 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 220 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 221 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 222 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 223 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 224 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 225 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors

```

```

#>
#> Beginning fit attempt 226 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 227 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 228 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 229 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 230 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 231 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 232 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 233 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 234 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors

```

```

#>
#> Beginning fit attempt 235 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 236 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 237 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 238 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 239 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 240 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 241 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 242 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 243 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors

```

```

#>
#> Beginning fit attempt 244 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 245 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 246 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 247 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 248 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 249 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 250 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 251 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 252 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors

```

```

#>
#> Beginning fit attempt 253 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Lowest minimum so far: -544.478694984841
#> Not all eigenvalues of the Hessian are positive: 5732116.98827939, 4485882.5361725,
3863676.70201977, 38016.2088411882, 20517.5705122058, 17537.4981463137, 5366.37929915888,
3561.3924999821, 2070.39939231997, 364.132478771669, 230.023386702683, 190.033977472026,
43.1556006831808, 27.0754104705338, 21.1562043626034, 18.4731268990921, 11.3174742801196,
9.72915054712164, -4.79092583447322e-14, -2.74039639528467e-13, -1.1544257017941e-12
#>
#> Beginning fit attempt 254 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Lowest minimum so far: -544.478694984846
#> Not all eigenvalues of the Hessian are positive: 5732117.97331912, 4485882.05515582,
3863677.09494941, 38016.2334157035, 20517.5638612848, 17537.4942802928, 5366.37885341635,
3561.38997561239, 2070.39968794247, 364.12076669516, 230.026923875431, 190.039290457989,
43.1593794384455, 27.0789718957874, 21.1631863160077, 18.4741484028215, 11.3209106082827,
9.72004275478556, 3.87723085273525e-13, 4.64784891334809e-14, -5.08364475689382e-13
#>
#> Beginning fit attempt 255 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Lowest minimum so far: -544.478694984847
#> Not all eigenvalues of the Hessian are positive: 5732117.7282578, 4485881.5213224,
3863676.67545229, 38016.2251096466, 20517.5702931357, 17537.503360255, 5366.38544705792,
3561.3919362739, 2070.40358457168, 364.120004761962, 230.029766782451, 190.041428597461,
43.1627249253258, 27.0824487434908, 21.1605695372046, 18.4778536892691, 11.3227132195787,
9.7346267262972, 5.13570933741329e-13, 3.07224298462185e-13, -6.20733043366682e-13
#>
#> Beginning fit attempt 256 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#> OpenMx status code 6 not in list of acceptable status codes, (0,0)
#> Not all eigenvalues of the Hessian are positive: 5729558.22489327, 4483702.45090032,
3861650.47582556, 37998.2679827404, 20509.9212258727, 17530.6512607082, 5364.39865383758,
3560.01184321445, 2069.20352339993, 364.081078162386, 230.000957776295, 190.019998326494,
43.1508556283725, 27.0745555491746, 21.1497218539249, 18.4744549082178, 11.3103774958321,
9.72635836150283, 2.09600859733447e-13, -1.97993937931948e-14, -2.93607319303648e-13
#>
#> Beginning fit attempt 257 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 258 of at maximum 1000 extra tries

```

```

#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 259 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 260 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 261 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 262 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 263 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#> Not all eigenvalues of the Hessian are positive: 5732093.60852776, 4486064.25324561,
3863916.50898539, 38015.8141696864, 20517.587840465, 17538.0909949611, 5366.11002613234,
3561.59260250484, 2070.24102222237, 364.125554411126, 230.021280876523, 190.040061480998,
43.1543397813582, 27.0741121947859, 21.1534802811626, 18.4727381424839, 11.3124698212203,
9.72253517882762, 4.68101419235062e-13, 1.96128866782807e-13, -3.49704177361004e-13
#>
#> Beginning fit attempt 264 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 265 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 266 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors

```



```

#>
#> Beginning fit attempt 267 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 268 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 269 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 270 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 271 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 272 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 273 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 274 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 275 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors

```

```

#>
#> Beginning fit attempt 276 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 277 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 278 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 279 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 280 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 281 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 282 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 283 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 284 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors

```

```

#>
#> Beginning fit attempt 285 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 286 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 287 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 288 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 289 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 290 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 291 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 292 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 293 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors

```

```

#>
#> Beginning fit attempt 294 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 295 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 296 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#> Not all eigenvalues of the Hessian are positive: 5732118.91040469, 4485884.04573817,
3863678.71379766, 38016.2401318618, 20517.5684340565, 17537.4960109076, 5366.37830020611,
3561.38545737515, 2070.39788676237, 364.13004793471, 230.019455916339, 190.036830418898,
43.1559324686266, 27.0777218333392, 21.1497400194308, 18.4746701011834, 11.311133683518,
9.71787537800754, -4.7315058132884e-14, -1.79434047108134e-13, -3.21590078425156e-13
#>
#> Beginning fit attempt 297 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 298 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 299 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 300 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 301 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 302 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters

```

```

#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 303 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 304 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 305 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 306 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 307 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 308 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 309 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 310 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 311 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters

```

```

#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 312 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 313 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 314 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 315 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 316 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 317 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 318 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 319 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 320 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters

```

```

#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 321 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 322 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 323 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 324 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 325 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 326 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 327 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 328 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 329 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters

```

```

#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 330 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 331 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 332 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 333 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 334 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 335 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 336 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 337 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 338 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters

```



```

#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 339 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 340 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 341 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 342 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 343 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 344 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 345 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 346 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 347 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters

```

```

#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 348 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 349 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 350 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 351 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 352 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 353 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 354 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 355 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#> Not all eigenvalues of the Hessian are positive: 5732115.97831304, 4485881.05314309,
3863677.04594702, 38016.2293202632, 20517.5569237966, 17537.4939713095, 5366.3788004278,
3561.38913998997, 2070.39908395056, 364.123279718773, 230.025554020458, 190.038577426377,
43.1618739131029, 27.0806934101654, 21.1605156076282, 18.4764130008461, 11.3193699540031,
9.72884238619329, 1.44994203188558e-12, 1.02206353148357e-13, -1.65035747053291e-13

```

```

#>
#> Beginning fit attempt 356 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 357 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 358 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 359 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 360 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 361 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 362 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 363 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 364 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors

```

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#>
#> Beginning fit attempt 365 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 366 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 367 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 368 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 369 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 370 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 371 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 372 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 373 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors

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```
#>
#> Beginning fit attempt 374 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 375 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 376 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 377 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 378 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 379 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 380 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 381 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 382 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
```

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#>
#> Beginning fit attempt 383 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 384 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 385 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 386 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 387 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 388 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 389 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 390 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 391 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors

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#>
#> Beginning fit attempt 392 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 393 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 394 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 395 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 396 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 397 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 398 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 399 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 400 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors

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#>
#> Beginning fit attempt 401 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 402 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 403 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 404 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 405 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 406 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 407 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 408 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 409 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors

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#>
#> Beginning fit attempt 410 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 411 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 412 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 413 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 414 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 415 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 416 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 417 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 418 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors

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#>
#> Beginning fit attempt 419 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 420 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 421 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 422 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 423 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 424 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 425 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 426 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 427 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors

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#>
#> Beginning fit attempt 428 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 429 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 430 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 431 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 432 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 433 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 434 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 435 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 436 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors

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#>
#> Beginning fit attempt 437 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 438 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 439 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 440 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Lowest minimum so far: -544.478694984849
#> Not all eigenvalues of the Hessian are positive: 5732117.04733738, 4485881.76769734,
3863677.09154901, 38016.2210963961, 20517.5630201556, 17537.4985720354, 5366.38240815436,
3561.39562687345, 2070.39945703218, 364.12634395791, 230.024762941176, 190.037676092025,
43.1578965143784, 27.0794493779928, 21.1587833483037, 18.4747390280037, 11.3181078228472,
9.72673051542616, 5.01551878312461e-13, 7.13823774811431e-14, -8.14385394456052e-14
#>
#> Beginning fit attempt 441 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#> Not all eigenvalues of the Hessian are positive: 5732117.04733738, 4485881.76769734,
3863677.09154901, 38016.2210963961, 20517.5630201556, 17537.4985720354, 5366.38240815436,
3561.39562687345, 2070.39945703218, 364.12634395791, 230.024762941176, 190.037676092025,
43.1578965143784, 27.0794493779928, 21.1587833483037, 18.4747390280037, 11.3181078228472,
9.72673051542616, 5.01551878312461e-13, 7.13823774811431e-14, -8.14385394456052e-14
#>
#> Beginning fit attempt 442 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 443 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 444 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters

```

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#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 445 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 446 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 447 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 448 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#> Not all eigenvalues of the Hessian are positive: 5732400.23142235, 4485872.99780397,
3863646.90647331, 38016.4227092415, 20517.4397515228, 17537.8281749508, 5366.47757514536,
3561.37594044345, 2070.37651828779, 364.130431074315, 230.024418711514, 190.039547980272,
43.1542089286085, 27.0741010386921, 21.1561938720353, 18.4739921460569, 11.3128931439779,
9.72106109404822, 7.22425994306682e-13, 5.42384550810719e-14, -2.17287151949901e-15
#>
#> Beginning fit attempt 449 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 450 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 451 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 452 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors

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#>
#> Beginning fit attempt 453 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 454 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 455 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 456 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 457 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 458 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 459 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 460 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 461 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors

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#>
#> Beginning fit attempt 462 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 463 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 464 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 465 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 466 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 467 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 468 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 469 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 470 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors

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#>
#> Beginning fit attempt 471 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 472 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 473 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 474 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 475 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 476 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 477 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 478 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 479 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors

```



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#>
#> Beginning fit attempt 480 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 481 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 482 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 483 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 484 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 485 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 486 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 487 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 488 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors

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#>
#> Beginning fit attempt 489 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt worse than current best: -544.478661711241 vs -544.478694984849
#>
#> Beginning fit attempt 490 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 491 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 492 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 493 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 494 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 495 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#> Not all eigenvalues of the Hessian are positive: 5732268.22576086, 4485934.19205549,
3863698.35588404, 38017.0100102416, 20518.0069120951, 17537.7516850342, 5366.38985451972,
3561.46318281691, 2070.48452196882, 364.124867573471, 230.028558713511, 190.039747848286,
43.1575706403898, 27.0816536410099, 21.1558132278434, 18.4774332153974, 11.3223376262265,
9.72421421174061, 1.34283745305021e-12, 2.12913167953156e-13, -1.52650769721302e-13
#>
#> Beginning fit attempt 496 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 497 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters

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#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 498 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 499 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 500 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 501 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 502 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 503 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 504 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 505 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Lowest minimum so far: -544.47869498485
#> Not all eigenvalues of the Hessian are positive: 5732117.60148844, 4485881.94675381,
3863677.66514077, 38016.2363876795, 20517.5753575905, 17537.4986361986, 5366.37705970771,
3561.38838064023, 2070.40308801004, 364.116966728056, 230.031511803267, 190.041857668043,

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43.1621773245872, 27.0797891302379, 21.1606495485521, 18.47458415684, 11.3223701579252,
9.735652158261, 5.73079137475675e-13, -1.61978530143699e-14, -2.26923052277003e-13
#>
#> Beginning fit attempt 506 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Lowest minimum so far: -544.47869498485
#> Not all eigenvalues of the Hessian are positive: 5732119.65935499, 4485881.46674268,
3863676.73699126, 38016.2379536362, 20517.5712887938, 17537.5033824399, 5366.38701547728,
3561.40619757908, 2070.40434606696, 364.11780032691, 230.031796423589, 190.044110167279,
43.1631408747462, 27.0854373863675, 21.1643546857806, 18.4791678557181, 11.3179081940862,
9.72821347393247, -1.89569130116438e-13, -2.52055625882034e-13, -9.56368090681056e-13
#>
#> Beginning fit attempt 507 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Lowest minimum so far: -544.47869498485
#> Not all eigenvalues of the Hessian are positive: 5732119.66153058, 4485881.46912097,
3863676.73713966, 38016.2385201928, 20517.5716388729, 17537.5057713673, 5366.38876005473,
3561.40571024598, 2070.40522751612, 364.11136430903, 230.035596916312, 190.047441372813,
43.166571393009, 27.0895545107117, 21.1673365181333, 18.479630082914, 11.3215750089124,
9.73207499942394, 3.59697832052065e-13, -1.87433394006631e-13, -2.80844258424114e-13
#>
#> Beginning fit attempt 508 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#> Not all eigenvalues of the Hessian are positive: 5731400.9690217, 4485774.77096985,
3863684.13438468, 38015.5822336396, 20516.8588789298, 17536.5197596328, 5366.05197855373,
3561.3606555358, 2070.202471471, 364.123283388231, 230.022071197693, 190.035910509667,
43.1600271647798, 27.0801824178458, 21.1556156187288, 18.4749384984496, 11.318099682785,
9.72444200486601, 1.26197299540108e-12, -8.02022554923604e-14, -1.84013309693327e-13
#>
#> Beginning fit attempt 509 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 510 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 511 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors

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```

#>
#> Beginning fit attempt 512 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 513 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 514 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 515 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 516 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 517 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 518 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 519 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 520 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors

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```

#>
#> Beginning fit attempt 521 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 522 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 523 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 524 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 525 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 526 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 527 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 528 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 529 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors

```

```

#>
#> Beginning fit attempt 530 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 531 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 532 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 533 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#> OpenMx status code 6 not in list of acceptable status codes, (0,0)
#> Not all eigenvalues of the Hessian are positive: 5732633.64735622, 4486838.57313403,
3864162.7556633, 38020.1763781127, 20521.4174170935, 17539.9249825661, 5366.95011039257,
3561.84950104709, 2071.09912688126, 364.114174127697, 230.032306190375, 190.060376213417,
43.1736546653375, 27.0887610131463, 21.1693921782385, 18.4820605926035, 11.3244725703182,
9.73080790533064, 4.23133819882142e-13, 9.83566617702334e-14, -1.3257935775294e-13
#>
#> Beginning fit attempt 534 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 535 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 536 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 537 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 538 of at maximum 1000 extra tries

```

```

#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 539 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 540 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#> Not all eigenvalues of the Hessian are positive: 5732126.10725025, 4485873.51420901,
3863672.72010303, 38016.2167722298, 20517.5309212639, 17537.494230491, 5366.37864717781,
3561.38631656672, 2070.39266076545, 364.12647776446, 230.022201373466, 190.036495771046,
43.1524888581953, 27.074428313404, 21.1554570309083, 18.4742942811731, 11.3147461908127,
9.72278124355778, 1.917493463154e-13, 5.68355322973922e-14, -4.52532849325592e-13
#>
#> Beginning fit attempt 541 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 542 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 543 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#> Not all eigenvalues of the Hessian are positive: 5732110.36486295, 4485874.15422153,
3863670.65349704, 38016.1436353765, 20517.5085248374, 17537.4865196064, 5366.36884994593,
3561.38360840884, 2070.38325784345, 364.132042129497, 230.017656560013, 190.034797212414,
43.152591459895, 27.07387797683, 21.1532232086649, 18.4722131981672, 11.3123414611414,
9.71804557372668, 5.32340876295021e-14, -3.14497202608842e-13, -7.44598962730999e-13
#>
#> Beginning fit attempt 544 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 545 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 546 of at maximum 1000 extra tries

```



```

#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 547 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 548 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 549 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Solution found

```

```

#>
#> Solution found! Final fit=-544.47869 (started at 14.599975) (550 attempt(s):
32 valid, 518 errors)
#> Start values from best fit:
#> -0.323004391000885, 0.961808720708991, 0.0127736669164076, 0.0168094196195255, -1.80008430530131e-14,
#> Running CTVAR with 21 parameters
#>
#> Beginning initial fit attempt
#> Running CTVAR with 21 parameters
#>
#> Lowest minimum so far: -562.517817573708
#> Not all eigenvalues of the Hessian are positive: 7719758.57906502, 4021590.91866098,
3580449.54986531, 24784.7373879606, 22795.9617265479, 17970.6971242031, 5621.0640345361,
3718.91237449643, 2927.26799335194, 44.26662603814, 38.5891236599681, 31.0016325410083,
19.38853279465, 17.2313122646095, 14.2720156305112, 3.55824026970946, 3.20958377935165,
2.39069181549967, 7.51639275549618e-12, 2.40888161180003e-14, -5.78004307371049e-14
#>
#> Beginning fit attempt 1 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Lowest minimum so far: -562.517817573711
#> Not all eigenvalues of the Hessian are positive: 7719758.87618448, 4021590.31092511,
3580449.19590975, 24784.7407048199, 22795.9655392419, 17970.6998553906, 5621.06708442783,
3718.91294103993, 2927.27009892534, 44.2732295763804, 38.5834192185778, 31.0013239376774,
19.3935424628772, 17.2393939118887, 14.2755157464637, 3.56106958724637, 3.21398039705081,
2.39225602112577, 8.84892451089078e-13, 2.03278308373972e-13, -1.59173650551764e-14

```

