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## **Parâmetros**

$$\beta_{i1} = (0, -1, -2, -3)$$

$$\alpha_{i1}=c(0.7,1,2)$$

$$\sigma_1^2 = 1$$

$$\lambda_1 = -1$$

$$\beta_{i2} = (-1, 1, 2, 3)$$

$$\sigma_2^2 = 2$$

$$\lambda_2=3$$

• Além disso para o caso da Skew-t foi utilizado

$$\nu_1=\nu_2=3$$

Foram replicados 500 vezes o estudo de simulação para os seguintes tamanhos amostrais:

$$n = 100, 200, 500, 1000$$

Além disso o nível de censura foi variado entre:

$$Censura = 0\%, 7.5\%, 15\%, 30\%$$

## **Skew-Normal**

```
n = 1000
n = 1000 cen = 0
, , 1
                  1
beta1
       0.0003964557 -1.0066674
beta2 -1.0218712834 1.0515340
beta3 -1.9943107121 1.9649654
beta4 -2.9716832403 2.9881807
delta -0.9629531614 1.2887354
gama
       0.0425378642 0.2381958
sigma
       0.9847926966 1.3780547
lambda -4.6689295728 2.6405640
alpha1
       0.6386437983
                           NA
alpha2 1.0043841697
                           NA
alpha3 1.9324127670
                           NA
, , 2
                1
                         2
beta1
       0.04378652 -1.139672
beta2 -1.00408135 1.040176
beta3 -2.00850187 2.031804
beta4 -3.00252409 2.984272
delta -0.97006600 1.426965
gama
       0.03438298 0.137203
sigma
       0.98762899 1.474257
lambda -5.23154003 3.852402
alpha1
       0.82890814
                         NA
alpha2
       0.98409195
                        NA
alpha3
       2.03131860
                         NA
, , 3
                           2
                1
beta1 -0.08101785 -1.0527883
beta2 -1.01335703 0.9881032
beta3 -1.99264751 1.9891790
beta4 -2.96050781
                  3.0549044
delta -0.94034821 1.3353478
```

```
gama
        0.03995880 0.2376218
        0.96136026
                    1.4215399
sigma
lambda -4.70416439
                    2.7393738
alpha1
        0.63814778
                           NA
alpha2
                           NA
        0.95618195
alpha3
        1.87015296
                           NA
, , 4
                 1
                             2
       -0.05275405 -0.8104398
beta1
beta2
      -0.99787814
                    1.0116931
beta3
      -2.00265142
                    2.0179586
beta4
                    2.9690463
      -2.98024195
delta
      -0.98220438
                    1.1638882
gama
        0.02569255
                    0.2671064
sigma
        0.99519746
                    1.2734764
lambda -6.12771107
                    2.2520037
alpha1
        0.67878643
                            NA
alpha2
        1.00500887
                           NA
alpha3
        1.95813349
                            NA
, , 5
                 1
                             2
beta1
       -0.08674833 -0.8626163
beta2
      -0.99716913
                    0.9688747
beta3
      -2.00200119
                    2.0034750
beta4
                    2.9683231
      -2.99264983
delta -0.94699533
                    1.3884417
gama
        0.06456352
                    0.1517239
                    1.4420452
sigma
        0.98049155
                    3.5645169
lambda -3.72695577
alpha1
        0.61966597
                           NA
alpha2
                           NA
        1.02452326
alpha3
        1.87739752
                           NA
, , 6
                             2
                 1
beta1
        0.17017806 -0.6649324
```

beta2 -1.06266876

beta3 -2.01477386

0.9447379

```
beta4
      -3.00208181 2.9266384
delta -0.95902043
                   1.4091678
gama
        0.04020743
                    0.1661571
sigma
        0.97975896
                    1.4669393
lambda -4.78271714
                    3.4570312
alpha1
        0.74385885
                           NA
alpha2
        1.10615752
                           NA
alpha3
        2.14370177
                           NA
, , 7
                            2
                 1
      -0.08676117 -0.8172500
beta1
beta2
                    0.9950839
      -0.99699407
beta3
      -2.05369370
                   1.9691209
beta4
      -2.97484591
                    3.0045220
delta -0.96781501
                    1.1062919
gama
        0.05764630
                   0.2840282
sigma
        0.99715204
                    1.2279699
lambda -4.03094285
                    2.0758165
alpha1
        0.59055481
                           NA
alpha2
                           NA
        1.03442803
alpha3
        2.11135269
                           NA
, , 8
                            2
                 1
beta1
        0.06450553 -0.8623573
beta2
      -1.02980725
                    0.9576468
beta3
      -1.98261712
                    2.0297901
beta4
      -2.99613848 2.9970328
delta
      -0.96190966
                   1.3315140
gama
        0.03734307
                    0.1924502
sigma
        0.98112856
                    1.4019200
lambda -4.97770650
                    3.0351947
alpha1
        0.63370996
                           NA
alpha2
                           NA
        0.88494894
alpha3
        2.26879575
                           NA
, , 9
                            2
                 1
beta1 -0.02232697 -1.2543830
```

```
beta2 -1.01445575
                   1.0222081
beta3 -2.02361431
                    1.9888429
beta4 -2.99858079
                    3.0632986
delta -0.95690422
                    1.3873313
                    0.1746907
gama
        0.05763239
sigma
        0.98655870
                    1.4489233
lambda -3.98598042
                    3.3192910
alpha1
        0.70634257
                           NA
alpha2
       1.18443888
                           NA
alpha3
        2.17374933
                           NA
, , 10
                 1
                            2
beta1
      -0.08293037 -0.7128644
beta2 -0.98654256
                    0.9687007
beta3
      -2.04435935
                    2.0053705
beta4 -2.98658202
                    2.9461752
delta -0.97932914
                    1.3130925
gama
        0.02584244
                   0.2000647
sigma
        0.99243539
                    1.3871830
lambda -6.09202813
                    2.9356892
alpha1
        0.74584866
                           NA
alpha2
        1.11920478
                           NA
alpha3
        2.09828266
                           NA
, , 11
                 1
beta1
        0.08382229 -1.0752376
beta2
      -1.02798989
                    0.9891118
beta3
      -1.99995338
                    1.9915467
beta4
      -2.98853356
                    3.0395039
delta -1.02419991
                    1.2993008
gama
        0.03092559
                    0.2154576
sigma
        1.03918768
                    1.3797247
lambda -5.82405826
                    2.7991671
alpha1
        0.59590587
                           NA
alpha2
        1.03701115
                           NA
alpha3
        1.86644935
                           NA
```

```
1
beta1
      -0.07920626 -0.7469599
beta2
      -0.99579023
                  0.9790641
beta3
      -1.97084177
                    1.9873927
beta4 -2.96219662
                   2.9394764
delta -0.99006471
                    1.2051896
gama
       0.02353570 0.2243610
sigma
       1.00188015
                   1.2949297
lambda -6.45357020
                   2.5443784
alpha1
       0.76186474
                          NA
alpha2
       1.02869413
                          NA
alpha3
       2.15417082
                          NA
, , 13
                           2
               1
beta1
       0.0457455 -0.9981146
beta2 -1.0068595 0.9571386
beta3
      -1.9883620 1.9757424
beta4 -2.9946684 3.0471672
delta -1.0203626 1.3540792
gama
       0.0230862 0.2017582
sigma
       1.0316133 1.4266355
lambda -6.7154998 3.0145915
alpha1
       0.6193667
                         NA
alpha2
       0.9770466
                         NA
alpha3
       2.1037640
                          NA
, , 14
                            2
                 1
beta1
       0.17189770 -0.8308663
beta2 -1.00711683 0.9594005
beta3
      -2.01676948
                   2.0117239
beta4 -3.05421217
                    2.9915671
delta -1.02078032 1.3732638
       0.03424712
                   0.2239842
gama
sigma
       1.03741967
                   1.4525280
lambda -5.51594893
                   2.9016519
alpha1
       0.66948045
                          NA
alpha2
       0.96190993
                          NA
alpha3
```

1.84309051

NA

```
1
                             2
beta1
       -0.07664784 -1.2145806
beta2 -0.99488953
                    1.0435027
beta3
       -2.03383951
                    2.0312702
beta4
      -2.99444942
                    3.0210840
delta -0.98365090
                    1.4203930
gama
        0.02915615
                    0.1859437
sigma
        0.99836128
                    1.4844056
                    3.2939560
lambda -5.76070846
alpha1
        0.74359557
                            NA
alpha2
        0.89696303
                            NA
alpha3
                            NA
        2.31073181
, , 16
                             2
                 1
beta1
       -0.11062515 -0.7876076
beta2
      -0.99066259
                    1.0177483
beta3
      -1.98707822
                    2.0064931
beta4
      -2.96297642
                    2.9091020
delta -0.98552735
                    1.3684118
gama
        0.03680647
                    0.1895701
sigma
        1.00402721
                    1.4360087
lambda -5.13696513
                    3.1429096
alpha1
        0.81295833
                            NA
alpha2
        1.13698791
                            NA
alpha3
        2.06882455
                            NA
, , 17
                             2
                 1
beta1
        0.06262588 -1.0626844
beta2 -1.02485517
                    1.0125538
beta3
       -2.00096113
                    2.0173174
beta4
      -3.00067964
                    2.9703940
delta -0.97623911
                    1.4210787
gama
        0.03898073
                    0.1262948
                    1.4648411
sigma
        0.99600378
lambda -4.94460084
                    3.9987599
alpha1
        0.73663142
                            NA
alpha2
        1.09518916
                            NA
```

```
, , 18
                             2
                 1
beta1
        0.03569647 -1.1469214
beta2
      -1.02534642 0.9997010
beta3
       -1.99731791
                    1.9986796
beta4
      -2.97543799
                    3.0305011
delta -1.04103648
                    1.4068441
gama
        0.03003233
                    0.1035592
sigma
        1.05536216
                    1.4431804
lambda -6.00719088
                    4.3717127
alpha1
        0.69875248
                            NA
alpha2
        0.93666445
                            NA
alpha3
        1.89230445
                            NA
, , 19
                             2
                 1
beta1
       -0.06825061 -1.0319731
beta2
      -0.99804622
                    1.0115354
beta3 -1.96699602
                    2.0210351
beta4 -2.98543078
                    2.9995227
delta -1.04877835
                    1.2249218
gama
        0.04311675
                    0.1865104
                    1.2988241
sigma
        1.06913646
lambda -5.05080644
                    2.8363303
alpha1
        0.86070462
                            NA
alpha2
        1.25495121
                            NA
alpha3
        2.18551354
                            NA
, , 20
                             2
                 1
beta1
       -0.04211236 -1.1384290
beta2
      -0.98530966
                    1.0134196
beta3
      -2.02699478
                    1.9687894
      -2.99459593
beta4
                    3.0405052
delta -0.98152675
                    1.3172036
```

0.02710702

0.99523956

lambda -5.96157879

0.1860637

1.3860336

3.0536698

alpha3

gama

sigma

2.16459325

NA

```
alpha1
        0.63044884
                           NA
alpha2
        1.04783050
                           NA
alpha3
        2.06988844
                           NA
, , 21
                            2
                 1
beta1
       -0.02927856 -0.8720213
beta2 -0.97082893
                    1.0021582
beta3
      -2.00171532
                    1.9827272
beta4
      -3.04861964
                    2.9626775
delta -0.94405653
                    1.3635699
gama
        0.04491540
                    0.2074238
sigma
        0.96755265
                    1.4376184
lambda -4.45451452
                    2.9939748
alpha1
        0.63402481
                           NA
alpha2
        0.97600293
                           NA
alpha3
        1.88819005
                           NA
, , 22
                             2
                  1
beta1
        0.009475939 -0.9546279
beta2 -0.988813674 1.0110366
beta3
      -1.992005230
                     2.0181313
                     2.9654477
beta4
      -3.007159955
delta -1.004766268
                     1.3189151
gama
        0.038495069
                     0.1824398
                     1.3863538
sigma
        1.023743289
lambda -5.121091052
                     3.0878557
alpha1
        0.641993014
                            NA
alpha2
        0.868830959
                            NA
alpha3
        1.949703836
                            NA
, , 23
                            2
                 1
beta1
      -0.06238929 -0.8236201
beta2 -1.00592233 0.9581248
beta3
                    1.9999801
      -2.00387697
beta4 -2.97143073
                    2.9988961
delta -0.93862481
                    1.2670250
```

0.03131718 0.2419649

gama

```
sigma
        0.95516161
                   1.3591605
                    2.5757816
lambda -5.30396569
alpha1
        0.70851628
                           NA
alpha2
        0.89529171
                           NA
alpha3
        1.94525047
                           NA
, , 24
                            2
                 1
beta1
        0.05080169 -0.8522982
beta2 -1.00161256 0.9797749
beta3
                    2.0066581
      -1.98493137
beta4 -3.00879572
                   2.9316197
delta -1.05289262
                   1.3955619
gama
        0.03154297
                    0.1380611
sigma
        1.06776676
                    1.4441794
lambda -5.92833554
                    3.7558952
alpha1
        0.72503176
                           NA
alpha2
        1.15968375
                           NA
alpha3
        2.10660847
                           NA
, , 25
                 1
                            2
beta1
        0.15739353 -1.2253678
beta2 -1.01349434
                    1.0023659
      -2.02196280
                    2.0304471
beta3
beta4
      -3.03016674
                    3.0485325
delta -1.03284945
                    1.4861503
gama
        0.03028496
                    0.1428051
sigma
        1.04740773
                    1.5334431
lambda -5.93503865
                    3.9327006
alpha1
        0.79386121
                           NA
alpha2
        1.04240793
                           NA
alpha3
        2.09997997
                           NA
, , 26
                            2
                 1
beta1 -0.03999004 -1.2518816
beta2 -0.98640740
                   1.0098400
```

beta3 -1.97929494

beta4 -3.01049273 3.0626828

```
delta -0.95608909 1.4778971
       0.03396335 0.1701434
gama
sigma
       0.97368870
                   1.5343804
lambda -5.18791820
                   3.5829160
alpha1
       0.73417653
                          NA
alpha2
       1.07488612
                          NA
alpha3
       1.83660527
                          NA
, , 27
                            2
                 1
beta1
       0.10641812 -0.8134872
                  0.9752521
beta2 -1.01257760
beta3
      -2.03614013 2.0250328
beta4 -3.03873426
                   2.9813945
delta -0.95947079 1.2547096
gama
       0.06034361
                   0.2321837
sigma
       0.99041800
                   1.3440535
lambda -3.90585485
                   2.6039182
alpha1
       0.88103016
                          NA
       0.99804390
alpha2
                          NA
alpha3
       2.08191180
                          NA
, , 28
                           2
                1
beta1
       0.1422346 -0.7950558
beta2 -1.0232635 0.9723232
beta3
      -2.0040819 1.9647678
beta4 -3.0243452 2.9688783
delta -0.9593010 1.3466037
gama
       0.0399253 0.2023520
sigma
       0.9798897 1.4197512
lambda -4.8009903 2.9935464
alpha1
       0.6852319
                         NA
alpha2
       0.9566510
                         NA
alpha3
                         NΑ
       2.0301666
, , 29
                           2
                1
beta1 -0.12123178 -0.9658800
beta2 -1.01312445 0.9899230
```

```
beta3
      -2.01396358 1.9917648
beta4
      -2.94470997
                    2.9766325
delta -0.94360947
                    1.4219357
gama
                    0.1436116
        0.05602486
sigma
        0.97284310
                    1.4715681
lambda -3.98659289
                    3.7521937
alpha1
        0.60632288
alpha2
        0.89087423
                           NA
alpha3
        2.23604007
                           NA
, , 30
                            2
                 1
beta1
       -0.04770586 -1.0296434
beta2
       -1.01149665
                    0.9955873
beta3
      -1.99519090
                    2.0411153
beta4
      -2.97812767
                    3.0297803
delta -0.95841568
                    1.2289402
gama
        0.04033545
                    0.2174549
sigma
        0.97923238
                    1.3144386
lambda -4.77210999
                    2.6353979
alpha1
        0.81299945
                           NA
alpha2
        1.10014100
                           NA
alpha3
        2.14152532
                           NA
, , 31
                            2
                 1
beta1
       -0.04035605 -0.7857194
beta2
      -0.98756916
                    0.9984609
beta3
      -1.99552145
                    1.9690035
beta4
      -3.00946648
                    2.9557712
delta -0.92412658
                    1.2064714
gama
        0.04037627
                    0.3054570
sigma
        0.94571994
                    1.3270381
lambda -4.59905265
                    2.1829408
alpha1
        0.76707466
                           NA
alpha2
        1.04236283
                           NA
alpha3
        2.12699593
                           NA
, , 32
```

1 2

```
beta1
      -0.06655842 -1.0032095
beta2 -1.02366996
                   1.0078393
beta3 -1.99963634
                    2.0174864
beta4 -2.96922273
                   3.0009183
delta -0.93628393
                    1.3529515
gama
        0.04386469
                   0.1427747
sigma
        0.95942290
                   1.4047251
lambda -4.47043741
                   3.5806067
alpha1
       0.64005732
                          NA
alpha2
                          NA
        0.88183318
alpha3
        1.80344463
                          NA
, , 33
                  1
beta1
      -0.001034432 -0.8400580
beta2 -1.006493122 0.9507009
beta3 -1.991241115 1.9492461
beta4 -3.000286187
                    2.9854439
delta -0.974022604 1.3563265
gama
        0.043294790 0.1819646
sigma
        0.995999409
                    1.4218250
lambda -4.681135525 3.1795873
alpha1
        0.675800871
                            NA
alpha2
        0.967993120
                            NA
alpha3
                            NA
        1.924385533
, , 34
                 1
beta1
        0.16421773 -0.6794726
beta2 -1.02516824 0.9866808
```

beta3 -1.98795261 1.9874721 beta4 -3.01681982 2.9408677 delta -0.98695492 1.1968080 gama 0.02650669 0.2406010 1.2934258 sigma 1.00029331 lambda -6.06205113 2.4399211 alpha1 0.73807271 NA alpha2 NA 1.08854240 alpha3 2.13533490 NA

```
2
                1
      -0.0615701 -0.8431741
beta1
beta2
      -0.9839631
                   0.9751123
beta3
      -1.9865895
                   1.9975001
beta4 -2.9894881
                   2.9552155
delta -1.0586067
                   1.3998308
gama
        0.0281892 0.1402512
sigma
        1.0718383
                  1.4490609
lambda -6.3051192 3.7378531
alpha1
        0.8739757
                          NA
alpha2
        1.0472654
                          NA
alpha3
        2.0393967
                          NA
, , 36
                 1
                            2
beta1
        0.08232766 -1.1925398
beta2 -1.02762964
                    1.0596943
beta3
      -1.96552413
                    1.9429563
beta4
      -2.99142796
                    3.0213266
delta -1.02061930
                    1.4396135
gama
        0.02607122
                    0.2688553
sigma
        1.03331262
                    1.5301445
lambda -6.32096082
                    2.7764290
alpha1
        0.68163993
                           NA
alpha2
        0.94113376
                           NA
alpha3
        1.82248986
                           NA
, , 37
                 1
                            2
      -0.04692702 -1.0796698
beta1
beta2 -0.98588365
                    1.0066467
beta3 -1.99702592
                    2.0032249
beta4 -2.99594021
                    3.0236103
delta -0.98766146
                    1.3431771
gama
        0.02442757
                    0.1921425
sigma
        0.99995136
                    1.4128932
lambda -6.31928603
                    3.0642311
alpha1
        0.71106693
                           NA
alpha2
        1.14853286
                           NA
```

alpha3

1.97383913

NA

```
2
                 1
beta1
       -0.04953567 -1.1606971
beta2
      -0.97835652
                    0.9818769
beta3
      -1.95881794
                    1.9824836
beta4 -3.00394104
                    3.0788773
delta -0.88773126
                    1.3941900
gama
        0.03390943
                    0.1641315
sigma
        0.90662904
                    1.4518600
lambda -4.82082419
                    3.4413270
alpha1
        0.63831704
                           NA
alpha2
                           NA
        0.98525179
alpha3
        1.87441838
                           NA
, , 39
                 1
                             2
beta1
      -0.07111205 -1.2766902
beta2
      -0.99033639
                    1.0211470
beta3
      -1.99512955
                    2.0169330
beta4 -2.98271237
                    3.0647608
delta -0.99664670
                    1.4711943
gama
        0.04914111
                    0.1820603
                    1.5318202
sigma
        1.02100233
                    3.4479613
lambda -4.49592170
alpha1
        0.57578618
                           NA
alpha2
        0.81404684
                           NA
alpha3
        2.01825435
                           NA
, , 40
                 1
                             2
beta1
        0.07812814 -1.0935097
beta2 -1.01119117
                    0.9889143
beta3
      -2.01106976
                   2.0316586
beta4
      -3.00827453
                    3.0330013
delta -1.01575581
                    1.3879362
        0.02816583
gama
                    0.1403965
sigma
        1.02952693
                    1.4376242
lambda -6.05240535
                    3.7041740
alpha1
        0.69864718
                           NA
```

```
alpha2
        0.94765534
                           NA
alpha3
        1.90242149
                           NA
, , 41
                 1
                            2
beta1
       -0.04091656 -1.1158072
beta2
      -0.97720756
                    1.0453525
beta3
      -2.00834791
                    2.0369097
beta4
      -2.98591253
                    3.0332257
delta
      -1.07687320
                    1.2977090
        0.03705269
                    0.2134006
gama
sigma
        1.09394177
                    1.3774793
lambda -5.59441518
                    2.8091793
alpha1
        0.58394287
                           NA
alpha2
        1.00282658
                           NA
alpha3
        2.18689281
                           NA
, , 42
                            2
                 1
beta1
       -0.06466676 -1.0509186
beta2
      -0.98269282
                    1.0852484
beta3
      -1.97875074
                    1.9383652
beta4
      -2.99985693
                    2.9804963
delta -1.01041937
                    1.1558180
        0.03699758
                    0.2273671
gama
sigma
        1.02856448
                    1.2503129
lambda -5.25309164
                    2.4239613
alpha1
        0.71843985
                           NA
alpha2
        0.97754913
                           NA
alpha3
        2.06128329
                           NA
, , 43
                             2
                 1
beta1
        0.03621177 -0.8939480
beta2
      -1.01150273 0.9805457
beta3 -1.97967598
                    2.0248214
beta4
      -3.00578627
                    2.9985976
delta -0.93441208
                    1.3531512
```

0.03231268

0.95154538

gama sigma 0.2383204

```
lambda -5.19818784 2.7718245
alpha1
        0.76475000
                           NA
alpha2
        1.09803913
                           NA
alpha3
        1.95687097
                           NA
, , 44
                 1
                            2
beta1
        0.08114038 -0.9089872
beta2 -1.02957036
                   1.0204397
beta3
      -1.99614146
                   1.9819330
beta4 -2.97509589
                    2.9504442
delta -1.00369186
                   1.3578610
gama
        0.02750910
                    0.2331781
sigma
        1.01730351
                    1.4411678
lambda -6.05148841
                    2.8119748
alpha1
        0.76409900
                           NA
alpha2
        1.03539459
                           NA
alpha3
        2.02936025
                           NA
, , 45
                            2
                 1
beta1 -0.01858321 -0.9109387
beta2 -1.02863669 1.0367741
beta3 -2.01720579
                    1.9279334
beta4 -2.97599446 2.9422407
delta -0.90043134
                   1.3610389
                    0.2873871
gama
        0.05780315
sigma
        0.93197626
                    1.4628103
lambda -3.74519846
                    2.5388495
alpha1
        0.56366955
                           NA
alpha2
        0.81296807
                           NA
alpha3
        1.90925583
                           NA
, , 46
                 1
                            2
beta1 -0.01002387 -0.6985185
beta2 -1.01049651 0.9550055
beta3 -1.99481995
                   1.9305062
beta4 -2.99114244
                    2.9295478
```

delta -0.93433186

```
gama
        0.04538924 0.2029030
        0.95831376
                    1.3683594
sigma
lambda -4.38555623
                    2.8684647
alpha1
        0.71772704
                           NA
alpha2
                           NA
        0.94386813
alpha3
        1.93208297
                           NA
, , 47
                            2
                 1
       -0.12028111 -0.9336458
beta1
beta2
      -0.98907050
                    0.9642487
beta3
      -2.00789726
                    1.9867498
beta4
      -2.97932995
                    3.0002842
delta -0.91378576
                    1.4644988
gama
        0.04699403
                    0.1502342
sigma
        0.93914772
                    1.5149227
lambda -4.21524717
                    3.7783711
alpha1
        0.76567929
                           NA
alpha2
        1.15930697
                           NA
        1.97355756
alpha3
                           NA
, , 48
                 1
                            2
       -0.02031454 -1.1513948
beta1
beta2 -1.01124125
                    0.9993508
beta3
      -1.96082833
                    2.0797886
beta4
                    3.0378983
      -2.97120843
delta -1.01303147
                    1.3874962
gama
        0.03885881
                    0.1346696
sigma
        1.03203274
                    1.4352057
                    3.7809155
lambda -5.13899500
alpha1
        0.81072608
                           NA
alpha2
                           NA
        1.05939716
alpha3
        1.96123689
                           NA
, , 49
                             2
                 1
beta1
        0.09325475 -1.3365698
beta2 -1.04410161
                   1.0336267
```

beta3 -1.99795841 1.9741136

```
beta4 -2.98401112 3.0821372
delta -1.04302948 1.4085946
gama
        0.03181695
                   0.2310251
sigma
                   1.4883426
        1.05817174
lambda -5.84746105
                    2.9305993
alpha1
        0.89675685
                           NA
alpha2
        1.05161068
                           NA
alpha3
        2.00790610
                           NA
, , 50
                            2
                 1
beta1
      -0.03291626 -0.8134266
beta2
      -1.02726153 0.9901534
beta3
      -2.00656028
                    2.0276458
beta4 -2.97446558 2.9883212
delta -0.93084040
                   1.2402615
gama
        0.04763428
                   0.3070877
sigma
        0.95608479
                    1.3584316
lambda -4.26496460
                   2.2381132
alpha1
        0.78701561
                           NA
alpha2
                           NA
       1.16344814
alpha3
        2.07338872
                           NA
, , 51
                            2
                 1
beta1
        0.03737871 -1.0030685
beta2
      -1.01589086 0.9837312
beta3
      -2.02365831
                    1.9823525
beta4 -2.98611360
                   3.0251668
delta -0.97897851
                   1.1970726
gama
        0.03808608 0.1962866
sigma
        0.99824095
                    1.2764284
lambda -5.01637527
                    2.7019368
alpha1
        0.71030137
                           NA
alpha2
                           NA
        1.05928991
alpha3
        1.94214829
                           NA
, , 52
                            2
                 1
beta1 -0.01078281 -0.9833413
```

```
beta2 -1.02153781 0.9941173
beta3 -1.99684817
                   1.9858257
beta4 -2.97777415
                   3.0206949
delta -0.90392969
                   1.3922536
                   0.1737335
gama
       0.04576373
sigma
       0.92889860
                   1.4533078
lambda -4.22545969
                   3.3402311
alpha1
       0.71408290
alpha2 1.07213171
                          NA
alpha3
       2.10187373
                          NA
, , 53
                            2
                 1
beta1
       0.01052407 -1.1968423
beta2 -1.01446918 1.0578453
beta3
      -2.03833407
                   1.9844373
beta4 -3.00330477
                   3.0196594
                   1.3264990
delta -0.94927186
gama
       0.04144304 0.1531033
sigma
       0.97085534
                   1.3830050
lambda -4.66299352 3.3901169
alpha1
       0.58353328
                          NA
alpha2 1.02018167
                          NA
       2.27731137
alpha3
                          NA
, , 54
                 1
      -0.07032027 -1.1281543
beta1
beta2 -0.99085976
                   1.0425774
beta3 -2.02437582 2.0145989
beta4 -2.99797405 2.9524474
delta -0.93761967
                   1.4397336
                   0.1783593
gama
       0.03392497
sigma
       0.95553944
                   1.5003973
lambda -5.09057677
                   3.4090574
alpha1
       0.80902437
                          NA
alpha2
       0.93178445
                          NA
alpha3 1.69467009
                          NA
```

```
1
beta1
        0.04858864 -1.0823141
beta2 -1.01659837
                    1.0191322
beta3
      -2.00185812
                    1.9817351
beta4
                    3.0445458
      -3.02011388
delta -1.00517009
                    1.3027386
gama
        0.05234331
                    0.2287102
sigma
        1.03087838
                   1.3877457
lambda -4.39348299
                    2.7240468
alpha1
        0.62057307
                           NA
alpha2
        1.00370697
                           NA
alpha3
        1.64687036
                           NA
, , 56
                 1
                            2
beta1
      -0.04484789 -0.7742204
beta2 -1.00239183 0.9351484
beta3 -2.01093367
                    1.9969295
beta4 -2.97438111
                    2.9748895
delta -0.93383596
                    1.3157330
gama
        0.04554620 0.1862539
sigma
        0.95791221
                    1.3847048
lambda -4.37566965
                    3.0487026
alpha1
        0.79131716
                           NA
alpha2
       1.07145987
                           NA
alpha3
        2.32841349
                           NA
, , 57
                            2
                 1
beta1
        0.08944215 -0.7229984
beta2 -1.01605570 0.9563939
beta3
      -2.05153377
                    2.0417920
beta4 -3.02045721
                    2.9427488
delta -1.00385865
                    1.3462152
                    0.2193523
gama
        0.04362980
sigma
        1.02535944
                   1.4253588
lambda -4.80596885
                    2.8743744
alpha1
        0.62110482
                           NA
alpha2
       0.91894899
                           NA
alpha3
       2.15255923
                           NA
```

```
1
                             2
beta1
       -0.13251310 -0.9120671
beta2 -0.99671239
                    0.9670415
beta3
       -2.02132745
                    1.9842140
beta4
      -2.98536631
                    3.0298790
delta -0.96841201
                    1.2788098
gama
        0.05779206
                    0.1755199
sigma
        0.99780453
                    1.3456873
lambda -4.02833973
                    3.0524091
alpha1
        0.71398011
                            NA
                            NA
alpha2
        0.99268704
alpha3
                            NA
        1.95547610
, , 59
                            2
                 1
beta1
        0.03684598 -1.138780
beta2
      -0.99696887
                    1.004154
beta3
       -2.00815569
                    1.987883
beta4
                    3.041547
      -3.00947061
delta -1.00846882
                    1.416672
gama
        0.03262408
                    0.180337
sigma
        1.02451620
                    1.478951
lambda -5.58333082
                    3.336006
alpha1
        0.96246099
                           NA
alpha2
        1.06712139
                           NA
alpha3
        2.05428232
                           NA
, , 60
                             2
                 1
beta1 -0.01258648 -1.2805613
beta2 -1.00724127
                    0.9995139
beta3
      -2.00174810
                    1.9538668
beta4 -2.99862169
                    3.0702424
delta -0.97108404
                    1.4241158
gama
        0.04413982
                    0.1551289
sigma
        0.99355123
                    1.4775773
lambda -4.62212339
                    3.6157551
alpha1
        0.79235509
                            NA
alpha2
        1.10402608
                            NA
```

```
alpha3
        2.11968319
                           NA
, , 61
                            2
                 1
beta1
        0.06691818 -0.7765968
beta2
      -1.01439062
                    0.9918691
beta3
      -2.05003687
                    2.0522458
beta4 -3.02312097
                    2.9499314
delta -1.01458140
                    1.3011795
gama
        0.05566434
                    0.2430613
                    1.3914486
sigma
        1.04165241
lambda -4.30029609
                    2.6392423
alpha1
        0.64072806
                           NA
alpha2
        0.93317580
                           NA
alpha3
        2.29354050
                           NA
, , 62
                              2
                  1
beta1
        0.007832066 -0.9897789
beta2 -0.988460669
                     1.0191322
beta3 -2.011439718
                     2.0056441
beta4 -3.009073787
                     2.9980460
delta -0.991087865
                     1.3509974
gama
        0.039387248
                     0.2366416
                     1.4359093
sigma
        1.010763278
lambda -4.993836710
                     2.7772117
alpha1
        0.772671743
                            NA
alpha2
        0.932558327
                            NA
alpha3
        2.121253485
                            NA
, , 63
                            2
                 1
beta1
        0.12414153 -0.8243276
beta2 -1.01132044 0.9555582
beta3
      -1.99804146
                    2.0152183
beta4
      -3.03354462 2.9692075
delta -0.92549751
                    1.2961667
gama
        0.05167461
                    0.1449366
```

sigma

0.95300590

lambda -4.07133320

1.3509200

```
alpha1
        0.62569710
                            NA
alpha2
        1.02317266
                            NA
alpha3
        2.09546868
                            NA
, , 64
                 1
                             2
beta1
      -0.01558861 -1.3068341
beta2 -1.00166026
                    1.0564006
beta3
      -1.98960537
                    1.9990965
beta4
      -3.00080360
                    3.0377520
delta
      -0.98386979
                    1.3325650
gama
        0.03653754
                    0.1398486
sigma
        1.00226608
                    1.3840441
lambda -5.14716384
                    3.5633565
alpha1
        0.86962321
                           NA
alpha2
        1.00150817
                            NA
alpha3
        1.98507831
                           NA
, , 65
                             2
                 1
beta1
      -0.01916939 -0.7928921
beta2 -1.00084197
                   0.9704846
beta3 -2.01827041
                    2.0327314
beta4 -3.00251389
                    2.9640041
delta -0.98127015
                    1.2699620
gama
        0.04827757
                    0.2339475
                    1.3589522
sigma
        1.00556883
lambda -4.46597088
                    2.6256177
alpha1
        0.78678499
                            NA
alpha2
        0.98869303
                           NA
alpha3
        2.20094574
                           NA
, , 66
                             2
                 1
beta1
        0.01551569 -1.0436883
beta2
      -0.98376875 0.9838073
beta3
       -1.97486553
                    1.9948635
beta4
      -3.02616309
                    3.0134130
delta -0.90990122
                    1.3840781
```

gama

0.03857935

```
sigma
        0.93085959
                   1.4681081
                    2.8271865
lambda -4.63251480
alpha1
        0.68988053
                           NA
alpha2
                           NA
        1.15509456
alpha3
        2.21405778
                           NA
, , 67
                  1
beta1 -0.006079533 -1.2830308
beta2
      -1.008454101
                    1.0439925
beta3
                    1.9947854
      -2.006675351
beta4 -3.000914140 3.0710316
delta -0.910259495
                    1.3656333
gama
        0.037342141
                    0.1627377
sigma
        0.930545265 1.4239705
lambda -4.710484866
                     3.3852445
alpha1
        0.788118723
                            NA
alpha2
        1.070533352
                            NA
alpha3
        2.072160155
                            NA
, , 68
                 1
                            2
beta1
      -0.09067264 -1.2431251
beta2 -0.98536626 0.9807073
beta3 -1.98109004
                    2.0182129
beta4 -2.98825168
                    3.0754021
delta -0.97064428
                    1.3929315
gama
        0.05005079
                    0.1287423
sigma
        0.99609292
                   1.4384020
lambda -4.33865025
                    3.8821219
alpha1
        0.65018411
                           NA
alpha2
        0.93304901
                           NA
alpha3
                           NA
        1.98303475
, , 69
                 1
                            2
beta1 -0.04046192 -0.3857821
beta2 -0.95242914 0.9344489
```

beta3 -1.99632695

beta4 -3.03287049 2.9793187

```
delta -0.99584267 1.0045492
                    0.3990929
gama
        0.03348617
sigma
        1.01251607
                    1.1866811
lambda -5.44199319
                    1.5901359
alpha1
        0.70122268
                          NA
alpha2
        0.96911778
                          NA
alpha3
        1.99029861
                           NA
, , 70
                            2
                 1
beta1
        0.09155031 -0.9816587
                   0.9595915
beta2 -1.01599369
beta3
      -1.99240569
                    1.9931872
beta4 -3.01148017
                    3.0310976
delta -1.01280981
                   1.3336172
gama
        0.03239378 0.2415696
sigma
        1.02867755
                   1.4213038
lambda -5.62726129
                   2.7133763
alpha1
        0.81209954
                          NA
alpha2
        1.05727726
                          NA
alpha3
        1.95830647
                          NA
, , 71
                  1
beta1
      -0.003677858 -1.1371382
beta2 -0.998799362 1.0207304
beta3
      -1.976576371
                    2.0070467
beta4 -2.994215603 2.9774088
delta -1.000677415 1.4893899
        0.039639035 0.1304887
gama
sigma
        1.020291293
                    1.5325701
lambda -5.026116639
                    4.1230819
alpha1
        0.662582630
                            NA
alpha2
        0.717583150
                            NA
alpha3
                            NA
        1.799482493
, , 72
                            2
                 1
        0.04199994 -0.9877797
beta1
beta2 -1.00373977 1.0033675
```

```
beta3
      -2.01454209 2.0060602
beta4
      -3.00499193 2.9863212
delta -1.00566101
                    1.3419555
gama
        0.04069886
                    0.2278681
sigma
        1.02569632
                    1.4243288
lambda -4.98494638
                    2.8112295
alpha1
        0.70117405
alpha2
       0.95358930
                           NA
alpha3
        2.19136747
                           NA
, , 73
                1
                           2
beta1
        0.1295902 -1.1526895
beta2
      -1.0199442 0.9964468
beta3
      -1.9781249 2.0311495
beta4
      -3.0233838 3.0361459
delta -0.9639058 1.4176092
gama
        0.0451023 0.2143038
sigma
        0.9870241
                   1.4912812
lambda -4.5387394 3.0622563
alpha1
        0.6626384
                          NΑ
alpha2
                          NA
        0.9500998
alpha3
        1.9363114
                          NA
, , 74
                            2
                 1
beta1
        0.09468564 -1.0436835
beta2
      -0.99543701
                    1.0166610
beta3
      -2.01499655
                    1.9509822
beta4
      -3.02843985
                    3.0341670
delta -1.02238670
                    1.2078802
gama
        0.02509545
                    0.2633868
sigma
        1.03458688
                    1.3123876
lambda -6.45383301
                    2.3535683
alpha1
        0.71682807
                           NA
alpha2
        1.05968358
                           NA
alpha3
        1.86467330
                           NA
, , 75
```

1 2

```
beta1
      -0.22732395 -0.8028017
beta2 -0.95980498 0.9833589
beta3 -2.00432166
                   1.9968559
beta4 -2.97929218
                   2.9884476
delta -0.87310621
                    1.1918904
gama
       0.05113047
                   0.3234445
sigma
       0.90191182
                   1.3206238
lambda -3.86124326
                   2.0957355
alpha1
       0.64384030
                          NA
alpha2
                          NA
       0.84863090
alpha3
       1.78702413
                          NA
, , 76
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beta1
      -0.11757914 -1.0729708
beta2 -0.99085215
                   1.0404798
beta3 -2.00094094
                   1.9547781
beta4 -2.96790074 3.0155171
delta -0.96731799
                   1.2302958
                   0.2283591
gama
       0.03295567
sigma
       0.98420514
                   1.3198435
lambda -5.32849085
                   2.5745441
       0.79751960
alpha1
                          NA
alpha2
       1.12811118
                          NA
alpha3
       2.06685080
                          NA
, , 77
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beta1
       0.04499600 -0.9620207
beta2 -0.98579405
                   1.0623616
beta3
      -1.96015055
                   2.0281004
beta4 -3.01905407
                   2.9447868
delta -1.01001823
                   1.3083634
gama
       0.03296859
                   0.2145677
                   1.3879418
sigma
       1.02620924
lambda -5.56261523
                   2.8245300
alpha1
       0.80049864
                          NA
alpha2
       1.02816774
                          NA
alpha3
       2.05649565
                          NA
```

```
2
                 1
      -0.05376227 -1.1172808
beta1
beta2
      -0.99001509
                    1.0088731
beta3
                    1.9860502
      -1.99246629
beta4
      -2.99263036
                    2.9750589
delta -0.99019442
                    1.5105785
gama
        0.04693251
                    0.1466034
sigma
        1.01361605
                    1.5583487
lambda -4.57070907
                    3.9452207
alpha1
        0.71386583
                           NA
alpha2
                           NA
        1.03457031
alpha3
        2.16999782
                           NA
, , 79
                 1
                             2
       -0.05306080 -0.7586032
beta1
beta2 -0.97702401
                    1.0216151
beta3
      -2.01108532
                    1.9680749
beta4
                    2.8686137
      -3.00238907
delta -1.02542620
                    1.4053335
gama
        0.03683174
                    0.1643948
sigma
        1.04323086
                    1.4626541
lambda -5.34309982
                    3.4660541
alpha1
        0.70436312
                            NA
alpha2
        1.02770888
                           NA
alpha3
        1.83691576
                           NA
, , 80
                 1
                             2
      -0.05996840 -0.8374547
beta1
beta2
     -0.99008047
                    0.9890581
beta3
      -2.01698360
                    1.9856916
beta4 -2.97667728
                    2.9474853
delta -1.01440995
                    1.2632289
gama
        0.02382328
                    0.2060353
sigma
                    1.3423049
        1.02608519
lambda -6.57222965
                    2.7829876
        0.64261781
alpha1
                           NA
alpha2
        1.07402172
                           NA
alpha3
        2.03588856
                           NA
```

```
1
                           2
        0.0765161 -1.1699082
beta1
beta2
      -0.9996871
                   1.0526438
beta3
      -1.9958539
                   1.9252707
beta4
      -3.0361522 2.9799134
delta -0.9556452 1.3461806
gama
        0.0393194 0.1806036
sigma
        0.9760006
                   1.4116677
lambda -4.8194029
                   3.1676718
alpha1
        0.5924652
                          NA
alpha2
                          NA
        0.8056601
alpha3
        2.0356929
                          NA
, , 82
                   1
                              2
beta1
      -0.0008717926 -1.3004393
beta2 -0.9989838847
                      1.0367074
beta3
                      2.0244918
      -2.0134729346
beta4 -2.9906350301
                      3.0349721
delta -1.0379683967
                      1.4300899
gama
        0.0350648353
                      0.1418816
                      1.4788640
sigma
        1.0547242425
lambda -5.5430427621
                      3.7966478
alpha1
        0.7484569124
                             NA
alpha2
        1.0308327687
                             NA
alpha3
        2.0477412349
                             NA
, , 83
                 1
                            2
beta1
      -0.05351301 -1.0471243
beta2 -1.00030765 0.9952402
beta3 -1.99197737
                    1.9167841
beta4 -2.96832946
                   3.0494591
delta -1.03613353
                    1.2202166
                    0.2068147
gama
        0.03237427
        1.05164013
sigma
                    1.3022071
lambda -5.75858427
                    2.6831579
alpha1
        0.70074607
                           NA
```

```
alpha2
        0.98802820
                            NA
alpha3
        1.90067478
                            NA
, , 84
                 1
                             2
beta1
        0.05904878 -0.8736174
beta2
      -0.97798373
                    0.9663667
beta3
      -2.00074570
                    1.9885290
beta4
      -3.04264220
                    3.0002919
delta
      -1.03450173
                    1.3227013
        0.03133850
                    0.1951347
gama
sigma
        1.04953910
                    1.3945155
lambda -5.84375705
                    2.9942947
alpha1
        0.48214447
                            NA
alpha2
        0.85415483
                            NA
alpha3
        1.82198748
                            NA
, , 85
                             2
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beta1
        0.06679732 -1.0296000
beta2
      -1.01757798
                    1.0116593
beta3
      -1.98208103
                    1.9950000
beta4
      -3.01418828
                    3.0090429
delta -1.00326753
                    1.3129785
        0.04074588
                    0.1822578
gama
sigma
        1.02337266
                    1.3806413
lambda -4.97021188
                    3.0754913
alpha1
        0.68286764
                            NA
alpha2
        1.08414329
                            NA
alpha3
        1.94170918
                            NA
, , 86
                             2
                 1
beta1
        0.03751666 -0.9328694
beta2
      -0.98110234
                    1.0312832
beta3
      -1.99516123
                    2.0489429
beta4
      -3.04416447
                    2.9474757
delta -0.94237531
                    1.2730886
        0.03976833
                    0.2056867
gama
```

sigma

0.96324428

```
lambda -4.72558123 2.8070847
alpha1
        0.75338905
                           NA
alpha2
        1.01689327
                           NA
alpha3
        2.18220895
                           NA
, , 87
                  1
                            2
beta1
        0.004270304 -1.264703
beta2 -0.971447892 1.071397
beta3 -2.003134742 2.063095
beta4 -3.034387355
                    3.041430
delta -1.003167805 1.389263
                     0.210089
gama
        0.031655057
sigma
        1.018823194
                    1.462922
lambda -5.638350070
                     3.030979
alpha1
        0.634745764
                           NA
alpha2
        1.023070803
                           NA
alpha3
        1.995894336
                           NA
, , 88
                 1
                            2
beta1
        0.07536411 -1.3609422
beta2 -1.02357618 1.0450443
beta3
                    2.0014108
      -1.98161811
beta4 -3.02499164 3.0266958
delta -0.87097182
                   1.4899899
        0.05235193 0.1614337
gama
sigma
        0.90052420
                    1.5432121
lambda -3.80660460
                    3.7083975
alpha1
        0.74347551
                           NA
alpha2
        1.09241181
                           NA
alpha3
        1.91283158
                           NA
, , 89
                 1
beta1
        0.02860242 -1.0287589
beta2 -1.01830256 0.9971627
beta3 -1.96552693
                   1.9376371
beta4 -3.00800888
                    2.9875205
```

delta -0.94190792

```
gama
        0.06628349 0.1180009
        0.97645995
                   1.4110027
sigma
lambda -3.65852272
                    3.9839872
alpha1
        0.59976314
                           NA
alpha2
                           NA
        0.84628463
alpha3
        1.81112338
                           NA
, , 90
                 1
                            2
        0.09799416 -0.9765084
beta1
beta2
      -1.02523687
                    0.9999408
beta3
      -2.00497625
                    1.9863849
beta4
      -3.01997960
                    2.9977391
delta -0.97909101
                    1.2531642
gama
        0.04767175 0.2117618
sigma
        1.00314055
                   1.3349840
lambda -4.48427804
                    2.7232289
alpha1
        0.79529914
                           NA
alpha2
        1.07590061
                           NA
alpha3
        1.91731127
                           NA
, , 91
                1
                           2
      -0.1154355 -1.3362521
beta1
beta2 -0.9861472
                  0.9949323
beta3
      -1.9893992 1.9967835
beta4 -2.9710163 3.0724852
delta -0.9578377 1.4749811
gama
        0.0460379 0.1156056
sigma
        0.9815758 1.5136627
lambda -4.4641026 4.3380737
alpha1
        0.6316420
                          NA
alpha2
        0.9183794
                          NA
alpha3
        2.0161201
                          NA
, , 92
                            2
                 1
beta1
        0.02568780 -1.2535233
beta2 -1.02118662 1.0399549
```

beta3 -1.98629140 1.9644047

```
beta4 -2.98602812 3.0679643
delta -0.97873998 1.2453700
gama
        0.02670052
                   0.1727893
sigma
        0.99228648
                    1.3129111
lambda -5.98973340
                    2.9959870
alpha1
        0.79125170
                           NA
alpha2
       1.31371392
                          NA
alpha3
        2.43025430
                          NA
, , 93
                            2
                 1
beta1
        0.17240791 -0.9184014
beta2
      -1.01607472 0.9896736
beta3
      -1.98504272
                   1.9851690
beta4
      -3.04169855 2.9794052
delta -1.06286992
                   1.4144005
gama
        0.02810982 0.1305510
sigma
        1.07601222
                   1.4598218
lambda -6.33944306
                   3.9145546
alpha1
        0.74761537
alpha2
                          NA
        1.01480063
alpha3
        2.06408947
                          NA
, , 94
                            2
                 1
beta1
      -0.02476053 -1.0493264
beta2
      -0.98519416 0.9687739
beta3
      -2.01597308
                   1.9895098
beta4 -2.99388823 2.9972145
delta -1.03016834
                   1.4849290
gama
        0.03927157
                    0.1371136
sigma
        1.04905594
                   1.5304012
                    4.0101951
lambda -5.19839251
alpha1
        0.74989378
                          NA
alpha2
                          NA
       1.07778739
alpha3
        2.29145343
                          NA
, , 95
                            2
                 1
beta1 -0.09207488 -1.1142203
```

```
beta2 -1.03420244 1.0285836
beta3 -1.99646106
                   2.0184662
beta4 -2.94668344
                   3.0111311
delta -0.92700267
                   1.3757021
       0.03270767
                   0.2016451
gama
sigma
       0.94447955
                   1.4471356
lambda -5.12573544
                   3.0635893
alpha1
       0.72767939
                          NA
alpha2 0.96055465
                          NA
alpha3
                          NA
       2.12212688
, , 96
                            2
                 1
beta1
       0.01791370 -0.7002553
beta2 -0.98791331 0.9738293
beta3
      -1.99004135
                   2.0098655
beta4 -3.01886441
                   2.9282791
delta -0.96741689
                   1.2634129
gama
       0.04821621 0.1896636
sigma
       0.99202401
                   1.3363666
lambda -4.40572255 2.9010375
alpha1
       0.63449330
                          NA
alpha2
       1.10603587
                          NA
alpha3
       2.04814338
                          NA
, , 97
                 1
beta1
       0.10105853 -0.9239370
beta2 -1.03289317
                  0.9721181
beta3
      -2.02411495
                   2.0305540
beta4 -2.99999249
                   3.0276552
delta -0.95599027
                   1.2545683
gama
       0.04127137
                   0.1842243
sigma
       0.97733759
                   1.3259585
lambda -4.70575207
                   2.9229466
alpha1
       0.69519516
                          NA
alpha2
       1.00481908
                          NA
alpha3
       1.81307459
                          NA
, , 98
```

```
1
beta1
      -0.09133019 -0.9213793
beta2
      -0.99526553
                    0.9592852
beta3
      -2.02624383
                    2.0052956
beta4 -2.99201195
                    3.0454302
delta -0.95092039
                    1.2438011
gama
        0.06257076
                    0.2965313
sigma
        0.98327023
                    1.3577822
lambda -3.80153005
                    2.2841030
alpha1
        0.67030883
                           NA
alpha2
                           NA
        1.03376107
alpha3
        2.06520855
                           NA
, , 99
                            2
                 1
beta1
      -0.09669835 -0.7932706
beta2
      -0.99137811
                    0.9870770
beta3
      -1.96431434
                   1.9982023
beta4 -2.98232047
                    2.9403808
delta -0.91215174
                   1.3580622
        0.03698073 0.2264313
gama
sigma
        0.93220251
                    1.4390151
lambda -4.74328631
                    2.8539836
alpha1
        0.75674167
                           NA
alpha2
                           NA
        1.07123331
alpha3
        2.17053441
                           NA
, , 100
                            2
                 1
beta1
      -0.16923204 -1.0307559
beta2 -1.00355083
                    0.9748706
beta3 -1.97992430
                    1.9949784
beta4 -2.94291363
                    3.0324089
delta -0.90913845
                    1.3085287
                    0.2215017
gama
        0.03427537
sigma
        0.92779744
                    1.3905930
lambda -4.91064989
                    2.7803198
alpha1
        0.86000604
                           NA
alpha2
        1.16356131
                           NA
alpha3
        2.26221862
                           NA
```

```
n = 1000 cen = 0.075
, , 1
                            2
                 1
beta1
       -0.90181962 -0.9578926
beta2
      -1.00263121 1.0090460
beta3
      -2.03042717 2.0215264
beta4 -2.98762711 2.9927793
delta
        0.05917982
                   1.3547770
gama
        0.35757331 0.2481159
                    1.4434461
sigma
        0.60089563
lambda
        0.09896715
                    2.7198221
alpha1
        0.74208238
                           NA
alpha2
        1.00898540
                           NA
alpha3
        2.17797467
                           NA
, , 2
                            2
                 1
beta1
       -0.68951680 -1.1257816
beta2 -1.03037725
                   1.0053036
beta3 -1.99915998 2.0259802
beta4 -3.01712559 3.0557571
delta
        0.05495315
                   1.3272200
gama
        0.32820288
                    0.2614197
        0.57551953
                    1.4222984
sigma
lambda
        0.09592270
                    2.5958151
alpha1
                           NA
        0.81788006
alpha2
        1.13793256
                           NA
alpha3
        2.08994782
                           NA
, , 3
                            2
                 1
beta1
       -0.82095015 -0.8547213
beta2
      -1.00445394 0.9776242
beta3
      -1.99815217
                    2.0334370
beta4 -2.98876591 2.9655586
delta
        0.05079152 1.3560374
gama
        0.41373584 0.1958340
sigma
        0.64522525
                    1.4264191
```

lambda

0.07896409

```
alpha1
        0.78464474
                            NA
alpha2
        1.03474195
                            NA
alpha3
        2.14086094
                            NA
, , 4
                             2
                  1
beta1
       -0.84436999 -0.9382141
beta2
      -1.00732001
                    0.9849317
beta3
       -1.97626256
                     2.0096432
      -2.96441442
beta4
                     3.0136840
delta
        0.05654025
                     1.2740266
gama
        0.34919582
                    0.2120737
sigma
        0.59362667
                     1.3547020
lambda
        0.09568044
                     2.7665282
alpha1
        0.82155970
                            NA
alpha2
        1.19536303
                            NA
alpha3
        1.89917039
                            NA
, , 5
                             2
                  1
beta1
       -0.99585835 -1.1426053
beta2
      -0.97948815
                     1.0487224
beta3
       -1.99365619
                    1.9749979
                     2.9649429
beta4
      -2.96021545
delta
        0.06224139
                     1.4041988
gama
        0.38973889
                     0.1537138
                     1.4579054
sigma
        0.62738575
lambda
        0.09969937
                     3.5815597
alpha1
        0.65774061
                            NA
alpha2
        1.07645448
                            NA
alpha3
        1.72677405
                            NA
, , 6
                             2
                  1
beta1
       -0.82253269 -0.9437434
beta2
                    0.9883532
      -1.01160489
beta3
      -1.98951685
                    1.9974634
beta4 -2.98870689
                    2.9765509
delta
        0.04311764
                     1.3842336
                    0.1430276
```

gama

```
sigma
        0.65877759
                   1.4349670
lambda
                    3.6601548
        0.06559162
alpha1
        0.68238186
                           NA
alpha2
        1.06111925
                           NA
alpha3
        1.84473168
                           NA
, , 7
                1
                           2
      -0.9518972 -1.1989955
beta1
beta2
      -0.9538954
                   1.0165606
beta3
      -1.9794432 1.9883180
beta4 -3.0242906 3.0485117
delta
        0.0616255 1.3777889
gama
        0.3643490 0.1819675
sigma
        0.6067510 1.4423141
lambda
        0.1020943 3.2298756
alpha1
        0.7450915
                          NA
alpha2
        1.0357653
                          NA
alpha3
        2.3457035
                          NA
, , 8
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                            2
beta1
      -0.91693940 -1.1323202
beta2
      -0.98129756
                    1.0639840
beta3
      -1.92695786
                    2.0219369
beta4 -2.97931215
                    2.9443143
delta
                   1.3514412
        0.05682268
gama
        0.34722773
                    0.1904429
sigma
        0.59199371
                    1.4201536
lambda
        0.09643053
                    3.0968119
alpha1
        0.60330427
                           NA
alpha2
        0.90912925
                           NA
alpha3
                           NA
        2.07940492
, , 9
                            2
                 1
beta1 -0.88083775 -1.2784486
beta2 -0.99025455
                   1.0289350
```

beta3 -1.97373848

beta4 -3.01360810 3.0573306

```
delta
        0.06609234 1.3764701
        0.36037450
                   0.2073255
gama
sigma
        0.60393932
                    1.4498260
lambda
        0.11009665
                    3.0230158
alpha1
                           NA
        0.56731281
alpha2
        0.94449239
                           NA
alpha3
        1.98243632
                           NA
, , 10
                            2
                 1
beta1
      -0.85793913 -0.9484203
beta2
      -0.98554434
                    0.9645884
beta3
      -1.97790387
                    2.0467064
beta4 -2.97413224 3.0305600
delta
        0.06191612 1.2608097
gama
        0.32174404 0.2765363
sigma
        0.57059412
                   1.3660810
lambda
       0.10915622
                   2.3975820
alpha1
        0.66082287
                           NA
alpha2
        0.94621136
                           NA
alpha3
                           NA
        1.96413713
, , 11
                            2
                 1
beta1
      -0.92147088 -0.9603142
beta2
      -0.98149888
                    1.0256821
beta3
                    2.0286923
      -1.98682342
beta4 -2.98867627
                    2.9622276
delta
        0.05609337
                    1.3520942
gama
        0.35139820
                   0.1960791
sigma
        0.59543653
                    1.4227571
lambda
       0.09462628
                    3.0534534
alpha1
        0.63856375
                           NA
alpha2
        1.03643775
                           NA
alpha3
                           NA
        1.79380799
, , 12
                            2
                 1
beta1 -0.74228968 -1.3207643
beta2 -0.98501738 1.0075576
```

```
beta3
      -1.98858865
                   1.9995065
                    3.1129903
beta4
      -3.05652807
delta
        0.04334141
                    1.3961444
gama
        0.36956876
                    0.1330747
sigma
        0.60946471
                    1.4430156
lambda
        0.07129439
                    3.8272134
alpha1
        0.61365240
alpha2
        0.78498469
                           NA
alpha3
        1.84661908
                           NA
, , 13
                             2
                 1
beta1
       -0.76855934 -0.9604110
beta2
       -1.02903221
                    1.0042704
beta3
       -1.97797051
                    2.0087776
beta4
      -2.99708513
                    2.9672838
delta
        0.06444714
                    1.3894311
gama
        0.39294597
                    0.1854981
sigma
        0.63015824
                    1.4546536
        0.10281044
                    3.2260216
lambda
alpha1
        0.70599731
                            NA
alpha2
        1.03893551
                            NA
alpha3
        2.06020831
                           NA
, , 14
                             2
                 1
beta1
       -1.10462735 -1.0603360
beta2
       -0.96988326
                    1.0389561
beta3
      -1.92643155
                    1.9913185
beta4
      -2.93599699
                    3.0175415
delta
        0.05986332
                    1.2386292
gama
        0.39477563
                    0.2456041
sigma
        0.63115707
                    1.3340939
lambda
        0.09527646
                    2.4993297
alpha1
        0.50017005
                            NA
alpha2
        0.98656333
                           NA
alpha3
        2.12387504
                           NA
, , 15
```