```

#>
#> Beginning fit attempt 2 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#> Not all eigenvalues of the Hessian are positive: 7719758.87618448, 4021590.31092511,
3580449.19590975, 24784.7407048199, 22795.9655392419, 17970.6998553906, 5621.06708442783,
3718.91294103993, 2927.27009892534, 44.2732295763804, 38.5834192185778, 31.0013239376774,
19.3935424628772, 17.2393939118887, 14.2755157464637, 3.56106958724637, 3.21398039705081,
2.39225602112577, 8.84892451089078e-13, 2.03278308373972e-13, -1.59173650551764e-14
#>
#> Beginning fit attempt 3 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 4 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 5 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 6 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 7 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#> Not all eigenvalues of the Hessian are positive: 7719750.76008224, 4021532.93148632,
3580433.86194212, 24784.7270011288, 22795.9329325771, 17970.7011047634, 5621.06381373901,
3718.92033360549, 2927.28212027039, 44.2638786482678, 38.5956978988331, 30.9994397732576,
19.3860703530803, 17.2316118422598, 14.2708390098842, 3.55280439219674, 3.19988907882351,
2.38651230875926, -4.59480932575171e-14, -4.70240795780399e-13, -5.97683947250151e-12
#>
#> Beginning fit attempt 8 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 9 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors

```

```
#>
#> Beginning fit attempt 10 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 11 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 12 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 13 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 14 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 15 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 16 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 17 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 18 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
```

```

#>
#> Beginning fit attempt 19 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 20 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 21 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 22 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#> Not all eigenvalues of the Hessian are positive: 7719770.26083678, 4021528.19706006,
3580420.86194434, 24784.6928093923, 22795.9452106911, 17970.6619278165, 5621.0720753255,
3718.9103667206, 2927.2761362162, 44.2670078660783, 38.5910091848437, 31.0020374136465,
19.3850192291091, 17.2305243406446, 14.269427397787, 3.55694852290427, 3.20591523835453,
2.38909394692826, 2.53196262550877e-14, -1.4528212621032e-12, -3.45037427938711e-12
#>
#> Beginning fit attempt 23 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 24 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 25 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 26 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 27 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters

```

```

#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 28 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 29 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 30 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 31 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 32 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 33 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 34 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 35 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 36 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters

```

```

#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 37 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 38 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 39 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 40 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 41 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 42 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 43 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 44 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 45 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters

```

```

#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 46 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 47 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 48 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 49 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 50 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 51 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 52 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 53 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 54 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters

```

```
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 55 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 56 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 57 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 58 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 59 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 60 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 61 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 62 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 63 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
```



```

#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 64 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#> Not all eigenvalues of the Hessian are positive: 7719758.5748176, 4021533.38904462,
3580434.78128793, 24784.7277878441, 22795.958717711, 17970.693760881, 5621.065631934,
3718.92132039388, 2927.28444296234, 44.2644301452175, 38.5886061249342, 31.0017208414094,
19.3893326755845, 17.2316938931601, 14.275736805581, 3.55702130388353, 3.20770244904119,
2.39064194002759, 5.59105906994011e-14, -3.62592505216721e-13, -4.60038110442126e-13
#>
#> Beginning fit attempt 65 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 66 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 67 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 68 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 69 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 70 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 71 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors

```

```

#>
#> Beginning fit attempt 72 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 73 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 74 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 75 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 76 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 77 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 78 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 79 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 80 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors

```

```

#>
#> Beginning fit attempt 81 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 82 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 83 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 84 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 85 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#> Not all eigenvalues of the Hessian are positive: 7719762.33887999, 4021530.93746314,
3580433.95137754, 24784.7383023257, 22795.9592728092, 17970.6982106813, 5621.07006534592,
3718.93440023354, 2927.29067922185, 44.2666337395992, 38.5893658971413, 31.001628481325,
19.3887204519599, 17.2310712309286, 14.2722920848128, 3.56199988686814, 3.21350376510495,
2.39042464712315, 8.72271631944401e-13, 4.41124297484829e-13, -4.36338597236295e-14
#>
#> Beginning fit attempt 86 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#> Not all eigenvalues of the Hessian are positive: 7719761.42031663, 4021524.51585234,
3580432.08220349, 24784.7274960753, 22795.9472402856, 17970.6867426465, 5621.06381553105,
3718.9252717331, 2927.28435486749, 44.2654034123812, 38.5904599434094, 31.0005408551833,
19.3835015566326, 17.2271900524531, 14.2713862280173, 3.55707067393268, 3.20870979165427,
2.38774093543543, 7.3316928283715e-13, -6.90256872630312e-15, -4.46823582930484e-13
#>
#> Beginning fit attempt 87 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#> Not all eigenvalues of the Hessian are positive: 7719903.91379309, 4021520.2319384,
3580332.10092511, 24785.0492362465, 22796.4051323103, 17970.8809599068, 5621.15174259922,
3718.99628076475, 2927.43361176014, 44.2708342275033, 38.5863442507881, 30.9995446515153,
19.3904443995362, 17.2327801875885, 14.2714425133595, 3.56086929175797, 3.21295928388355,
2.39022548706529, 3.99861274874815e-13, -1.68097394548036e-14, -6.52946775720862e-13
#>
#> Beginning fit attempt 88 of at maximum 1000 extra tries

```

```

#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 89 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 90 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 91 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 92 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#> Not all eigenvalues of the Hessian are positive: 7719764.14842763, 4021534.89863246,
3580435.41083444, 24784.7567016861, 22795.9767174699, 17970.7098890424, 5621.08026420284,
3718.93897414813, 2927.29394842634, 44.2712507545206, 38.5842122169763, 31.0006277217267,
19.3945578086954, 17.2340861369677, 14.2747561468746, 3.56280516898783, 3.21369197312236,
2.39059237511272, -7.98607484041862e-15, -9.87535770912725e-13, -2.26176149431208e-12
#>
#> Beginning fit attempt 93 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 94 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 95 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 96 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors

```

```
#>
#> Beginning fit attempt 97 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 98 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 99 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 100 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 101 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 102 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 103 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 104 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 105 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
```

```

#>
#> Beginning fit attempt 106 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 107 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 108 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 109 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 110 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 111 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 112 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 113 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 114 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors

```

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#>
#> Beginning fit attempt 115 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 116 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 117 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 118 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 119 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 120 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 121 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 122 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 123 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors

```

```

#>
#> Beginning fit attempt 124 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 125 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 126 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 127 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 128 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 129 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 130 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 131 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 132 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors

```



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#>
#> Beginning fit attempt 133 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 134 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 135 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 136 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 137 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 138 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 139 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 140 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 141 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors

```

```

#>
#> Beginning fit attempt 142 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 143 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 144 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 145 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 146 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 147 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 148 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 149 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 150 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors

```

```

#>
#> Beginning fit attempt 151 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 152 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 153 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 154 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 155 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 156 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 157 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 158 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 159 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors

```

```

#>
#> Beginning fit attempt 160 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 161 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 162 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 163 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#> Not all eigenvalues of the Hessian are positive: 7719768.51607228, 4021574.10102164,
3580433.22767684, 24784.4702280204, 22795.9614102242, 17970.4546914214, 5621.07623281357,
3718.84804978007, 2927.20723307909, 44.2694823258991, 38.5884019769712, 31.0013713929184,
19.3920041052868, 17.2334753828674, 14.2755492908227, 3.56104209842973, 3.2112682862714,
2.39043417286475, 5.19624271804535e-14, 2.32414718094468e-14, -6.39906475636274e-14
#>
#> Beginning fit attempt 164 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 165 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 166 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 167 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 168 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters

```

```

#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 169 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 170 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 171 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 172 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 173 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 174 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 175 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 176 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 177 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters

```

```

#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 178 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 179 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 180 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 181 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 182 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 183 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 184 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 185 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 186 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters

```

```

#>
#> Solution found

#>
#> Solution found! Final fit=-562.51782 (started at -9.6437091) (187 attempt(s):
12 valid, 175 errors)
#> Start values from best fit:
#> -0.821787333503003,1.4582258498617,-0.739214964586699,0.387372132137056,-1.81655256345587,1.1455
#> Running CTVAR with 21 parameters
#>
#> Beginning initial fit attempt
#> Running CTVAR with 21 parameters
#>
#> Lowest minimum so far: -530.128797998623
#> Not all eigenvalues of the Hessian are positive: 6318952.50004768, 4211284.02725843,
3720142.35544009, 21998.1000466107, 17317.1007599763, 14747.588529859, 3056.68748313503,
2816.73953181613, 2749.3670418835, 235.73885175128, 180.033571200583, 154.231591757909,
18.3142847453223, 14.6603783804955, 12.9098524659026, 7.25801273309359, 5.28665435445766,
4.77739211375588, -5.40878423015598e-14, -1.35561247608909e-13, -2.90356061869058e-13
#>
#> Beginning fit attempt 1 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#> Not all eigenvalues of the Hessian are positive: 6318952.50004768, 4211284.02725843,
3720142.35544009, 21998.1000466107, 17317.1007599763, 14747.588529859, 3056.68748313503,
2816.73953181613, 2749.3670418835, 235.73885175128, 180.033571200583, 154.231591757909,
18.3142847453223, 14.6603783804955, 12.9098524659026, 7.25801273309359, 5.28665435445766,
4.77739211375588, -5.40878423015598e-14, -1.35561247608909e-13, -2.90356061869058e-13
#>
#> Beginning fit attempt 2 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#> Not all eigenvalues of the Hessian are positive: 6318947.72133564, 4211278.05318512,
3720147.5304912, 21998.0801076896, 17317.0853659843, 14747.5769963843, 3056.69506861958,
2816.73801835837, 2749.36521443246, 235.739187545052, 180.033467599763, 154.23375933167,
18.3175498158036, 14.6562066034054, 12.9182114274312, 7.26075396136036, 5.29166207042024,
4.78166731201403, 3.66116183661171e-13, 6.60554094329082e-14, -1.11872264580363e-13
#>
#> Beginning fit attempt 3 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 4 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors

```

```

#>
#> Beginning fit attempt 5 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 6 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 7 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 8 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 9 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 10 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 11 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 12 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 13 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors

```



```

#>
#> Beginning fit attempt 14 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 15 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 16 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 17 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 18 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 19 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 20 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 21 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 22 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors

```

```

#>
#> Beginning fit attempt 23 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 24 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Lowest minimum so far: -530.128797998672
#> Not all eigenvalues of the Hessian are positive: 6318948.48674383, 4211283.65858114,
3720142.25940894, 21998.0948452066, 17317.0765959439, 14747.5782688522, 3056.68896065849,
2816.74113239465, 2749.3632623195, 235.740840375646, 180.033795183189, 154.233991839842,
18.3203030632435, 14.6602896166862, 12.9142508085927, 7.25843848070873, 5.28530967402228,
4.78303633084093, 3.15676174815363e-13, -3.76411043898621e-13, -5.52052778593188e-13
#>
#> Beginning fit attempt 25 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#> Not all eigenvalues of the Hessian are positive: 6318948.48674383, 4211283.65858114,
3720142.25940894, 21998.0948452066, 17317.0765959439, 14747.5782688522, 3056.68896065849,
2816.74113239465, 2749.3632623195, 235.740840375646, 180.033795183189, 154.233991839842,
18.3203030632435, 14.6602896166862, 12.9142508085927, 7.25843848070873, 5.28530967402228,
4.78303633084093, 3.15676174815363e-13, -3.76411043898621e-13, -5.52052778593188e-13
#>
#> Beginning fit attempt 26 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 27 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 28 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#> Not all eigenvalues of the Hessian are positive: 6318944.31518503, 4211270.81809317,
3720147.65841431, 21998.0685930886, 17317.0703193674, 14747.580387179, 3056.69088396912,
2816.72951555869, 2749.36385802702, 235.740470575676, 180.032273400504, 154.235021677783,
18.3178598965748, 14.65872989461, 12.9077902933079, 7.25919309132665, 5.28507735219544,
4.78402350004626, 2.70177024231074e-13, -2.08479975326667e-13, -2.57151867406241e-13
#>
#> Beginning fit attempt 29 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors

```

```

#>
#> Beginning fit attempt 30 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 31 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 32 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 33 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#> Not all eigenvalues of the Hessian are positive: 6318947.22570472, 4211282.28388238,
3720143.40646272, 21998.0877551302, 17317.079723009, 14747.5750959049, 3056.69339290676,
2816.73855375497, 2749.36270014273, 235.737289871044, 180.036366619011, 154.231974724602,
18.3128807074608, 14.6551202927823, 12.9073813186961, 7.25441746534995, 5.28461626553623,
4.77727929477648, 1.6046090968965e-13, 7.40090710475211e-15, -3.52214351695868e-13
#>
#> Beginning fit attempt 34 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 35 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 36 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 37 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 38 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters

```

```

#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 39 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 40 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 41 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 42 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 43 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 44 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Solution found

```

```

#>
#> Solution found! Final fit=-530.1288 (started at 0.67625989) (45 attempt(s):
8 valid, 37 errors)
#> Start values from best fit:
#> -0.806454112717611,0.35421347082145,-1.11169814442335,0.213377622596155,-0.46925665146058,1.2350
#> Running CTVAR with 21 parameters
#>
#> Beginning initial fit attempt
#> Running CTVAR with 21 parameters
#>
#> Lowest minimum so far: -560.731484819223
#> Not all eigenvalues of the Hessian are positive: 7625847.36983476, 6149894.93204611,

```

```

4168036.61844135, 24374.6324271664, 23243.6925570094, 22279.3585400995, 4415.51428130153,
3924.51410129621, 3760.4486007512, 192.132971695857, 188.673324889225, 177.478307306452,
18.7013600833384, 18.1822545786503, 17.3499454511352, 7.49477811500664, 6.8172660608758,
6.48065646406811, 3.43431887306009e-13, -9.10777455571829e-13, -2.63101945993345e-12
#>
#> Beginning fit attempt 1 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Lowest minimum so far: -560.731484819224
#> Not all eigenvalues of the Hessian are positive: 7625847.37830351, 6149894.93772064,
4168036.6237842, 24374.6401591327, 23243.6886161604, 22279.3610664248, 4415.51533357978,
3924.51211900235, 3760.449497712, 192.130783803466, 188.675512891181, 177.47702351238,
18.7078936544409, 18.1834380819482, 17.3494375266588, 7.49748150337906, 6.8232977436811,
6.48998573931065, 1.60833728579526e-13, -5.33116426667916e-13, -3.67274719778031e-12
#>
#> Beginning fit attempt 2 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#> Not all eigenvalues of the Hessian are positive: 7625847.37830351, 6149894.93772064,
4168036.6237842, 24374.6401591327, 23243.6886161604, 22279.3610664248, 4415.51533357978,
3924.51211900235, 3760.449497712, 192.130783803466, 188.675512891181, 177.47702351238,
18.7078936544409, 18.1834380819482, 17.3494375266588, 7.49748150337906, 6.8232977436811,
6.48998573931065, 1.60833728579526e-13, -5.33116426667916e-13, -3.67274719778031e-12
#>
#> Beginning fit attempt 3 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 4 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 5 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 6 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 7 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters

```

```

#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 8 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 9 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 10 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 11 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 12 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Solution found

```

```

#>
#> Solution found! Final fit=-560.73148 (started at -1.1440285) (13 attempt(s):
4 valid, 9 errors)
#> Start values from best fit:
#> -0.773903481018904, 0.831531366946573, -0.18601489857689, -0.0681318681791757, -0.311849726846827, 0.
#> Running CTVAR with 21 parameters
#>
#> Beginning initial fit attempt
#> Running CTVAR with 21 parameters
#>
#> Lowest minimum so far: -528.031988587379
#> Not all eigenvalues of the Hessian are positive: 6843264.81288914, 5287153.51521233,
3138701.73692056, 21295.1722238129, 17193.2792597281, 14559.975585802, 4810.64472057179,
2262.39279493716, 1600.50514616466, 71.4721726826691, 49.2989561744709, 37.4587640257148,
27.9161490021141, 20.252940753486, 13.8557390165227, 10.7979986795122, 8.88253608829648,
6.87753820163424, -1.41937918621593e-14, -7.39626113113232e-14, -4.82720902664407e-13
#>

```

```

#> Beginning fit attempt 1 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Lowest minimum so far: -528.031988589712
#> Not all eigenvalues of the Hessian are positive: 6843477.78438946, 5287163.7177572,
3138704.17433775, 21295.3740461334, 17193.4339822742, 14559.9856774356, 4810.70359970604,
2262.40651316099, 1600.51243211283, 71.4721612593537, 49.3066118014612, 37.450958615031,
27.9287511623005, 20.2637257286373, 13.8732297311117, 10.8150512996692, 8.89557238625864,
6.89066588417688, -4.45054028489769e-14, -3.87963719168395e-13, -9.98830721592947e-13
#>
#> Beginning fit attempt 2 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#> Not all eigenvalues of the Hessian are positive: 6843477.78438946, 5287163.7177572,
3138704.17433775, 21295.3740461334, 17193.4339822742, 14559.9856774356, 4810.70359970604,
2262.40651316099, 1600.51243211283, 71.4721612593537, 49.3066118014612, 37.450958615031,
27.9287511623005, 20.2637257286373, 13.8732297311117, 10.8150512996692, 8.89557238625864,
6.89066588417688, -4.45054028489769e-14, -3.87963719168395e-13, -9.98830721592947e-13
#>
#> Beginning fit attempt 3 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 4 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 5 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 6 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 7 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 8 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters

```