2

1

```
beta1
      -0.88657531 -0.9638550
beta2 -0.98655767
                    0.9525134
beta3
      -2.01001373
                    2.0662707
beta4 -3.02033939
                    3.0315820
delta
        0.06755894
                    1.4183235
gama
        0.40218527
                    0.1967355
sigma
        0.63776914
                    1.4860610
lambda
       0.10652946
                   3.1976719
alpha1
        0.80101511
                           NA
alpha2
                           NA
        1.04154584
        2.12012465
                           NA
alpha3
, , 16
                 1
beta1
      -0.66470245 -1.3104776
beta2
      -1.01654822
                    1.0393372
beta3 -1.98425140
                    1.9630830
beta4 -3.05437468
                    3.0806126
delta
        0.06262787
                    1.2863217
        0.36747490
                   0.1214173
gama
sigma
        0.60942362
                   1.3326818
lambda 0.10331272
                    3.6915549
alpha1
        0.60266597
                           NA
alpha2
        1.00697108
                           NA
alpha3
        2.05058388
                           NA
, , 17
                 1
                            2
beta1 -1.04970833 -0.7652849
beta2
      -0.97226820
                   0.9466166
beta3
      -1.99863848
                    1.9752672
beta4 -2.95304363
                   2.9409705
delta
        0.06142521
                    1.4489229
gama
        0.42473972 0.1404104
sigma
        0.65460887
                    1.4965921
lambda
       0.09425083
                    3.8667454
alpha1
        0.72822418
                           NA
alpha2
        0.92373915
                           NA
alpha3
        1.69044084
                           NA
```

, , 18

```
2
                 1
      -0.79555354 -1.1330229
beta1
beta2
      -1.00192149
                    0.9921427
beta3
                    2.0030472
       -2.03133104
beta4 -3.00873714
                    3.0285738
delta
        0.04564007
                    1.4739050
gama
        0.34278928
                    0.1085970
sigma
        0.58725829
                    1.5102957
lambda
                    4.4726062
        0.07795297
alpha1
        0.65023982
                            NA
alpha2
        0.93093388
                            NA
alpha3
        2.04836588
                            NA
, , 19
                 1
                             2
       -0.74307957 -0.8357423
beta1
                    0.9859652
beta2
      -1.00158104
beta3
      -1.99301834
                    1.9375415
                    2.9456929
beta4 -3.02756249
delta
                    1.2729119
        0.05689233
gama
        0.33766626
                    0.1729896
sigma
        0.58386899
                    1.3391394
lambda
        0.09790613
                    3.0604711
alpha1
        0.81352181
                            ΝA
alpha2
        1.22531839
                            NA
alpha3
        2.11877422
                            NA
, , 20
                 1
                             2
       -1.03257330 -1.2601667
beta1
beta2
      -0.98910395
                    1.0512672
beta3
      -2.00680910
                    2.0573483
beta4 -2.94594083
                    3.0155794
delta
        0.05221273
                    1.3365695
gama
        0.37721071
                    0.2032042
sigma
        0.61639020
                    1.4105397
lambda
        0.08501282
                    2.9650038
alpha1
        0.73091416
                           NA
alpha2
        0.96387314
                            NA
alpha3
        1.89865854
                            NA
```

```
2
                  1
beta1
       -0.79263554 -1.0438641
beta2
       -0.98751949
                     1.0381892
beta3
      -2.01219367
                     1.9956841
beta4 -3.01318142
                    2.9578192
delta
        0.05387256
                    1.3364687
gama
        0.36797364
                    0.2537119
                     1.4282369
sigma
        0.60899581
lambda
                     2.6533124
        0.08880947
alpha1
        0.66375975
                            NA
alpha2
                            NA
        0.88311845
alpha3
        2.13994661
                            NA
, , 22
                  1
                             2
beta1
       -0.88286876 -1.0053341
      -0.98332924
beta2
                    0.9854052
beta3
      -2.03303921
                    2.0071542
beta4 -2.99809276
                    3.0072967
delta
        0.04688622
                     1.4396207
gama
        0.38347986
                    0.1501978
                     1.4908741
sigma
        0.62102993
lambda
        0.07571360
                     3.7146360
alpha1
        0.75759355
                            NA
alpha2
        1.10155096
                            NA
alpha3
        2.24465221
                            NA
, , 23
                  1
                             2
beta1
       -0.55761154 -0.9325252
beta2
       -0.99273620
                    0.9658595
beta3
      -2.03153076
                    1.9994955
beta4 -3.11531963
                    3.0362236
delta
        0.06145793
                    1.2851492
                    0.2489536
gama
        0.34905979
sigma
        0.59400073
                    1.3786088
lambda
        0.10402268
                     2.5756943
alpha1
        0.66960929
                            NA
```

```
alpha2
        0.98310714
                            NA
alpha3
        1.99540912
                            NA
, , 24
                 1
                             2
beta1
       -0.78852341 -0.8704672
beta2
      -1.01963617
                    1.0127462
beta3
      -1.99578314
                    1.9762912
beta4
      -2.99431145
                   2.9572690
delta
        0.06117111
                    1.3641542
                    0.2844190
gama
        0.36817117
        0.60984677
                    1.4646964
sigma
lambda
                    2.5579034
        0.10081414
alpha1
        0.69677435
                            NA
alpha2
        0.84644578
                            NA
alpha3
        2.26923211
                            NA
, , 25
                             2
                 1
beta1
       -0.85600264 -0.7632364
beta2
      -1.00294598
                    0.9549587
beta3
      -2.01586839
                    2.0653637
beta4
      -2.98344930
                    2.9657230
delta
        0.06440026
                    1.3726759
        0.39852303
                    0.1460375
gama
sigma
        0.63456317
                    1.4248777
lambda
                    3.5919962
        0.10201427
alpha1
        0.70922202
                            NA
alpha2
        0.99788851
                            NA
alpha3
        1.88005264
                            NA
, , 26
                             2
                 1
beta1
       -0.76153731 -0.8431053
beta2
      -0.99694180
                   0.9826500
beta3
      -2.00398627
                    2.0322441
beta4 -3.04643307
                    2.9516451
delta
        0.05673131
                    1.3352138
```

0.60606901

gama sigma 0.1288305

```
lambda
        0.09401817 3.7199878
alpha1
        0.66734020
                           NA
alpha2
        0.95247572
                           NA
alpha3
        1.54710306
                           NA
, , 27
                 1
                            2
beta1 -0.85445259 -1.0356413
beta2
      -1.03069643
                    0.9948702
beta3
      -2.01726959
                    2.0655581
beta4 -2.95362469
                    3.0275288
delta
        0.05453019
                    1.3329875
gama
        0.38059582
                    0.2036997
sigma
        0.61932977
                    1.4073221
lambda
        0.08839038
                    2.9534587
alpha1
        0.52037125
                           NA
alpha2
        1.02967613
                           NA
alpha3
        2.01688584
                           NA
, , 28
                 1
                            2
beta1 -0.70406789 -1.1436902
beta2 -1.01858173 0.9990757
beta3
      -2.00875128
                   1.9598769
beta4 -3.03216569
                    3.0399261
delta
        0.03943264
                    1.4437129
                    0.1870145
gama
        0.38235287
sigma
        0.61960294
                    1.5070904
lambda
        0.06377106
                    3.3384374
alpha1
        0.61324692
                           NA
alpha2
        1.01934754
                           NA
alpha3
        1.68057314
                           NA
, , 29
                 1
                            2
beta1 -0.91259209 -0.7632372
beta2 -0.98632893 0.9597394
beta3 -2.01841777
                    1.9921849
beta4 -2.96772551
                    2.9980377
```

delta

0.05465727

```
gama
        0.33101672 0.2984749
                    1.3595952
sigma
        0.57793091
lambda
        0.09499986
                    2.2788480
alpha1
        0.62794641
                           NA
alpha2
        0.94240184
                           NA
alpha3
        1.83564349
                           NA
, , 30
                           2
                1
      -0.9314549 -0.7471473
beta1
beta2
      -0.9869147
                   0.9644611
beta3
      -1.9788546
                  1.9726691
beta4
      -2.9750308 2.9744261
delta
        0.0558828 1.2478160
gama
        0.3902032 0.2495511
sigma
        0.6271571 1.3440966
lambda
        0.0894608 2.4978755
alpha1
        0.7492120
                          NA
alpha2
        1.0150489
                          NA
alpha3
        2.0726659
                          NA
, , 31
                 1
                            2
      -0.78653696 -0.7763756
beta1
beta2
      -0.99143475
                   0.9717267
beta3
      -2.02667282
                    1.9923106
beta4 -3.02891921
                    2.9587190
delta
        0.05848709
                    1.3087994
gama
        0.38160655
                    0.2533388
sigma
        0.62050567
                    1.4022463
                    2.6002929
lambda
        0.09467866
alpha1
        0.68711294
                           NA
alpha2
                           NA
        0.90779519
alpha3
        1.67418958
                           NA
, , 32
                            2
                 1
beta1 -0.84183075 -1.0150432
beta2 -1.02634080
                    1.0383879
```

beta3 -2.03486901

```
beta4 -2.95653721 2.9841746
delta
        0.05191886 1.2560309
gama
        0.35523037
                    0.1417193
sigma
                   1.3112333
        0.59826912
lambda
                    3.3364589
        0.08711042
alpha1
        0.75224352
                          NA
alpha2
        0.94082008
                          NA
alpha3
        2.20282728
                          NA
, , 33
                            2
                 1
beta1
      -0.62036986 -1.0912559
beta2
      -1.01092016
                   1.0679224
beta3
      -1.98714531
                    2.0361924
beta4 -3.05667936 2.9701521
delta
        0.04974788
                   1.2651497
gama
        0.36165346 0.1837829
sigma
        0.60343045
                   1.3358094
lambda
       0.08272338
                   2.9511372
alpha1
        0.54890914
                          NA
alpha2
                          NA
        0.99322034
alpha3
        1.95406303
                          NA
, , 34
                            2
                 1
beta1
      -0.77960793 -0.9341472
beta2
      -1.01808596 0.9763763
beta3
      -2.00433148 2.0024391
beta4 -2.99635198 3.0123837
delta
        0.06418503 1.3129124
gama
        0.36791833 0.2065423
sigma
        0.60994922
                   1.3893456
lambda
                    2.8888913
        0.10581763
alpha1
        0.83214455
                          NA
alpha2
                          NA
        1.03494039
alpha3
        1.95972923
                          NA
, , 35
                            2
                 1
beta1 -0.77380706 -0.8118785
```

```
beta2 -1.02761346 1.0345103
                    2.0072358
beta3
      -2.04608087
beta4 -3.02005775
                   2.9008975
delta
       0.06871948
                   1.2503273
gama
       0.36639713
                   0.1809063
sigma
       0.60919578
                   1.3206910
lambda
       0.11352821
                    2.9396585
alpha1
       0.75518289
                          NA
alpha2
       0.93028036
                          NA
alpha3
       1.86880694
                          NA
, , 36
                            2
                 1
      -0.87846881 -0.9474379
beta1
beta2 -0.99396953
                   0.9681529
beta3
      -1.98485887
                    1.9339694
beta4 -2.99522001
                   2.9643442
delta
       0.06091439
                   1.4814662
gama
       0.37533694 0.1297069
       0.61566834
sigma
                   1.5246143
lambda
       0.09942812 4.1134883
alpha1
       0.60510491
                          NA
alpha2
       0.90884561
                          NA
alpha3
       1.67657874
                          NA
, , 37
                 1
beta1
      -0.65061685 -0.7642550
beta2
      -1.03176024 0.9685642
beta3
      -1.99733731
                    1.9823521
beta4 -3.00951398
                   2.9494505
delta
       0.05264875
                   1.3261123
                   0.1995897
gama
       0.35371002
sigma
       0.59706106
                   1.3993440
lambda
                   2.9683238
       0.08852469
alpha1
       0.81320769
                           NA
alpha2
       1.09162562
                          NA
alpha3
       2.02786998
                          NA
, , 38
```

50

```
2
                 1
beta1
      -0.74918732 -0.9719221
beta2
      -1.00259301
                    0.9988080
beta3
      -2.04098692
                    2.0313982
beta4 -3.02626259
                    3.0088799
delta
        0.06625797
                    1.2724390
gama
        0.33690564
                    0.2056486
sigma
        0.58420524
                    1.3508329
lambda 0.11415212
                    2.8059123
alpha1
        0.74303069
                           NA
alpha2
        1.07427543
                           NA
alpha3
        2.06858903
                           NA
, , 39
                            2
                 1
beta1
      -0.82532647 -0.9760942
beta2
      -1.02188736 0.9748719
beta3
      -1.99895398
                   2.0158641
beta4 -2.97563696
                    3.0233734
delta
        0.04402189
                    1.3756870
        0.37574918 0.2002313
gama
sigma
        0.61456253
                    1.4466326
lambda
        0.07181574
                    3.0743527
alpha1
        0.63922627
                           NA
alpha2
        1.12393934
                           NA
alpha3
        1.95537156
                           NA
, , 40
                            2
                 1
beta1
      -0.96291131 -0.9172074
beta2
      -0.97524651
                    0.9505426
beta3
      -1.97504784
                    2.0006510
beta4 -2.96594294
                    2.9841537
delta
        0.06792727
                    1.3897002
                    0.1747031
gama
        0.35515036
sigma
        0.59980370
                    1.4511959
        0.11398247
lambda
                    3.3248402
alpha1
        0.80752573
                           NA
alpha2
        1.03210709
                           NA
alpha3
        2.18408695
                           NA
```

## , , 41

	1	2
beta1	-0.91563910	-0.8449014
beta2	-0.98687430	0.9920337
beta3	-1.97591192	1.9966043
beta4	-2.97366503	2.9831647
delta	0.05428054	1.2272548
gama	0.35553819	0.2371751
sigma	0.59873581	1.3203520
lambda	0.09103346	2.5199980
alpha1	0.71523335	NA
alpha2	1.03897939	NA
alpha3	2.08341229	NA
, , 42		
	1	2
beta1	-0.92349778	-1.1878902
beta2	-0.99239256	1.0140209
beta3	-1.99974622	2.0073126
beta4	-2.97603775	3.0576429
delta	0.05505145	1.2514073
gama	0.41026649	0.2174452
sigma	0.64288191	1.3354645
lambda	0.08594799	2.6836368
alpha1	0.57223104	NA
alpha2	0.88753289	NA
alpha3	1.68480213	NA
4.0		
, , 43		
	1	2
beta1	-0.56309624	-0.7245119
beta1	-1.04618319	0.7243113
beta3	-2.02105639	2.0112181
beta4	-3.03653531	2.9419198
delta	0.05387384	1.2048591
gama	0.36776927	0.2791122
sigma	0.60882811	1.3155978
lambda	0.08883624	2.2805883
alpha1	0.80434907	NA
alpha2	1.22518085	NA

```
, , 44
                             2
                  1
beta1
       -0.93341107 -0.9257061
beta2
      -1.00031683
                    1.0516569
beta3
      -1.99880121
                    1.9876450
beta4 -2.94015115
                    2.9317039
delta
        0.05393579
                    1.1783090
                    0.2061672
gama
        0.35000144
sigma
        0.59406272
                     1.2627666
lambda
        0.09116793
                     2.5950720
alpha1
        0.68630284
                            NA
alpha2
        0.83200300
                            NA
alpha3
        1.86205938
                            NA
, , 45
                  1
                             2
beta1
       -0.83348271 -0.9957577
beta2
      -0.97393632
                    1.0210708
beta3
      -1.99320787
                    2.0443083
beta4 -3.03138099
                    2.9913575
delta
        0.04343969
                    1.2623934
gama
        0.38265147
                     0.2031562
        0.62011167
                     1.3404452
sigma
lambda
        0.07022392
                     2.8007842
alpha1
        0.73843944
                            NA
alpha2
        0.96750501
                            NA
alpha3
        1.77912564
                            NA
, , 46
                             2
                  1
beta1
       -0.57951742 -1.1402645
beta2
      -1.04386246 0.9426447
beta3
      -2.04388721
                    2.0159698
beta4 -3.04914910
                    3.0513083
delta
        0.04476148
                    1.4772909
                    0.1336260
        0.37823618
gama
```

0.07278183

1.5218457

4.0412941

sigma

lambda

alpha3

2.05234358

NA

```
alpha1
        0.74831716
                           NA
alpha2
        0.98418948
                           NA
alpha3
        2.06884992
                           NA
, , 47
                            2
                 1
beta1 -0.70952253 -1.1608609
beta2 -1.04370772 0.9934835
beta3
      -1.97707593
                    2.0387905
beta4
      -2.97777501
                    3.0855968
delta
        0.05153753
                    1.4049592
gama
        0.35961674
                    0.2359018
sigma
        0.60189107
                    1.4865437
lambda
        0.08594164
                    2.8926649
alpha1
        0.67078230
                           NA
alpha2
        1.07032863
                           NA
alpha3
        2.04119078
                           NA
, , 48
                           2
                 1
beta1
      -0.84762407 -1.191549
beta2 -1.00026931
                   1.018711
beta3
      -2.00123995
                    2.018366
beta4 -2.99607968
                    3.105760
delta
        0.05656482
                    1.159866
gama
        0.40347743
                    0.247318
                    1.261985
sigma
        0.63771232
lambda
        0.08905059
                    2.332276
alpha1
        0.75488805
                          NA
alpha2
        1.06494836
                          NA
alpha3
        1.98127876
                          NA
, , 49
                 1
beta1 -0.81113604 -1.0313694
beta2 -1.01527996 1.0191214
beta3
      -2.02787041 2.0115772
beta4 -3.00087503 3.0252577
delta
        0.05795471
                    1.2105174
```

0.38500157 0.2697214

gama

```
sigma
        0.62318562
                   1.3172219
lambda
                    2.3308447
        0.09340229
alpha1
        0.61965336
                           NA
alpha2
                           NA
        0.92385601
alpha3
        1.93473087
                           NA
, , 50
                            2
                 1
beta1
      -0.63033038 -0.7658353
beta2
      -0.99502208
                    0.9660569
beta3
                    1.9994905
      -2.01453690
beta4 -3.07525485
                    3.0263689
delta
        0.05393128
                    1.0794720
gama
        0.37640221
                    0.3625643
sigma
        0.61588213
                    1.2360518
lambda
        0.08790521
                    1.7927463
alpha1
        0.54604847
                           NA
alpha2
        0.79599001
                           NA
alpha3
        2.00230979
                           NA
, , 51
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beta1
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beta2
      -1.00699074
                    0.9625506
beta3
      -2.00097072
                    1.9242830
beta4 -3.01271233
                    3.0560357
delta
        0.05831147
                    1.3907113
gama
        0.39313341
                    0.2364644
sigma
        0.62970917
                    1.4732761
lambda
        0.09300023
                    2.8599214
alpha1
        0.80114947
                           NA
alpha2
        1.10968442
                           NA
alpha3
                           NA
        2.15929968
, , 52
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beta1 -0.87702245 -0.9595493
beta2 -0.97678533 0.9893186
beta3 -2.00525531
                    1.9578281
```

beta4 -3.00224975 3.0180843

```
delta
        0.06119419 1.2843553
                   0.2327072
gama
        0.34888029
sigma
        0.59382238
                    1.3719605
lambda
        0.10360292
                    2.6624429
alpha1
        0.74896795
                           NA
alpha2
        1.06040229
                           NA
alpha3
        1.95396651
                           NA
, , 53
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beta1
      -0.86367673 -0.7361529
beta2
      -1.00009806
                   0.9543038
beta3
      -2.00958146
                    2.0235413
beta4 -2.98394437
                    2.9874705
delta
        0.06017103 1.3581138
gama
        0.35544358
                   0.1937686
sigma
        0.59921960
                   1.4276700
                    3.0852793
lambda 0.10092578
alpha1
        0.66828917
                           NA
alpha2
        0.98639577
                           NA
alpha3
                           NA
        1.74501631
, , 54
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beta1
      -0.82637029 -0.7773107
beta2
      -0.98425177
                    0.9757899
beta3
      -1.98825708 2.0003475
beta4 -3.02867136
                    2.9596093
delta
        0.05698202
                   1.2505607
gama
        0.34265433 0.1484563
sigma
        0.58813373
                   1.3085711
lambda
       0.09734413
                    3.2456780
alpha1
        0.74804701
                           NA
alpha2
        1.06961405
                           NA
alpha3
                           NA
        1.74286046
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beta1 -0.58416523 -1.1427114
beta2 -1.02272652 0.9919424
```

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beta3
      -1.98808878 2.0110268
beta4
      -3.08640885
                    3.0544668
delta
        0.04891330
                    1.3202384
gama
        0.40700207
                    0.1591629
sigma
        0.63983950
                    1.3791999
lambda
        0.07667056
                    3.3092644
alpha1
        0.61340378
alpha2
        0.98114582
                           NA
alpha3
        1.81991338
                           NA
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beta1
       -0.85622520 -0.8948071
beta2
       -1.01696010 0.9842628
beta3
      -1.97116167
                    2.0461362
beta4 -2.98134930
                    2.9914854
delta
        0.04397538
                    1.2870832
gama
        0.38143001
                    0.2044642
sigma
        0.61916383
                    1.3642021
lambda
        0.07120364
                    2.8464134
alpha1
                           NA
        0.81764546
alpha2
        1.03940717
                           NA
alpha3
        1.96670006
                           NA
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beta1
       -0.96815344 -0.9092881
beta2
      -0.98349686
                    1.0054259
beta3
      -1.99566541
                    2.0065109
beta4 -2.96072730
                    2.9462826
delta
        0.06022780
                    1.3789752
gama
        0.39182428
                    0.2083837
sigma
        0.62884948
                    1.4525689
lambda
        0.09621689
                    3.0208178
alpha1
        0.77319221
                           NA
alpha2
        1.01639449
                           NA
alpha3
        2.13198591
                           NA
, , 58
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1 2

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beta1
      -0.86303547 -0.9634265
beta2 -0.99217199 1.0293288
beta3 -2.00668012
                  1.9741677
beta4 -3.00651360 2.9350771
delta
       0.06023249
                   1.4102564
gama
       0.44077397
                   0.1813313
sigma
       0.66663477
                   1.4731444
lambda 0.09072414 3.3117818
alpha1
       0.67810125
                          NA
alpha2
                          NA
       1.08115865
       2.03379573
                          NA
alpha3
, , 59
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beta1
      -0.92507816 -1.2513060
beta2 -0.99583912
                  1.0527774
beta3 -2.01566593 2.0296727
beta4 -2.95748077
                   3.0485815
delta
       0.05739973
                  1.2275663
       0.34985659
gama
                   0.2421795
                   1.3225349
sigma
       0.59426536
lambda 0.09704314
                   2.4944583
alpha1
       0.72258036
                          NA
alpha2
       0.97671065
                          NA
alpha3
       2.02808401
                          NA
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beta1 -0.67106150 -1.092065
beta2 -1.01170478 1.047633
beta3 -1.99101114 2.036820
beta4 -3.05299075 2.975704
delta
       0.06440317
                   1.389807
gama
       0.40149390 0.171924
sigma
       0.63690005
                   1.450341
lambda 0.10164073
                   3.351864
alpha1
       0.76179903
                         NA
alpha2
                         NA
       1.12615300
                         NA
alpha3
       2.05742155
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, , 61

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2
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beta1
      -0.65578948 -0.9230967
beta2
       -1.03987017
                    0.9975859
beta3
       -1.99494078
                    2.0078462
beta4
      -3.02312521
                    2.9643547
delta
        0.05006897
                    1.3773092
gama
        0.36797117
                    0.1741882
sigma
        0.60866910
                    1.4391556
lambda
                    3.3000620
        0.08253949
alpha1
        0.60775197
                            NA
alpha2
        0.94801285
                            NA
alpha3
        1.83956300
                            NA
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                             2
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beta1
beta2
      -1.02892596
                    1.0060767
beta3
      -1.96698805
                    1.9984063
beta4
      -2.98212777
                    3.0016977
delta
                    1.2760800
        0.06761973
gama
        0.38984592
                    0.2537304
sigma
        0.62802734
                    1.3719004
lambda
        0.10829963
                    2.5333295
        0.68968174
alpha1
                            ΝA
alpha2
        1.05192989
                            NA
alpha3
        1.83519182
                            NA
, , 63
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       -0.88162070 -0.8360113
beta1
beta2
      -1.01093181
                    1.0001203
beta3
      -1.99720372
                    2.0021365
beta4 -2.95465403
                    2.9929684
delta
        0.04829234
                    1.0873588
gama
        0.35700957
                    0.2622655
sigma
        0.59945118
                    1.2019212
lambda
                    2.1232554
        0.08082362
alpha1
        0.86066584
                            NA
alpha2
        1.07869483
                            NA
alpha3
        1.85918968
                            NA
```

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2
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       -0.91031013 -0.8926283
beta1
beta2
       -1.00156652
                    0.9607280
beta3
       -1.97464991
                     1.9618157
beta4
      -2.97801706
                    3.0022901
delta
        0.06013542
                    1.2651392
gama
        0.36853309
                    0.2157962
sigma
        0.61004046
                     1.3477290
lambda
        0.09905858
                     2.7234314
alpha1
        0.57184242
                            NA
alpha2
                            NA
        1.01283876
alpha3
        1.97442597
                            NA
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                             2
beta1
       -0.79536195 -1.2588556
beta2
      -0.97644904
                    1.0803879
beta3
       -1.97078896
                    2.0154930
beta4 -3.02417924
                    3.0633501
delta
        0.03859382
                    1.2039788
gama
        0.36967583
                    0.2295793
                     1.2958180
sigma
        0.60923338
lambda
        0.06347567
                     2.5127684
alpha1
        0.77936600
                            NA
alpha2
        1.04373740
                            NA
alpha3
        2.13681306
                            NA
, , 66
                  1
                             2
beta1
       -0.73162070 -1.1568173
beta2
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                    1.0530250
beta3
      -2.01594334
                    1.9611734
beta4 -3.03101632
                    3.0157787
delta
        0.06758938
                    1.3399928
                    0.2302821
gama
        0.39595006
sigma
        0.63286522
                    1.4233281
lambda
        0.10741335
                     2.7923663
alpha1
        0.62871221
                            NA
```

```
alpha2
        1.05635131
                            NA
alpha3
        1.82433854
                            NA
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                  1
                             2
beta1
       -0.77732445 -1.2896347
beta2
       -0.98829404
                     1.0483329
beta3
       -1.99928486
                     1.9822100
beta4
      -3.00927477
                     3.0168835
delta
        0.05805613
                     1.4093368
                     0.1500558
gama
        0.32477537
        0.57284019
                     1.4616039
sigma
lambda
                     3.6382150
        0.10187241
alpha1
        0.72133651
                            NA
alpha2
        0.96228517
                            NA
alpha3
        1.93882387
                            NA
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beta1
       -0.89475868 -0.6619024
beta2
       -0.99315959
                     0.9422655
beta3
       -1.93963669
                     1.9879618
beta4
      -2.99498522
                     3.0187314
delta
        0.04828344
                     1.0127133
        0.41031935
                     0.3392907
gama
sigma
        0.64237889
                     1.1682803
lambda
                     1.7386034
        0.07537672
alpha1
        0.62992479
                            NA
alpha2
        1.02351547
                            NA
alpha3
        1.98581665
                            NA
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beta1
       -0.65775766 -1.1467558
beta2
       -0.97786728
                    1.0335975
       -1.98731472
beta3
                    2.0630863
beta4 -3.07721324
                    3.0083283
delta
        0.06087718
                     1.3913391
```

0.55917472

gama sigma 0.1512537

```
lambda
        0.10952067 3.5775031
alpha1
        0.58031309
                           NA
alpha2
        0.97039534
                           NA
alpha3
        2.03335373
                           NA
, , 70
                 1
                            2
beta1
        0.13999755 -0.9201549
beta2 -1.04298653
                    1.0133353
beta3
      -2.00328637
                    1.9928799
beta4
                    2.9770669
      -3.00483000
delta -1.03653937
                    1.3625014
gama
        0.04574653
                    0.2045354
sigma
        1.05837630
                    1.4355994
lambda -4.84626012
                    3.0126783
alpha1
        0.85482862
                           NA
alpha2
        1.17290327
                           NA
alpha3
        2.01566390
                           NA
, , 71
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beta1 -0.64434506 -0.6784011
beta2 -1.03265340 0.9393952
beta3
                    1.9597843
      -1.99912091
beta4 -3.03081448
                    3.0179272
delta
        0.06037668
                    1.1921826
                    0.1862147
gama
        0.33735666
sigma
        0.58395377
                    1.2678777
lambda
        0.10395003
                    2.7627129
alpha1
        0.73618982
                           NA
alpha2
        1.13452835
                           NA
alpha3
        2.35979641
                           NA
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beta1 -0.84406058 -0.9382570
beta2 -0.98688971 0.9780231
beta3 -1.99755851
                    1.9993103
beta4 -3.03024749
                    3.0230610
delta
        0.05918649
                    1.3645174
```

```
gama
        0.41131497 0.2574950
                    1.4558169
sigma
        0.64406367
                    2.6890239
lambda
        0.09228590
alpha1
        0.96861922
                           NA
alpha2
        1.11631573
                           NA
alpha3
        1.87663429
                           NA
, , 73
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                 1
       -0.73451246 -0.9824719
beta1
beta2
      -1.04705402
                    1.0119884
beta3
       -1.98717872
                    2.0224424
beta4
      -2.99322066
                    3.0102823
delta
        0.05445796
                    1.2912601
gama
        0.36643495
                    0.2281577
sigma
        0.60778336
                    1.3767754
lambda
        0.08996279
                    2.7033119
alpha1
        0.85576303
                           NA
alpha2
        1.01944277
                           NA
alpha3
        2.00129609
                           NA
, , 74
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                            2
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beta1
beta2
      -0.97139729
                    0.9426565
beta3
      -1.99891672
                    1.9662995
beta4 -2.98582889
                    3.0515653
delta
        0.05059054
                    1.2068186
gama
        0.32284260
                    0.2314305
sigma
        0.57044018
                    1.2991696
                    2.5086014
lambda
        0.08903769
alpha1
        0.78552772
                           NA
alpha2
                           NA
        1.03936323
alpha3
        2.08140150
                           NA
, , 75
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beta1 -0.95482010 -1.1410471
beta2 -0.96723104 0.9857520
```

beta3 -1.95031935 2.0015649

```
beta4 -2.99062835 3.0605794
delta
        0.06200169
                   1.4604655
gama
        0.37982067
                    0.1446675
sigma
                    1.5091809
        0.61940688
lambda
       0.10060377
                    3.8397750
alpha1
        0.64465171
                           NA
alpha2
        0.96138706
                           NA
alpha3
        1.92304471
                           NA
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beta1
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beta2
      -1.01162715
                   1.0373935
beta3
      -1.98355014 2.0304251
beta4 -3.00139775 2.9646574
delta
        0.04261026
                   1.3617047
gama
        0.36907931 0.2036409
sigma
        0.60901145
                   1.4345315
lambda
        0.07013816
                   3.0175218
alpha1
        0.59691675
                           NA
alpha2
                           NA
        1.05399337
alpha3
        1.98232850
                           NA
, , 77
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beta1
      -0.86929008 -1.0920404
beta2
      -0.97847751
                   0.9866862
beta3
      -2.01452819
                   1.9474045
beta4 -2.99837439 3.0209369
delta
        0.05248186
                   1.4846137
gama
        0.35700895
                   0.1362550
sigma
        0.59980272
                   1.5298147
lambda
                    4.0219547
        0.08783541
alpha1
        0.56583259
                           NA
alpha2
                           NA
        1.00696498
alpha3
        2.19493291
                           NA
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                            2
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beta1 -0.79554582 -0.8730488
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```
beta2 -1.01648864 1.0068114
                   1.9214930
beta3
      -1.98807568
beta4 -2.98889147
                   2.9568381
delta
                   1.2440456
       0.04833025
gama
       0.37294876
                   0.2477283
sigma
       0.61260475
                   1.3399170
lambda
       0.07913970
                   2.4994732
alpha1
       0.54785464
                          NA
alpha2
       1.02811151
                          NA
alpha3
       1.86911472
                          NA
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      -0.83675719 -0.7694920
beta1
beta2 -1.00094234 0.9711782
beta3
      -2.01576218
                  1.9909605
beta4 -2.99293788 2.9498145
delta
       0.05198141
                   1.3818107
gama
       0.35160813 0.1789931
sigma
       0.59523962
                   1.4451276
lambda
                  3.2661066
       0.08766346
alpha1
       0.52031405
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alpha2
       1.04717691
                          NA
alpha3
       1.94196919
                          NA
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beta1
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beta2
      -1.01166050 0.9940103
beta3
      -2.00683356
                   2.0268562
beta4 -3.03596908
                   3.0060019
delta
       0.06423103
                   1.3167171
gama
       0.34343552
                   0.1870311
sigma
       0.58954317
                   1.3859202
lambda 0.10960295
                   3.0446373
alpha1
       0.75876786
                          NA
alpha2
       1.24790458
                          NA
alpha3
       2.24907599
                          NA
, , 81
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1
beta1
      -0.80335653 -0.8873556
beta2
      -1.01541569
                    1.0016863
beta3
      -2.00695197
                    1.9607583
beta4 -2.98322507
                    2.9770485
delta
        0.04989996
                    1.2646964
gama
        0.37677830
                    0.2283107
sigma
        0.61584763
                    1.3519496
lambda 0.08129376
                    2.6468126
alpha1
        0.59984020
                           NA
                           NA
alpha2
        0.87315019
alpha3
        1.97286643
                           NA
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beta1
      -0.72105497 -0.7133351
beta2
      -1.01294773 0.9876133
beta3
      -1.95634984
                    1.9778094
beta4 -3.01896600
                    2.9352729
delta
        0.03431760
                    1.2925671
                    0.2650391
gama
        0.39474497
sigma
        0.62922386
                    1.3913190
lambda
        0.05462087
                    2.5107192
alpha1
        0.64916505
                           NA
alpha2
                           NA
        0.93832947
alpha3
        2.03938572
                           NA
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beta1
      -0.976216944 -0.9069674
                     0.9947469
beta2
      -0.969720943
beta3
      -1.995648137
                     2.0324932
beta4 -2.956255768
                     2.9725383
delta
        0.007055809
                     1.3261737
                     0.2230949
gama
        0.373708277
sigma
        0.611357556
                     1.4077754
lambda
        0.011541984
                     2.8077314
alpha1
        0.753453315
                            NA
alpha2
        1.105452326
                            NA
alpha3
        2.087644116
                            NA
```

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beta1
       -0.99039891 -0.8674579
beta2
                    0.9699724
      -0.99141755
beta3
       -1.95188543
                    1.9593087
beta4
      -2.94266485
                    2.9508574
delta
        0.05449505
                    1.4080814
gama
        0.35271347
                    0.1848887
sigma
        0.59639180
                    1.4722711
                    3.2747079
lambda
        0.09175844
alpha1
        0.73000916
                            NA
                            NA
alpha2
        0.87874736
alpha3
        2.03170163
                            NA
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beta1
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beta2
      -1.01002173
                    1.0477165
beta3
      -1.98700232
                    2.0045604
beta4 -2.98608382
                    3.0221872
delta
        0.05511862
                    1.3173911
gama
        0.37107853
                    0.1767394
sigma
        0.61165071
                    1.3828444
lambda
                    3.1336325
        0.09048267
alpha1
        0.77273660
                            NA
alpha2
        1.12058341
                            NA
alpha3
        2.01368262
                            NA
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beta1
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beta2 -0.9706373
                   0.9476287
beta3
       -1.9811376
                   1.9250060
beta4 -3.0053930
                   2.9845204
delta
        0.0556686
                   1.3273139
gama
        0.2871448 0.2180039
        0.5387428
                   1.4070416
sigma
lambda
        0.1038867
                   2.8427684
alpha1
        0.7888958
                           NA
alpha2
        0.9849668
                           NA
```

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beta1
       -0.80475937 -1.1349595
beta2
       -1.02367199
                    0.9893263
beta3
       -2.00436163
                    2.1265328
beta4 -2.99659211
                    3.0395574
delta
        0.05600707
                     1.5083844
gama
        0.37426559
                    0.1471490
                     1.5563973
sigma
        0.61433084
lambda
        0.09154885
                     3.9321802
alpha1
        0.70994078
                            NA
alpha2
        1.10740762
                            NA
alpha3
        1.99140983
                            NA
, , 88
                             2
                  1
beta1
       -0.70993036 -0.9385954
beta2
       -0.98261626
                    0.9395212
beta3
      -1.98875240
                    2.0177387
beta4 -3.04613442
                    3.0411807
delta
        0.05468166
                    1.3641118
gama
        0.34149226
                     0.1889945
        0.58692619
                     1.4317107
sigma
lambda
        0.09357315
                     3.1378008
alpha1
        0.83394876
                            NA
alpha2
        1.16286751
                            NA
alpha3
        2.14265643
                            NA
, , 89
                             2
                  1
beta1
       -0.84356070 -1.1649459
beta2
      -1.01174717
                     1.0092736
beta3
      -2.01607679
                    2.0240656
                    3.0447921
beta4
      -2.98561638
delta
        0.05315261
                     1.4733162
```

0.60995766

0.08747424

gama sigma

lambda

0.1948888

1.5380343

3.3373559

alpha3

2.1352835

NA

```
alpha1
        0.76653339
                            NA
alpha2
                            NA
        0.91703817
alpha3
        1.89693919
                            NA
, , 90
                             2
                 1
beta1
        0.13818437 -0.8668644
beta2 -1.00787263
                    1.0133910
beta3
       -2.00221037
                    2.0097577
beta4
      -3.00649928
                    2.9799521
delta
      -1.11323177
                    1.2653432
gama
        0.01738483
                    0.1868163
sigma
        1.12101285
                    1.3371274
lambda -8.44306907
                    2.9275273
alpha1
        0.65756132
                            NA
alpha2
        1.02657206
                            NA
alpha3
        2.23368554
                            NA
, , 91
                             2
                 1
beta1
       -0.75579637 -1.0694320
beta2
      -0.98817351
                    1.0194073
beta3
      -2.01597690
                    2.0292325
                    3.0441067
beta4 -3.03950726
delta
        0.05647252
                    1.3266377
gama
        0.38899251
                    0.2483224
                    1.4171415
sigma
        0.62624409
lambda
        0.09054544
                    2.6622229
alpha1
        0.89876327
                            NA
alpha2
        1.09333501
                            NA
alpha3
        2.07029318
                            NA
, , 92
                            2
                 1
beta1 -0.91733366 -1.255030
beta2 -1.00339566
                    1.033899
beta3
                    1.993362
      -2.02142429
beta4 -2.96103605
                    3.057996
delta
        0.05794192
                    1.361868
```

gama

0.36839885

```
sigma
        0.60971806
                   1.433820
lambda
                    3.036466
        0.09546270
alpha1
        0.68443983
                          NA
alpha2
        0.99279766
                          NA
alpha3
                          NΑ
        1.89495668
, , 93
                            2
                 1
beta1
      -0.74799699 -0.9078726
beta2
      -1.02574532
                    1.0059648
beta3
                    2.0334672
      -2.04715806
beta4 -3.02774431
                    2.9804989
delta
        0.06323749
                    1.2458641
gama
        0.37455401
                    0.2257067
sigma
        0.61526660
                    1.3333732
lambda
        0.10332785
                    2.6223968
alpha1
        0.77038849
                           NA
alpha2
        1.01270752
                           NA
alpha3
        1.82035225
                           NA
, , 94
                 1
                            2
beta1
      -0.88983196 -1.1726683
                    1.0050582
beta2
      -0.97909944
beta3
      -2.05042187
                    1.9431687
beta4 -2.99130291
                    3.0928596
delta
        0.05372682
                    1.3213515
gama
        0.34552426
                    0.2265087
sigma
        0.59026336
                    1.4044495
lambda
        0.09140120
                    2.7763608
alpha1
        0.69232186
                           NA
alpha2
        1.07287622
                           NA
alpha3
                           NA
        2.28238213
, , 95
                            2
                 1
beta1 -0.78847231 -1.0330013
beta2 -1.02203328 0.9865455
```

beta3 -1.93936975

beta4 -2.98485958 3.0305240

```
delta
        0.05562392 1.3556835
        0.34702681 0.1824361
gama
sigma
        0.59171009
                   1.4213774
lambda
        0.09442349
                   3.1739705
alpha1
        0.61019574
                          NA
alpha2
        0.91301217
                          NA
alpha3
        2.06881172
                           NA
, , 96
                            2
                 1
beta1
      -0.84255744 -0.9751501
beta2
      -0.99794868
                   0.9603845
beta3
      -2.06360320
                   1.9836880
beta4 -2.99275246 3.0493314
delta
        0.06399345
                   1.2990841
gama
        0.34218175
                   0.2576438
sigma
        0.58845298
                   1.3947270
lambda 0.10939743
                   2.5593368
alpha1
        0.71952216
                          NA
alpha2
        1.07221000
                          NA
alpha3
                          NA
        1.96020388
, , 97
                            2
                 1
beta1
      -0.91386307 -0.9569652
beta2
      -1.00177014 0.9942265
beta3
      -1.96995812 2.0170202
beta4 -2.95539416 2.9751561
delta
        0.04479141
                   1.3152281
gama
        0.34664075 0.2027269
sigma
        0.59046340
                   1.3901625
lambda 0.07607726
                   2.9210927
alpha1
        0.64225407
                          NA
alpha2
        0.85759682
                          NA
alpha3
                          NA
        1.90837484
, , 98
                            2
                 1
beta1 -0.91148773 -1.1018114
beta2 -0.98065450 1.0057523
```

```
beta3
      -1.98224377 1.9688000
beta4 -2.98475431 2.9922414
delta
       0.05293697
                   1.4673018
gama
       0.35206246 0.1499553
sigma
       0.59570528
                   1.5175408
lambda
       0.08921733
                   3.7891211
alpha1
       0.60592202
alpha2
       0.80025549
                          NA
alpha3
       2.04247777
                          NA
, , 99
                1
                           2
beta1
      -0.77134231 -1.1198819
beta2
      -1.02374837
                   1.0051623
beta3
      -1.96617670 1.9594203
beta4 -2.98942605 3.0130576
delta
       0.02598444 1.4153520
gama
       0.40864680 0.1641708
sigma
       0.63978277
                   1.4722065
       0.04064800
lambda
                   3.4931436
alpha1
                          NA
       0.80438256
alpha2
       0.92045823
                          NA
alpha3
       2.29068250
                          NA
, , 100
                           2
                1
beta1
      -0.71781382 -0.9299355
beta2 -1.00610371 0.9513736
beta3
      -2.00706008 1.9875787
beta4 -3.03109713 3.0740624
delta
       0.05923992 1.1790144
gama
       0.37828768 0.3052975
sigma
       0.61789728
                   1.3020647
lambda
       0.09631709 2.1338187
alpha1
       0.68184997
                          NA
alpha2
       0.89973417
                          NA
alpha3
       1.96989579
                          NA
n = 1000 cen = 0.15
, , 1
```

```
2
                 1
beta1
       -0.72339537 -1.0132617
beta2
       -0.99272883
                    0.9949485
beta3
                    2.0235506
       -2.01763099
beta4
      -3.05200618
                    3.0115062
delta
        0.06586598
                    1.4052580
gama
        0.36984652
                    0.1859585
sigma
        0.61170651
                    1.4699349
lambda
                    3.2587271
        0.10830548
alpha1
        0.68694293
                            NA
alpha2
        0.96377039
                            NA
alpha3
        1.86029181
                            NA
, , 2
                 1
                             2
       -0.81173635 -0.8215357
beta1
beta2
      -0.99962302
                    0.9769966
beta3
      -2.03032569
                    2.0035563
beta4
      -3.02027469
                    2.9649863
delta
                    1.3940952
        0.06470887
gama
        0.41780415
                    0.2025254
sigma
        0.64960865
                    1.4649324
lambda
        0.10010999
                    3.0977949
alpha1
        0.66166537
                            NA
alpha2
        1.03183878
                            NA
alpha3
        2.18151679
                            NA
, , 3
                 1
                             2
       -0.80336724 -1.0267994
beta1
beta2
      -1.03920813
                    0.9989595
beta3
      -1.92908803
                    2.0099987
beta4 -2.93676158
                    3.0131895
delta
                    1.3780467
        0.06292857
gama
        0.34327462
                    0.2000015
sigma
        0.58926618
                    1.4487975
lambda
        0.10740561
                    3.0813950
alpha1
        0.67439118
                            NA
alpha2
        1.00034297
                            NA
alpha3
        2.05217665
                            NA
```

```
2
                  1
beta1
       -0.87183552 -0.6973985
beta2
       -1.01950050
                    0.9408806
beta3
       -1.98019099
                     2.0348433
beta4
      -2.98051160
                    2.9578674
delta
        0.07103515
                    1.3166631
gama
        0.38946202
                    0.1660576
        0.62809873
sigma
                     1.3782813
lambda
                     3.2310618
        0.11382581
alpha1
        0.68022646
                            NA
alpha2
                            NA
        0.93662096
alpha3
        2.02534059
                            NA
, , 5
                  1
                             2
beta1
       -0.74944932 -1.0147385
beta2
      -1.01950312 0.9855248
beta3
      -2.01715447
                     1.9856039
beta4 -2.99527339
                     3.0382060
delta
        0.06439416
                     1.3058509
gama
        0.37809617
                    0.2216352
                     1.3881217
sigma
        0.61825786
                     2.7737940
lambda
        0.10472378
alpha1
        0.59203628
                            NA
alpha2
        0.97670448
                            NA
alpha3
        2.18823388
                            NA
, , 6
                  1
                             2
beta1
       -0.79805958 -0.9677816
beta2
       -1.03008486
                     1.0207613
beta3
                     1.9710008
       -2.00818463
beta4
      -2.98790730
                     3.0063320
delta
        0.06585396
                    1.2283745
                    0.2337899
gama
        0.35402936
sigma
        0.59863687
                     1.3201113
lambda
        0.11067825
                     2.5404924
alpha1
        0.69159445
                            NA
```

```
alpha2
        1.04966572
                            NA
alpha3
        1.93181854
                            NA
, , 7
                 1
                             2
beta1
       -0.82667986 -1.0624398
beta2
       -1.02623165
                    1.0349674
beta3
      -1.97610133
                    1.9387270
beta4
      -2.96683772
                    2.9693551
        0.05630238
delta
                    1.3471372
                    0.1359492
gama
        0.37654432
        0.61620961
                    1.3966846
sigma
lambda
                    3.6536206
        0.09175267
alpha1
        0.62872295
                            NA
alpha2
        0.86689318
                            NA
alpha3
        2.03138302
                            NA
, , 8
                             2
                 1
beta1
       -0.65799991 -0.8815795
beta2
      -1.00996676
                    0.9839391
beta3
      -2.02491233
                    2.0248791
beta4
      -3.08165173
                    2.9422071
delta
                    1.3904144
        0.06410179
        0.35270032
                    0.1825025
gama
sigma
        0.59733522
                    1.4545634
lambda
                    3.2546912
        0.10793622
alpha1
        0.86934678
                            NA
alpha2
        1.11315204
                            NA
alpha3
        2.04198266
                            NA
, , 9
                             2
                 1
beta1
       -0.83890929 -1.0343341
beta2
      -0.98261346 0.9853031
      -2.00779963
beta3
                    1.9973179
beta4 -3.04848735
                    3.0112336
delta
        0.06884343
                    1.3812032
```

0.40796666

0.64242204

gama sigma 0.1792020

```
lambda
        0.10778297 3.2627674
alpha1
        0.60477711
                          NA
alpha2
        0.93727063
                           NA
alpha3
        1.72789399
                          NA
, , 10
                1
                            2
beta1 -0.9217220 -1.03556715
beta2
        0.9767003 -0.97253972
beta3
        2.0322634 -1.97946158
beta4
        3.0075184 -2.94265603
delta
        1.3179607 0.06446728
        0.1658304 0.31421868
gama
sigma
        1.3794386 0.56424703
lambda 3.2364616 0.11500675
alpha1 -0.5275574
                          NA
alpha2 -0.8788541
                          NA
alpha3 -2.2390432
                          NA
, , 11
                 1
                            2
beta1 -0.74041219 -0.9945343
beta2 -1.02536240 0.9813076
beta3
      -2.09483238
                   1.9926091
beta4 -3.03633485 3.0263273
delta
        0.06560585
                   1.3518980
gama
        0.37135464
                   0.1711936
sigma
        0.61291008
                   1.4137970
lambda
        0.10765846
                   3.2673838
alpha1
        0.67491552
                          NA
alpha2
        0.97954349
                          NA
alpha3
        1.82592257
                          NA
, , 12
                 1
beta1 -1.02805854 -0.9826701
beta2 -0.97623300 1.0298087
beta3 -2.02164939
                   1.9867203
beta4 -2.96083841
                   2.9658828
```

delta

0.06892491

```
gama
        0.33166989 0.2005462
                    1.3243460
sigma
        0.58001770
                    2.7830875
lambda
        0.11968044
alpha1
        0.64332852
                           NA
alpha2
        0.97795562
                           NA
alpha3
        2.25140276
                           NA
, , 13
                 1
                            2
      -0.75233488 -0.5728201
beta1
beta2
      -1.00402968
                    0.9815761
beta3
      -2.00339695
                    1.9809708
beta4 -3.02621046
                    2.9482935
delta
        0.05342041
                    1.1127683
gama
        0.35172525
                    0.3877146
sigma
        0.59546536
                    1.2751344
lambda
        0.09007524
                    1.7870991
alpha1
        0.75615397
                           NA
alpha2
        0.97842747
                           NA
alpha3
        1.99273314
                           NA
, , 14
                 1
                            2
      -0.55692273 -0.9452662
beta1
beta2
      -1.04017930
                   0.9919857
beta3
      -1.98699072
                    2.0361535
beta4 -3.07486645
                    2.9915061
delta
        0.06850613
                    1.3176904
gama
        0.38275846
                    0.1916820
sigma
        0.62245606
                    1.3885208
lambda
        0.11073044
                    3.0096962
alpha1
        0.58099572
                           NA
alpha2
                           NA
        1.01399229
        2.13599776
alpha3
                           NA
, , 15
                           2
                1
beta1 -0.8447932 -0.9677372
beta2 -1.0037462 1.0123770
```