```

#>
#> Fit attempt worse than current best:  -323.563782194716 vs -528.031988589712
#>
#> Beginning fit attempt 9 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 10 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 11 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 12 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 13 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 14 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt worse than current best:  -474.240991345365 vs -528.031988589712
#>
#> Beginning fit attempt 15 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 16 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 17 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters

```



```

#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 18 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 19 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 20 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 21 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 22 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 23 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 24 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 25 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#> Not all eigenvalues of the Hessian are positive: 6843264.24984458, 5287150.7044565,
3138693.93478893, 21295.1404062715, 17193.3249480337, 14559.8806583624, 4810.75479381928,
2262.3908008803, 1600.50415074933, 71.4744061476321, 49.3004891735663, 37.4554929695232,
27.9214002418648, 20.2619500139657, 13.8632815848072, 10.807282191987, 8.88659072816225,
6.88376113663336, 6.73005005288061e-14, -1.16702958148076e-13, -2.39034720124105e-13

```

```

#>
#> Beginning fit attempt 26 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 27 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 28 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 29 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 30 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 31 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 32 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 33 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 34 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors

```

```

#>
#> Beginning fit attempt 35 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 36 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 37 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 38 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 39 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 40 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 41 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 42 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 43 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors

```

```

#>
#> Beginning fit attempt 44 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 45 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 46 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 47 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 48 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 49 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 50 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 51 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 52 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors

```

```

#>
#> Beginning fit attempt 53 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 54 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 55 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 56 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 57 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 58 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 59 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 60 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 61 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors

```

```

#>
#> Beginning fit attempt 62 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 63 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 64 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 65 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 66 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 67 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 68 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 69 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 70 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors

```

```

#>
#> Beginning fit attempt 71 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 72 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 73 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 74 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 75 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 76 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 77 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 78 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 79 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors

```

```

#>
#> Beginning fit attempt 80 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 81 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 82 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 83 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 84 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 85 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 86 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 87 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 88 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors

```



```

#>
#> Beginning fit attempt 89 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 90 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 91 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 92 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 93 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 94 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 95 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 96 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#> Not all eigenvalues of the Hessian are positive: 6843256.81217901, 5287144.72026642,
3138679.33208435, 21295.1133119957, 17193.2881795585, 14559.8434736787, 4810.74468997298,
2262.38142675662, 1600.49373034322, 71.4697780187543, 49.2966126059762, 37.4596795470534,
27.9125958379397, 20.2535936098887, 13.8565333717682, 10.8000158981824, 8.88059077733733,
6.87521632012504, 2.63437082704378e-14, 1.23977782507021e-14, -2.128247233514e-13
#>
#> Beginning fit attempt 97 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters

```

```

#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 98 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 99 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 100 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 101 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 102 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 103 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 104 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#> Not all eigenvalues of the Hessian are positive: 6843261.86487326, 5287151.03790161,
3138690.56197589, 21295.1382698779, 17193.313822991, 14559.8726780943, 4810.76191622125,
2262.39236948988, 1600.50573160212, 71.4708558236711, 49.3022506131087, 37.4546619284927,
27.9216485775422, 20.2577687229262, 13.8642972764347, 10.807266903238, 8.88779520465806,
6.88454271344175, 1.88164439465253e-14, -2.39107265479664e-13, -4.51394164229301e-13
#>
#> Beginning fit attempt 105 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors

```

```

#>
#> Beginning fit attempt 106 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 107 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 108 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 109 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 110 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 111 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 112 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#> Not all eigenvalues of the Hessian are positive: 6843271.33824052, 5287131.84993082,
3138697.14867129, 21295.1396368673, 17193.2048342642, 14559.8340445658, 4810.7055714627,
2262.37086137168, 1600.49809341102, 71.4709839323701, 49.2976709854613, 37.4601816051829,
27.9120987221139, 20.2502874146845, 13.8528163095034, 10.7970943633077, 8.88004616862617,
6.87275583545837, 5.14825454341996e-14, -3.54464062281029e-14, -5.39395281270026e-13
#>
#> Beginning fit attempt 113 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 114 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters

```

```

#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 115 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 116 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 117 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 118 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 119 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 120 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 121 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 122 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 123 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters

```

```

#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 124 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 125 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 126 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 127 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 128 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 129 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 130 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 131 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 132 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters

```

```

#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 133 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 134 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 135 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 136 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 137 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 138 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 139 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 140 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 141 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters

```

```

#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 142 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 143 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 144 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 145 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 146 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 147 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 148 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 149 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 150 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters

```

```

#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 151 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 152 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 153 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 154 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 155 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 156 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 157 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 158 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 159 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters

```



```
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 160 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 161 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 162 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 163 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 164 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 165 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 166 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 167 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 168 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
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#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 169 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 170 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 171 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 172 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 173 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 174 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 175 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 176 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 177 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters

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#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 178 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 179 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 180 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 181 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 182 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
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#> Beginning fit attempt 183 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 184 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 185 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 186 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters

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#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 187 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
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#> Beginning fit attempt 188 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
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#> Beginning fit attempt 189 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 190 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 191 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
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#> Beginning fit attempt 192 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 193 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 194 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 195 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters

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#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 196 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 197 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#> Not all eigenvalues of the Hessian are positive: 6843266.89825082, 5287150.21319518,
3138694.82182257, 21295.1458952402, 17193.3091987426, 14559.8868810562, 4810.74493153961,
2262.38476803011, 1600.50053774692, 71.473642536992, 49.2966127569378, 37.4592611119737,
27.9168692883081, 20.2548479107758, 13.8610476828361, 10.8028647058549, 8.88362374710407,
6.87595661986244, 6.75739638701867e-14, 1.71031081165976e-14, -1.0843595053112e-13
#>
#> Beginning fit attempt 198 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 199 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 200 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 201 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 202 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 203 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors

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#>
#> Beginning fit attempt 204 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 205 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#> Not all eigenvalues of the Hessian are positive: 6843336.82093044, 5287186.72706806,
3138697.27643748, 21295.2447560638, 17193.3196422237, 14559.8855073191, 4810.71700786517,
2262.4000682116, 1600.49945488904, 71.4696911086771, 49.3003976105418, 37.45735991527,
27.9059654384973, 20.2456682966974, 13.8546310450088, 10.7997111413506, 8.87724347219728,
6.88060553549084, 1.15030379148494e-13, -4.21392968429059e-14, -5.20189014787084e-14
#>
#> Beginning fit attempt 206 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 207 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 208 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 209 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 210 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 211 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 212 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters

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#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 213 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
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#> Fit attempt generated errors
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#> Beginning fit attempt 214 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
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#> Beginning fit attempt 215 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
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#> Fit attempt generated errors
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#> Beginning fit attempt 216 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
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#> Fit attempt generated errors
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#> Beginning fit attempt 217 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
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#> Fit attempt generated errors
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#> Beginning fit attempt 218 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
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#> Fit attempt generated errors
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#> Beginning fit attempt 219 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 220 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 221 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters

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#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 222 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 223 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 224 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#> Not all eigenvalues of the Hessian are positive: 6843261.15596388, 5287149.93764139,
3138694.37650353, 21295.1395732454, 17193.3207329278, 14559.8806258062, 4810.75336462643,
2262.38943635442, 1600.50604105975, 71.4719497181989, 49.3006162862003, 37.4538139950195,
27.9220169296246, 20.2624829955594, 13.8673890163897, 10.811164569353, 8.89166170973124,
6.88517411209097, 5.06842802015095e-13, 7.57747964606367e-14, -7.05830486716483e-14
#>
#> Beginning fit attempt 225 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 226 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 227 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
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#> Fit attempt generated errors
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#> Beginning fit attempt 228 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
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#> Fit attempt generated errors
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#> Beginning fit attempt 229 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors

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#>
#> Beginning fit attempt 230 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
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#> Fit attempt generated errors
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#> Beginning fit attempt 231 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
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#> Beginning fit attempt 232 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
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#> Fit attempt generated errors
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#> Beginning fit attempt 233 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
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#> Beginning fit attempt 234 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
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#> Fit attempt generated errors
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#> Beginning fit attempt 235 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
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#> Fit attempt generated errors
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#> Beginning fit attempt 236 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
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#> Fit attempt generated errors
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#> Beginning fit attempt 237 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
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#> Fit attempt generated errors
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#> Beginning fit attempt 238 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors

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#>
#> Beginning fit attempt 239 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
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#> Beginning fit attempt 240 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
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#> Beginning fit attempt 241 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 242 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
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#> Beginning fit attempt 243 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
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#> Beginning fit attempt 244 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
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#> Beginning fit attempt 245 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
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#> Beginning fit attempt 246 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
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#> Beginning fit attempt 247 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors

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#>
#> Beginning fit attempt 248 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
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#> Beginning fit attempt 249 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
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#> Beginning fit attempt 250 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
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#> Beginning fit attempt 251 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
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#> Fit attempt generated errors
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#> Beginning fit attempt 252 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
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#> Fit attempt generated errors
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#> Beginning fit attempt 253 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 254 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 255 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 256 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#> Not all eigenvalues of the Hessian are positive: 6843273.16439359, 5287135.78905158,
3138690.21073478, 21295.1315714489, 17193.3238835746, 14559.8638015896, 4810.74528664184,
2262.38322869632, 1600.4926339704, 71.4693296860292, 49.3010048432983, 37.4583178048837,

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27.9156339296578, 20.2512293721018, 13.8585596104787, 10.8031940891522, 8.87975171611682,
6.87728795947681, -5.55481305870663e-16, -2.55900715399022e-14, -1.53593826664737e-12
#>
#> Beginning fit attempt 257 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#> Not all eigenvalues of the Hessian are positive: 6843259.43030977, 5287148.5807276,
3138694.78198816, 21295.1317909185, 17193.3189865154, 14559.8775173403, 4810.75478021205,
2262.38812161738, 1600.50414176425, 71.4708776933156, 49.302292801172, 37.4558523184885,
27.9191654625533, 20.2533450644116, 13.8642116073387, 10.8075203119883, 8.88819993822439,
6.88030457880462, 4.55324487129127e-13, -2.23405662855168e-14, -2.50241680655748e-13
#>
#> Beginning fit attempt 258 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 259 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 260 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 261 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 262 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 263 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 264 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors

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#>
#> Beginning fit attempt 265 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
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#> Beginning fit attempt 266 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 267 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
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#> Beginning fit attempt 268 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 269 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 270 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 271 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 272 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 273 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors

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#>
#> Beginning fit attempt 274 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#> Not all eigenvalues of the Hessian are positive: 6843245.04925417, 5287155.39064038,
3138703.29530796, 21295.1478673311, 17193.306345172, 14559.9034894612, 4810.73945458717,
2262.39303467993, 1600.5072859621, 71.4713202591413, 49.3002927763884, 37.4533249518087,
27.9175269569866, 20.2580121153838, 13.8652580954025, 10.8031397276494, 8.88443280344485,
6.88554115315498, -2.59903278288921e-14, -2.64540652373735e-13, -9.73791021581399e-13
#>
#> Beginning fit attempt 275 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 276 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 277 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 278 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 279 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 280 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 281 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 282 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters

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#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 283 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 284 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 285 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 286 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 287 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 288 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 289 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 290 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 291 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters

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#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 292 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 293 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 294 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 295 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 296 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 297 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 298 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 299 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 300 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters

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#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 301 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
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#> Beginning fit attempt 302 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
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#> Beginning fit attempt 303 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 304 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 305 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 306 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 307 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 308 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 309 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters

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#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 310 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
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#> Beginning fit attempt 311 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 312 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 313 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 314 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 315 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#> Not all eigenvalues of the Hessian are positive: 6843286.46898717, 5287139.07520046,
3138687.55700366, 21295.1333268677, 17193.3414751472, 14559.8484711197, 4810.7653590338,
2262.38211113634, 1600.49793829431, 71.4711468680311, 49.2991246567636, 37.4569149454874,
27.9113751741727, 20.2514616239385, 13.8574484401632, 10.8016113226221, 8.88197335002203,
6.87857803572448, 2.82047298890853e-14, -5.59441096869848e-14, -8.97076514767049e-13
#>
#> Beginning fit attempt 316 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 317 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors

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#>
#> Beginning fit attempt 318 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 319 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
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#> Beginning fit attempt 320 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
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#> Beginning fit attempt 321 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
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#> Beginning fit attempt 322 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
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#> Fit attempt generated errors
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#> Beginning fit attempt 323 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
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#> Fit attempt generated errors
#>
#> Beginning fit attempt 324 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 325 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 326 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors

```

```

#>
#> Beginning fit attempt 327 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 328 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 329 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 330 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 331 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 332 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 333 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 334 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 335 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors

```

```

#>
#> Beginning fit attempt 336 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 337 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 338 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#> Not all eigenvalues of the Hessian are positive: 6843263.3917101, 5287148.69650378,
3138692.68609314, 21295.1371145745, 17193.3229695376, 14559.8738942023, 4810.76171568918,
2262.38909293651, 1600.50421941285, 71.4728000195502, 49.3012437592368, 37.4520342010284,
27.9205773081306, 20.2626374788233, 13.8665606889243, 10.8063165101088, 8.88863911308573,
6.88465238240132, 2.86552336965189e-13, -8.14481769461804e-15, -1.17791093532302e-12
#>
#> Beginning fit attempt 339 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 340 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 341 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 342 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 343 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 344 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters

```

```

#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 345 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 346 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 347 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 348 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 349 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 350 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 351 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 352 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 353 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters

```

```

#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 354 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 355 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 356 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 357 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 358 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#> Not all eigenvalues of the Hessian are positive: 6843301.20511572, 5287178.88027894,
3138685.02656637, 21295.2488077112, 17193.2569228001, 14559.8813028392, 4810.72052469739,
2262.3944699558, 1600.49746065518, 71.4698228345911, 49.2961843971421, 37.4598802827101,
27.9206920778741, 20.2577791990486, 13.8615414321876, 10.8105441418832, 8.8864908861672,
6.87736277117474, 1.03729880271208e-12, 5.70156227029316e-14, -4.19743081677044e-13
#>
#> Beginning fit attempt 359 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 360 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 361 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors

```

```

#>
#> Beginning fit attempt 362 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 363 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 364 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 365 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 366 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 367 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 368 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 369 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 370 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors

```



```

#>
#> Beginning fit attempt 371 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 372 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 373 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 374 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 375 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 376 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 377 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 378 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 379 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors

```

```

#>
#> Beginning fit attempt 380 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 381 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#> Not all eigenvalues of the Hessian are positive: 6843270.08174473, 5287150.82409797,
3138699.11398587, 21295.1410343161, 17193.3497907752, 14559.8957565944, 4810.7566711553,
2262.38908122863, 1600.50446429792, 71.4679611725693, 49.3064187388281, 37.4533764464936,
27.9235547302628, 20.2559918733119, 13.8664991725193, 10.8079049820868, 8.88295556570882,
6.88652173873757, 5.91938793682448e-13, -2.90599988044669e-14, -3.56155269097669e-13
#>
#> Beginning fit attempt 382 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 383 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 384 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#> Not all eigenvalues of the Hessian are positive: 6843260.77007676, 5287149.15736142,
3138695.92285186, 21295.1340211226, 17193.321616229, 14559.879945059, 4810.74933778484,
2262.38218019575, 1600.50297087585, 71.4708503375555, 49.3033681385216, 37.4550321475224,
27.9139658128901, 20.254247652483, 13.8595745622402, 10.8034193704621, 8.88506281230259,
6.88239180931477, 7.08277561604859e-14, 2.23684063871465e-14, -3.26810358263806e-15
#>
#> Beginning fit attempt 385 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 386 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#> Not all eigenvalues of the Hessian are positive: 6843263.87963082, 5287150.41447392,
3138690.05079475, 21295.143451263, 17193.3109349858, 14559.8651373686, 4810.75202043055,
2262.39023097602, 1600.50224838096, 71.470756687024, 49.3027434222016, 37.4522506674317,
27.9216775658316, 20.259743963244, 13.8688539043272, 10.8106292322786, 8.88653746150708,
6.88282249417598, -2.15117311619422e-14, -9.15255830094049e-13, -1.28234713609506e-12
#>
#> Beginning fit attempt 387 of at maximum 1000 extra tries

```

```

#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 388 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 389 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 390 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 391 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 392 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 393 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Solution found

```

```

#>
#> Solution found! Final fit=-528.03199 (started at -5.7169562) (394 attempt(s):
22 valid, 372 errors)
#> Start values from best fit:
#> -0.297600261266098,0.588804440196212,-0.0204003650574904,-0.00191933680804894,-0.360883130465681
#> Running CTVAR with 21 parameters
#>
#> Beginning initial fit attempt
#> Running CTVAR with 21 parameters
#>
#> Lowest minimum so far: -515.647047554048

```

```

#> Not all eigenvalues of the Hessian are positive: 6038584.57575168, 5875042.54642801,
3116330.04648489, 21711.5566713994, 18197.6063120271, 11403.774765822, 5293.3617922526,
3929.72450795436, 2567.38884068661, 94.8848743132693, 77.4676059176211, 60.0568834580293,
50.9952891035286, 40.9455982459326, 32.2299846142303, 26.3263938887295, 21.2104822368161,
16.6683763626207, 2.05969541791187e-12, 3.46582033070981e-14, -2.83909133851942e-12
#>
#> Beginning fit attempt 1 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#> Not all eigenvalues of the Hessian are positive: 6038584.57575168, 5875042.54642801,
3116330.04648489, 21711.5566713994, 18197.6063120271, 11403.774765822, 5293.3617922526,
3929.72450795436, 2567.38884068661, 94.8848743132693, 77.4676059176211, 60.0568834580293,
50.9952891035286, 40.9455982459326, 32.2299846142303, 26.3263938887295, 21.2104822368161,
16.6683763626207, 2.05969541791187e-12, 3.46582033070981e-14, -2.83909133851942e-12
#>
#> Beginning fit attempt 2 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 3 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 4 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Lowest minimum so far: -515.647048990848
#> Not all eigenvalues of the Hessian are positive: 6038418.80087485, 5874884.60699353,
3116376.70326442, 21710.667108164, 18197.8992922844, 11404.484282452, 5293.25551552514,
3929.39243978141, 2567.54863523925, 94.880196524341, 77.458931335115, 60.0504414155925,
50.998730631532, 40.9425391808354, 32.2322938925877, 26.3162612949036, 21.2079779757267,
16.6636203127976, -9.54564857587954e-14, -1.06785375614575e-13, -1.09250046588291e-12
#>
#> Beginning fit attempt 5 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#> Not all eigenvalues of the Hessian are positive: 6038418.80087485, 5874884.60699353,
3116376.70326442, 21710.667108164, 18197.8992922844, 11404.484282452, 5293.25551552514,
3929.39243978141, 2567.54863523925, 94.880196524341, 77.458931335115, 60.0504414155925,
50.998730631532, 40.9425391808354, 32.2322938925877, 26.3162612949036, 21.2079779757267,
16.6636203127976, -9.54564857587954e-14, -1.06785375614575e-13, -1.09250046588291e-12
#>
#> Beginning fit attempt 6 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors

```

```

#>
#> Beginning fit attempt 7 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 8 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 9 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 10 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 11 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 12 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 13 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 14 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 15 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors

```

```

#>
#> Beginning fit attempt 16 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 17 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 18 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 19 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 20 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 21 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 22 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 23 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 24 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors

```

```

#>
#> Beginning fit attempt 25 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 26 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 27 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 28 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 29 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 30 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 31 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 32 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 33 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors

```

```
#>
#> Beginning fit attempt 34 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 35 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 36 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 37 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 38 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 39 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 40 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 41 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 42 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
```



```

#>
#> Beginning fit attempt 43 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 44 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 45 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 46 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 47 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 48 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 49 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 50 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 51 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors

```

```

#>
#> Beginning fit attempt 52 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 53 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 54 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 55 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 56 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 57 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 58 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 59 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 60 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors

```

```
#>
#> Beginning fit attempt 61 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 62 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 63 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 64 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 65 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 66 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 67 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 68 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 69 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
```

```

#>
#> Beginning fit attempt 70 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 71 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 72 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 73 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 74 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 75 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 76 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 77 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 78 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors

```

```

#>
#> Beginning fit attempt 79 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 80 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 81 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 82 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 83 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 84 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 85 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 86 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 87 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#> Not all eigenvalues of the Hessian are positive: 6038221.90884888, 5874786.00690647,
3116848.72395058, 21710.2120489965, 18198.1383553566, 11405.2698524069, 5293.15619730694,
3929.33691133641, 2567.73565789062, 94.878156291127, 77.4611852848023, 60.0570482873945,

```

```

51.0017986068237, 40.9445662150286, 32.2301901684725, 26.3163981106088, 21.205332154126,
16.6677377591792, 1.59891863588906e-12, -3.33202930259613e-14, -1.57214932751904e-12
#>
#> Beginning fit attempt 88 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 89 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 90 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 91 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 92 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 93 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 94 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 95 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 96 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters

```

```

#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 97 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 98 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 99 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 100 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Lowest minimum so far: -515.647049024995
#>
#> Solution found

```

```

#>
#> Solution found! Final fit=-515.64705 (started at 22.524012) (101 attempt(s):
6 valid, 95 errors)
#> Start values from best fit:
#> -0.542108371805821, 0.781999995684317, -0.181882588716692, -0.329684366378503, -0.552603490622416, 0.
#> Running CTVAR with 21 parameters
#>
#> Beginning initial fit attempt
#> Running CTVAR with 21 parameters
#>
#> Lowest minimum so far: -558.720937778286
#> Not all eigenvalues of the Hessian are positive: 6601095.81693878, 5884957.27238016,
4997211.55295565, 33835.7350818486, 25546.9606154865, 19029.4687200764, 6415.71021628215,
5532.81247588638, 4129.73940462381, 181.993571198316, 100.607873641075, 94.7748257587171,
79.9485041583356, 53.510520532211, 44.8284033142289, 42.849312844647, 25.6211243535305,
20.3790358316097, 1.06476339186888e-13, -7.17429953332271e-14, -6.08600727463416e-13
#>
#> Beginning fit attempt 1 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>

```

```

#> Lowest minimum so far: -558.720937778287
#> Not all eigenvalues of the Hessian are positive: 6601095.82283506, 5884957.27595184,
4997211.5585578, 33835.7281392407, 25546.9749292465, 19029.4765520319, 6415.73073319698,
5532.81932688234, 4129.74247991943, 181.982555943177, 100.618132944092, 94.7873468731732,
79.9530013095843, 53.5252945972045, 44.8289180396381, 42.8596473840961, 25.630704644011,
20.3918156601696, 5.64142152176501e-13, 5.83107362066712e-14, -1.04835874754432e-13
#>
#> Beginning fit attempt 2 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#> Not all eigenvalues of the Hessian are positive: 6601095.82283506, 5884957.27595184,
4997211.5585578, 33835.7281392407, 25546.9749292465, 19029.4765520319, 6415.73073319698,
5532.81932688234, 4129.74247991943, 181.982555943177, 100.618132944092, 94.7873468731732,
79.9530013095843, 53.5252945972045, 44.8289180396381, 42.8596473840961, 25.630704644011,
20.3918156601696, 5.64142152176501e-13, 5.83107362066712e-14, -1.04835874754432e-13
#>
#> Beginning fit attempt 3 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 4 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 5 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 6 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#> Not all eigenvalues of the Hessian are positive: 6601090.14387597, 5884923.36682728,
4997186.70823642, 33835.7273761121, 25547.0113163836, 19029.4953093641, 6415.76019290958,
5532.81890947755, 4129.73791565408, 181.990099829683, 100.610814929262, 94.7748176039918,
79.9481274059724, 53.5131992285908, 44.8283715501619, 42.8492413229939, 25.6253191179011,
20.3798490895537, -1.10489274791069e-13, -4.36030869560748e-13, -8.49481520578989e-13
#>
#> Beginning fit attempt 7 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 8 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters

```



```

#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 9 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 10 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 11 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 12 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 13 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 14 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 15 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 16 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 17 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters

```

```

#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 18 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 19 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 20 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 21 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 22 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 23 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#> Not all eigenvalues of the Hessian are positive: 6601093.35778659, 5884924.81146811,
4997187.94441763, 33835.7224427088, 25547.005947287, 19029.4969368817, 6415.76199126277,
5532.82229418641, 4129.72949117309, 181.99044448945, 100.613386076822, 94.775409674985,
79.9477831793452, 53.516100254529, 44.8305901353371, 42.8457600372012, 25.6245489906738,
20.3829399571427, 3.21118130202625e-13, 1.49648092015509e-13, -5.69517583704714e-13
#>
#> Beginning fit attempt 24 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#> Not all eigenvalues of the Hessian are positive: 6601088.17558285, 5884920.75239472,
4997185.022558, 33835.4968772133, 25546.9202103838, 19029.5188338259, 6415.76624564017,
5532.78803583973, 4129.72052897552, 181.987381502162, 100.611942954323, 94.7760724310874,
79.9470108260446, 53.5191276526255, 44.8316266520082, 42.8504869737152, 25.6237314496671,
20.3804257864713, 8.32685893668778e-13, 5.95003317199832e-14, -5.63381312831411e-14
#>
#> Beginning fit attempt 25 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters

```

```

#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 26 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 27 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 28 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 29 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 30 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 31 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 32 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 33 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 34 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters

```

```

#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 35 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 36 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 37 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 38 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#> Not all eigenvalues of the Hessian are positive: 6601114.025008, 5884923.76710958,
4997185.61889725, 33835.8694197861, 25547.0662063765, 19029.5129731728, 6415.78168121942,
5532.82485622825, 4129.75584801299, 181.994975364841, 100.615624301131, 94.7791916836678,
79.9453953184674, 53.5202901044319, 44.8278773465049, 42.8516520421336, 25.6260518102669,
20.3803860987015, 9.26003955209349e-13, 1.38996120890839e-13, -7.873111442164e-14
#>
#> Beginning fit attempt 39 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#> Not all eigenvalues of the Hessian are positive: 6601092.11374147, 5884937.97741086,
4997197.48467939, 33835.7560998751, 25547.027791521, 19029.5163297668, 6415.76005448251,
5532.82405840884, 4129.74284067671, 181.992215357139, 100.609040108861, 94.7807848981074,
79.9475533626458, 53.5174349255354, 44.8282647921115, 42.8515210040084, 25.6267271831857,
20.3835206524164, -1.89718360893354e-13, -4.39827420448869e-13, -1.00211795951908e-12
#>
#> Beginning fit attempt 40 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 41 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 42 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters

```

```

#>
#> Fit attempt worse than current best: -465.645493666078 vs -558.720937778287
#>
#> Beginning fit attempt 43 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 44 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 45 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 46 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 47 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 48 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 49 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Solution found

```

```

#>
#> Solution found! Final fit=-558.72094 (started at -6.7974252) (50 attempt(s):
10 valid, 40 errors)
#> Start values from best fit:
#> -0.103705281530356,0.91545726868575,-0.428670942678865,-0.227606865536175,-0.794291966723315,0.7
#> Running CTVAR with 21 parameters
#>

```

```

#> Beginning initial fit attempt
#> Running CTVAR with 21 parameters
#>
#> Lowest minimum so far: -543.888428582046
#> Not all eigenvalues of the Hessian are positive: 6150260.94362492, 5566656.51259407,
4514589.16339363, 23590.0600956735, 20860.317795504, 18411.179875483, 3791.72370358405,
2926.31949553772, 2777.8604612811, 288.126408400702, 235.226756704924, 198.139993031275,
108.307296337986, 89.1862820583952, 74.6135373448481, 18.4430751794122, 16.4236458338378,
13.845428184639, -8.78576515507705e-14, -1.43583687786008e-13, -1.57539112504802e-12
#>
#> Beginning fit attempt 1 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#> Not all eigenvalues of the Hessian are positive: 6150260.94362492, 5566656.51259407,
4514589.16339363, 23590.0600956735, 20860.317795504, 18411.179875483, 3791.72370358405,
2926.31949553772, 2777.8604612811, 288.126408400702, 235.226756704924, 198.139993031275,
108.307296337986, 89.1862820583952, 74.6135373448481, 18.4430751794122, 16.4236458338378,
13.845428184639, -8.78576515507705e-14, -1.43583687786008e-13, -1.57539112504802e-12
#>
#> Beginning fit attempt 2 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 3 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 4 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 5 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 6 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 7 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters

```

```

#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 8 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 9 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 10 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 11 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 12 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 13 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 14 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 15 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 16 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters

```

```

#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 17 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Lowest minimum so far: -543.888428582339
#> Not all eigenvalues of the Hessian are positive: 6150263.19279025, 5566659.67257841,
4514602.48245235, 23590.0492310074, 20860.3427857414, 18411.2133558889, 3791.71892021919,
2926.32091535244, 2777.86411295061, 288.128475287911, 235.227438921705, 198.139973761832,
108.303405656056, 89.1859477609676, 74.6174871367549, 18.4472572577988, 16.4254699849074,
13.8459717710899, 3.39570870775985e-12, 2.24536531774296e-13, -1.07222037221808e-13
#>
#> Beginning fit attempt 18 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#> Not all eigenvalues of the Hessian are positive: 6150263.19279025, 5566659.67257841,
4514602.48245235, 23590.0492310074, 20860.3427857414, 18411.2133558889, 3791.71892021919,
2926.32091535244, 2777.86411295061, 288.128475287911, 235.227438921705, 198.139973761832,
108.303405656056, 89.1859477609676, 74.6174871367549, 18.4472572577988, 16.4254699849074,
13.8459717710899, 3.39570870775985e-12, 2.24536531774296e-13, -1.07222037221808e-13
#>
#> Beginning fit attempt 19 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 20 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 21 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 22 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 23 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors

```



```

#>
#> Beginning fit attempt 24 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 25 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 26 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 27 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 28 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 29 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 30 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 31 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 32 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors

```

```

#>
#> Beginning fit attempt 33 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 34 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#> Not all eigenvalues of the Hessian are positive: 6150252.59346286, 5566668.14342612,
4514586.34744766, 23590.0719822373, 20860.3169199077, 18411.17559785, 3791.72994666351,
2926.31739346243, 2777.85765113283, 288.128490153147, 235.226654384444, 198.142548232574,
108.305444384037, 89.1847403891938, 74.6123473478802, 18.4427288208072, 16.4291285334969,
13.8438673695263, 6.46652306918843e-14, -3.18062028030506e-14, -1.11166274377509e-12
#>
#> Beginning fit attempt 35 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 36 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 37 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 38 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#> Not all eigenvalues of the Hessian are positive: 6150264.53815054, 5566658.75329083,
4514590.83461712, 23590.0612032925, 20860.3125238368, 18411.1931965791, 3791.71921128437,
2926.32364699999, 2777.86297809467, 288.127470108201, 235.232619933515, 198.13838122307,
108.298890358206, 89.1807320777505, 74.608054204078, 18.4409698747117, 16.423022911699,
13.8418547306759, 2.24403609073888e-13, 7.28237779214429e-15, -3.34525097859312e-12
#>
#> Beginning fit attempt 39 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 40 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors

```

```

#>
#> Beginning fit attempt 41 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 42 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#> Not all eigenvalues of the Hessian are positive: 6150252.66246435, 5566661.35032264,
4514590.16100497, 23590.0484718881, 20860.307893414, 18411.1915921311, 3791.7216495647,
2926.31845483655, 2777.86009230496, 288.125975273466, 235.228845052797, 198.139993772629,
108.297164495991, 89.1800001761147, 74.6058191064366, 18.4371453872141, 16.4265492085753,
13.8395248364738, 1.29883199026597e-13, 1.63540547893164e-14, -1.91978449717799e-13
#>
#> Beginning fit attempt 43 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 44 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 45 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 46 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 47 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 48 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 49 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters

```

```

#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 50 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 51 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 52 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#> Not all eigenvalues of the Hessian are positive: 6150256.43909489, 5566663.17672458,
4514600.84524757, 23590.0583432682, 20860.3602051886, 18411.2148326081, 3791.73036813869,
2926.32702368741, 2777.86318218951, 288.131794615052, 235.225744300416, 198.142000371747,
108.304273066721, 89.1917601867084, 74.6172253468954, 18.4464381555906, 16.4255392127767,
13.8492045837985, 1.98572903669935e-13, -8.80003748448696e-14, -2.94480973021305e-13
#>
#> Beginning fit attempt 53 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 54 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 55 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 56 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 57 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors

```

```

#>
#> Beginning fit attempt 58 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 59 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 60 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 61 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 62 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 63 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 64 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 65 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 66 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors

```

```

#>
#> Beginning fit attempt 67 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Solution found