beta3 -1.9832860 2.0408146

```
beta4 -2.9849073 2.9943623
delta
        0.0694018 1.2508893
gama
        0.3569888 0.1893057
sigma
        0.6015026 1.3243979
lambda
       0.1161565 2.8749950
alpha1
        0.7512734
                          NA
alpha2
        1.0462158
                          NA
alpha3
        1.7588893
                          NA
, , 16
                 1
beta1
      -1.05311466 -0.9885944
beta2
      -0.99172332
                   1.0300699
beta3
      -2.04491881
                    1.9487634
beta4 -2.92163594 2.9869624
delta
        0.05490443
                   1.2543598
gama
        0.33694888 0.2475439
sigma
        0.58306378
                   1.3494304
lambda
       0.09458567
                    2.5211346
alpha1
        0.62234575
                           NA
alpha2
                           NA
        0.80795272
alpha3
        1.95395637
                           NA
, , 17
                            2
                 1
beta1
      -0.73938280 -1.0761016
beta2
                   1.0019787
      -1.03550652
beta3
      -2.01647505
                    2.0000509
beta4 -3.00306228 3.0295380
delta
        0.06527137
                    1.2838664
gama
        0.35557138 0.2582417
                   1.3807804
sigma
        0.59985976
lambda
                    2.5264265
        0.10946098
alpha1
        0.58669244
                           NA
alpha2
                           NA
        0.88243005
alpha3
        1.66387560
                           NA
, , 18
                            2
                 1
beta1 -0.79761824 -0.7646525
```

```
beta2
      -0.98588666 0.9597183
beta3
                   1.9892738
      -2.01105846
beta4 -3.02994275
                   2.9630857
delta
       0.06203959
                   1.3280616
                   0.2196318
gama
       0.36417283
sigma
       0.60664796
                   1.4083250
lambda
       0.10280521
                   2.8338089
alpha1
       0.80814530
                          NA
alpha2
       1.11634300
                          NA
alpha3
       2.10640205
                          NA
, , 19
                            2
                 1
      -0.72438684 -1.0144121
beta1
beta2 -1.01370335
                   1.0386130
beta3
      -2.05508754
                   2.0148595
beta4 -3.04141555 2.9658042
delta
       0.06092852
                   1.3550281
gama
       0.39506922 0.1781562
sigma
       0.63149149
                   1.4192454
lambda
                  3.2103162
       0.09693576
alpha1
       0.58595253
                          NA
alpha2
       1.07168361
                          NA
alpha3
       1.91183794
                          NA
, , 20
                 1
beta1
      -1.14943010 -0.8587276
beta2 -0.97448169
                   1.0037459
beta3
      -1.94245373
                   2.0130690
beta4 -2.89917782
                   2.9950180
delta
       0.05988344
                   1.2106557
gama
       0.37809504
                   0.2922155
sigma
       0.61780342
                   1.3258592
lambda 0.09738819
                   2.2395928
alpha1
       0.68653643
                          NA
alpha2
       0.97888689
                          NA
alpha3
       2.03392195
                          NA
```

```
1
beta1
      -0.80644310 -1.0213407
beta2
      -0.98661746
                    1.0279956
beta3
      -2.01329636
                    2.0203130
beta4 -3.04457409
                    2.9775627
delta
        0.06440898
                    1.3044584
gama
        0.36868117
                    0.2234381
sigma
        0.61059781
                    1.3874617
lambda 0.10607693
                    2.7596348
alpha1
        0.59896224
                           NA
alpha2
        0.95239488
                           NA
alpha3
        1.74538614
                           NA
, , 22
                            2
                 1
beta1
      -0.69097579 -0.8204832
beta2
      -1.03751249
                   0.9428213
beta3
      -2.08071186 2.0149342
beta4 -3.03420850
                    3.0287024
delta
        0.06753621
                    1.2652537
        0.35641340 0.2570743
gama
sigma
        0.60081157
                    1.3630631
lambda
        0.11312528
                    2.4954466
alpha1
        0.55990168
                           NA
alpha2
        0.99510315
                           NA
alpha3
        1.77048168
                           NA
, , 23
                            2
                 1
beta1
      -0.75407528 -1.1612015
                    1.0579713
beta2 -1.05347592
beta3
      -2.02273136
                    1.9462770
beta4 -2.97631159
                    3.0074848
delta
        0.06621287
                    1.3486401
                    0.1722212
gama
        0.38915946
sigma
        0.62733054
                    1.4110462
        0.10613989
lambda
                    3.2497714
alpha1
        0.68573502
                           NA
alpha2
        1.03120661
                           NA
        2.18502925
alpha3
                           NA
```

```
1
                             2
beta1
       -0.68666713 -1.0482452
beta2 -1.00473989
                    1.0491065
beta3
       -2.00105565
                    1.9593002
beta4
      -3.03967545
                    2.9422630
delta
        0.06031793
                    1.3946039
gama
        0.32603685
                    0.1540424
sigma
        0.57417341
                    1.4487796
                    3.5532910
lambda
        0.10563628
alpha1
        0.60359007
                           NA
                           NA
alpha2
        0.92441863
alpha3
                           NA
        2.10930516
, , 25
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beta1
       -0.83580652 -0.9682986
beta2
      -1.03822243
                    0.9752631
beta3
      -1.96066681
                    1.9849748
beta4 -2.95177515
                    2.9924242
delta
        0.05219326
                    1.4458209
gama
        0.39929543
                    0.1656795
sigma
        0.63405013
                    1.5020245
lambda
                    3.5520584
        0.08259757
alpha1
        0.69493793
                           NA
alpha2
        0.96914075
                           NA
alpha3
                           NA
        1.98049246
, , 26
                            2
                1
beta1
      -1.1082717 -0.9049935
beta2
        1.0078834 -0.9767399
beta3
        1.9902439 -2.0483069
beta4
        3.0446651 -3.0393711
delta
        1.3331756 0.0743481
        0.2749241 0.4080343
gama
        1.4325785
                  0.6430878
sigma
lambda
        2.5426171
                   0.1163916
alpha1 -0.5027783
                           NA
alpha2 -1.0444410
                           NA
```

```
alpha3 -2.1831754
                           NA
, , 27
                             2
                  1
beta1
       -1.05595401 -1.0487980
beta2
      -0.98090557
                     1.0163145
beta3
      -1.96706399
                    1.9622685
beta4 -2.91477269
                    2.9695381
delta
        0.06416574
                    1.3726897
gama
        0.35766327
                    0.1492469
                     1.4260168
sigma
        0.60148193
lambda
        0.10729168
                     3.5532010
alpha1
        0.72807147
alpha2
        1.13353267
                            NA
alpha3
        2.47072229
                            NA
, , 28
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                             2
beta1
       -0.89466900 -1.0461620
beta2
      -0.97646755
                    1.0139606
beta3
      -1.97625799
                    1.9957540
beta4 -2.99640258
                    3.0196470
delta
        0.05724955
                    1.2701623
                     0.2067958
gama
        0.35723430
        0.60042635
                     1.3491138
sigma
lambda
        0.09578456
                     2.7931121
alpha1
        0.67854620
                            NA
alpha2
        0.98913036
                            NA
alpha3
        2.07871296
                            NA
, , 29
                             2
                  1
beta1
       -0.76001618 -1.0328785
beta2
      -0.99027449
                    1.0193160
```

beta3

delta

gama

sigma

lambda

-2.02231613

0.05041923

0.37062955

0.61087777

0.08281827

beta4 -3.03556728

2.04139653.0047185

1.3150446

0.2176834

1.3953586

```
alpha1
        0.71108547
                           NA
alpha2
        1.07788789
                           NA
alpha3
        2.28826515
                           NA
, , 30
                 1
                            2
beta1
      -0.87499142 -1.0012076
beta2 -0.99473062
                   1.0154180
beta3
      -1.98464833
                    1.9904142
beta4
      -3.00284823
                    2.9767847
delta
                    1.3899182
        0.06622526
gama
        0.36820006
                    0.1821362
sigma
        0.61039810
                    1.4539631
lambda
        0.10913944
                    3.2567998
alpha1
        0.65849729
                           NA
alpha2
        0.99825460
                           NA
alpha3
        1.92472990
                           NA
, , 31
                           2
                1
beta1
       -0.9532771 -0.9338600
beta2
      -0.9820606
                  0.9667413
beta3
      -2.0335155
                   2.0422196
beta4 -2.9927883
                   2.9505252
delta
        0.0605214 1.4969995
gama
        0.3469036 0.1143325
        0.5920865
                   1.5347117
sigma
lambda
        0.1027554
                   4.4272779
alpha1
        0.6666733
                          NA
alpha2
        1.0460978
                          NA
alpha3
        1.8569334
                          NA
, , 32
                            2
                 1
beta1
      -0.76955229 -1.1077193
beta2 -0.98911000
                   1.0303217
beta3
      -1.98785164 2.0215910
beta4 -3.03736956
                    3.0358639
delta
        0.06825059
                    1.2380696
```

gama

0.37714682

```
sigma
        0.61790369
                   1.3477287
lambda
                    2.3250125
        0.11113508
alpha1
        0.63101567
                           NA
alpha2
                           NA
        0.96969785
alpha3
        1.85948247
                           NA
, , 33
                            2
                 1
beta1
      -0.93503721 -0.8547105
beta2
      -0.99949926 0.9772086
beta3
                    1.9965626
      -2.02981220
beta4 -2.98282977
                    2.9523268
delta
        0.06523376
                    1.4087708
gama
        0.36759500
                    0.1637127
sigma
        0.60979541
                    1.4657244
lambda
        0.10759389
                    3.4817621
alpha1
        0.68676943
                           NA
alpha2
        0.96404369
                           NA
alpha3
        1.96599540
                           NA
, , 34
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                            2
beta1
      -0.76274625 -0.8541736
beta2
      -1.00592507
                    1.0086718
beta3
                    1.9383417
      -2.03042895
beta4 -3.01084093
                    2.9375514
delta
        0.05945941
                    1.3276322
gama
        0.29463609
                    0.1685664
sigma
        0.54605083
                    1.3896667
lambda
        0.10954123
                    3.2336444
alpha1
        0.58974158
                           NA
alpha2
        0.97014561
                           NA
alpha3
                           NA
        2.03324994
, , 35
                            2
                 1
beta1 -0.88662602 -0.9845657
beta2 -0.99711974 0.9814235
beta3 -2.01293106
                    2.0521992
```

beta4 -2.97913628 2.9864703

```
delta
        0.05831691 1.4355633
        0.34792920
                   0.1602722
gama
sigma
        0.59273102
                    1.4903403
lambda
                    3.5858597
        0.09886648
alpha1
        0.72275737
                           NA
alpha2
        1.05953143
                           NA
alpha3
        1.87415646
                           NA
, , 36
                            2
                 1
      -0.60344668 -0.7782054
beta1
                   0.9880201
beta2
      -1.04584653
beta3
      -2.00456814
                   1.9666823
beta4 -3.02641699
                    2.9439642
delta
        0.06007487
                    1.3350506
gama
        0.37963934
                   0.2175080
sigma
        0.61907054
                    1.4141670
lambda 0.09750059
                    2.8625963
alpha1
        0.73527042
                           NA
alpha2
        1.12363886
                           NA
alpha3
                           NA
        2.25858335
, , 37
                            2
                 1
beta1
      -0.93370380 -1.3494761
beta2
      -0.99628651
                    1.0413705
beta3
                   1.9997580
      -2.00080529
beta4 -2.95568027
                    3.0631808
delta
        0.05357966
                   1.4247064
gama
        0.34296816
                   0.1639416
sigma
        0.58808073
                   1.4811245
lambda
       0.09148988
                   3.5186877
alpha1
        0.60987717
                           NA
alpha2
        0.97869464
                           NA
alpha3
                           NA
        2.08002834
, , 38
                             2
                 1
beta1 -0.88638044 -1.26603181
beta2 -1.01300055 0.99273503
```

```
beta3
      -1.93699347
                    2.00633718
beta4
      -2.94489580
                    3.05476681
delta
        0.05499063
                    1.49542533
gama
                    0.08119087
        0.38377359
sigma
        0.62193051
                    1.52232972
lambda
        0.08876692
                    5.24820929
alpha1
        0.66510843
                             NA
alpha2
        1.01992380
                             NA
alpha3
        2.05808519
                             NA
, , 39
                            2
                 1
beta1
       -0.89088154 -1.257277
beta2
       -0.99031097
                    1.000739
beta3
       -2.01091459
                    2.025957
beta4
      -2.99930221
                    3.082415
delta
        0.06566566
                    1.356653
gama
        0.35860439
                    0.148804
sigma
        0.60242540
                    1.410430
lambda
        0.10965553
                    3.516913
alpha1
                           NΑ
        0.62316987
alpha2
        1.00709644
                          NA
alpha3
        1.93360330
                          NA
, , 40
                             2
                 1
beta1
       -1.08269881 -1.2242945
beta2
      -0.96888470
                    1.0096540
beta3
      -1.99655585
                    2.0036528
beta4 -2.91470642
                    3.0523307
delta
        0.05894079
                    1.4287510
gama
        0.33322306
                    0.1712003
sigma
        0.58025604
                    1.4874575
lambda
        0.10210533
                    3.4530617
alpha1
        0.68121416
                            NA
alpha2
        1.03008091
                           NA
alpha3
        1.84979295
                           NA
, , 41
```

1 2

```
beta1
      -0.78507767 -0.9526469
beta2 -0.99055485 0.9708484
beta3 -2.04302784
                   2.0135581
beta4 -3.03662419
                   2.9955161
delta
       0.06718981
                   1.5097257
gama
       0.37837463 0.1718894
sigma
       0.61878034
                   1.5656184
lambda
       0.10923012 3.6414427
alpha1
       0.60467613
                          NA
alpha2
                          NA
       0.98993439
       2.12099763
                          NA
alpha3
, , 42
                1
```

beta1 -0.70637959 -1.09095327 beta2 -1.03018449 1.05030152 beta3 -2.05326420 2.00054265 beta4 -2.98749911 2.92358015 delta 0.03889037 1.53527113 gama 0.35219314 0.09233075 sigma 0.59473154 1.56505214 lambda 0.06553172 5.05256489 alpha1 0.82858615 NAalpha2 1.11434443 NA alpha3 NA2.13435653

, , 43

1 beta1 -0.63847472 -0.9450128 beta2 -1.01049030 0.9987345 beta3 -1.95579243 1.9621795 beta4 -3.05707500 2.9620830 delta 0.06433495 1.2657236 gama 0.37611694 0.2406403 sigma 0.61664895 1.3574596 lambda 0.10490243 2.5802080 alpha1 0.73705331 NA alpha2 0.91551973 NA alpha3 2.07629022 NA

```
2
                1
      -0.8666402 -1.1003428
beta1
beta2
      -0.9965900
                  0.9968468
beta3
      -2.0406632
                   2.0137764
beta4 -2.9962790
                  3.0543330
delta
        0.0671067
                   1.3389059
gama
        0.3418823 0.2309362
sigma
        0.5885453
                  1.4225348
lambda
                  2.7861473
        0.1147698
alpha1
        0.7995969
                          NA
alpha2
        1.1226265
                          NA
        2.0954175
alpha3
                          NA
, , 45
                 1
                            2
      -1.10557380 -1.0048989
beta1
                    1.0025862
beta2 -0.98346542
beta3
      -1.95237374
                    2.0231639
beta4 -2.89613478
                    3.0082522
delta
                    1.3707365
        0.06113707
gama
        0.33186236
                    0.1906853
sigma
        0.57931002
                    1.4386118
lambda
        0.10612694
                    3.1390295
alpha1
        0.72402390
                           NA
alpha2
        0.94220398
                           NA
alpha3
        2.18654441
                           NA
, , 46
                 1
                            2
      -0.85893870 -0.8747646
beta1
beta2
      -0.99763262
                    0.9617072
beta3
      -2.01227532
                    2.0181808
beta4 -2.99242899
                    2.9676259
delta
        0.06935544
                    1.3781394
gama
        0.32413689
                    0.2039584
sigma
        0.57353907
                    1.4502505
lambda 0.12181935
                    3.0515634
alpha1
        0.72362351
                           NA
alpha2
        1.17581523
                           NA
        2.09246762
```

alpha3

NA

```
2
                 1
       -1.09657440 -1.0110953
beta1
beta2
       -0.95928421
                    1.0084747
beta3
       -1.95279876
                    1.9744618
beta4 -2.92957921
                    3.0097268
delta
        0.06484483
                    1.3194215
gama
        0.36622497
                    0.2286385
sigma
        0.60862946
                    1.4033929
lambda
                    2.7593630
        0.10715227
alpha1
        0.55612521
                            NA
alpha2
                            NA
        0.84980417
alpha3
        1.99549319
                            NA
, , 48
                 1
                             2
beta1
       -0.86117362 -0.7919624
beta2
      -1.00028087
                    0.9455302
beta3
      -1.92969694
                    2.0183450
beta4 -2.97252274
                    2.9776341
delta
        0.06412357
                    1.4693174
gama
        0.35836875
                    0.2043592
sigma
        0.60206361
                    1.5372875
lambda
        0.10711558
                    3.2502632
alpha1
        0.55276693
                            NA
alpha2
        0.93094594
                            NA
alpha3
        1.60865580
                            NA
, , 49
                 1
                             2
beta1
       -0.89964124 -0.8161580
beta2
      -0.97703680
                    0.9952980
beta3
                    1.9660740
      -1.94723054
beta4
      -2.97663845
                    2.9591367
delta
        0.06138765
                    1.2490512
gama
        0.33342526
                    0.2227538
sigma
        0.58068382
                    1.3352463
lambda
        0.10631187
                    2.6464743
alpha1
        0.71812594
                            NA
```

```
alpha2
        1.10160767
                            NA
alpha3
        2.14404780
                            NA
, , 50
                 1
                             2
beta1
       -0.75034308 -1.1646923
beta2
      -1.04162081
                    1.0383238
beta3
      -1.99856924
                    2.0359414
beta4
      -3.01372014
                    2.9996221
delta
        0.07003517
                    1.4065449
        0.41036792
                    0.1887415
gama
        0.64441667
                    1.4721108
sigma
lambda
                    3.2375756
        0.10932752
alpha1
        0.81792871
                            NA
alpha2
        1.12303359
                            NA
alpha3
        2.22717762
                            NA
, , 51
                             2
                 1
beta1
       -1.10414806 -0.6612369
beta2
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                    0.9588358
beta3
      -2.06867235
                    2.0034085
beta4
      -2.93575157
                    2.9762299
delta
        0.06012175
                    1.2535951
        0.40798335
                    0.2287215
gama
sigma
        0.64155902
                    1.3417236
lambda
                    2.6212217
        0.09412617
alpha1
        0.68863878
                            NA
alpha2
        0.90434187
                            NA
alpha3
        1.55286977
                            NA
, , 52
                             2
                 1
beta1
       -0.90768059 -0.9506809
beta2
      -1.01512784
                    1.0108285
beta3
      -2.01716325
                    1.9714726
beta4 -2.98850875
                    2.9907428
delta
        0.07016123
                    1.2925720
        0.43423624
                    0.2791760
gama
```

sigma

0.66269061

```
lambda
        0.10647169 2.4463336
alpha1
        0.82036052
                           NA
alpha2
        1.13068603
                           NA
alpha3
        1.96899764
                           NA
, , 53
                 1
                            2
beta1 -0.67057494 -0.7653628
beta2 -1.02054743 0.9542023
beta3
      -1.98308012
                   1.9727802
beta4 -3.03001615 2.9412410
delta
        0.06654963
                   1.4445914
gama
        0.32988469
                    0.1711280
sigma
        0.57819853
                    1.5026550
lambda 0.11586828
                    3.4920826
alpha1
        0.70523479
                           NA
alpha2
        0.93796898
                           NA
alpha3
        2.03485512
                           NA
, , 54
                           2
                 1
beta1 -0.76371141 -1.105746
beta2 -1.02411428 1.023186
beta3
      -1.97847815 2.027659
beta4 -2.99647787
                    2.964803
delta
        0.06505638
                   1.481129
        0.32676329 0.168005
gama
sigma
        0.57532219
                   1.536798
lambda
        0.11380812
                    3.613532
alpha1
        0.66628135
                          NA
alpha2
        1.05632392
                          NA
alpha3
        2.15107703
                          NA
, , 55
                 1
                            2
beta1 -0.84704322 -1.1881496
beta2 -0.98421001 1.0177035
beta3 -2.03862513
                   1.9680356
beta4 -3.01408044
                    3.0215790
```

delta

0.06750641

```
0.31735077 0.1946397
gama
                    1.5070805
sigma
        0.56736927
lambda
        0.11983266
                    3.2663761
alpha1
                           NA
        0.64663728
alpha2
        1.05979998
                           NA
alpha3
        2.22169094
                           NA
, , 56
                            2
                 1
      -0.80351034 -1.0354740
beta1
beta2
      -0.99906239
                    1.0374789
beta3
      -2.00278998
                    1.9667631
beta4 -3.01561396
                    2.9662390
delta
        0.05875270
                   1.3191559
gama
        0.37071672 0.1973793
sigma
        0.61169323
                    1.3919596
lambda
        0.09649542
                    2.9692402
alpha1
        0.63219771
                           NA
alpha2
        0.98468850
                           NA
alpha3
        2.05103333
                           NA
, , 57
                 1
                            2
      -1.17054620 -0.8591645
beta1
beta2
      -0.96219125
                    1.0017465
beta3
      -1.98079013
                    1.9901232
beta4 -2.92439650
                    2.9807276
delta
        0.05874972
                    1.2020060
gama
        0.40656339
                    0.2266030
sigma
        0.64032407
                    1.2928346
                    2.5250722
lambda
        0.09213861
alpha1
        0.65404630
                           NA
alpha2
                           NA
        0.93337939
alpha3
        2.02872743
                           NA
, , 58
                            2
                 1
beta1 -0.69517884 -1.1241593
beta2 -1.05312242 1.0169596
beta3 -2.03141390 2.0121622
```

```
beta4 -3.01827788 3.0266840
delta
        0.06556456
                   1.3642871
gama
        0.36650836
                    0.2216183
sigma
                    1.4432247
        0.60893930
lambda
                    2.8980304
        0.10829969
alpha1
        0.84655761
                           NA
alpha2
        1.00495778
                           NA
alpha3
        1.96104548
                           NA
, , 59
                            2
                 1
beta1
      -0.68430157 -1.1254985
beta2
      -1.01209271
                   1.0131335
beta3
      -2.00757442
                   1.9848171
beta4 -3.04479070 2.9990514
delta
        0.06396982
                   1.4748051
gama
        0.34893106 0.1102541
sigma
        0.59415755
                    1.5117223
lambda
        0.10829422
                   4.4415766
alpha1
        0.68374860
                           NA
alpha2
                           NA
        1.06763422
alpha3
        1.96263586
                           NA
, , 60
                            2
                 1
beta1
      -0.86895458 -1.0845456
beta2
      -0.96078527
                    1.0026941
beta3
      -1.96494970
                    2.0173889
beta4 -3.02334855
                   3.0151618
delta
        0.06310850
                   1.3379451
gama
        0.39987771
                    0.2310737
sigma
        0.63550011
                    1.4216789
lambda
        0.09979855
                    2.7833196
alpha1
        0.67051843
                           NA
alpha2
                           NA
        1.01993379
alpha3
        2.15340983
                           NA
, , 61
                            2
                 1
beta1 -0.82394508 -0.9613755
```

```
beta2 -1.01179463 0.9859577
      -2.01095397
                    1.9995534
beta3
beta4 -3.00414862
                   3.0151427
delta
       0.06638763
                   1.3061811
                   0.2050772
gama
       0.35233792
sigma
       0.59728154
                   1.3824566
lambda
       0.11184265
                   2.8843286
alpha1
       0.62252044
                           NA
alpha2
       0.92141280
                          NA
alpha3
                          NA
       2.02947311
, , 62
                            2
                 1
      -0.93280985 -1.1209585
beta1
beta2 -0.96830727
                    1.0361097
beta3
      -2.00840458
                   1.9723172
beta4 -2.98142349
                   2.9915024
delta
       0.05954368
                   1.2911451
gama
       0.35863097
                   0.1294361
                   1.3403327
sigma
       0.60181095
lambda
                   3.5887848
       0.09942871
alpha1
       0.66257669
                          NA
alpha2
       1.00018376
                          NA
alpha3
       2.14786413
                          NA
, , 63
                 1
beta1
      -0.90645536 -0.9661403
beta2
      -0.97952814
                   1.0116463
beta3
      -1.97480889
                   2.0427300
beta4 -2.96648723
                   2.9750591
delta
       0.06294831
                   1.3527472
                   0.2104983
gama
       0.34493885
sigma
       0.59067871
                   1.4284338
lambda 0.10717982
                   2.9484405
alpha1
       0.69734805
                          NA
alpha2
       0.89471620
                          NA
alpha3
       1.76284447
                          NA
```

```
2
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beta1
      -0.92402314 -1.291621
beta2
      -0.96206108
                   1.009124
beta3
      -2.00842755
                    2.038429
beta4 -3.00567431
                    3.072805
delta
        0.05670538
                    1.448205
gama
        0.38681990
                    0.113483
sigma
        0.62452814
                   1.486869
lambda 0.09117376
                   4.298972
alpha1
        0.60312490
                          NA
        0.98224300
                          NA
alpha2
alpha3
                          NA
        1.91802817
, , 65
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                            2
beta1
      -0.86637606 -1.1707240
beta2
      -0.97332251
                    1.0417996
beta3
      -2.02850222
                    1.9756329
beta4 -3.01860524 2.9952407
delta
        0.06364824
                   1.3580961
        0.35174838 0.2609472
gama
sigma
        0.59648930
                    1.4509901
lambda 0.10731745
                    2.6586070
alpha1
        0.67462442
                           NA
alpha2
                           NA
        1.00109230
alpha3
        1.96047838
                           NA
, , 66
                            2
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beta1
      -0.78720671 -0.9843938
beta2 -1.01218503
                   1.0027282
beta3
      -2.00944319
                    1.9641960
beta4 -3.03187598
                    2.9885886
delta
        0.06905449
                    1.2926408
gama
        0.34900410
                    0.2081863
sigma
        0.59478788
                    1.3708051
        0.11688980
lambda
                    2.8330344
alpha1
        0.69545264
                           NA
alpha2
        0.87273760
                           NA
alpha3
        2.01334533
                           NA
```

```
1
                             2
beta1
       -0.87483255 -0.6471909
beta2
                     0.9882825
       -1.03439264
beta3
       -2.04837164
                     1.9910331
beta4
      -2.95135257
                     2.9659766
delta
        0.05545045
                     1.0943822
        0.35410705
                     0.3355278
gama
sigma
        0.59764689
                     1.2382246
                     1.8893166
lambda
        0.09318324
alpha1
                            NA
        0.81432700
alpha2
        1.02139717
                            NA
alpha3
        2.14056055
                            NA
, , 68
                             2
                  1
beta1
       -0.74772489 -1.0587385
beta2
       -1.04491243
                     1.0334919
beta3
       -1.99773275
                     2.0652622
beta4
      -3.01604388
                     3.0309079
delta
        0.05907311
                     1.2495146
gama
        0.40984669
                     0.1529693
sigma
        0.64291237
                     1.3092960
lambda
                     3.1947673
        0.09227395
alpha1
        0.65346549
                            NA
alpha2
        0.88639321
                            NA
alpha3
        1.79982158
                            NA
, , 69
                             2
                  1
beta1
       -0.91074266 -0.7054449
beta2
                     0.9903884
      -1.01476158
beta3
       -1.98165881
                     2.0259385
beta4
                     2.8980557
      -2.97334393
delta
        0.06510323
                     1.3692570
        0.38687721
                     0.2031280
gama
                     1.4415244
sigma
        0.62539239
lambda
        0.10466849
                     3.0380861
alpha1
        0.64118933
                            NA
alpha2
        1.05767422
                            NA
```

```
alpha3
        2.04918663
                            NA
, , 70
                             2
                 1
beta1
       -0.74104791 -1.1162156
beta2
      -1.02594364
                    1.0038687
beta3
      -2.01564120
                    1.9917998
beta4 -2.99620346
                    3.0422426
delta
        0.06233232
                    1.3066212
gama
        0.32525635
                    0.1891104
                    1.3770873
sigma
        0.57370869
                    3.0046372
lambda
        0.10929502
alpha1
        0.78912286
                            NA
alpha2
        0.99663888
                            NA
alpha3
        1.94393620
                            NA
, , 71
                             2
                 1
       -0.91619740 -0.6804991
beta1
beta2
       -0.96179790
                   0.9389884
beta3
      -2.00479175
                    2.0282066
beta4 -3.02544065
                    2.9715287
delta
        0.06364593
                    1.3556068
gama
        0.36015189
                    0.2205286
        0.60349208
                    1.4346423
sigma
lambda
        0.10605417
                    2.8866976
alpha1
        0.87857860
                            NA
alpha2
        1.04894160
                            NA
alpha3
        2.06839750
                            NA
, , 72
                             2
                 1
beta1
       -0.84771584 -1.2642429
                    1.0278563
beta2
      -1.02260362
beta3
      -2.03704560
                    2.0024425
                    3.0558917
beta4 -2.98084885
delta
        0.06438181
                    1.4737386
        0.33613790
                    0.1519117
gama
```

sigma

lambda

0.58333774

0.11104640

1.5244071

```
alpha1
        0.74380503
                           NA
alpha2
        1.13065412
                           NA
alpha3
        2.46128203
                           NA
, , 73
                 1
                            2
beta1
      -0.61634944 -0.9149373
beta2 -1.02740308
                    1.0102608
beta3
       -2.02960776
                    2.0343626
beta4
      -3.06202149
                    2.9286835
delta
        0.06024391
                    1.3563849
gama
        0.35694981
                    0.2043073
sigma
        0.60048243
                    1.4297159
lambda
        0.10083461
                    3.0008271
alpha1
        0.67522710
                           NA
alpha2
        0.95472630
                           NA
alpha3
        1.82523373
                           NA
, , 74
                            2
                 1
beta1
       -0.78791278 -0.9582155
beta2 -1.00116207 0.9900523
beta3
      -2.02152197
                    1.9190526
beta4 -2.99432149
                    3.0018976
delta
        0.05853861
                    1.3610915
gama
        0.35319202
                    0.1653270
                    1.4205271
sigma
        0.59717568
lambda
        0.09850017
                    3.3474602
alpha1
        0.75207513
                           NA
alpha2
        1.12607735
                           NA
alpha3
        1.90543697
                           NA
, , 75
                            2
                1
beta1
      -0.4600737 -0.8951245
beta2 -1.0631081
                   1.0108778
beta3
      -2.0076015 1.9971018
beta4 -3.1022310 2.9492337
delta
        0.0678280
                   1.3281331
```