#>
#> Solution found! Final fit=-543.88843 (started at -5.3076202) (68 attempt(s):
9 valid, 59 errors)
#> Start values from best fit:
#> -0.227028290821046, 1.04493446848735, -0.664506207501205, -0.024377450905238, -0.560229110715458, 0.8.
#> Running CTVAR with 21 parameters
#>
#> Beginning initial fit attempt
#> Running CTVAR with 21 parameters
#>
#> Lowest minimum so far: -547.617460309084
#> Not all eigenvalues of the Hessian are positive: 8022830.47447198, 5072944.67374534,
3355294.54006256, 27441.1789702242, 20923.1302723172, 12695.7644224422, 6269.6781315947,
2529.57099546534, 2351.67833098301, 184.953292878985, 120.338799577205, 91.3349558786357,
29.7572486725238, 19.8744482230836, 14.9757691077683, 5.24076413448568, 2.9482728135841,
2.60313833867877, 7.4412044877237e-13, 4.75097065507662e-14, -4.49976367582216e-13
#>
#> Beginning fit attempt 1 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#> Not all eigenvalues of the Hessian are positive: 8022830.47447198, 5072944.67374534,
3355294.54006256, 27441.1789702242, 20923.1302723172, 12695.7644224422, 6269.6781315947,
2529.57099546534, 2351.67833098301, 184.953292878985, 120.338799577205, 91.3349558786357,
29.7572486725238, 19.8744482230836, 14.9757691077683, 5.24076413448568, 2.9482728135841,
2.60313833867877, 7.4412044877237e-13, 4.75097065507662e-14, -4.49976367582216e-13
#>
#> Beginning fit attempt 2 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 3 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 4 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors

```

```
#>
#> Beginning fit attempt 5 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 6 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 7 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 8 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 9 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 10 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 11 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 12 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 13 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
```

```
#>
#> Beginning fit attempt 14 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 15 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 16 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 17 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 18 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 19 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 20 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 21 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 22 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
```



```

#>
#> Beginning fit attempt 23 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 24 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#> Not all eigenvalues of the Hessian are positive: 8022833.01968412, 5072942.23114491,
3355294.32082378, 27441.177694433, 20923.123151646, 12695.765082552, 6269.674311139,
2529.5604697872, 2351.67877176184, 184.951517904808, 120.33891833718, 91.3334988567137,
29.7546479758733, 19.8713839390773, 14.9707932715474, 5.24263441841088, 2.94813457623638,
2.60181461636436, 8.03861988375258e-14, 2.49089354201758e-14, -6.76394932925237e-14
#>
#> Beginning fit attempt 25 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 26 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 27 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 28 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 29 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 30 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 31 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters

```

```
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 32 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 33 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 34 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 35 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 36 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 37 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 38 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 39 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 40 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
```

```

#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 41 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 42 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 43 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 44 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 45 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 46 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#> Not all eigenvalues of the Hessian are positive: 8022824.57828392, 5072944.02985686,
3355296.88250455, 27441.1644867603, 20923.1096313003, 12695.7681860297, 6269.66760758987,
2529.56433966402, 2351.67752223025, 184.955673181121, 120.339261515505, 91.3356030694117,
29.7552634901703, 19.8730953521924, 14.9684816199318, 5.24504032273444, 2.95022778084603,
2.59945596381023, 8.32656930340401e-13, 6.62174935969684e-14, -5.62949476533458e-14
#>
#> Beginning fit attempt 47 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 48 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors

```

```

#>
#> Beginning fit attempt 49 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 50 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 51 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 52 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 53 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 54 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 55 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 56 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 57 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors

```

```
#>
#> Beginning fit attempt 58 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 59 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 60 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 61 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 62 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 63 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 64 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 65 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 66 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
```

```

#>
#> Beginning fit attempt 67 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 68 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 69 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 70 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 71 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 72 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 73 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 74 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 75 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors

```

```

#>
#> Beginning fit attempt 76 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 77 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 78 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 79 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 80 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 81 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 82 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 83 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#> Not all eigenvalues of the Hessian are positive: 8022754.24503936, 5072937.39948542,
3355303.33751777, 27441.0747929276, 20922.9851045662, 12695.7836958982, 6269.60570832631,
2529.56954010914, 2351.68407387798, 184.95105519097, 120.338833652728, 91.3342723196709,
29.7510097769224, 19.8744941256868, 14.9707044341424, 5.24284876414638, 2.94895136722223,
2.60162028691453, 1.18733164754708e-13, -5.15389436080834e-15, -5.58148999330873e-13
#>
#> Beginning fit attempt 84 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters

```

```

#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 85 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 86 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 87 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 88 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 89 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 90 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 91 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 92 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 93 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters

```



```

#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 94 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 95 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 96 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 97 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 98 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 99 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 100 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 101 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 102 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters

```

```

#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 103 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 104 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 105 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 106 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 107 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 108 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 109 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 110 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 111 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters

```

```

#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 112 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 113 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 114 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 115 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 116 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 117 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 118 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 119 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 120 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters

```

```

#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 121 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 122 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 123 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 124 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 125 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 126 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 127 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 128 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 129 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters

```

```

#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 130 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 131 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 132 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 133 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 134 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 135 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 136 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 137 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 138 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters

```

```

#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 139 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 140 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 141 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 142 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 143 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 144 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 145 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 146 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 147 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters

```

```

#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 148 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 149 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 150 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 151 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 152 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Lowest minimum so far: -547.617460309466
#> Not all eigenvalues of the Hessian are positive: 8022836.88113617, 5072948.15346187,
3355289.25947015, 27441.1465675442, 20923.1206065569, 12695.7393396534, 6269.68485128177,
2529.55166932352, 2351.67110843681, 184.949550524998, 120.352202544325, 91.3306406784306,
29.7425612586662, 19.8690501390118, 14.9668440827956, 5.23440450982016, 2.9421536636032,
2.59576169426396, 8.62365083057571e-13, -4.97427570404154e-14, -1.92503786936527e-13
#>
#> Beginning fit attempt 153 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#> Not all eigenvalues of the Hessian are positive: 8022836.88113617, 5072948.15346187,
3355289.25947015, 27441.1465675442, 20923.1206065569, 12695.7393396534, 6269.68485128177,
2529.55166932352, 2351.67110843681, 184.949550524998, 120.352202544325, 91.3306406784306,
29.7425612586662, 19.8690501390118, 14.9668440827956, 5.23440450982016, 2.9421536636032,
2.59576169426396, 8.62365083057571e-13, -4.97427570404154e-14, -1.92503786936527e-13
#>
#> Beginning fit attempt 154 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors

```

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#>
#> Beginning fit attempt 155 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 156 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 157 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 158 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 159 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 160 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 161 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 162 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 163 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors

```



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#>
#> Beginning fit attempt 164 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 165 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 166 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 167 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 168 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 169 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#> Not all eigenvalues of the Hessian are positive: 8022832.24079128, 5072944.37138715,
3355294.86924106, 27441.1800360303, 20923.1236625574, 12695.760983481, 6269.67689255329,
2529.55766014299, 2351.67700477669, 184.949578232104, 120.344293551658, 91.3299200176562,
29.7490116393078, 19.8682976974305, 14.9713843686822, 5.23581307936674, 2.94763036894069,
2.59915887111019, 1.22570306314098e-13, -6.05474650516436e-14, -1.78500849512136e-13
#>
#> Beginning fit attempt 170 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 171 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 172 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters

```

```

#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 173 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 174 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 175 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 176 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 177 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 178 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 179 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 180 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 181 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters

```

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#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 182 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 183 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 184 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 185 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 186 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 187 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 188 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 189 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 190 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters

```

```

#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 191 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 192 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 193 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 194 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 195 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 196 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 197 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 198 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 199 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters

```

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#> Not all eigenvalues of the Hessian are positive: 8022813.20681231, 5072959.10607984,
3355301.62442917, 27441.1586325347, 20923.1349512677, 12695.7772144296, 6269.66571528615,
2529.56978280202, 2351.67888322686, 184.954606921358, 120.337384885101, 91.3353720445038,
29.7537385820224, 19.8755047699443, 14.9748392044146, 5.24068287881855, 2.94978078577618,
2.60302797835883, -9.22196921669708e-14, -4.4222284381749e-13, -9.06125621614498e-13
#>
#> Beginning fit attempt 200 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 201 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 202 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 203 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 204 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 205 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 206 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Lowest minimum so far: -547.61746031059
#> Not all eigenvalues of the Hessian are positive: 8022811.47126259, 5072984.23664127,
3355316.77205835, 27441.0196090661, 20923.1784396284, 12695.7652172401, 6269.6587117753,
2529.54913496797, 2351.65711593782, 184.952005862469, 120.348444444812, 91.3321234056799,
29.7441820743861, 19.8665745229788, 14.9663801123968, 5.23473405663802, 2.9476936516466,
2.59829053485789, 2.21225020712099e-13, -3.32942040018281e-13, -4.8017931254427e-13

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```

#>
#> Beginning fit attempt 207 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#> Not all eigenvalues of the Hessian are positive: 8022811.47126259, 5072984.23664127,
3355316.77205835, 27441.0196090661, 20923.1784396284, 12695.7652172401, 6269.6587117753,
2529.54913496797, 2351.65711593782, 184.952005862469, 120.348444444812, 91.3321234056799,
29.7441820743861, 19.8665745229788, 14.9663801123968, 5.23473405663802, 2.9476936516466,
2.59829053485789, 2.21225020712099e-13, -3.32942040018281e-13, -4.8017931254427e-13
#>
#> Beginning fit attempt 208 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 209 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#> Not all eigenvalues of the Hessian are positive: 8022821.21373632, 5072935.22780675,
3355285.04808849, 27441.205668186, 20923.0683504914, 12695.7324212584, 6269.6684402013,
2529.56553486768, 2351.68309043736, 184.955172522956, 120.342201225065, 91.3328903601057,
29.7559550810219, 19.8727126340354, 14.9696585683524, 5.23968495832149, 2.94762817434103,
2.60181976922436, 2.48297851337816e-14, -4.10571843822744e-14, -1.64048535489924e-13
#>
#> Beginning fit attempt 210 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 211 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 212 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 213 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 214 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors

```

```

#>
#> Beginning fit attempt 215 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 216 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 217 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 218 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 219 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 220 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 221 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 222 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 223 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors

```

```

#>
#> Beginning fit attempt 224 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 225 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 226 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#> Not all eigenvalues of the Hessian are positive: 8022830.02718871, 5072944.49935756,
3355294.63850902, 27441.1762021098, 20923.1301125836, 12695.7655060804, 6269.68104116826,
2529.57113000834, 2351.6771919918, 184.95792398113, 120.331644605308, 91.3384203276732,
29.7615843005728, 19.8778165375006, 14.974537131324, 5.24802164079913, 2.95259335371241,
2.60627624988718, 4.29985632047514e-13, -8.49960004083529e-14, -9.59565731388228e-13
#>
#> Beginning fit attempt 227 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 228 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 229 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 230 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 231 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 232 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters

```



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#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 233 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 234 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 235 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 236 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 237 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#> Not all eigenvalues of the Hessian are positive: 8022390.73263339, 5073251.27287065,
3354874.07819869, 27440.3380862763, 20921.1614909496, 12694.7919494626, 6269.61575226876,
2529.32648665268, 2351.43588885536, 184.943110114058, 120.339920351335, 91.3256547371301,
29.7443476323936, 19.863333821781, 14.963827568039, 5.23157073686985, 2.94510429275077,
2.59845755076358, -1.38992732185826e-13, -6.32475388059304e-13, -1.54591775008302e-12
#>
#> Beginning fit attempt 238 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 239 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 240 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors

```

```

#>
#> Beginning fit attempt 241 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#> Not all eigenvalues of the Hessian are positive: 8022834.62627574, 5072936.35314288,
3355295.419807, 27441.1786028407, 20923.1212923603, 12695.759278854, 6269.67819055768,
2529.563669782, 2351.67876760314, 184.948764907846, 120.345228170363, 91.3304122582282,
29.7520374473569, 19.8707509495804, 14.9673985271969, 5.23839841819716, 2.94472505201373,
2.59907058172322, -3.60423774888957e-14, -6.46806154460928e-13, -7.41890267447508e-13
#>
#> Beginning fit attempt 242 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 243 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 244 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#> Not all eigenvalues of the Hessian are positive: 8022832.18705186, 5072945.49274244,
3355293.03624336, 27441.1704498821, 20923.1145552199, 12695.7544362418, 6269.67197365308,
2529.55024936737, 2351.67418768049, 184.945321881549, 120.351342679874, 91.3272032643213,
29.7471902991917, 19.8656262726172, 14.9636817865318, 5.23377457716241, 2.94126714287294,
2.59325077975431, 1.22369264940295e-13, -2.35034189929732e-14, -7.09281247487973e-14
#>
#> Beginning fit attempt 245 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 246 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 247 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 248 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors

```

```

#>
#> Beginning fit attempt 249 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 250 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 251 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#> Not all eigenvalues of the Hessian are positive: 8022828.06140826, 5072951.92251381,
3355293.54198101, 27441.1784775347, 20923.1142270724, 12695.7602384186, 6269.67897464512,
2529.57235657483, 2351.67523338379, 184.955971268589, 120.340402397155, 91.33644513955,
29.7501609883482, 19.8739377402659, 14.9761433302871, 5.24020696339938, 2.94952242083904,
2.60219256006432, 5.0982730267773e-13, 1.71375363264818e-13, -2.52755460997698e-13
#>
#> Beginning fit attempt 252 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 253 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 254 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 255 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 256 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 257 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters

```

```

#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 258 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 259 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 260 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 261 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 262 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 263 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 264 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 265 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 266 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters

```

```

#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 267 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 268 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#> Not all eigenvalues of the Hessian are positive: 8022892.75105896, 5073002.86157095,
3355360.95461992, 27441.9334938772, 20923.3960141682, 12696.3888256507, 6269.78176407445,
2529.68865292725, 2351.81325768076, 184.950352058664, 120.351117059091, 91.331710100789,
29.7434791105157, 19.8685205777865, 14.9644311875096, 5.23103515793856, 2.94695774754387,
2.59856088026834, 3.63952112574861e-13, 6.35493287132218e-14, -5.14426702706048e-13
#>
#> Beginning fit attempt 269 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 270 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 271 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 272 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 273 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#> Not all eigenvalues of the Hessian are positive: 8022803.32650389, 5072908.72575507,
3355484.27982348, 27441.5633831348, 20923.4432136958, 12696.4069230597, 6269.82264329244,
2529.52121155315, 2351.71760299396, 184.957751091188, 120.346839562793, 91.3387748103309,
29.75470803208, 19.8747064376383, 14.9738677133024, 5.24582698497293, 2.94939157010407,
2.60188458484894, 3.45136036903611e-13, -2.06468833264742e-13, -1.17356506768675e-12
#>
#> Beginning fit attempt 274 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters

```

```

#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 275 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 276 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#> Not all eigenvalues of the Hessian are positive: 8022837.55097876, 5072952.36216827,
3355295.55060982, 27441.1930888522, 20923.1282064177, 12695.767932903, 6269.67884370208,
2529.57624137033, 2351.67935026504, 184.956271944116, 120.335672344239, 91.3371481022506,
29.7595968998444, 19.8768623433689, 14.9752060652981, 5.24748754596323, 2.94936990682102,
2.60274848611432, 1.06909607348579e-12, 5.38749871218819e-13, -1.80169821092443e-14
#>
#> Beginning fit attempt 277 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 278 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 279 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 280 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 281 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 282 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors

```

```

#>
#> Beginning fit attempt 283 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Solution found

#>
#> Solution found! Final fit=-547.61746 (started at -2.5283486) (284 attempt(s):
21 valid, 263 errors)
#> Start values from best fit:
#> -0.315165571057323, 1.61648404315007, -0.629250141626064, -0.108105214650871, -1.31408765363513, 1.49
#> Running CTVAR with 21 parameters
#>
#> Beginning initial fit attempt
#> Running CTVAR with 21 parameters
#>
#> Lowest minimum so far: -562.122183370942
#> OpenMx status code 6 not in list of acceptable status codes, (0,0)
#> Not all eigenvalues of the Hessian are positive: 5851031.21736294, 5629694.09376671,
3554946.57232471, 28720.6864837261, 20347.5062391708, 18805.6496137964, 5970.16671990624,
3744.11438333111, 3476.36594761352, 452.038503382048, 359.5531729002, 288.29608219962,
154.105560021485, 122.689006531578, 98.0779721193234, 3.42538957290161, 2.81405241516934,
2.20701281496012, 1.22322388685516e-12, 7.92058678297978e-13, -2.52110017596967e-12
#>
#> Beginning fit attempt 1 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#> OpenMx status code 6 not in list of acceptable status codes, (0,0)
#> Not all eigenvalues of the Hessian are positive: 5851031.21736294, 5629694.09376671,
3554946.57232471, 28720.6864837261, 20347.5062391708, 18805.6496137964, 5970.16671990624,
3744.11438333111, 3476.36594761352, 452.038503382048, 359.5531729002, 288.29608219962,
154.105560021485, 122.689006531578, 98.0779721193234, 3.42538957290161, 2.81405241516934,
2.20701281496012, 1.22322388685516e-12, 7.92058678297978e-13, -2.52110017596967e-12
#>
#> Beginning fit attempt 2 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 3 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 4 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters

```

```

#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 5 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 6 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors
#>
#> Beginning fit attempt 7 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Lowest minimum so far: -562.12219015901
#> OpenMx status code 6 not in list of acceptable status codes, (0,0)
#> Not all eigenvalues of the Hessian are positive: 5851492.80852236, 5626646.8433612,
3556188.28181049, 28717.4686668632, 20345.7439843466, 18805.0250003169, 5969.86594575945,
3743.83981126888, 3475.8098515819, 451.991151109383, 359.605293903543, 288.28342667152,
154.088476148817, 122.705965377524, 98.0722435602872, 3.42033536314658, 2.81697712984875,
2.2091390723893, 2.40116336397218e-12, 8.38187123684079e-13, -2.67505496754266e-13
#>
#> Beginning fit attempt 8 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Lowest minimum so far: -562.122190377572
#> Not all eigenvalues of the Hessian are positive: 5852225.31258124, 5627422.93269868,
3556859.88242259, 28723.435838258, 20347.2753021078, 18805.454440657, 5970.40874351429,
3744.27015323331, 3476.19817666061, 452.019005769899, 359.615734023992, 288.273025085762,
154.097212401693, 122.711539664913, 98.0636777836098, 3.42040750359199, 2.81301266604249,
2.20565640393124, 7.63588306480913e-13, -2.80764222793357e-13, -6.65622304721132e-13
#>
#> Beginning fit attempt 9 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#> Not all eigenvalues of the Hessian are positive: 5852225.31258124, 5627422.93269868,
3556859.88242259, 28723.435838258, 20347.2753021078, 18805.454440657, 5970.40874351429,
3744.27015323331, 3476.19817666061, 452.019005769899, 359.615734023992, 288.273025085762,
154.097212401693, 122.711539664913, 98.0636777836098, 3.42040750359199, 2.81301266604249,
2.20565640393124, 7.63588306480913e-13, -2.80764222793357e-13, -6.65622304721132e-13
#>
#> Beginning fit attempt 10 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Fit attempt generated errors

```



```
#>
#> Beginning fit attempt 11 of at maximum 1000 extra tries
#> Running CTVAR with 21 parameters
#>
#> Lowest minimum so far: -562.122192724685
#>
#> Solution found
```

```
#>
#> Solution found! Final fit=-562.12219 (started at 3.9616684) (12 attempt(s):
6 valid, 6 errors)
#> Start values from best fit:
#> -2.01051728146011,1.47166389372966,-0.0075022817470579,0.910735020519609,-0.884265854018665,0.41
#> Test passed

#> test-external-fitCTVARMx-fit-ct-var-id-mx-sigma-full
#> Running CTVAR with 15 parameters
#>
#> Beginning initial fit attempt
#> Running CTVAR with 15 parameters
#>
#> Lowest minimum so far: -544.478694984847
#>
#> Solution found
```

```
#>
#> Solution found! Final fit=-544.47869 (started at -495.99832) (1 attempt(s):
1 valid, 0 errors)
#> Start values from best fit:
#> -0.323004224957597,0.961809221938366,0.0127733694026625,0.0168091033416267,2.2250738585072e-308,
#> Running CTVAR with 15 parameters
#>
#> Beginning initial fit attempt
#> Running CTVAR with 15 parameters
#>
#> Lowest minimum so far: -561.739850809038
#>
#> Solution found
```

```
#>
#> Solution found! Final fit=-561.73985 (started at -535.26324) (1 attempt(s):
1 valid, 0 errors)
#> Start values from best fit:
#> -0.81408194692281,1.46290039791364,-0.813286516808161,0.37344549440014,-1.8252290827217,1.288062
#> Running CTVAR with 15 parameters
```

```
#>
#> Beginning initial fit attempt
#> Running CTVAR with 15 parameters
#>
#> Lowest minimum so far:   -530.128797998621
#>
#> Solution found
```

```
#>
#> Solution found!   Final fit=-530.1288 (started at -479.46733)   (1 attempt(s): 1
valid, 0 errors)
#> Start values from best fit:
#> -0.806456450479808,0.35421423162192,-1.11169695286209,0.213379315803061,-0.469256686455923,1.235
#> Running CTVAR with 15 parameters
#>
#> Beginning initial fit attempt
#> Running CTVAR with 15 parameters
#>
#> Lowest minimum so far:   -560.730943890522
#>
#> Solution found
```

```
#>
#> Solution found!   Final fit=-560.73094 (started at -537.64217)   (1 attempt(s):
1 valid, 0 errors)
#> Start values from best fit:
#> -0.778189200326735,0.831622152343296,-0.185699536424032,-0.0665572133196183,-0.311891689279158,0
#> Running CTVAR with 15 parameters
#>
#> Beginning initial fit attempt
#> Running CTVAR with 15 parameters
#>
#> Lowest minimum so far:   -527.747181003314
#>
#> Solution found
```

```
#>
#> Solution found!   Final fit=-527.74718 (started at -496.403)   (1 attempt(s): 1
valid, 0 errors)
#> Start values from best fit:
#> -0.296872622635194,0.589831051639694,-0.0537697164565205,-0.00413785235532606,-0.366533592410351
#> Running CTVAR with 15 parameters
#>
#> Beginning initial fit attempt
#> Running CTVAR with 15 parameters
```

```
#>
#> Lowest minimum so far: -515.647049027443
#>
#> Solution found
```

```
#>
#> Solution found! Final fit=-515.64705 (started at -444.71109) (1 attempt(s):
1 valid, 0 errors)
#> Start values from best fit:
#> -0.542108156565097,0.782001231493522,-0.181882905390619,-0.329685721282513,-0.552601319186223,0.
#> Running CTVAR with 15 parameters
#>
#> Beginning initial fit attempt
#> Running CTVAR with 15 parameters
#>
#> Lowest minimum so far: -554.852279012486
#>
#> Solution found
```

```
#>
#> Solution found! Final fit=-554.85228 (started at -488.54129) (1 attempt(s):
1 valid, 0 errors)
#> Start values from best fit:
#> -0.115866003756176,0.929049802369371,-0.390658409794393,-0.2279301305083,-0.835430992041625,0.67
#> Running CTVAR with 15 parameters
#>
#> Beginning initial fit attempt
#> Running CTVAR with 15 parameters
#>
#> Lowest minimum so far: -543.663576297259
#>
#> Solution found
```

```
#>
#> Solution found! Final fit=-543.66358 (started at -464.98637) (1 attempt(s):
1 valid, 0 errors)
#> Start values from best fit:
#> -0.225786916444052,1.04576392660248,-0.680518306572626,-0.0257669451555867,-0.562148305932505,0.
#> Running CTVAR with 15 parameters
#>
#> Beginning initial fit attempt
#> Running CTVAR with 15 parameters
#>
#> Lowest minimum so far: -547.614158619903
```

```

#>
#> Solution found

#>
#> Solution found! Final fit=-547.61416 (started at -504.33797) (1 attempt(s):
1 valid, 0 errors)
#> Start values from best fit:
#> -0.314844662091818,1.62752248419245,-0.62680893810657,-0.108526713428531,-1.32898512873374,1.496
#> Running CTVAR with 15 parameters
#>
#> Beginning initial fit attempt
#> Running CTVAR with 15 parameters
#>
#> Lowest minimum so far: -562.122192724722
#>
#> Solution found

#>
#> Solution found! Final fit=-562.12219 (started at -456.43272) (1 attempt(s):
1 valid, 0 errors)
#> Start values from best fit:
#> -2.01051624814236,1.47166540978341,-0.00750242480357601,0.910734566079079,-0.884266447003289,0.4

#>
#> Means of the estimated paramaters per individual.
#>      phi_11      phi_21      phi_31      phi_12      phi_22      phi_32
#> -0.622772643  1.005637991 -0.403905034  0.075176390 -0.713634324  0.915159599
#>      phi_13      phi_23      phi_33      sigma_11      sigma_21      sigma_22
#> -0.081074543 -0.028120778 -0.916352663  0.097319279 -0.001932265  0.102988227
#>      sigma_31      sigma_32      sigma_33
#> -0.002834571 -0.004174192  0.098574690
#>
#> Estimated paramaters per individual.
#>      phi_11      phi_21      phi_31      phi_12      phi_22      phi_32
#> [1,] -0.3230042  0.9618092  0.012773369  0.016809103  2.225074e-308  0.7921400
#> [2,] -0.8140819  1.4629004 -0.813286517  0.373445494 -1.825229e+00  1.2880623
#> [3,] -0.8064565  0.3542142 -1.111696953  0.213379316 -4.692567e-01  1.2350220
#> [4,] -0.7781892  0.8316222 -0.185699536 -0.066557213 -3.118917e-01  0.8916269
#> [5,] -0.2968726  0.5898311 -0.053769716 -0.004137852 -3.665336e-01  0.7905746
#> [6,] -0.5421082  0.7820012 -0.181882905 -0.329685721 -5.526013e-01  0.7027483
#> [7,] -0.1158660  0.9290498 -0.390658410 -0.227930131 -8.354310e-01  0.6731642
#> [8,] -0.2257869  1.0457639 -0.680518307 -0.025766945 -5.621483e-01  0.8690058
#> [9,] -0.3148447  1.6275225 -0.626808938 -0.108526713 -1.328985e+00  1.4960454
#> [10,] -2.0105162  1.4716654 -0.007502425  0.910734566 -8.842664e-01  0.4132065
#>      phi_13      phi_23      phi_33      sigma_11      sigma_21      sigma_22
#> [1,]  0.08840636 -0.56469370 -0.8385261  0.09309783 -0.0141015149  0.11274568

```

```

#> [2,] -0.20434325  0.41838091 -0.6889753  0.07903658  0.0009793277  0.10818999
#> [3,]  0.01543956 -0.10582678 -1.4436532  0.10626584  0.0031713931  0.12280044
#> [4,]  0.07251318  0.06435477 -0.7023924  0.09066825 -0.0005336911  0.09434035
#> [5,]  0.07005007 -0.61492605 -0.8289618  0.12548090  0.0160711375  0.10100048
#> [6,]  0.34728292  0.02252493 -0.7352232  0.10523954 -0.0125212412  0.09245910
#> [7,] -0.04932064 -0.38956098 -0.5737924  0.09386044  0.0016824729  0.09413924
#> [8,] -0.02058781  0.10641727 -1.2215418  0.10512128 -0.0075506608  0.09951230
#> [9,]  0.01946389  0.53702681 -1.3584121  0.07118881  0.0116773669  0.11034317
#> [10,] -1.14964971  0.24509505 -0.7720483  0.10323331 -0.0181972368  0.09435152
#>      sigma_31      sigma_32      sigma_33
#> [1,] -0.012694006 -0.0195610583  0.08900849
#> [2,]  0.005121575 -0.0073289572  0.10546168
#> [3,]  0.005864497 -0.0082857447  0.08628956
#> [4,] -0.001227480  0.0030136774  0.09122133
#> [5,] -0.006447073  0.0063260361  0.08612976
#> [6,] -0.010971009  0.0092605956  0.12486556
#> [7,] -0.019629038 -0.0152710108  0.09491203
#> [8,]  0.004138134 -0.0008087281  0.08762176
#> [9,]  0.001638730 -0.0151565497  0.13091962
#> [10,]  0.005859960  0.0060698234  0.08931712
#> Test passed

#> Running CTVAR with 15 parameters
#>
#> Beginning initial fit attempt
#> Running CTVAR with 15 parameters
#>
#> Lowest minimum so far:  -544.478694984805
#>
#> Solution found

```

```

#>
#> Solution found!  Final fit=-544.47869 (started at -516.0749)  (1 attempt(s):  1
valid, 0 errors)
#> Start values from best fit:
#> -0.323004167214596,0.96180852023837,0.0127729950695135,0.0168092864690903,-2.84027755503606e-16,
#> Running CTVAR with 15 parameters
#>
#> Beginning initial fit attempt
#> Running CTVAR with 15 parameters
#>
#> Lowest minimum so far:  -561.739850809024
#>
#> Solution found

```

```

#>
#> Solution found! Final fit=-561.73985 (started at -550.31747) (1 attempt(s):
1 valid, 0 errors)
#> Start values from best fit:
#> -0.814081783337753,1.46290044850959,-0.813286311740759,0.37344521521633,-1.82522916580889,1.2880
#> Running CTVAR with 15 parameters
#>
#> Beginning initial fit attempt
#> Running CTVAR with 15 parameters
#>
#> Lowest minimum so far: -530.128797998671
#>
#> Solution found

```

```

#>
#> Solution found! Final fit=-530.1288 (started at -515.49081) (1 attempt(s): 1
valid, 0 errors)
#> Start values from best fit:
#> -0.806456103953956,0.354213496616861,-1.11169698636291,0.213379248864925,-0.469256408255578,1.23
#> Running CTVAR with 15 parameters
#>
#> Beginning initial fit attempt
#> Running CTVAR with 15 parameters
#>
#> Lowest minimum so far: -560.730943890519
#>
#> Solution found

```

```

#>
#> Solution found! Final fit=-560.73094 (started at -552.13253) (1 attempt(s):
1 valid, 0 errors)
#> Start values from best fit:
#> -0.778189315076308,0.831622196295001,-0.18569946048096,-0.0665572171321834,-0.311891687064236,0.
#> Running CTVAR with 15 parameters
#>
#> Beginning initial fit attempt
#> Running CTVAR with 15 parameters
#>
#> Lowest minimum so far: -527.747181003318
#>
#> Solution found

```

```

#>
#> Solution found! Final fit=-527.74718 (started at -515.48459) (1 attempt(s):
1 valid, 0 errors)

```

```

#> Start values from best fit:
#> -0.296872360689489,0.589831234052497,-0.0537695083412031,-0.00413807992909451,-0.366533814819467,
#> Running CTVAR with 15 parameters
#>
#> Beginning initial fit attempt
#> Running CTVAR with 15 parameters
#>
#> Lowest minimum so far: -515.6470490275
#>
#> Solution found

```

```

#>
#> Solution found! Final fit=-515.64705 (started at -504.20914) (1 attempt(s):
1 valid, 0 errors)
#> Start values from best fit:
#> -0.542108120105703,0.782001529842719,-0.181883081354926,-0.329685713810818,-0.552601334762666,0.1
#> Running CTVAR with 15 parameters
#>
#> Beginning initial fit attempt
#> Running CTVAR with 15 parameters
#>
#> Lowest minimum so far: -554.852279012477
#>
#> Solution found

```

```

#>
#> Solution found! Final fit=-554.85228 (started at -540.95527) (1 attempt(s):
1 valid, 0 errors)
#> Start values from best fit:
#> -0.11586595342274,0.929049784910021,-0.390658515407065,-0.227930215154206,-0.835431021349192,0.6
#> Running CTVAR with 15 parameters
#>
#> Beginning initial fit attempt
#> Running CTVAR with 15 parameters
#>
#> Lowest minimum so far: -543.663576297242
#>
#> Solution found

```

```

#>
#> Solution found! Final fit=-543.66358 (started at -534.0984) (1 attempt(s): 1
valid, 0 errors)
#> Start values from best fit:
#> -0.225786944141687,1.04576309103134,-0.680517934419909,-0.0257672602696668,-0.562147782019841,0.8
#> Running CTVAR with 15 parameters

```

```

#>
#> Beginning initial fit attempt
#> Running CTVAR with 15 parameters
#>
#> Lowest minimum so far:   -547.614158619913
#>
#> Solution found

```

```

#>
#> Solution found!   Final fit=-547.61416 (started at -529.27184)   (1 attempt(s):
1 valid, 0 errors)
#> Start values from best fit:
#> -0.314844887277231,1.62752183008779,-0.626808665416823,-0.108526682448881,-1.32898468871142,1.49
#> Running CTVAR with 15 parameters
#>
#> Beginning initial fit attempt
#> Running CTVAR with 15 parameters
#>
#> Lowest minimum so far:   -562.122192724769
#>
#> Solution found

```

```

#>
#> Solution found!   Final fit=-562.12219 (started at -540.5606)   (1 attempt(s): 1
valid, 0 errors)
#> Start values from best fit:
#> -2.01051703354169,1.4716652389055,-0.00750232893488285,0.910735078755536,-0.884266398983294,0.41
#> Test passed

#> test-external-fitCTVARmx-fit-ct-var-id-mx-theta-diag
#> Running CTVAR with 15 parameters
#>
#> Beginning initial fit attempt
#> Running CTVAR with 15 parameters
#>
#> Lowest minimum so far:   -535.979542158082
#>
#> Solution found

```

```

#>
#> Solution found!   Final fit=-535.97954 (started at 34.488312)   (1 attempt(s): 1
valid, 0 errors)
#> Start values from best fit:
#> -0.286300263636573,0.895094161302931,-0.0287200128933307,-0.00829372779429341,2.2250738585072e-3
#> Running CTVAR with 15 parameters