0.3748585 0.1765798

gama

```
sigma
        0.6160026 1.3930246
lambda
        0.1107836 3.1606115
alpha1
        0.7010942
                          NA
alpha2
        1.1441747
                          NA
alpha3
                          NA
        2.2641419
, , 76
                            2
                 1
beta1 -0.72006616 -1.0321487
                   1.0200588
beta2
      -1.03730193
beta3
                    2.0051831
      -1.98410623
beta4 -2.99150028 3.0014351
delta
        0.06176121
                   1.2534954
gama
        0.38310022 0.2826328
sigma
        0.62202465
                   1.3615739
lambda
        0.09978369
                    2.3578245
alpha1
        0.79497039
                           NA
alpha2
        0.97082302
                           NA
alpha3
        2.03855006
                           NA
, , 77
                 1
                            2
beta1
      -0.96266028 -0.9345562
beta2
      -0.96768221
                    0.9896445
      -1.97233557
                    2.0035961
beta3
beta4 -2.97660926
                   2.9802976
delta
                   1.3579295
        0.06824232
gama
        0.33017755 0.2072182
sigma
        0.57864891
                   1.4321979
lambda
        0.11876269
                    2.9830688
alpha1
        0.56787455
                           NA
alpha2
        0.89601113
                           NA
alpha3
                           NA
        1.78722956
, , 78
                            2
                 1
beta1 -0.77120297 -1.0718047
beta2 -1.02448567
                    1.0207318
```

beta3 -1.99286364

beta4 -2.99239747 2.9967047

```
delta
        0.06180505 1.3436300
gama
        0.39294046
                   0.1565053
sigma
        0.62988914
                    1.4006594
lambda
                    3.3963711
        0.09859630
alpha1
        0.65591168
                           NA
alpha2
        0.87572011
                           NA
alpha3
        1.97440459
                           NA
, , 79
                            2
                 1
beta1
      -1.08039226 -0.8897917
beta2
      -0.96100327
                    1.0341391
beta3
                    2.0304942
      -1.95859584
beta4 -2.93016759
                    2.9168861
delta
        0.05991869
                   1.3038702
gama
        0.35558796 0.1895550
sigma
        0.59931479
                   1.3746390
                    2.9947929
lambda 0.10048212
alpha1
        0.78325381
                           NA
alpha2
        0.95690132
                           NA
alpha3
                           NA
        1.86270132
, , 80
                            2
                 1
beta1
      -0.85571182 -1.1382538
beta2
      -0.97585134
                   1.0296080
beta3
                   1.9410196
      -1.98401829
beta4 -3.03288825
                    3.0614217
delta
        0.06525881
                   1.2936978
gama
        0.35888698 0.2084363
sigma
        0.60261571
                    1.3718930
lambda
       0.10893321
                    2.8336500
alpha1
        0.63792185
                           NA
alpha2
        0.97305207
                           NA
alpha3
                           NA
        2.08084142
, , 81
                           2
                1
beta1 -0.6709666 -1.0653529
beta2 -1.0291462 1.0066862
```

```
beta3
      -1.9944962 2.0200857
beta4 -3.0162411 3.0152442
delta
        0.0620491 1.3783160
gama
        0.3623410 0.2401173
                   1.4628302
sigma
        0.6051372
lambda
        0.1030806
                   2.8127888
alpha1
        0.7656329
alpha2
        0.9447350
                          NA
alpha3
        1.8911150
                          NA
, , 82
                 1
                            2
beta1
       -0.68432974 -0.9424159
beta2
      -1.03239631
                    1.0203889
beta3
      -2.00378735
                    2.0317003
beta4 -3.00440143
                    2.9631029
delta
        0.06097092
                   1.3386952
gama
        0.36065851
                    0.2494624
sigma
        0.60363562
                    1.4288342
lambda
        0.10152539
                    2.6802737
alpha1
        0.65950112
                           NA
alpha2
        1.01415693
                           NA
alpha3
        1.94051918
                           NA
, , 83
                            2
                 1
beta1
       -0.95902765 -0.8334769
beta2
      -1.00879007
                    0.9938445
beta3
      -2.01167677
                    2.0043207
beta4 -2.97669620
                    2.9931676
delta
        0.07405593
                    1.2499741
gama
        0.42134766
                   0.2355712
sigma
        0.65332376
                    1.3408976
lambda
        0.11408789
                    2.5753719
alpha1
        0.69584380
                           NA
alpha2
        0.88047785
                           NA
alpha3
        1.84648493
                           NA
, , 84
```

1 2

```
beta1
      -0.98683635 -1.2352495
                   1.0620897
beta2 -1.02057540
beta3 -1.99377746
                   1.9957058
beta4 -2.90045416
                   3.0502851
delta
       0.06425763
                   1.3321212
       0.35565621
                   0.2078542
gama
sigma
       0.59982102
                   1.4079777
lambda
       0.10774807
                   2.9218931
alpha1
       0.61866993
                          NA
alpha2
                          NA
       0.94031097
                          NA
alpha3
       2.13914457
, , 85
                 1
beta1
      -0.64334347 -0.9079009
beta2 -1.01467287
                   0.9848797
beta3 -2.02499483
                   1.9866760
beta4 -3.05098326
                   2.9677555
delta
       0.05927331
                   1.3444751
gama
       0.35144714 0.2248520
sigma
       0.59578558
                   1.4256455
lambda 0.09998369
                   2.8353351
       0.60258254
alpha1
                          NA
alpha2
       0.98188596
                          NA
alpha3
                          NA
       2.11133886
, , 86
                 1
                            2
beta1 -1.08353733 -1.2037833
beta2
      -0.93251732
                  1.0443184
beta3 -1.95332660 2.0145941
beta4 -2.95506049
                   3.0363401
delta
       0.06261748
                   1.3060265
gama
       0.34776048 0.1518246
sigma
       0.59302735
                   1.3629123
lambda
       0.10618311
                   3.3518221
alpha1
       0.80782411
                          NA
alpha2
       1.01317321
                          NA
alpha3
       1.98672984
                          NA
, , 87
```

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2
                 1
beta1
       -0.77885095 -0.8232060
beta2
      -1.03298810
                    0.9425995
beta3
       -1.91410249
                    2.0159518
beta4
      -2.96509599
                    3.0099695
delta
        0.05888041
                    1.3770811
gama
        0.37101037
                    0.1396910
sigma
        0.61194548
                    1.4268999
lambda
                    3.6844717
        0.09666690
alpha1
        0.82401746
                            NA
alpha2
                            NA
        1.12130308
        1.99780090
alpha3
                            NA
, , 88
                 1
                             2
       -0.85920467 -1.0755023
beta1
                    0.9947535
beta2
      -1.02259320
beta3
      -1.98576861
                    2.0194427
beta4
      -2.97636367
                    3.0355360
delta
        0.07379946
                    1.3129932
gama
        0.38220982
                    0.2037281
sigma
        0.62262041
                    1.3884088
lambda
        0.11937194
                    2.9089551
alpha1
        0.66877270
                            ΝA
alpha2
        0.89811211
                            NA
alpha3
        2.09021089
                            NA
, , 89
                 1
                             2
       -0.91684176 -1.0466174
beta1
beta2
      -0.97962882
                    1.0232291
beta3
      -1.97564846
                    1.9897510
beta4 -2.96174177
                    3.0179420
delta
        0.06364571
                    1.2068784
gama
        0.33460248
                    0.2565356
sigma
        0.58193922
                    1.3088510
lambda
        0.11002833
                    2.3828116
alpha1
        0.79366071
                            NA
alpha2
        1.10880679
                            NA
alpha3
        2.08187912
                            NA
```

```
2
                  1
       -0.76472109 -1.2748403
beta1
beta2
       -0.99275604
                     1.0391770
beta3
       -1.97585006
                     2.0338168
beta4 -3.02745250
                     3.0485693
delta
        0.05654983
                     1.3865567
gama
        0.36161456
                     0.1833515
sigma
        0.60399706
                     1.4511688
lambda
                     3.2381387
        0.09403908
alpha1
        0.74941175
                            NA
alpha2
                            NA
        1.06953827
alpha3
        2.49851384
                            NA
, , 91
                  1
                             2
beta1
       -0.80981362 -0.7368188
beta2
       -1.01979033
                     0.9158132
beta3
       -1.99438229
                     2.0140588
beta4 -2.98199810
                     2.9927419
delta
        0.06025806
                     1.3800835
gama
        0.35664716
                     0.1827206
                     1.4447668
sigma
        0.60023179
lambda
        0.10090106
                     3.2285804
alpha1
        0.67322682
                            NA
alpha2
        1.04537279
                            NA
alpha3
        1.86990831
                            NA
, , 92
                  1
                             2
beta1
       -0.71971514 -0.8989686
beta2
       -1.03807279
                     0.9937960
beta3
       -2.00655166
                    1.9822274
beta4
      -3.01882329
                     2.9584121
delta
        0.05804227
                     1.4088912
gama
        0.42960286
                     0.1844618
sigma
        0.65800590
                     1.4729007
lambda
        0.08855454
                     3.2803806
alpha1
        0.80105628
                            NA
```

```
alpha2
        1.27043334
                            NA
alpha3
                            NA
        2.17159908
, , 93
                 1
                             2
beta1
       -0.78682557 -1.1078133
beta2
       -1.00719825
                    1.0147262
beta3
      -2.06253457
                    1.9820345
beta4
      -2.99175666
                    3.0294276
delta
        0.05465240
                    1.3285623
                    0.1644152
gama
        0.32101276
        0.56920966
                    1.3890620
sigma
lambda
                    3.2765058
        0.09646018
alpha1
        0.76592790
                            NA
alpha2
        1.10061057
                            NA
alpha3
        1.89187705
                            NA
, , 94
                             2
                 1
       -0.71978131 -1.0823999
beta1
beta2
      -1.00391923
                    1.0004644
beta3
      -1.97465747
                    2.0210167
beta4
      -3.04148440
                    2.9925942
delta
        0.06677707
                    1.4191952
        0.30074694
                    0.1600929
gama
sigma
        0.55245463
                    1.4745195
lambda
                    3.5469588
        0.12176620
alpha1
        0.74127839
                            NA
alpha2
        0.86403667
                            NA
alpha3
        2.02115219
                            NA
, , 95
                              2
                 1
beta1
       -0.80376186 -1.08744364
beta2
      -1.01164103
                   0.99663817
beta3
                    1.98274893
      -1.95183735
beta4 -2.98539153
                    3.00751899
delta
        0.05210283
                    1.50822548
```

0.41069526

0.64296965

gama sigma 0.09908678

```
lambda
        0.08130204 4.79135571
alpha1
                            NA
        0.80212718
alpha2
                            NA
        1.02507292
alpha3
        1.85536957
                            NA
, , 96
                1
                           2
beta1
      -0.8091031 -0.9255748
beta2
      -0.9881931 0.9650156
beta3
      -1.9936177
                   1.9947221
beta4 -3.0265409 3.0331008
delta
        0.0606230 1.2059868
gama
        0.3388469 0.2806934
sigma
        0.5852538 1.3172310
lambda
        0.1041443
                   2.2762840
alpha1
        0.4874753
                          NA
                          NA
alpha2
        0.8499112
alpha3
        1.9259043
                          NΑ
, , 97
                 1
                            2
beta1 -0.71922345 -0.7429087
beta2 -1.04399985 0.9816631
beta3
      -1.99846558
                    1.9761361
beta4 -2.99127343
                    2.9155463
delta
        0.05610078
                    1.4069959
                    0.1806282
gama
        0.29351481
sigma
        0.54466697
                    1.4697843
lambda
        0.10355090
                    3.3105495
alpha1
        0.80259939
                           NA
alpha2
        0.98563884
                           NA
alpha3
        1.95866589
                           NA
, , 98
                 1
                            2
beta1 -0.82788028 -1.1384627
beta2 -1.01112523 0.9804042
beta3 -2.00178343
                    1.9956655
beta4 -2.97790365
                    3.0741431
```

delta

0.06483714

```
0.37501505 0.2020387
gama
       0.61580752
                   1.3926583
sigma
lambda
       0.10587648
                   2.9325126
alpha1
                          NA
       0.80432406
alpha2
       1.02379376
                          NA
alpha3
       2.11082221
                          NA
, , 99
                           2
                 1
      -0.86211404 -0.9736683
beta1
beta2
      -0.99201542
                   1.0324892
beta3
      -2.00184821
                   2.0150179
beta4 -3.00679723
                   3.0277397
delta
       0.06517303 1.1847152
gama
       0.38328154 0.2941069
sigma
       0.62251832
                   1.3029416
lambda
       0.10527105 2.1845467
alpha1
       0.77713830
                          NA
alpha2
       1.14544600
                          NA
alpha3
       2.13087165
                          NA
, , 100
                 1
                           2
      -0.75417367 -1.0678608
beta1
beta2 -1.01642717 0.9984350
beta3
      -2.00295226
                   1.9477698
beta4 -3.02297597
                    3.0368532
delta
       0.06202124
                   1.2575494
gama
       0.37872650 0.1754959
sigma
       0.61852497
                   1.3254910
                   3.0018674
lambda 0.10078075
alpha1
       0.79289618
                          NA
alpha2
                          NA
       0.94204119
alpha3
       2.20321152
                          NA
n = 1000 cen = 0.3
, , 1
                           2
                 1
beta1 -1.02268557 -0.8598320
```

```
beta2
      -0.96885171 1.0098246
beta3
                   1.9693604
      -1.94831869
beta4 -2.95476571
                   2.9593222
delta
       0.06671746
                   1.2537098
       0.39143908
                   0.2170494
gama
sigma
       0.62919814
                   1.3374744
lambda
       0.10663688
                   2.6910251
alpha1
       0.86636381
                          NA
alpha2
       1.13392057
                          NA
alpha3
                          NA
       2.07624427
, , 2
                            2
                 1
beta1
      -0.98080819 -0.9400521
beta2
      -1.02163091
                  0.9991661
beta3
      -2.04120308 2.0050327
beta4 -2.93591814 2.9712992
delta
       0.07288387
                   1.2585514
gama
       0.32058343 0.2399613
sigma
       0.57087256
                   1.3505232
lambda
       0.12872440 2.5692142
alpha1
       0.43642436
                          NA
alpha2
       0.81378286
                          NA
alpha3
       1.99362085
                          NA
, , 3
                 1
beta1
      -0.71223352 -1.0664274
beta2
      -1.01059914
                   1.0226050
beta3
      -1.95290595
                   2.0162663
beta4 -3.01862248
                   2.9988235
delta
       0.07526166
                   1.3191956
gama
       0.34811410
                   0.2478401
sigma
       0.59479275
                   1.4100061
lambda 0.12755955
                   2.6498628
alpha1
       0.69314503
                          NA
alpha2
       0.94395886
                          NA
alpha3
       2.07306478
                          NA
```

```
1
beta1
      -1.18794785 -0.9488798
beta2
      -0.93751938
                    1.0276167
beta3
      -1.94926424
                    2.0314793
beta4 -2.91761379
                    2.9553812
delta
        0.07132491
                    1.2648745
gama
        0.35867669
                    0.2054746
sigma
        0.60312845
                    1.3436451
lambda 0.11909393
                    2.7904122
alpha1
        0.67572179
                           NA
alpha2
                           NA
        1.04469340
alpha3
        2.08981971
                           NA
, , 5
                           2
                1
beta1
      -0.5573409 -0.9645655
beta2
      -1.0717012 1.0112023
beta3
      -2.0865265
                   1.9902832
beta4 -3.0942979
                   2.9735289
delta
        0.0695580 1.2500233
        0.3596267 0.2315467
gama
sigma
        0.6037094
                  1.3394420
lambda
        0.1159902 2.5977587
alpha1
        0.7120980
                          NA
alpha2
        0.9993335
                          NA
alpha3
        1.9695285
                          NA
, , 6
                            2
                 1
      -0.92165116 -1.1833103
beta1
                    1.0378208
beta2
      -0.96631637
beta3
      -1.95945470
                    1.9611791
beta4 -3.00380655
                    3.0013116
delta
        0.07476699
                    1.4016370
                    0.1179473
gama
        0.41001682
sigma
        0.64467583
                    1.4430986
lambda
        0.11676403
                    4.0812346
alpha1
        0.70830190
                           NA
alpha2
        0.89273072
                           NA
alpha3
        2.01592931
                           NA
```

```
1
                             2
beta1
       -1.00026973 -1.0639227
beta2
       -0.97970823
                     1.0073326
beta3
       -2.02014889
                     2.0401956
beta4
       -2.98557957
                     3.0190549
delta
        0.08224246
                     1.3916434
gama
        0.36377437
                     0.1842991
                     1.4563552
sigma
        0.60871848
                     3.2416514
lambda
        0.13635782
alpha1
        0.56733267
                            NA
        0.97010633
alpha2
                            NA
alpha3
        1.82946754
                            NA
, , 8
                             2
                  1
beta1
       -0.58047560 -0.8930768
beta2
       -1.06748267
                     0.9574475
beta3
       -2.02411672
                     1.9913686
beta4
      -3.02410434
                     3.0351431
delta
        0.06679961
                     1.3224032
gama
        0.34974399
                     0.2241278
sigma
        0.59515223
                     1.4045918
lambda
        0.11295326
                     2.7932899
alpha1
        0.59788483
                            NA
alpha2
        0.86652328
                            NA
alpha3
        2.22331500
                            NA
, , 9
                             2
                  1
beta1
       -0.71297369 -0.9347367
beta2
                     0.9992279
      -1.03271431
beta3
       -1.94114024
                     1.9615055
beta4
      -3.00327011
                     3.0121613
delta
        0.07639435
                     1.2888693
        0.39311408
                     0.2382036
gama
                     1.3781827
sigma
        0.63162503
lambda
        0.12184338
                     2.6407950
alpha1
        0.53425647
                            NA
alpha2
        0.77887093
                            NA
```

```
, , 10
                            2
                1
beta1
       -1.0936465 -0.7315946
beta2
       -0.9130598
                   0.9897511
beta3
      -2.0211297
                   2.0132392
beta4 -2.9840327
                   2.9316069
delta
        0.0719984 1.3477736
gama
        0.3607470
                   0.2750278
                   1.4462094
sigma
        0.6049221
lambda
        0.1198730
                   2.5699735
alpha1
        0.7615435
                           NA
alpha2
        1.0940954
                           NA
alpha3
        2.0049204
                           NA
, , 11
                 1
                             2
beta1
       -0.93323000 -1.0293782
beta2
      -1.00473784 0.9793726
beta3
      -1.98971197
                    1.9568782
beta4 -2.92991215
                    3.0366147
delta
        0.07000897
                    1.3558272
gama
        0.29775236
                    0.2403136
        0.55013963
                    1.4417284
sigma
lambda
        0.12829983
                    2.7657644
alpha1
        0.74782659
                            NA
alpha2
        1.03389619
                            NA
alpha3
        1.83070207
                            NA
, , 12
                             2
                 1
beta1
       -0.94008915 -0.8589182
beta2
       -0.97585552
                    1.0196545
beta3
      -2.00303163
                    1.9565353
      -2.96338888
beta4
                    2.9178159
delta
        0.06845097
                    1.3202480
        0.28436511
                    0.1767806
gama
```

alpha3

sigma

lambda

0.53763431

0.12836346

1.3855812

3.1400620

1.97470854

NA

```
alpha1
        0.64333123
                           NA
alpha2
        0.93482308
                           NA
alpha3
        2.03281418
                           NA
, , 13
                           2
                 1
beta1
      -1.12168400 -1.053063
beta2 -0.94886436
                    1.021031
beta3
      -2.04887845
                    1.947084
beta4
      -2.94903483
                    3.005851
delta
        0.07521809
                    1.323636
gama
        0.34951285
                    0.236684
sigma
        0.59596192
                    1.410211
lambda
        0.12723035
                    2.720722
alpha1
        0.72400614
                           NA
alpha2
        0.92155930
                           NΑ
alpha3
        2.24719701
                          NA
, , 14
                             2
                 1
beta1
      -0.66201972 -1.0122904
beta2 -1.01284866
                    1.0147853
beta3
      -1.99713822
                    1.9440635
beta4 -3.04337689
                    2.9720293
delta
        0.06886961
                    1.3835190
gama
        0.32060081
                    0.1958048
                    1.4525597
sigma
        0.57038919
lambda
        0.12163130
                    3.1266083
alpha1
        0.73096594
                           NA
alpha2
        1.07614585
                           NA
alpha3
        2.14670282
                           NA
, , 15
                             2
                 1
beta1 -0.67243049 -0.9377494
beta2 -1.02823110
                   1.0225606
beta3
                    1.9850697
      -1.99196461
beta4 -3.04423494
                    2.9731710
delta
        0.07582093
                    1.2451446
```

gama

0.37378489

```
sigma
        0.61606307 1.3348231
lambda
                    2.5886217
        0.12401615
alpha1
        0.70442890
                           NA
alpha2
        0.92425620
                           NA
alpha3
        1.88598213
                           NA
, , 16
                1
beta1
      -0.6381905 -1.241596
beta2
      -0.9824283
                   1.015134
beta3
                   1.939898
      -2.0428857
beta4 -3.0950010 3.057132
delta
       0.0659394 1.277801
gama
        0.3128617 0.209047
sigma
        0.5632137
                   1.357138
lambda
        0.1178878 2.794739
alpha1
        0.8395060
                         NA
alpha2
        1.1146862
                         NA
alpha3
        1.9464625
                         NA
, , 17
                 1
                            2
beta1
      -0.92685656 -0.9117401
beta2
      -0.94667561
                    1.0317797
beta3
                    1.9778957
      -1.95289837
beta4 -2.97336636
                    2.9544617
delta
        0.07140581
                    1.2813590
gama
        0.31153053
                    0.2132548
sigma
        0.56269825
                    1.3620337
lambda
        0.12793319
                    2.7747344
alpha1
        0.54939224
                           NA
alpha2
        0.91344617
                           NA
alpha3
                           NA
        2.30653348
, , 18
                            2
                 1
beta1 -0.92522046 -1.1341380
beta2 -0.98031373 0.9774863
beta3 -1.94548310
                   2.0155975
```

beta4 -2.97209733 3.0251945

```
delta
        0.07238096 1.4272747
        0.34773666 0.1603260
gama
sigma
        0.59411755
                   1.4823762
lambda
        0.12274367
                   3.5645569
alpha1
        0.71083853
                          NA
alpha2
        0.91082988
                          NA
alpha3
        2.05677335
                           NA
, , 19
                            2
                 1
beta1
      -0.98811519 -1.2571661
beta2
      -0.96100458
                   1.0155563
beta3
      -1.87271466
                   1.9720133
beta4 -2.93663862 3.0623690
delta
        0.06962163 1.4105137
gama
        0.33768017
                   0.2060719
        0.58525835
sigma
                   1.4817627
lambda 0.11980955
                   3.1071910
alpha1
        0.68385597
                          NA
alpha2
        0.88496940
                          NA
alpha3
                          NA
        2.29124335
, , 20
                 1
beta1
      -0.94482957 -1.1199659
beta2 -1.02784944 1.0041067
beta3
      -2.01354641
                   2.0419059
beta4 -2.96852594 3.0522777
delta
        0.07440279
                   1.2536441
gama
        0.40133365 0.2424997
sigma
        0.63786317
                   1.3468939
lambda 0.11744551
                   2.5457670
alpha1
        0.66450309
                          NA
alpha2
        0.85313440
                          NA
alpha3
                          NA
        1.90212470
, , 21
                            2
                 1
beta1 -0.61689447 -0.8694775
beta2 -1.00318600 0.9861189
```

```
beta3
      -2.12350694 1.9061337
      -3.12935731
                    3.0099442
beta4
delta
        0.07486399
                    1.2509542
gama
                    0.2607283
        0.33767777
sigma
        0.58590305
                    1.3511531
        0.12883140
lambda
                    2.4498940
alpha1
        0.58747096
alpha2
        1.05849666
                           NA
alpha3
        2.15170459
                           NA
, , 22
                            2
                 1
beta1
       -0.56243599 -0.8628737
beta2
      -1.05231098
                   1.0371949
beta3
      -2.01702798 2.0044176
beta4 -3.04966761
                    2.9200838
delta
        0.07176153
                   1.3541550
gama
        0.31656360
                    0.1867892
sigma
        0.56719777
                    1.4214517
lambda
        0.12754434
                    3.1332315
alpha1
        0.76268791
                           NA
alpha2
        1.00062236
                           NA
alpha3
        2.20362438
                           NA
, , 23
                            2
                 1
beta1
       -0.86642195 -0.6086029
beta2
      -0.95063407
                    0.9785405
beta3
      -1.98143013
                   1.9340940
beta4 -3.03761185
                    2.8942391
delta
        0.07229036
                    1.2596272
gama
        0.40467674
                    0.2435111
sigma
        0.64023639
                    1.3528384
lambda
        0.11363870
                    2.5525994
alpha1
        0.89830623
                           NA
alpha2
        1.06704381
                           NA
alpha3
        2.09638271
                           NA
, , 24
```

1 2

```
beta1 -0.87238958 -0.9771366
beta2 -0.99738631
                  1.0521754
beta3 -1.94910836
                   1.9993356
beta4 -2.99791807
                   2.9438799
delta
       0.07006585 1.3064991
gama
       0.36328759 0.2093199
sigma
       0.60679223
                   1.3842903
lambda 0.11624684 2.8556425
alpha1
       0.67847181
                          NA
alpha2
                          NA
       0.95398394
                          NA
alpha3
       2.06793423
, , 25
                1
beta1 -0.91923819 -0.7399287
beta2 -0.98028000 0.9981176
beta3 -2.03168926
                   1.9771694
beta4 -3.00953700 2.9215829
delta
       0.08067402 1.2896884
gama
       0.37349993 0.2027932
sigma
       0.61644807
                  1.3660488
lambda 0.13200440 2.8639014
alpha1
       0.75141071
                          NA
alpha2
       1.18534643
                          NA
alpha3
                          NA
       1.83277992
, , 26
               1
beta1 -0.9911540 -0.68981305
beta2
       1.0047156 -1.03956843
beta3
       2.0162105 -2.10308522
beta4
       2.9976018 -3.11207970
delta
       1.3443160 0.08201837
gama
       0.2141955 0.37039013
       1.4217528 0.61409865
sigma
lambda 2.9046662 0.13476634
alpha1 -0.5385555
                          NA
alpha2 -1.0505595
                          NA
alpha3 -2.1746706
                          NA
```

```
2
                 1
beta1
      -0.62605092 -1.0585288
beta2
      -1.03083272
                   0.9704866
                    2.0139941
beta3
       -1.95885175
beta4 -3.03996622
                    3.0395560
delta
        0.07566129
                    1.3006508
gama
        0.40469426
                    0.2050717
sigma
        0.64063944
                    1.3772307
lambda
                    2.8721550
        0.11893515
alpha1
        0.71428860
                            NA
alpha2
        1.13091917
                            NA
        2.42339777
alpha3
                            NA
, , 28
                 1
                             2
       -0.65717286 -0.8449800
beta1
                    0.9452508
beta2
      -1.01757109
beta3
      -2.08868915
                    2.0097972
beta4 -3.05556764
                    3.0013867
delta
                    1.3427119
        0.07088093
gama
        0.26722896
                    0.2021450
sigma
        0.52177875
                    1.4159873
lambda
        0.13711584
                    2.9864234
        0.50114025
alpha1
                            ΝA
alpha2
        0.87134658
                            NA
alpha3
        2.13963814
                            NA
, , 29
                 1
                             2
       -0.78936883 -0.9501621
beta1
beta2
      -1.03483009
                    1.0153330
beta3
      -1.94496490
                    2.0053977
beta4 -2.95420008
                    2.9937373
delta
        0.06829209
                    1.3246550
gama
        0.32746155
                    0.2431502
sigma
        0.57630318
                    1.4134571
lambda
        0.11934115
                    2.6863680
alpha1
        0.76528838
                           NA
alpha2
        1.02347721
                            NA
alpha3
        2.00778660
                            NA
```