```



```
#>
#> Beginning initial fit attempt
#> Running CTVAR with 15 parameters
#>
#> Lowest minimum so far:   -562.133056801865
#>
#> Solution found
```

```
#>
#> Solution found!   Final fit=-562.13306 (started at 3.4673123)   (1 attempt(s): 1
valid, 0 errors)
#> Start values from best fit:
#> -0.817154257297246,1.48088365031799,-0.633553906698926,0.375561593711867,-1.82803437636299,1.0576
#> Running CTVAR with 15 parameters
#>
#> Beginning initial fit attempt
#> Running CTVAR with 15 parameters
#>
#> Lowest minimum so far:   -529.082648162138
#>
#> Solution found
```

```
#>
#> Solution found!   Final fit=-529.08265 (started at 28.931579)   (1 attempt(s): 1
valid, 0 errors)
#> Start values from best fit:
#> -0.810295188703564,0.375306454015772,-1.04076131946293,0.204110885940088,-0.45311524724394,1.192
#> Running CTVAR with 15 parameters
#>
#> Beginning initial fit attempt
#> Running CTVAR with 15 parameters
#>
#> Lowest minimum so far:   -560.613954606751
#>
#> Solution found
```

```
#>
#> Solution found!   Final fit=-560.61395 (started at 11.961722)   (1 attempt(s): 1
valid, 0 errors)
#> Start values from best fit:
#> -0.770576531496461,0.83128740662383,-0.208024772741117,-0.0679030908018397,-0.32206838056611,0.9
#> Running CTVAR with 15 parameters
#>
#> Beginning initial fit attempt
#> Running CTVAR with 15 parameters
```

```
#>
#> Lowest minimum so far: -524.940338665813
#>
#> Solution found
```

```
#>
#> Solution found! Final fit=-524.94034 (started at 10.679318) (1 attempt(s): 1
valid, 0 errors)
#> Start values from best fit:
#> -0.346744309940516,0.658771304579526,-0.0868740648275428,0.110577875592109,-0.415205258496557,0.1
#> Running CTVAR with 15 parameters
#>
#> Beginning initial fit attempt
#> Running CTVAR with 15 parameters
#>
#> Lowest minimum so far: -512.63408788511
#>
#> Solution found
```

```
#>
#> Solution found! Final fit=-512.63409 (started at 63.430627) (1 attempt(s): 1
valid, 0 errors)
#> Start values from best fit:
#> -0.551285647093947,0.761763201756309,-0.198710940827743,-0.355055794328152,-0.566585143416963,0.1
#> Running CTVAR with 15 parameters
#>
#> Beginning initial fit attempt
#> Running CTVAR with 15 parameters
#>
#> Lowest minimum so far: -550.481864303734
#>
#> Solution found
```

```
#>
#> Solution found! Final fit=-550.48186 (started at 38.520388) (1 attempt(s): 1
valid, 0 errors)
#> Start values from best fit:
#> -0.0771936130806768,0.938868792811629,-0.445003162077866,-0.25348101789783,-0.836262098089743,0.1
#> Running CTVAR with 15 parameters
#>
#> Beginning initial fit attempt
#> Running CTVAR with 15 parameters
#>
#> Lowest minimum so far: -543.192904463068
```

```

#>
#> Solution found

#>
#> Solution found! Final fit=-543.1929 (started at 45.193342) (1 attempt(s): 1
valid, 0 errors)
#> Start values from best fit:
#> -0.209020370407115,1.03210913852307,-0.659836058912393,-0.0470233851098833,-0.553107958922531,0.
#> Running CTVAR with 15 parameters
#>
#> Beginning initial fit attempt
#> Running CTVAR with 15 parameters
#>
#> Lowest minimum so far: -544.500050620922
#>
#> Solution found

#>
#> Solution found! Final fit=-544.50005 (started at 19.898216) (1 attempt(s): 1
valid, 0 errors)
#> Start values from best fit:
#> -0.372334847993099,1.7475741363108,-0.463795272616311,-0.0261470463561863,-1.3829294835073,1.291
#> Running CTVAR with 15 parameters
#>
#> Beginning initial fit attempt
#> Running CTVAR with 15 parameters
#>
#> Lowest minimum so far: -558.031184104828
#>
#> Solution found

#>
#> Solution found! Final fit=-558.03118 (started at 74.447526) (1 attempt(s): 1
valid, 0 errors)
#> Start values from best fit:
#> -1.76198036612329,1.24886385283075,0.0023434296770763,0.763068596328305,-0.758216543581061,0.410
#>
#> Means of the estimated paramaters per individual.
#>      phi_11      phi_21      phi_31      phi_12      phi_22
#> -6.002885e-01  9.970522e-01 -3.762936e-01  6.954149e-02 -7.115524e-01
#>      phi_32      phi_13      phi_23      phi_33      sigma_11
#>  8.714824e-01 -8.638159e-02 -4.662372e-02 -8.717812e-01  9.589111e-02
#>      sigma_22      sigma_33      theta_11      theta_22      theta_33
#>  1.017412e-01  9.199985e-02  6.118757e-05  5.432107e-05  3.094618e-04

```

```

#>
#> Estimated paramaters per individual.
#>      phi_11    phi_21    phi_31    phi_12    phi_22    phi_32
#> [1,] -0.28630026 0.8950942 -0.02872001 -0.008293728 2.225074e-308 0.7525036
#> [2,] -0.81715426 1.4808837 -0.63355391 0.375561594 -1.828034e+00 1.0576653
#> [3,] -0.81029519 0.3753065 -1.04076132 0.204110886 -4.531152e-01 1.1922941
#> [4,] -0.77057653 0.8312874 -0.20802477 -0.067903091 -3.220684e-01 0.9113753
#> [5,] -0.34674431 0.6587713 -0.08687406 0.110577876 -4.152053e-01 0.8250234
#> [6,] -0.55128565 0.7617632 -0.19871094 -0.355055794 -5.665851e-01 0.7264675
#> [7,] -0.07719361 0.9388688 -0.44500316 -0.253481018 -8.362621e-01 0.7003891
#> [8,] -0.20902037 1.0321091 -0.65983606 -0.047023385 -5.531080e-01 0.8477054
#> [9,] -0.37233485 1.7475741 -0.46379527 -0.026147046 -1.382929e+00 1.2911573
#> [10,] -1.76198037 1.2488639 0.00234343 0.763068596 -7.582165e-01 0.4102427
#>      phi_13    phi_23    phi_33    sigma_11    sigma_22    sigma_33
#> [1,] 0.08972985 -0.57109983 -0.7931024 0.09260832 0.11268256 0.08862798
#> [2,] -0.19775332 0.40628433 -0.5340649 0.07899988 0.10782497 0.08050380
#> [3,] 0.04816418 -0.16981574 -1.4175196 0.10627539 0.12259933 0.08605711
#> [4,] 0.07160870 0.07620181 -0.7164468 0.08981581 0.09443386 0.09134222
#> [5,] -0.03730894 -0.55992834 -0.8478085 0.12613771 0.10134117 0.08618941
#> [6,] 0.33619445 0.04325585 -0.7512478 0.10530430 0.09256003 0.12505677
#> [7,] -0.14144687 -0.44355149 -0.4926811 0.08256355 0.08644852 0.06592476
#> [8,] 0.01412054 0.09744492 -1.1790426 0.10489161 0.09570137 0.07767172
#> [9,] -0.04044612 0.52486139 -1.2188832 0.07154668 0.11069828 0.12930536
#> [10,] -1.00667833 0.13010992 -0.7670152 0.10076784 0.09312197 0.08931940
#>      theta_11    theta_22    theta_33
#> [1,] 2.225074e-308 2.225074e-308 2.225074e-308
#> [2,] 2.225074e-308 2.225074e-308 1.200140e-03
#> [3,] 2.225074e-308 2.225074e-308 2.225074e-308
#> [4,] 3.901509e-05 2.225074e-308 2.225074e-308
#> [5,] 2.225074e-308 2.225074e-308 3.894284e-18
#> [6,] 2.225074e-308 2.225074e-308 2.225074e-308
#> [7,] 5.728606e-04 3.637101e-04 1.406505e-03
#> [8,] 2.225074e-308 1.795007e-04 4.879725e-04
#> [9,] 2.225074e-308 2.225074e-308 2.225074e-308
#> [10,] 2.225074e-308 2.225074e-308 2.225074e-308
#> Test passed

#> Running CTVAR with 15 parameters
#>
#> Beginning initial fit attempt
#> Running CTVAR with 15 parameters
#>
#> Lowest minimum so far:  -535.979545247852
#>
#> Solution found

```

```

#>
#> Solution found! Final fit=-535.97955 (started at 14.599975) (1 attempt(s): 1
valid, 0 errors)
#> Start values from best fit:
#> -0.286414254918389,0.895155696995819,-0.028505352997287,-0.00825612181751279,2.2250738585072e-30
#> Running CTVAR with 15 parameters
#>
#> Beginning initial fit attempt
#> Running CTVAR with 15 parameters
#>
#> Lowest minimum so far: -562.133056801896
#>
#> Solution found

```

```

#>
#> Solution found! Final fit=-562.13306 (started at -9.6437091) (1 attempt(s):
1 valid, 0 errors)
#> Start values from best fit:
#> -0.817156744484259,1.48088328780934,-0.633554341493949,0.37556301888519,-1.8280336282765,1.05766
#> Running CTVAR with 15 parameters
#>
#> Beginning initial fit attempt
#> Running CTVAR with 15 parameters
#>
#> Lowest minimum so far: -529.082648162141
#>
#> Solution found

```

```

#>
#> Solution found! Final fit=-529.08265 (started at 0.67625989) (1 attempt(s):
1 valid, 0 errors)
#> Start values from best fit:
#> -0.810295048899606,0.375306507205779,-1.04076124192263,0.20411074727684,-0.453115354751989,1.192
#> Running CTVAR with 15 parameters
#>
#> Beginning initial fit attempt
#> Running CTVAR with 15 parameters
#>
#> Lowest minimum so far: -560.613954611829
#>
#> Solution found

```

```

#>
#> Solution found! Final fit=-560.61395 (started at -1.1440285) (1 attempt(s):
1 valid, 0 errors)

```

```

#> Start values from best fit:
#> -0.770581802026034,0.83129039923815,-0.208023081952194,-0.067903846153046,-0.322070175077217,0.9
#> Running CTVAR with 15 parameters
#>
#> Beginning initial fit attempt
#> Running CTVAR with 15 parameters
#>
#> Lowest minimum so far: -524.94033866583
#>
#> Solution found

```

```

#>
#> Solution found! Final fit=-524.94034 (started at -5.7169562) (1 attempt(s):
1 valid, 0 errors)
#> Start values from best fit:
#> -0.346744741521502,0.65877087574385,-0.086874172953882,0.110578104895164,-0.415205668286614,0.82
#> Running CTVAR with 15 parameters
#>
#> Beginning initial fit attempt
#> Running CTVAR with 15 parameters
#>
#> Lowest minimum so far: -512.634087858098
#>
#> Solution found

```

```

#>
#> Solution found! Final fit=-512.63409 (started at 22.524012) (1 attempt(s): 1
valid, 0 errors)
#> Start values from best fit:
#> -0.551301670637,0.761760908617604,-0.198726346305328,-0.355080857385843,-0.566593394629901,0.726
#> Running CTVAR with 15 parameters
#>
#> Beginning initial fit attempt
#> Running CTVAR with 15 parameters
#>
#> Lowest minimum so far: -550.481864304463
#>
#> Solution found

```

```

#>
#> Solution found! Final fit=-550.48186 (started at -6.7974252) (1 attempt(s):
1 valid, 0 errors)
#> Start values from best fit:
#> -0.0771938823700997,0.938868588502576,-0.445003127159072,-0.253480624907305,-0.836261614266521,0
#> Running CTVAR with 15 parameters

```

```
#>
#> Beginning initial fit attempt
#> Running CTVAR with 15 parameters
#>
#> Lowest minimum so far:   -543.192904463065
#>
#> Solution found
```

```
#>
#> Solution found!   Final fit=-543.1929 (started at -5.3076202)   (1 attempt(s):   1
valid, 0 errors)
#> Start values from best fit:
#> -0.209020575709801,1.03210946226594,-0.659835688014657,-0.0470233463011013,-0.553107929610003,0.1
#> Running CTVAR with 15 parameters
#>
#> Beginning initial fit attempt
#> Running CTVAR with 15 parameters
#>
#> Lowest minimum so far:   -544.500050620922
#>
#> Solution found
```

```
#>
#> Solution found!   Final fit=-544.50005 (started at -2.5283486)   (1 attempt(s):
1 valid, 0 errors)
#> Start values from best fit:
#> -0.372334803797962,1.74757413711678,-0.463795380401323,-0.0261471087542217,-1.3829294606402,1.29
#> Running CTVAR with 15 parameters
#>
#> Beginning initial fit attempt
#> Running CTVAR with 15 parameters
#>
#> Lowest minimum so far:   -558.031184104803
#>
#> Solution found
```

```
#>
#> Solution found!   Final fit=-558.03118 (started at 3.9616684)   (1 attempt(s):   1
valid, 0 errors)
#> Start values from best fit:
#> -1.76197943005949,1.24886319843536,0.00234385254499015,0.763068036304622,-0.758216564739773,0.41
#> Test passed

#> test-external-fitCTVARmx-fit-ct-var-id-mx-theta-null
#> Running CTVAR with 12 parameters
```

```

#>
#> Beginning initial fit attempt
#> Running CTVAR with 12 parameters
#>
#> Lowest minimum so far:   -535.979545303293
#>
#> Solution found

```

```

#>
#> Solution found!   Final fit=-535.97955 (started at -495.99832)   (1 attempt(s):
1 valid, 0 errors)
#> Start values from best fit:
#> -0.286419758609655,0.895144996218525,-0.0284412423732209,-0.0082640609232989,-3.08775726898311e-
#> Running CTVAR with 12 parameters
#>
#> Beginning initial fit attempt
#> Running CTVAR with 12 parameters
#>
#> Lowest minimum so far:   -561.070716085788
#>
#> Solution found

```

```

#>
#> Solution found!   Final fit=-561.07072 (started at -535.26324)   (1 attempt(s):
1 valid, 0 errors)
#> Start values from best fit:
#> -0.816068043984246,1.47244363457974,-0.638888238600876,0.372705117936146,-1.81489687102436,1.109
#> Running CTVAR with 12 parameters
#>
#> Beginning initial fit attempt
#> Running CTVAR with 12 parameters
#>
#> Lowest minimum so far:   -529.082648162144
#>
#> Solution found

```

```

#>
#> Solution found!   Final fit=-529.08265 (started at -479.46733)   (1 attempt(s):
1 valid, 0 errors)
#> Start values from best fit:
#> -0.810295084841163,0.37530637164248,-1.04076109315336,0.204110779103599,-0.453115249664412,1.192
#> Running CTVAR with 12 parameters
#>
#> Beginning initial fit attempt
#> Running CTVAR with 12 parameters

```



```
#>
#> Lowest minimum so far: -560.612123099411
#>
#> Solution found
```

```
#>
#> Solution found! Final fit=-560.61212 (started at -537.64217) (1 attempt(s):
1 valid, 0 errors)
#> Start values from best fit:
#> -0.778335518500668,0.831095092290686,-0.207879892147311,-0.0650537129275512,-0.321991140206117,0.82
#> Running CTVAR with 12 parameters
#>
#> Beginning initial fit attempt
#> Running CTVAR with 12 parameters
#>
#> Lowest minimum so far: -524.94033866583
#>
#> Solution found
```

```
#>
#> Solution found! Final fit=-524.94034 (started at -496.403) (1 attempt(s): 1
valid, 0 errors)
#> Start values from best fit:
#> -0.346744768682544,0.658770854369149,-0.086874188707888,0.110578141833681,-0.415205685165933,0.82
#> Running CTVAR with 12 parameters
#>
#> Beginning initial fit attempt
#> Running CTVAR with 12 parameters
#>
#> Lowest minimum so far: -512.634087885478
#>
#> Solution found
```

```
#>
#> Solution found! Final fit=-512.63409 (started at -444.71109) (1 attempt(s):
1 valid, 0 errors)
#> Start values from best fit:
#> -0.55128594759575,0.761763101404336,-0.198710838385083,-0.355055492596023,-0.566584315572436,0.77
#> Running CTVAR with 12 parameters
#>
#> Beginning initial fit attempt
#> Running CTVAR with 12 parameters
#>
#> Lowest minimum so far: -547.990828868771
```

```

#>
#> Solution found

#>
#> Solution found! Final fit=-547.99083 (started at -488.54129) (1 attempt(s):
1 valid, 0 errors)
#> Start values from best fit:
#> -0.102312429278226,0.942780876960757,-0.414655497055917,-0.24104564728416,-0.850071497419234,0.6
#> Running CTVAR with 12 parameters
#>
#> Beginning initial fit attempt
#> Running CTVAR with 12 parameters
#>
#> Lowest minimum so far: -542.960696002023
#>
#> Solution found

#>
#> Solution found! Final fit=-542.9607 (started at -464.98637) (1 attempt(s): 1
valid, 0 errors)
#> Start values from best fit:
#> -0.20889468718131,1.03008309264961,-0.673263442423876,-0.0471430350633757,-0.552485551212291,0.8
#> Running CTVAR with 12 parameters
#>
#> Beginning initial fit attempt
#> Running CTVAR with 12 parameters
#>
#> Lowest minimum so far: -544.500050620907
#>
#> Solution found

#>
#> Solution found! Final fit=-544.50005 (started at -504.33797) (1 attempt(s):
1 valid, 0 errors)
#> Start values from best fit:
#> -0.372334980581452,1.74757424131736,-0.463795442453169,-0.0261470039428471,-1.38292940485458,1.2
#> Running CTVAR with 12 parameters
#>
#> Beginning initial fit attempt
#> Running CTVAR with 12 parameters
#>
#> Lowest minimum so far: -558.031184104828
#>
#> Solution found

```

```

#>
#> Solution found! Final fit=-558.03118 (started at -456.43272) (1 attempt(s):
1 valid, 0 errors)
#> Start values from best fit:
#> -1.76198015722375,1.24886373827479,0.00234347786462007,0.763068443644726,-0.758216525285823,0.4102427

#>
#> Means of the estimated paramaters per individual.
#>      phi_11      phi_21      phi_31      phi_12      phi_22      phi_32
#> -0.60346714  0.99638260 -0.37509264  0.07077535 -0.71154962  0.87403070
#>      phi_13      phi_23      phi_33      sigma_11      sigma_22      sigma_33
#> -0.08404499 -0.04892543 -0.89351644  0.09710037  0.10292187  0.09831419
#>
#> Estimated paramaters per individual.
#>      phi_11      phi_21      phi_31      phi_12      phi_22      phi_32
#> [1,] -0.2864198  0.8951450 -0.028441242 -0.008264061 -3.087757e-14  0.7522675
#> [2,] -0.8160680  1.4724436 -0.638888239  0.372705118 -1.814897e+00  1.1097920
#> [3,] -0.8102951  0.3753064 -1.040761093  0.204110779 -4.531152e-01  1.1922940
#> [4,] -0.7783355  0.8310951 -0.207879892 -0.065053713 -3.219911e-01  0.9113343
#> [5,] -0.3467448  0.6587709 -0.086874189  0.110578142 -4.152057e-01  0.8250235
#> [6,] -0.5512859  0.7617631 -0.198710838 -0.355055493 -5.665843e-01  0.7264666
#> [7,] -0.1023124  0.9427809 -0.414655497 -0.241045647 -8.500715e-01  0.6574175
#> [8,] -0.2088947  1.0300831 -0.673263442 -0.047143035 -5.524856e-01  0.8643121
#> [9,] -0.3723350  1.7475742 -0.463795442 -0.026147004 -1.382929e+00  1.2911569
#> [10,] -1.7619802  1.2488637  0.002343478  0.763068444 -7.582165e-01  0.4102427
#>      phi_13      phi_23      phi_33      sigma_11      sigma_22      sigma_33
#> [1,]  0.08972252 -0.57112310 -0.7928190  0.09260981  0.11268120  0.08862439
#> [2,] -0.19328161  0.39175848 -0.6372763  0.07901290  0.10805787  0.10499608
#> [3,]  0.04816415 -0.16981551 -1.4175193  0.10627541  0.12259931  0.08605712
#> [4,]  0.07018085  0.07615759 -0.7164280  0.09066660  0.09443070  0.09134324
#> [5,] -0.03730923 -0.55992842 -0.8478083  0.12613772  0.10134113  0.08618941
#> [6,]  0.33619397  0.04325559 -0.7512464  0.10530428  0.09255979  0.12505678
#> [7,] -0.12195616 -0.44584338 -0.5712409  0.09375297  0.09432193  0.09468333
#> [8,]  0.01495990  0.09131346 -1.2149274  0.10492951  0.09940646  0.08756682
#> [9,] -0.04044610  0.52486114 -1.2188836  0.07154667  0.11069829  0.12930534
#> [10,] -1.00667823  0.13010990 -0.7670152  0.10076783  0.09312197  0.08931941
#> Test passed

#> Running CTVAR with 12 parameters
#>
#> Beginning initial fit attempt
#> Running CTVAR with 12 parameters
#>
#> Lowest minimum so far:  -535.979545303292
#>
#> Solution found

```

```

#>
#> Solution found! Final fit=-535.97955 (started at -516.0749) (1 attempt(s): 1
valid, 0 errors)
#> Start values from best fit:
#> -0.286419759477208,0.89514526877191,-0.0284412598060402,-0.00826412280061554,2.2250738585072e-30
#> Running CTVAR with 12 parameters
#>
#> Beginning initial fit attempt
#> Running CTVAR with 12 parameters
#>
#> Lowest minimum so far: -561.070716085796
#>
#> Solution found

```

```

#>
#> Solution found! Final fit=-561.07072 (started at -550.31747) (1 attempt(s):
1 valid, 0 errors)
#> Start values from best fit:
#> -0.816068033419094,1.4724432933283,-0.638887851446413,0.372705278098248,-1.8148964718354,1.10979
#> Running CTVAR with 12 parameters
#>
#> Beginning initial fit attempt
#> Running CTVAR with 12 parameters
#>
#> Lowest minimum so far: -529.082648162143
#>
#> Solution found

```

```

#>
#> Solution found! Final fit=-529.08265 (started at -515.49081) (1 attempt(s):
1 valid, 0 errors)
#> Start values from best fit:
#> -0.810294783906773,0.375306460017436,-1.04076108582465,0.204110751549053,-0.45311520868845,1.192
#> Running CTVAR with 12 parameters
#>
#> Beginning initial fit attempt
#> Running CTVAR with 12 parameters
#>
#> Lowest minimum so far: -560.612123099413
#>
#> Solution found

```

```

#>
#> Solution found! Final fit=-560.61212 (started at -552.13253) (1 attempt(s):
1 valid, 0 errors)

```

```

#> Start values from best fit:
#> -0.778335633643543,0.831095158757084,-0.207880116253813,-0.0650535813732113,-0.321991284424586,0.
#> Running CTVAR with 12 parameters
#>
#> Beginning initial fit attempt
#> Running CTVAR with 12 parameters
#>
#> Lowest minimum so far: -524.94033866583
#>
#> Solution found

```

```

#>
#> Solution found! Final fit=-524.94034 (started at -515.48459) (1 attempt(s):
1 valid, 0 errors)
#> Start values from best fit:
#> -0.346744737271842,0.658770957119251,-0.0868742779570846,0.110578078336794,-0.415205716415459,0.
#> Running CTVAR with 12 parameters
#>
#> Beginning initial fit attempt
#> Running CTVAR with 12 parameters
#>
#> Lowest minimum so far: -512.634087885479
#>
#> Solution found

```

```

#>
#> Solution found! Final fit=-512.63409 (started at -504.20914) (1 attempt(s):
1 valid, 0 errors)
#> Start values from best fit:
#> -0.551285939569459,0.761763084271664,-0.198710800475859,-0.355055595541156,-0.566584200583811,0.
#> Running CTVAR with 12 parameters
#>
#> Beginning initial fit attempt
#> Running CTVAR with 12 parameters
#>
#> Lowest minimum so far: -547.99082886877
#>
#> Solution found

```

```

#>
#> Solution found! Final fit=-547.99083 (started at -540.95527) (1 attempt(s):
1 valid, 0 errors)
#> Start values from best fit:
#> -0.102312493268101,0.942780770618847,-0.414655459662668,-0.241045604517094,-0.850071391943233,0.
#> Running CTVAR with 12 parameters

```

```

#>
#> Beginning initial fit attempt
#> Running CTVAR with 12 parameters
#>
#> Lowest minimum so far:   -542.960696002028
#>
#> Solution found

```

```

#>
#> Solution found!   Final fit=-542.9607 (started at -534.0984)   (1 attempt(s):  1
valid, 0 errors)
#> Start values from best fit:
#> -0.208894894724266,1.0300830921788,-0.673263392600758,-0.0471430013244983,-0.552485559825697,0.8
#> Running CTVAR with 12 parameters
#>
#> Beginning initial fit attempt
#> Running CTVAR with 12 parameters
#>
#> Lowest minimum so far:   -544.500050620922
#>
#> Solution found

```

```

#>
#> Solution found!   Final fit=-544.50005 (started at -529.27184)   (1 attempt(s):
1 valid, 0 errors)
#> Start values from best fit:
#> -0.372334812098574,1.74757409195524,-0.463795380066834,-0.0261471229672713,-1.382929380614,1.291
#> Running CTVAR with 12 parameters
#>
#> Beginning initial fit attempt
#> Running CTVAR with 12 parameters
#>
#> Lowest minimum so far:   -558.031184104825
#>
#> Solution found

```

```

#>
#> Solution found!   Final fit=-558.03118 (started at -540.5606)   (1 attempt(s):  1
valid, 0 errors)
#> Start values from best fit:
#> -1.7619792495282,1.24886330640017,0.0023436197205935,0.763067929811907,-0.758216149668633,0.4102
#> Test passed

#> test-external-fitCTVARmx-fit-ct-var-mx-theta-null
#> Running CTVAR with 12 parameters

```

```

#>
#> Beginning initial fit attempt
#> Running CTVAR with 12 parameters
#>
#> Lowest minimum so far:   -5350.18640781427
#>
#> Solution found

#>
#> Solution found!   Final fit=-5350.1864 (started at -5052.8608)   (1 attempt(s):
1 valid, 0 errors)
#> Start values from best fit:
#> -0.36621279742891,0.784646946173951,-0.611762107141402,-0.065202091271941,-0.499533378379859,0.638533378379859,0.638533378379859,0.638533378379859,0.638533378379859,0.638533378379859,0.638533378379859,0.638533378379859

#> Summary of CTVAR
#>
#> free parameters:
#>      name      matrix row col   Estimate   Std.Error A
#> 1   phi_11   CTVAR_1.phi eta1 eta1 -0.36621280 0.107561951
#> 2   phi_21   CTVAR_1.phi eta2 eta1  0.78464695 0.105727732
#> 3   phi_31   CTVAR_1.phi eta3 eta1 -0.61176211 0.105054673
#> 4   phi_12   CTVAR_1.phi eta1 eta2 -0.06520209 0.077436418
#> 5   phi_22   CTVAR_1.phi eta2 eta2 -0.49953338 0.077104259
#> 6   phi_32   CTVAR_1.phi eta3 eta2  0.69682042 0.076299669
#> 7   phi_13   CTVAR_1.phi eta1 eta3  0.02436498 0.061044782
#> 8   phi_23   CTVAR_1.phi eta2 eta3  0.04148270 0.060619892
#> 9   phi_33   CTVAR_1.phi eta3 eta3 -0.64302950 0.060393026
#> 10 sigma_11 CTVAR_1.sigma eta1 eta1  0.09978154 0.004606894
#> 11 sigma_22 CTVAR_1.sigma eta2 eta2  0.09876120 0.004496913
#> 12 sigma_33 CTVAR_1.sigma eta3 eta3  0.09755663 0.004423399
#>      lbound      ubound
#> 1
#> 2
#> 3
#> 4
#> 5      2.2250738585072e-308
#> 6
#> 7
#> 8
#> 9      2.2250738585072e-308
#> 10 2.2250738585072e-308
#> 11 2.2250738585072e-308
#> 12 2.2250738585072e-308
#>
#> Model Statistics:
#>      | Parameters | Degrees of Freedom | Fit (-2lnL units)

```

```

#>      Model:      12      2988      -5350.186
#>      Saturated:      NA      NA      NA
#> Independence:      NA      NA      NA
#> Number of observations/statistics: 1000/3000
#>
#> Information Criteria:
#>      | df Penalty | Parameters Penalty | Sample-Size Adjusted
#> AIC:      -11326.19      -5326.186      -5325.870
#> BIC:      -25990.56      -5267.293      -5305.406
#> CFI: NA
#> TLI: 1 (also known as NNFI)
#> RMSEA: 0 [95% CI (NA, NA)]
#> Prob(RMSEA <= 0.05): NA
#> To get additional fit indices, see help(mxRefModels)
#> timestamp: 2024-07-26 00:17:23
#> Wall clock time: 8.429006 secs
#> optimizer: SLSQP
#> OpenMx version number: 2.21.11
#> Need help? See help(mxSummary)
#>
#> Summary of CTVAR
#>
#> free parameters:
#>      name      matrix row col Estimate Std.Error A
#> 1 phi_11 CTVAR_1.phi eta1 eta1 -0.36621280 0.107561951
#> 2 phi_21 CTVAR_1.phi eta2 eta1 0.78464695 0.105727732
#> 3 phi_31 CTVAR_1.phi eta3 eta1 -0.61176211 0.105054673
#> 4 phi_12 CTVAR_1.phi eta1 eta2 -0.06520209 0.077436418
#> 5 phi_22 CTVAR_1.phi eta2 eta2 -0.49953338 0.077104259
#> 6 phi_32 CTVAR_1.phi eta3 eta2 0.69682042 0.076299669
#> 7 phi_13 CTVAR_1.phi eta1 eta3 0.02436498 0.061044782
#> 8 phi_23 CTVAR_1.phi eta2 eta3 0.04148270 0.060619892
#> 9 phi_33 CTVAR_1.phi eta3 eta3 -0.64302950 0.060393026
#> 10 sigma_11 CTVAR_1.sigma eta1 eta1 0.09978154 0.004606894
#> 11 sigma_22 CTVAR_1.sigma eta2 eta2 0.09876120 0.004496913
#> 12 sigma_33 CTVAR_1.sigma eta3 eta3 0.09755663 0.004423399
#>      lbound ubound
#> 1 2.2250738585072e-308
#> 2
#> 3
#> 4
#> 5 2.2250738585072e-308
#> 6
#> 7
#> 8
#> 9 2.2250738585072e-308

```



```

#> 10 2.2250738585072e-308
#> 11 2.2250738585072e-308
#> 12 2.2250738585072e-308
#>
#> Model Statistics:
#>      | Parameters | Degrees of Freedom | Fit (-2lnL units)
#>      |-----|-----|-----|
#>      | Model:      | 12                | 2988              | -5350.186
#>      | Saturated:   | NA                | NA                | NA
#>      | Independence: | NA                | NA                | NA
#> Number of observations/statistics: 1000/3000
#>
#> Information Criteria:
#>      | df Penalty | Parameters Penalty | Sample-Size Adjusted
#> AIC:      | -11326.19   | -5326.186          | -5325.870
#> BIC:      | -25990.56   | -5267.293          | -5305.406
#> CFI: NA
#> TLI: 1 (also known as NNFI)
#> RMSEA: 0 [95% CI (NA, NA)]
#> Prob(RMSEA <= 0.05): NA
#> To get additional fit indices, see help(mxRefModels)
#> timestamp: 2024-07-26 00:17:23
#> Wall clock time: 8.429006 secs
#> optimizer: SLSQP
#> OpenMx version number: 2.21.11
#> Need help? See help(mxSummary)
#>
#> Test passed

#> Running CTVAR with 12 parameters
#>
#> Beginning initial fit attempt
#> Running CTVAR with 12 parameters
#>
#> Lowest minimum so far: -5350.18640781427
#>
#> Solution found

#>
#> Solution found! Final fit=-5350.1864 (started at -5341.6601) (1 attempt(s):
1 valid, 0 errors)
#> Start values from best fit:
#> -0.366212801549025, 0.784646965124075, -0.611762117097702, -0.0652020681370616, -0.499533387842193, 0.

#> Test passed
#> [[1]]
#> [[1]][[1]]

```

```

#> [[1]][[1]]$value
#> [[1]][[1]]$value[[1]]
#> [1] TRUE
#>
#>
#> [[1]][[1]]$visible
#> [1] TRUE
#>
#>
#> [[1]][[2]]
#> [[1]][[2]]$value
#> [[1]][[2]]$value[[1]]
#> [1] TRUE
#>
#>
#> [[1]][[2]]$visible
#> [1] TRUE
#>
#>
#> [[1]][[3]]
#> [[1]][[3]]$value
#> [[1]][[3]]$value[[1]]
#> [1] TRUE
#>
#>
#> [[1]][[3]]$visible
#> [1] TRUE
#>
#>
#> [[1]][[4]]
#> [[1]][[4]]$value
#> [[1]][[4]]$value[[1]]
#> [1] TRUE
#>
#>
#> [[1]][[4]]$visible
#> [1] TRUE
#>
#>
#> [[1]][[5]]
#> [[1]][[5]]$value
#> [[1]][[5]]$value[[1]]
#> [1] TRUE
#>
#>
#>

```

```
#> [[1]][[5]]$visible
#> [1] TRUE
#>
#>
#> [[1]][[6]]
#> [[1]][[6]]$value
#> [[1]][[6]]$value[[1]]
#> [1] TRUE
#>
#>
#> [[1]][[6]]$visible
#> [1] TRUE
```

## Environment

```
ls()  
#> [1] "root"
```

## Class

```
#> [[1]]  
#> [1] "root_criterion"
```

## References

R Core Team. (2024). *R: A language and environment for statistical computing*. R Foundation for Statistical Computing. Vienna, Austria. <https://www.R-project.org/>