```
2
                  1
       -0.80747582 -1.0739532
beta1
beta2
       -1.01224803
                    0.9812174
beta3
      -2.01540318
                     2.0033758
beta4 -3.01038590
                     3.0352800
delta
        0.07377854
                    1.4952328
gama
        0.33126057
                     0.1275666
sigma
        0.58026188
                     1.5372989
lambda
                     4.1863958
        0.12818735
alpha1
        0.64216730
                            NA
alpha2
                            NA
        1.04780175
alpha3
        1.94574906
                            NA
, , 31
                  1
                             2
beta1
       -0.98434465 -0.9021769
beta2
      -1.00245572
                    0.9903396
beta3
      -2.01135868
                    2.0028337
beta4 -2.93115288
                     3.0001536
delta
        0.07148727
                     1.2549197
gama
        0.31597355
                    0.2436229
sigma
        0.56664273
                     1.3484978
lambda
        0.12717546
                     2.5424763
alpha1
        0.84154518
                            NA
alpha2
        0.97399498
                            NA
alpha3
        1.93464109
                            NA
, , 32
                  1
                             2
beta1
       -0.64218295 -1.0126773
beta2
      -1.01584134
                    1.0215207
beta3
      -1.98584270
                    2.0131685
beta4 -3.08097432
                    2.9575009
delta
        0.07540794
                    1.4614130
                    0.2135246
gama
        0.32441243
sigma
        0.57454224
                    1.5327271
lambda
        0.13239400
                     3.1626348
alpha1
        0.61842932
                            NA
```

```
alpha2
        0.96741645
                            NA
alpha3
        2.06747641
                            NA
, , 33
                 1
                             2
beta1
       -0.91559358 -0.7943787
beta2
      -0.99327804
                    1.0097275
beta3
      -2.01356817
                    1.9840195
beta4
      -3.00421564
                    2.9498986
delta
        0.06674934
                    1.1486610
                    0.3090477
gama
        0.35780799
        0.60188326
                    1.2761151
sigma
lambda
                    2.0662322
        0.11158915
alpha1
        0.80667924
                            NA
alpha2
        1.04872191
                            NA
alpha3
        1.99296752
                            NA
, , 34
                             2
                 1
       -1.02269789 -1.2321013
beta1
beta2
      -0.96656060
                    1.0541129
beta3
      -2.02912534
                    1.9954001
beta4
      -2.98397556
                    3.0412318
delta
        0.08007137
                    1.2848806
        0.37518971
                    0.2344516
gama
sigma
        0.61773872
                    1.3730877
lambda
                    2.6536047
        0.13072293
alpha1
        0.56472865
                            NA
alpha2
        0.88976479
                            NA
alpha3
        2.07363722
                            NA
, , 35
                            2
                1
beta1
       -0.8721413 -0.9097648
beta2
      -0.9343611
                   1.0026191
beta3
      -2.0774762 1.9638813
beta4 -3.1026167
                   2.9353704
delta
        0.0725345
                   1.3435445
        0.3698305
                   0.1479822
gama
```

sigma

0.6124474

```
lambda
        0.1192733 3.4925874
alpha1
        0.6425614
                          NA
alpha2
        0.9725409
                          NA
alpha3
        2.1473026
                          NΑ
, , 36
                 1
                            2
beta1 -0.58371842 -0.9465584
beta2
      -1.01368805
                   0.9422342
beta3
      -2.07173472
                    2.0379368
beta4 -3.08375480
                    3.0210640
delta
        0.06761691
                    1.4042510
gama
        0.32598276
                    0.1212614
sigma
        0.57493896
                    1.4467835
lambda
        0.11842898
                    4.0325838
alpha1
        0.84165184
                           NA
alpha2
        1.12276718
                           NA
alpha3
        1.98208512
                           NA
, , 37
                 1
                            2
beta1 -0.80174672 -0.8065812
beta2 -1.02543279 0.9115099
                    2.0432747
beta3
      -1.95983725
beta4 -2.94295492
                    3.0281734
delta
        0.06654343
                    1.3639198
        0.31347445
                    0.1176082
gama
sigma
        0.56382841
                    1.4063732
lambda
        0.11885135
                    3.9771320
alpha1
        0.68533088
                           NA
alpha2
        1.04906725
                           NA
alpha3
        2.05863642
                           NA
, , 38
                 1
                            2
beta1 -0.58913160 -0.9933529
beta2 -1.05209052 0.9829748
beta3 -1.96566948
                    2.0075582
beta4 -3.01654018
                    3.0101165
```

delta

0.06895347

```
gama
        0.31489592 0.1717807
                   1.4649265
sigma
        0.56537643
lambda
        0.12287756
                    3.3900925
alpha1
        0.70185203
                           NA
alpha2
        1.06950314
                           NA
alpha3
        1.96493163
                           NA
, , 39
                1
                           2
      -0.8114022 -0.8460480
beta1
beta2
      -0.9586426 0.9862186
beta3
      -2.0821861
                   2.0309531
beta4 -3.0679426 2.9930453
delta
        0.0690313 1.2607728
gama
        0.3035898 0.2193895
sigma
        0.5552974 1.3449675
lambda
        0.1252860 2.6917136
alpha1
        0.7397071
                          NA
alpha2
        0.8799809
                          NA
alpha3
        1.7211490
                          NA
, , 40
                 1
                            2
      -0.74993785 -1.0155603
beta1
beta2
      -1.02497072
                   0.9621233
beta3
      -1.94493532
                    1.9938398
beta4 -2.98115649
                    3.0480441
delta
        0.07491344
                    1.3349555
gama
        0.26297685
                    0.1936569
sigma
        0.51825560
                    1.4056184
                    3.0335442
lambda
       0.14608344
alpha1
        0.74630591
                           NA
alpha2
                           NA
        1.00273450
alpha3
        1.95902802
                           NA
, , 41
                            2
                 1
beta1 -1.09285376 -1.0719715
beta2 -0.97220921
                    1.0240516
```

beta3 -2.00416941 2.0509882

```
beta4 -2.94128523 2.9936693
delta
        0.07731318 1.3719062
gama
        0.38895061
                    0.2419923
sigma
                    1.4574357
        0.62843292
lambda
                    2.7888400
        0.12396707
alpha1
        0.58503459
                           NA
alpha2
        0.84762820
                           NA
alpha3
        1.82595947
                           NA
, , 42
                 1
      -0.50576630 -1.0814426
beta1
beta2
      -1.08500325
                   1.0101904
beta3
      -2.01212002 2.0131398
beta4 -3.05771416 3.0119993
delta
        0.06898596
                   1.4222123
gama
        0.39190147
                   0.1184445
sigma
        0.62980992
                   1.4632609
lambda 0.11019764
                   4.1324437
alpha1
        0.64988098
                           NA
alpha2
                           NA
        0.91049188
alpha3
        1.90714377
                           NA
, , 43
                            2
                 1
beta1
      -0.78545301 -0.9332052
beta2
      -0.98306265 0.9641575
beta3
      -2.01001904
                   1.9916601
beta4 -3.03334040 3.0443503
delta
        0.07118745
                   1.2475211
gama
        0.36671401
                   0.2739624
sigma
        0.60973901
                   1.3528752
lambda
                    2.3834303
        0.11755461
alpha1
        0.76415479
                           NA
alpha2
                           NA
        1.08390351
alpha3
        1.94389768
                           NA
, , 44
                            2
                 1
beta1 -0.73491173 -1.2089673
```

```
beta2 -0.99825199 1.0155196
beta3 -2.01166939
                   2.0537621
beta4 -3.02799598
                   3.0321413
delta
       0.07706617
                   1.4258881
                   0.1449997
gama
       0.31599256
sigma
       0.56739030
                   1.4758580
lambda
       0.13709618
                   3.7445699
alpha1
       0.70243603
                          NA
alpha2
       0.92751109
                          NA
alpha3
       1.80644205
                          NA
, , 45
                           2
                1
beta1
      -1.13618496 -0.7336356
beta2 -0.95816633 0.9185158
beta3
      -1.96846533
                   1.9550720
beta4 -2.91367422 3.0084628
delta
       0.06783907
                   1.2627923
gama
       0.29303783 0.2077541
sigma
       0.54556390
                   1.3425344
lambda
       0.12531932 2.7704935
alpha1
       0.61268142
                          NA
alpha2
       0.89994091
                          NA
alpha3
       2.04226793
                          NA
, , 46
                1
beta1
      -0.84191444 -0.7832540
beta2 -0.99445897
                  0.9750517
beta3
      -1.97662033
                   2.0001270
beta4 -2.97355929
                   2.9602259
delta
       0.08141652
                  1.2748366
gama
       0.31653604 0.2051025
sigma
       0.56847576
                   1.3528899
lambda 0.14471081
                   2.8149393
alpha1
       0.77860513
                          NA
alpha2
       1.08216162
                          NA
alpha3
       2.19980568
                          NA
```

```
1
                             2
beta1
       -1.02497635 -1.3233036
beta2
      -0.95627955
                    1.0359328
beta3
      -2.02648774
                    2.0367329
beta4 -2.96113131
                    3.0534202
delta
        0.06534567
                    1.4921491
gama
        0.34627850
                    0.1791808
sigma
        0.59207141
                    1.5510286
lambda 0.11104629
                    3.5250602
alpha1
        0.68043799
                           NA
                           NA
alpha2
        1.03466584
alpha3
        2.14628848
                           NA
, , 48
                            2
                 1
beta1
       -0.73800602 -0.9776017
beta2
      -0.98024709
                    0.9817962
beta3
      -2.05501643
                    2.0367282
beta4 -3.08623268
                    3.0430891
delta
        0.07169416
                    1.2207116
gama
        0.33832486
                    0.2094778
sigma
        0.58605880
                    1.3036927
lambda
        0.12325849
                    2.6671296
alpha1
        0.84078984
                           NA
alpha2
                           NA
        1.22827118
alpha3
        2.32303336
                           NA
, , 49
                             2
                 1
beta1
       -0.56769055 -1.2250967
                    1.0084120
beta2
      -1.03766835
beta3
      -1.99625303
                    1.9963038
beta4 -3.11451858
                    3.0564621
delta
        0.07830249
                    1.4384463
gama
        0.33923346
                    0.1087603
sigma
        0.58767741
                    1.4757669
lambda
        0.13443929
                    4.3617264
alpha1
        0.65645306
                           NA
alpha2
        1.07663617
                           NA
alpha3
        2.03304234
                           NA
```

```
1
                             2
beta1
       -0.62670996 -1.0262615
beta2
                     0.9463565
       -1.05987235
beta3
       -2.03045408
                     2.0207646
beta4
       -3.04493558
                     3.0426305
delta
        0.07197605
                     1.3919611
        0.36436044
                     0.1552264
gama
sigma
        0.60789883
                     1.4466451
                     3.5330049
lambda
        0.11924011
alpha1
        0.70398835
                            NA
alpha2
        0.90784275
                            NA
alpha3
                            NA
        1.92292850
, , 51
                             2
                  1
beta1
       -0.90540718 -1.2293816
beta2
       -0.99748080
                     1.0120395
beta3
       -1.96809617
                     1.9652716
beta4
      -2.97156799
                     3.0784824
delta
        0.07054559
                     1.3546627
        0.37967796
                     0.1780708
gama
sigma
        0.62020532
                     1.4188664
lambda
                     3.2102197
        0.11448859
alpha1
        0.68658116
                            NA
alpha2
        0.95601502
                            NA
alpha3
        1.90382589
                            NA
, , 52
                             2
                  1
beta1
       -1.01724627 -0.9117656
beta2
                     0.9940366
      -0.99032051
beta3
       -1.94907117
                     2.0171564
beta4
      -2.90189085
                     3.0025362
delta
        0.07841919
                     1.1818657
        0.32191308
                     0.2087982
gama
                     1.2671246
sigma
        0.57276754
lambda
        0.13821432
                     2.5864537
alpha1
        0.80020708
                            NA
alpha2
        0.95772869
                            NA
```

```
alpha3
        2.03147690
                            NA
, , 53
                             2
                  1
beta1
       -0.67224362 -0.9682233
beta2
       -1.00118957
                     1.0047699
beta3
       -2.03686299
                     1.9247931
beta4 -3.10118393
                     2.9716586
delta
        0.04337674
                     1.3998536
gama
        0.40970109
                     0.1398413
                     1.4489415
sigma
        0.64154706
lambda
        0.06776780
                     3.7433889
alpha1
        0.75491501
                            NA
alpha2
        1.07865819
                            NA
alpha3
        2.02466125
                            NA
, , 54
                  1
                             2
beta1
       -0.75945991 -0.8432590
beta2
       -1.00522700
                    0.9888914
beta3
      -2.01341663
                     1.9652987
                     2.9951523
beta4 -3.03365645
delta
        0.06876232
                     1.2739549
gama
        0.37317406
                     0.2230785
                     1.3586904
sigma
        0.61473760
lambda
        0.11256277
                     2.6972752
alpha1
        0.71570599
                            NA
alpha2
        1.01149430
                            NA
alpha3
        1.97840245
                            NA
, , 55
                             2
                  1
beta1
       -0.72265617 -0.9803166
beta2
       -1.03331223
                     1.0035975
beta3
       -2.03257488
                     1.9966345
beta4
      -3.00708796
                    2.9917775
delta
        0.07437603
                     1.2917524
        0.33719264
                    0.2279283
gama
```

0.58542671

0.12808373

1.3771537

2.7057031

sigma

lambda

```
alpha1
        0.67466977
                           NA
alpha2
                           NA
        1.03394343
alpha3
        2.11792635
                           NA
, , 56
                 1
                            2
beta1
      -0.90568480 -1.0455101
beta2
      -0.97115464
                    0.9705270
beta3
      -1.96796926
                    2.0149486
beta4
      -2.99599996
                    3.0406519
delta
        0.07489743
                    1.3512743
gama
        0.33466798
                    0.1938547
sigma
        0.58333319
                    1.4211957
                    3.0690596
lambda
        0.12946722
alpha1
        0.67003618
                           NA
alpha2
        1.03954198
                           NA
alpha3
        1.92003981
                           NA
, , 57
                            2
                 1
beta1
      -0.66169687 -1.1637559
beta2 -1.03118701
                   1.0072878
beta3
      -2.01200025
                    2.0055976
beta4 -3.03363700
                    3.0044813
delta
        0.07352527
                    1.4087607
gama
        0.37118656
                    0.1318141
                    1.4547924
sigma
        0.61367135
lambda
        0.12068145
                    3.8802200
alpha1
        0.87043098
                           NA
alpha2
        1.01928526
                           NA
alpha3
        2.20253535
                           NA
, , 58
                           2
                1
beta1
      -0.7305174 -1.0577064
beta2 -1.0315021 1.0310639
beta3
      -2.0002319 2.0339293
beta4 -3.0077838 3.0098006
delta
        0.0740765
                  1.2626152
```

0.3827518 0.2448269

gama

```
sigma
        0.6230884 1.3561063
lambda
                   2.5517694
        0.1197352
alpha1
        0.7113372
                          NA
alpha2
        1.0055328
                          NA
alpha3
                          NΑ
        2.0610341
, , 59
                            2
                 1
beta1 -0.82198660 -1.2262747
beta2
      -1.00935255
                   1.0250126
beta3
                    1.9883341
      -2.02195821
beta4 -2.99277973
                    3.0316300
delta
        0.07198349
                    1.4036778
gama
        0.34423941
                    0.1834318
sigma
        0.59111846
                    1.4675637
lambda
        0.12268815
                    3.2774055
alpha1
        0.69652630
                           NA
alpha2
        0.95359219
                           NA
alpha3
        2.11791690
                           NA
, , 60
                 1
                            2
beta1
      -0.94825987 -0.9448239
beta2
      -0.99415769
                    1.0459608
                    1.9770587
beta3
      -2.04163983
beta4 -2.98117738
                    2.9110962
delta
        0.07490291
                    1.3961552
gama
        0.33214287
                    0.1727547
sigma
        0.58116548
                    1.4567100
lambda
        0.12996794
                    3.3590676
alpha1
        0.68106868
                           NA
alpha2
        1.05588773
                           NA
alpha3
        2.20158624
                           NA
, , 61
                            2
                 1
beta1 -0.78625829 -0.9095451
beta2 -1.00729339
                   1.0035093
beta3 -2.06139219
                    2.0235846
```

beta4 -3.05248559 2.9402587

```
delta
        0.07084527 1.3742986
                   0.1672392
gama
        0.35085971
sigma
        0.59655575
                    1.4338535
lambda
                   3.3605629
        0.11960356
alpha1
        0.67956482
                           NA
alpha2
        1.05827672
                           NA
alpha3
        1.94906092
                           NA
, , 62
                            2
                 1
beta1
      -0.58762050 -1.1069300
                   0.9946439
beta2
      -1.07982430
beta3
      -2.05290315
                   1.9811319
beta4 -3.06434382 3.0133946
delta
        0.07831422 1.4275494
gama
        0.38639741
                   0.1174035
sigma
        0.62652257
                    1.4680942
lambda 0.12598636
                    4.1663007
alpha1
        0.60276820
                           NA
alpha2
        1.15001285
                           NA
alpha3
                           NA
        2.11666380
, , 63
                            2
                 1
beta1
      -0.81784601 -1.1106977
beta2
      -0.98941505
                   1.0282449
beta3
                    2.0791479
      -1.96273217
beta4 -3.00661052 3.0145055
delta
        0.06459798
                   1.3736541
gama
        0.29453258 0.1525764
sigma
        0.54653955
                   1.4281113
lambda
       0.11902886
                   3.5166870
alpha1
        0.72389910
                           NA
alpha2
        1.02506876
                           NA
alpha3
                           NA
        2.04369529
, , 64
                            2
                 1
beta1 -0.88341799 -0.8467281
beta2 -0.99367946 0.9998645
```

```
beta3
      -1.93048878 1.9610972
      -2.97018062 2.9876880
beta4
delta
        0.07872708
                    1.1521360
gama
                    0.2937981
        0.35898316
sigma
        0.60430217
                    1.2732696
        0.13139751
lambda
                    2.1255888
alpha1
        0.75312889
alpha2
        1.08300889
                           NA
alpha3
        1.83547412
                           NA
, , 65
                            2
                 1
beta1
       -0.79054094 -0.8835339
beta2
       -1.02128413
                    1.0206877
beta3
      -2.01578047
                    2.0050745
beta4 -3.02546390
                    2.9617671
delta
        0.07634525
                    1.3025332
gama
        0.41885039
                    0.2659279
sigma
        0.65167399
                    1.4009000
                    2.5258458
lambda
        0.11796483
alpha1
        0.66005601
                           NA
alpha2
        1.09809044
                           NA
alpha3
        2.09296949
                           NA
, , 66
                             2
                 1
beta1
       -0.66131128 -0.9891687
beta2
      -1.02228792
                    1.0412198
beta3
      -2.04061084
                    1.9865971
beta4 -3.07610687
                    2.9777727
delta
        0.07191947
                    1.2603439
        0.37503061
                    0.1811256
gama
sigma
        0.61660605
                    1.3302602
lambda
        0.11743920
                    2.9614136
alpha1
        0.77342136
                           NA
alpha2
        0.99633040
                           NA
alpha3
        2.12307776
                           NA
, , 67
```

1

2

```
beta1
      -0.87150934 -0.9723565
beta2 -1.02011118 0.9512612
beta3 -1.95020407
                   1.9742384
beta4 -2.92908520 3.0472835
delta
       0.06011541
                   1.3222083
gama
       0.29064621 0.2174067
sigma
       0.54245744
                  1.4020134
lambda 0.11150736 2.8357204
alpha1
       0.67408091
                          NA
                          NA
alpha2
       1.10571754
       2.03107004
                          NA
alpha3
, , 68
                1
beta1 -0.40062971 -1.19959149
beta2 -1.08208585
                  1.00389125
beta3 -2.09673030 1.95347358
beta4 -3.11036055 3.02742571
delta
       0.06637675 1.48325364
       0.32637122 0.09915589
gama
sigma
       0.57513224 1.51631041
lambda 0.11618767
                  4.71038247
alpha1
       0.91929618
                           NA
alpha2
       1.07629994
                           NA
alpha3
       2.03868587
                           NA
, , 69
               1
beta1 -1.1911349 -0.68540359
       0.9899616 -1.02787600
beta2
beta3
       1.9534186 -1.93848233
beta4
       3.0898034 -2.99768942
delta
       1.3632761 0.06695205
gama
       0.1640169 0.36359509
       1.4221598 0.60669405
sigma
lambda 3.3661969 0.11103371
alpha1 -0.4294513
alpha2 -0.9092309
                          NA
alpha3 -2.1621301
                          NA
```

```
2
                 1
      -0.78236108 -0.6776206
beta1
beta2
       -1.01715933
                    1.0132080
beta3
       -1.99337831
                    2.0034373
beta4
      -2.98024491
                    2.8897327
delta
        0.06829847
                    1.3150513
gama
        0.33931879
                    0.2273877
sigma
        0.58650104
                    1.3988379
lambda
        0.11724843
                    2.7577776
alpha1
        0.53884689
                            NA
alpha2
        1.00589034
                            NA
alpha3
        2.03854344
                            NA
, , 71
                 1
                             2
       -0.65336793 -0.9522621
beta1
beta2
      -1.02768440
                    0.9614490
beta3
      -2.07123238
                    1.9679192
beta4
      -3.05766342
                    3.0507474
delta
        0.07191146
                    1.3654810
gama
        0.34739196
                    0.1639240
sigma
        0.59377034
                    1.4242410
lambda
        0.12200798
                    3.3725962
        0.71901809
alpha1
                            NA
alpha2
        1.00368706
                            NA
alpha3
        2.19899757
                            NA
, , 72
                 1
                             2
       -0.79514660 -0.9641342
beta1
beta2
      -1.02296381
                    1.0341409
beta3
                    2.0564344
      -1.99724905
beta4 -3.01994121
                    2.9381787
delta
                    1.3937527
        0.07708019
gama
        0.38236717
                    0.1448653
sigma
        0.62314406
                    1.4447879
lambda
        0.12465293
                    3.6618759
alpha1
        0.63619535
                            NA
alpha2
        0.89429781
                            NA
alpha3
        1.82411495
                            NA
```

alpha1

0.66645829

```
2
                 1
       -0.79257408 -1.3485376
beta1
beta2
       -0.99723598
                    1.0439114
beta3
       -2.05291363
                    2.0428353
beta4 -3.05555985
                    3.0632524
delta
        0.08283717
                    1.3353220
gama
        0.36566268
                    0.1484887
sigma
        0.61034800
                    1.3898106
lambda
                    3.4652880
        0.13698876
alpha1
        0.69419272
                            NA
alpha2
                            NA
        0.99517677
alpha3
        2.00560232
                            NA
, , 74
                1
                            2
beta1
       -0.8034024 -0.7788862
      -1.0292126
                   0.9661987
beta2
beta3
      -2.0258292
                   1.9624074
beta4 -2.9759883 2.9438442
delta
        0.0676911 1.3916952
gama
        0.3248564 0.1491923
                   1.4443018
sigma
        0.5739673
lambda
        0.1187643
                   3.6030548
alpha1
        0.7584297
                           NA
alpha2
        0.9837861
                           NA
alpha3
        1.7971880
                           NΑ
, , 75
                 1
                             2
beta1
       -0.81092475 -1.0478362
beta2
      -1.02221421
                    1.0235897
beta3
      -2.04393162
                    1.9558233
beta4 -3.02530003
                    2.9925792
delta
        0.08187158
                    1.3165465
gama
        0.42549504
                    0.1658571
sigma
        0.65741767
                    1.3780971
lambda
        0.12551219
                    3.2327277
```

NA

```
alpha2
        0.80906884
                            NA
        2.09535996
                            NA
alpha3
, , 76
                  1
                             2
beta1
       -0.81297715 -0.9228961
beta2
       -1.01034901
                     1.0628433
beta3
       -1.97317222
                    1.9744571
beta4
      -2.97583919
                     2.9353180
delta
        0.06685255
                     1.3189992
                     0.2783025
gama
        0.33648191
        0.58391025
                     1.4205848
sigma
lambda
                     2.5002647
        0.11524899
alpha1
        0.66540996
                            NA
alpha2
        0.91214426
                            NA
alpha3
        1.70961323
                            NA
, , 77
                  1
                             2
       -0.72201412 -1.0819211
beta1
beta2
      -1.01245454
                     1.0131776
beta3
       -1.98087823
                     1.9505535
beta4
      -3.03329746
                     3.0269076
delta
        0.07554805
                     1.3074143
        0.36103065
                     0.1751814
gama
sigma
        0.60558910
                     1.3727759
lambda
                     3.1236997
        0.12573357
alpha1
        0.70722598
                            NA
alpha2
        1.08157091
                            NA
alpha3
        2.15836278
                            NA
, , 78
                             2
                  1
beta1
       -0.85155225 -0.8806637
beta2
       -1.00751976
                    1.0043954
beta3
       -1.96152659
                     2.0305170
beta4 -2.95243096
                    2.9360568
delta
        0.06342521
                     1.3604578
        0.34275784
gama
                     0.1687298
```

sigma

0.58888080

```
lambda
        0.10833485 3.3119913
alpha1
        0.86800767
                           NA
alpha2
        1.11537680
                           NA
alpha3
        2.13228595
                           NA
, , 79
                 1
                            2
beta1
      -0.82607900 -0.8263547
beta2
      -0.98720644 0.9909691
beta3
      -1.98750531
                    2.0095705
beta4 -3.04516570
                    2.9289887
delta
        0.07147938
                    1.3293980
gama
        0.34799647
                    0.1641126
sigma
        0.59422704
                    1.3897523
lambda
        0.12116951
                    3.2815883
alpha1
        0.67106273
                           NA
alpha2
        0.83384815
                           NA
alpha3
        1.97351651
                           NA
, , 80
                 1
                            2
beta1 -0.79040543 -1.1779475
beta2 -1.02223503
                   1.0489701
                    1.9706892
beta3
      -1.96847502
beta4 -2.99639039
                    3.0492526
delta
        0.07727548
                    1.2559035
        0.36768159
                    0.2494356
gama
sigma
        0.61127170
                    1.3515655
lambda
        0.12744000
                    2.5146470
alpha1
        0.70045318
                           NA
alpha2
        1.01676762
                           NA
alpha3
        1.95036795
                           NA
, , 81
                 1
                            2
beta1 -0.97163252 -0.9931692
beta2 -1.01091028
                   1.0077351
beta3 -1.96437355
                    1.9725359
beta4 -2.89940039
                    3.0244076
delta
        0.07626622
                   1.3306471
```

```
0.32782761 0.1847060
gama
        0.57761938
                   1.3983303
sigma
lambda
        0.13320160
                    3.0961531
alpha1
        0.74660919
                           NA
alpha2
        1.04557055
                           NA
alpha3
        2.08164419
                           NA
, , 82
                           2
                 1
      -0.84905332 -1.308050
beta1
beta2
      -0.97869619
                    1.044793
beta3
      -2.02504750
                    2.036726
beta4 -3.02874600
                    3.049724
delta
        0.06941473
                   1.488511
gama
        0.32783859
                   0.151825
sigma
        0.57676425
                   1.538665
lambda
        0.12123320
                   3.820149
alpha1
        0.77177813
                          NA
alpha2
        1.16252070
                          NA
alpha3
        2.04648341
                          NA
, , 83
                 1
                            2
      -0.98230747 -0.9112385
beta1
beta2
      -0.98781240
                   1.0182483
beta3
      -1.93239108
                   1.9663887
beta4 -2.91684000 2.9758733
delta
        0.07481965
                   1.2385992
gama
        0.33946567
                    0.2889694
sigma
        0.58742119
                    1.3502213
                    2.3041190
lambda
       0.12841559
alpha1
        0.62744525
                           NA
alpha2
                           NA
        0.97842159
alpha3
        1.99676154
                           NA
, , 84
                            2
                 1
beta1 -0.77961401 -1.0324712
beta2 -1.03027378 1.0866536
```

beta3 -2.05859225 1.9604209

```
beta4 -2.99229736 2.9341298
delta
       0.06593942 1.2884556
gama
       0.31663264 0.2148171
sigma
                   1.3692827
       0.56655154
lambda
                   2.7799373
       0.11718372
alpha1
       0.89171652
                          NA
alpha2
       1.13695511
                          NA
alpha3
       1.87518206
                          NA
, , 85
                            2
                 1
beta1
      -0.61950116 -1.0884101
beta2
      -0.99233785
                   1.0135771
beta3
      -2.06468846 1.9804132
beta4 -3.15125411 3.0124501
delta
       0.06679705
                   1.3332448
gama
       0.37898176 0.2423702
sigma
       0.61922823
                   1.4212361
lambda 0.10850460
                   2.7081349
alpha1
       0.72001982
                          NA
alpha2
                          NA
       1.06182297
alpha3
       2.03127333
                          NA
, , 86
                            2
                 1
      -0.86600420 -0.7458755
beta1
beta2
      -1.03697514 1.0004310
beta3
      -1.99906971
                   1.9878607
beta4 -2.90569740 2.9074379
delta
       0.06515954 1.2649347
gama
       0.31382227
                   0.2798229
sigma
       0.56397521
                   1.3710881
lambda
       0.11631512 2.3912584
alpha1
       0.66781569
                          NA
alpha2
                          NA
       1.11263547
alpha3
       2.09065610
                          NA
, , 87
                            2
                 1
beta1 -0.60658513 -1.0192453
```

```
beta2 -1.02873468 1.0436111
      -1.97296852
                   1.9668893
beta3
beta4 -3.03646901
                    2.9829153
delta
       0.06376338
                   1.2627058
gama
       0.24581273
                    0.1787009
sigma
       0.49987848
                    1.3315881
lambda
       0.12860834
                   2.9870249
alpha1
       0.80059413
                          NA
alpha2
       1.05391266
                          NA
alpha3
       2.00062272
                          NA
, , 88
                            2
                 1
      -0.44304849 -1.1004029
beta1
beta2 -1.09416927
                   0.9785058
beta3
      -2.03415949
                   1.9813495
beta4 -3.08469454
                   3.0423192
delta
       0.06688553
                   1.4073599
gama
       0.33161276
                   0.2106372
sigma
       0.57972962
                   1.4803037
lambda
                   3.0664626
       0.11614929
alpha1
       0.64675196
                          NA
alpha2
       0.97657927
                          NA
alpha3
       2.12676098
                          NA
, , 89
                 1
beta1
      -0.75192823 -1.0587421
beta2
      -0.98384663
                   1.0624148
beta3
      -1.99234943
                   1.9768182
beta4 -3.03081070
                   2.9863239
delta
       0.06377284
                   1.2779321
gama
       0.30401732
                   0.2137897
sigma
       0.55505342
                   1.3590070
lambda 0.11566090
                   2.7638497
alpha1
       0.62770373
                          NA
alpha2
       1.05191886
                          NA
alpha3
                          NA
       2.08933408
, , 90
```

```
2
                 1
beta1
      -1.09256398 -0.8645328
beta2
      -0.94633122
                    1.0287976
beta3
      -2.03949050
                    1.9914782
beta4 -2.95382643
                    2.9147652
delta
        0.07014718
                    1.3429218
gama
        0.38214761
                    0.2205448
sigma
        0.62214808
                   1.4226678
lambda 0.11347356
                    2.8595805
alpha1
        0.70207466
                           NA
alpha2
                           NA
        0.98863648
alpha3
                           NA
        2.01188780
, , 91
                           2
                1
beta1
      -0.8672300 -1.0502551
beta2
      -1.0096696 0.9962317
beta3
      -2.0803455 2.0374590
beta4 -2.9831935 3.0439483
        0.0758640 1.2496330
delta
        0.3269783 0.2112746
gama
sigma
        0.5768307 1.3314869
lambda
       0.1326711 2.7186846
alpha1
        0.7373547
                          NA
alpha2
                          NA
        0.9351896
alpha3
        2.0088782
                          NA
, , 92
                 1
                            2
beta1
      -0.89548651 -0.8581875
beta2 -0.97000890
                   0.9523181
beta3
      -2.02341302
                    2.0593273
beta4 -3.03951851
                    3.0178099
delta
        0.07494364
                    1.3260764
gama
        0.33829632
                    0.1849726
sigma
        0.58644085
                    1.3940772
lambda
        0.12885052
                    3.0832935
alpha1
        0.69282742
                           NA
alpha2
        0.98804796
                           NA
alpha3
        2.18985093
                           NA
```

```
2
                  1
beta1
       -0.75718413 -1.1499788
beta2
                     1.0264642
       -1.00643004
beta3
       -1.96040753
                     1.9883913
beta4
       -3.04798306
                     2.9841748
delta
        0.07417273
                     1.4928452
        0.38789900
                     0.1365213
gama
sigma
        0.62721654
                     1.5378908
        0.11909264
                     4.0403090
lambda
alpha1
        0.66465931
                            NA
alpha2
        1.02427321
                            NA
alpha3
                            NA
        1.76299163
, , 94
                             2
                  1
beta1
       -0.96480954 -0.9087732
beta2
       -0.96834444
                     1.0467589
beta3
       -2.07865984
                     1.9713558
beta4
                     2.9258054
      -2.98935572
delta
        0.07251389
                     1.2954920
gama
        0.34434081
                     0.2195110
sigma
        0.59126904
                     1.3776104
lambda
                     2.7650730
        0.12357396
alpha1
        0.70857191
                            NA
alpha2
        1.03194154
                            NA
alpha3
                            NA
        1.98453979
, , 95
                             2
                  1
beta1
       -0.97586987 -0.7112085
beta2
                     0.9607262
      -0.98188767
beta3
       -1.99245917
                     2.0343106
beta4
                     2.9767411
      -2.93525454
delta
        0.07048982
                     1.2316839
        0.32241820
                     0.2714421
gama
                     1.3373433
sigma
        0.57217743
lambda
        0.12414140
                     2.3640719
alpha1
        0.82063148
                            NA
alpha2
        1.15130431
                            NA
```

```
alpha3
        2.07291231
, , 96
                            2
                1
beta1
       -0.8742471 -1.0962334
beta2
      -1.0224103
                   0.9959810
beta3
      -1.9796303 2.0053348
beta4 -2.9273122 3.0476158
delta
        0.0693291 1.3747460
gama
        0.3429705 0.1741232
                   1.4366802
sigma
        0.5897262
lambda
        0.1183824
                   3.2945351
alpha1
        0.6158902
                          NA
alpha2
        0.9329804
                          NA
alpha3
        2.0341330
                          NA
, , 97
                 1
                             2
beta1
       -1.02629400 -0.9554403
beta2
      -0.97797276
                    1.0076276
beta3
      -1.95581246
                    1.9998901
beta4 -2.92805185
                    2.9718476
delta
        0.06946295
                    1.4069684
gama
        0.35791583
                    0.1555662
        0.60227978
                    1.4612071
sigma
lambda
        0.11610818
                    3.5671944
alpha1
        0.73607181
                           NA
alpha2
        1.09631049
                           NA
alpha3
        2.17257574
                           NA
, , 98
                             2
                 1
beta1
       -0.80251563 -1.0448037
beta2
      -0.97996078
                    1.0220547
beta3
      -1.99432974
                    1.9838854
beta4 -3.05826033
                    3.0198088
delta
        0.08074142
                   1.2767195
        0.39527655
                    0.2584477
gama
```

sigma

lambda

0.63387359

0.12842390

1.3742126

2.5113611

NA

```
alpha1
        0.53020343
                          NA
alpha2
                          NA
        1.02845432
alpha3
        1.93652119
                          NA
, , 99
                 1
                            2
beta1 -1.07325144 -0.8577585
beta2 -0.99260094 0.9699399
beta3
      -1.97277360
                    1.9990052
beta4 -2.89147404
                   2.9787084
delta
        0.07283711
                    1.3755468
gama
        0.31805180
                   0.1514969
sigma
        0.56864492
                   1.4295545
lambda
       0.12915278
                   3.5340563
alpha1
        0.70236557
                          NA
alpha2
        0.99447441
                          NA
alpha3
        1.99820063
                          NA
, , 100
                            2
                 1
beta1 -1.04383744 -1.0405100
beta2 -0.98141832 0.9946742
beta3 -1.95501024 1.9553334
beta4 -2.88994943 3.0073006
delta
        0.07227011
                   1.3683593
gama
        0.30550731
                    0.1790321
                    1.4322846
sigma
        0.55743186
lambda
       0.13075187
                    3.2339603
alpha1
        0.54389893
                          NA
alpha2
        0.74335749
                          NA
alpha3
        1.87939370
                          NA
n = 500
n = 500^\circ = 0
n = 500^\circ = 0^[[1]]
                 1
beta1
        0.20157649 -0.9535303
beta2 -1.03105667 0.9996200
```

beta3 -1.99658844 2.0103221

```
beta4 -3.02844802 3.0168512
                   1.2183282
delta -0.97622697
gama
       0.01832436
                   0.2133384
sigma
       0.98556758
                   1.3029435
lambda -7.21167979
                   2.6377266
alpha1
       0.82905164
                          NA
alpha2
       1.17095042
                          NA
alpha3
       1.97027563
                          NA
n = 500^\circ = 0^[[2]]
                           2
                 1
beta1
      -0.19866825 -1.0864843
beta2 -0.96602768
                   1.0227879
beta3 -2.03154814
                   2.0726587
beta4 -2.95454943
                   2.9929970
delta -0.92418333
                   1.3427066
gama
       0.02984605
                   0.2098573
sigma
       0.94019193
                   1.4187030
lambda -5.34951817
                   2.9310216
alpha1
       0.72653559
                          NA
alpha2
       1.00266119
                          NA
alpha3
                          NA
       2.37054049
n = 500^\circ = 0^[[3]]
                 1
                           2
       0.12321903 -1.4790055
beta1
beta2 -0.99698797
                   1.0511784
beta3 -2.03181173
                   1.9253270
beta4 -3.04651269
                   3.1349662
delta -1.00451233
                   1.3505973
gama
       0.02584636 0.1244938
sigma
       1.01729612
                   1.3959251
lambda -6.24820928
                   3.8278249
alpha1
       0.65379533
                          NA
alpha2
                          NA
       0.96066831
alpha3
       1.80359279
                          NA
n = 500 cen = 0 [[4]]
                              2
                   1
beta1
       -0.010371102 -0.9217103
beta2
       -0.968193687
                     1.0352326
beta3
       -2.024821850 1.9639404
beta4
       -2.996347951 2.9752747
```

```
delta
       -1.071557385 1.2539892
gama
        0.009721527 0.2134894
sigma
        1.076083992 1.3364050
lambda -10.867963824 2.7139736
alpha1
        0.740407398
                            NA
alpha2
        0.985058019
                            NA
alpha3
        1.789739499
                            NA
n = 500^\circ = 0^\circ [5]
                1
beta1
       0.08699724 -0.8914929
beta2 -1.04824400 0.9912134
beta3
      -1.99956621
                  2.0073748
beta4 -2.99151116 2.9798575
delta -0.94856937 1.2292082
       0.04179937 0.1836922
gama
sigma
       0.97035211
                  1.3017853
lambda -4.63963958 2.8680064
alpha1
       0.81749249
                          NA
alpha2
       1.10425241
                          NA
alpha3 2.53610961
                          NA
n = 500 cen = 0 [[6]]
                1
beta1
       0.01825698 -1.2859164
beta2 -0.99081551
                   1.0106990
beta3 -1.98583386 2.0533244
beta4 -3.01534437
                   3.0762962
delta -0.99897797
                   1.4020367
gama
       0.03171973 0.1065659
sigma
       1.01472988
                   1.4395391
lambda -5.60907363
                   4.2948732
alpha1
       0.78242988
                          NA
alpha2
       1.13534475
                          NA
alpha3 2.29735617
                          NA
n = 500^\circ = 0^[7]
                1
beta1 -0.01899630 -1.0673828
beta2 -1.01490802 0.9622219
beta3 -2.03830781 2.0049870
beta4 -2.95468202 3.0711278
delta -1.04292764 1.3426876
```

```
0.02973806 0.2111489
gama
                   1.4191402
sigma
       1.05708851
lambda -6.04780646
                    2.9220025
alpha1
                          NA
       0.74972619
alpha2
       0.84570420
                          NA
alpha3
       2.02900259
                          NA
n = 500 cen = 0 [[8]]
                            2
                 1
       0.13956083 -1.1062266
beta1
beta2 -0.97161813 0.9989459
beta3
                   1.9820095
      -1.97653030
beta4
      -3.07340429
                   3.0426245
delta -1.06172167
                    1.2502845
gama
       0.02801749
                   0.1965495
       1.07483505
                   1.3265598
sigma
lambda -6.34302030
                    2.8201541
alpha1
       0.83189716
                          NA
alpha2
       0.98143222
                          NA
alpha3
       1.99354173
                          NA
n = 500^\circ = 0^{[9]}
                1
                           2
beta1 -0.1354667 -0.8311901
beta2 -0.9934067 0.9137709
beta3 -2.0362931 1.9471962
beta4 -2.9564892 2.9722178
delta -0.9859611 1.4387093
       0.0387508 0.1542884
gama
sigma
       1.0054203
                  1.4913661
lambda -5.0086358
                  3.6627422
alpha1
       0.9043377
                         NA
alpha2
       1.1691201
                         NA
alpha3
       1.8283126
                         NA
n = 500 cen = 0 [[10]]
                            2
                 1
beta1
       0.06492764 -0.5887455
beta2 -1.02896967 0.9604707
beta3 -2.01051969 2.0068018
beta4 -2.96788400
                   2.9670573
delta -0.97391787
                    1.0510606
gama
       0.03205185 0.4306498
```

```
sigma
        0.99023626
                   1.2391037
                    1.6016427
lambda -5.43996077
alpha1
        0.76414729
                           NA
alpha2
                           NA
        0.99934021
alpha3
        1.97808431
                           NA
n = 500^\circ = 0^[11]
                            2
                 1
beta1
        0.02150099 -1.2350609
beta2 -1.04586330 0.9791434
beta3
      -2.00036600
                    1.9721270
beta4 -2.98616412
                    3.1211368
delta -0.87508218
                    1.2720864
gama
        0.05541675
                    0.2327306
sigma
        0.90619290
                    1.3604905
lambda -3.71730609
                    2.6368770
alpha1
        0.88020296
                           NA
alpha2
                           NA
        0.75611902
alpha3
        2.17717141
                           NA
n = 500^\circ = 0^[[12]]
                            2
                 1
beta1 -0.01671217 -1.3781655
beta2 -1.00866892 1.0792779
beta3 -1.99605586 2.0004323
beta4 -2.96631560
                    3.0497761
delta -0.98130471
                    1.3637068
gama
        0.05583717
                    0.1407949
sigma
        1.00935430
                    1.4143872
lambda -4.15281122
                    3.6343566
alpha1
        0.70848246
                           NA
alpha2
        0.87138848
                           NA
alpha3
        2.17247629
                           NA
n = 500^\circ = 0^[13]
                            2
                 1
        0.11282506 -0.5366411
beta1
beta2 -1.01656566 0.9321085
beta3 -1.96751804 1.9931617
beta4 -3.03740011
                    2.9312487
delta -0.90370242
                   1.1965169
gama
        0.05444066
                    0.2381515
sigma
        0.93333741
                   1.2922090
```

```
lambda -3.87314483 2.4518402
alpha1
       0.61233477
                          NA
alpha2
       1.03006740
                          NA
alpha3
       2.05407574
                          NA
n = 500 cen = 0 [[14]]
                           2
beta1
       0.18290030 -0.6660623
beta2 -0.99837513 0.9240875
beta3 -2.02715895 2.0471590
beta4 -3.04301173 2.9808093
delta -1.05644956
                   1.3134778
       0.01480634 0.1670855
gama
sigma
       1.06343406
                   1.3756124
lambda -8.68210393 3.2133154
alpha1
       0.62633864
                          NA
alpha2
       0.97705240
                          NA
alpha3 1.78833349
                          NA
n = 500^\circ = 0^[[15]]
                           2
                1
beta1
       0.02015969 -1.0132081
beta2 -0.98441795 1.0505845
beta3 -2.00888048 2.0434172
beta4 -3.04113546 2.9366214
delta -0.96837131
                  1.4442528
gama
       0.02014588 0.1432076
sigma
       0.97871797
                   1.4930082
lambda -6.82258241
                   3.8164558
alpha1
       0.66704823
                          NA
alpha2
       0.90900810
                          NA
alpha3
       1.84320931
                          NA
n = 500 cen = 0 [[16]]
                           2
                1
beta1 -0.12894000 -0.7811593
beta2 -0.96961968 1.0143991
beta3 -1.95983164 2.0233998
beta4 -2.97201878 2.9167156
delta -1.02991931 1.2416939
       0.01504891 0.2253527
gama
                   1.3293443
sigma
       1.03719945
lambda -8.39557983 2.6156713
```

```
alpha1
        0.71636572
                           NA
alpha2
                           NA
        1.19384817
alpha3
        1.91783207
                           NA
n = 500 cen = 0 [[17]]
                            2
beta1
       -0.20079609 -1.0588470
beta2 -0.96419029
                   1.0004917
beta3 -1.97473333 2.0192582
beta4 -2.99231071
                    2.9921361
delta -0.81798497
                    1.4304259
                    0.1706703
gama
        0.04805969
        0.84685247
                    1.4888884
sigma
lambda -3.73125407
                    3.4624729
alpha1
        0.58218030
                           NA
alpha2
        1.01669191
                           NA
alpha3
        2.13403406
                           NA
n = 500 cen = 0 [[18]]
                            2
                 1
beta1
       -0.02847186 -1.1751134
beta2 -1.02832412
                   1.0391476
beta3 -1.97732209
                   1.9763754
beta4 -2.96766987
                    2.9835158
delta -0.91543473
                   1.3605418
gama
        0.02752223
                    0.1696401
                    1.4215183
sigma
        0.93034562
lambda -5.51804887
                    3.3032967
alpha1
        0.85528193
                           NA
alpha2
        1.09779732
                           NA
alpha3
        2.16743230
                           NA
n = 500 cen = 0[[19]]
                 1
                            2
beta1
        0.09700441 -0.9521357
beta2 -1.03358204
                   1.0284725
beta3 -2.01788861
                   2.0251894
beta4 -2.99351553
                   2.9052111
delta -1.00115584
                   1.4203784
gama
        0.03133244
                   0.1881573
sigma
        1.01668356
                    1.4851371
lambda -5.65593702
                    3.2744893
alpha1
        0.84468344
                           NA
```

```
alpha2
        1.16542058
                          NA
alpha3
        2.08029665
                          NA
n = 500 cen = 0 [[20]]
                            2
                 1
      -0.11115387 -1.4134150
beta1
beta2 -0.97925732
                   1.0737929
beta3 -2.01368234 1.9814378
beta4 -2.98344680 3.1571655
delta -0.95647904
                   1.0995227
gama
        0.02720442
                   0.3278474
sigma
        0.97059599
                    1.2396764
lambda -5.79903527
                    1.9202967
alpha1
        0.74090884
alpha2
        1.13295985
                          NA
        2.07126641
                          NA
alpha3
n = 500 cen = 0 [[21]]
                 1
                            2
beta1
        0.01987088 -1.0172086
beta2 -1.01750695
                   1.0086542
beta3 -1.99810819 2.0402254
beta4 -2.97283042 3.0173022
delta -0.98070218 1.3144257
gama
        0.01986469 0.2275916
sigma
        0.99077821
                    1.3983227
                    2.7552303
lambda -6.95818961
alpha1
        0.86077393
                           NA
alpha2
        1.15295284
                           NA
alpha3
        2.33399501
                          NA
n = 500 cen = 0 [[22]]
NULL
n = 500^\circ = 0^[23]
                            2
                 1
        0.25212252 -0.9916781
beta1
beta2 -1.03457967 0.9901442
beta3 -2.00168107 1.9843569
beta4 -3.07088230 2.9893411
delta -1.02157297
                   1.2582624
gama
        0.04931549
                   0.2220990
```

1.04543141

sigma

1.3436232

```
lambda -4.60021068 2.6699180
alpha1
       0.93392782
                          NA
alpha2
       1.41205683
                          NA
        1.92376549
                          NA
alpha3
n = 500 cen = 0 [[24]]
                           2
beta1
        0.05846588 -0.7400928
beta2 -1.01402077 0.9459579
beta3 -2.00468570 2.0274033
beta4 -3.02063073 2.9923053
delta -1.00688593
                   1.0892421
        0.03627001 0.1963556
gama
sigma
        1.02473864
                   1.1759268
lambda -5.28696484
                   2.4581186
alpha1 0.98770004
                          NA
alpha2
       1.44248374
                          NA
alpha3
        2.27638979
                          NA
n = 500^\circ = 0^\circ [25]
                           2
                 1
beta1 -0.09687849 -1.2225920
beta2 -0.96155313 1.0354173
beta3 -1.96797180 2.0804927
beta4 -3.00220933 2.9858087
delta -1.07432695 1.3672141
        0.02293452 0.1009815
gama
sigma
        1.08494835
                   1.4036580
lambda -7.09400775
                   4.3024484
alpha1
       0.57886531
                          NA
alpha2
        0.69078064
                          NA
alpha3
       1.71690177
                          NA
n = 500 cen = 0 [[26]]
                           2
                 1
beta1 -0.03469992 -1.1318827
beta2 -0.97041957 0.9830551
beta3 -2.01709235 2.0609296
beta4 -3.01510827 3.0184380
delta -1.05628738 1.4697337
        0.01625578 0.1360574
gama
sigma
        1.06395433
                   1.5153134
lambda -8.28472621 3.9845344
```

```
alpha1
        0.78623368
                           NA
alpha2
                           NA
        0.95998846
alpha3
        1.85876768
                           NA
n = 500^\circ = 0^\circ [27]
                            2
beta1
       -1.2623577 -0.05640841
beta2
        1.0182658 -0.97840832
beta3
        2.1415975 -2.00072130
        3.0651684 -3.01378688
beta4
        1.2938871 -0.97100661
delta
                  0.03480630
gama
        0.1095733
        1.3355587
                   0.98876698
sigma
        3.9088059 -5.20467072
lambda
alpha1 -0.4902685
alpha2 -0.9290232
                           NA
alpha3 -1.8024162
                           NA
n = 500 cen = 0 [[28]]
                            2
                 1
beta1
        0.06886181 -1.2224262
beta2 -1.02661244 0.9957377
beta3 -1.99074321
                   1.9601287
beta4 -3.00757036
                   3.0749693
delta -0.97390749
                   1.4358346
gama
        0.04604657
                    0.1125807
                    1.4745175
sigma
        0.99726745
lambda -4.53857043
                    4.2792979
alpha1
        0.67690554
                           NA
alpha2
        0.97815498
                           NA
alpha3
        2.26212627
                           NA
n = 500^\circ = 0^\circ [29]
                 1
                            2
beta1
      -0.06750427 -0.8339735
beta2 -1.01827619 0.9991593
beta3 -2.02782701
                   1.9891467
beta4 -2.95354170
                   2.9387251
delta -0.97008306
                   1.3627532
gama
        0.02621622 0.2180200
sigma
        0.98350260
                    1.4405264
lambda -5.99133887
                    2.9185630
alpha1
        0.55854575
                           NA
```

```
alpha2
        0.78437749
                          NA
alpha3
        2.12678761
                          NA
n = 500 cen = 0 [[30]]
                            2
                 1
beta1
        0.14295973 -0.9200915
beta2 -1.02397372
                   1.0160973
beta3
      -2.01448523
                   1.9924034
beta4 -3.00339181 2.9984332
delta -0.95408472
                   1.2844948
gama
        0.02629316
                   0.2267335
sigma
        0.96776589
                    1.3699125
lambda -5.88390381
                    2.6975813
alpha1
        0.63364942
alpha2
        0.98657187
                          NA
alpha3
        1.92790946
                          NA
n = 500 cen = 0 [[31]]
                 1
                            2
beta1 -0.04944422 -0.7800110
beta2 -0.99086100 0.9966917
beta3 -1.98145596
                   1.9339019
beta4 -3.01731704 2.9321155
delta -0.94384518
                   1.2092287
gama
        0.08436544 0.1656663
sigma
        0.98752679
                    1.2758920
                    2.9709225
lambda -3.24951443
alpha1
        0.85892395
                           NA
                           NA
alpha2
        1.23538829
alpha3
        2.17963166
                          NA
n = 500^\circ = 0^[[32]]
                            2
                 1
beta1 -0.11120342 -1.1026014
beta2 -1.01477866 0.8866554
beta3 -2.01451571
                   2.0298924
beta4 -2.94599155 3.1105036
delta -1.01364122
                   1.5464798
gama
        0.03443644 0.1418462
sigma
        1.03048773
                    1.5916802
lambda -5.46229495
                    4.1061559
alpha1
        0.70609784
                           NA
alpha2
       1.00828142
                           NA
```

```
alpha3 1.75935657
                          NA
n = 500 cen = 0 [[33]]
                 1
                           2
      -0.03039214 -0.9864380
beta1
beta2 -0.99160684
                   1.0420856
beta3 -2.04427976
                  2.0109523
beta4 -2.98104158 2.9565542
delta -1.03760123 1.2434043
gama
        0.02500473 0.1601101
sigma
        1.04958137
                   1.3062023
lambda -6.56174578
                   3.1074415
alpha1
        0.59734314
                          NA
alpha2
        1.01787805
                          NA
alpha3
       2.14543218
                          NA
n = 500^\circ = 0^[34]
                           2
                 1
beta1 -0.04890636 -0.8846463
beta2 -0.99328015 0.9780955
beta3 -2.01658863
                   2.0299634
beta4 -2.97174517 2.9982255
delta -0.97809985
                   1.2524480
        0.04181937 0.2091853
gama
sigma
        0.99924906
                   1.3333459
lambda -4.78293493
                   2.7383824
        0.86352253
alpha1
                          NA
alpha2
        0.96601415
                          NA
alpha3
        1.87895257
                          NA
n = 500 cen = 0 [[35]]
                 1
                           2
beta1
        0.17279635 -1.5166101
beta2 -1.03399164
                   1.0490099
beta3 -2.00749983
                   2.0326102
beta4 -3.02156344 3.1369344
delta -0.98309655
                   1.2271250
gama
        0.03966228 0.2187968
sigma
        1.00306586
                   1.3132527
lambda -4.93636549 2.6234227
alpha1 0.82970053
                          NA
alpha2
                          NA
       1.11168142
alpha3 2.24781420
                          NA
```

```
n = 500^\circ = 0^[36]
                            2
                 1
      -0.14552167 -1.2818052
beta1
beta2 -0.98942232 0.9411555
beta3 -1.98865864
                    1.9558468
beta4 -2.98387715
                    3.0899969
delta -0.85491210
                   1.5103297
        0.06824888
                   0.1371848
gama
sigma
        0.89393712
                    1.5550822
                   4.0777333
lambda -3.27245518
alpha1
        0.55810770
                           NA
alpha2
        0.91818173
                           NA
alpha3
                           NA
        1.90892100
n = 500^\circ = 0^\circ [37]
                 1
                            2
beta1
      -0.26130612 -0.9036445
beta2 -0.95454232
                    0.9228411
beta3 -2.00789719
                    1.9658203
beta4 -2.94093192 2.9842571
delta -1.00050792
                   1.6219495
gama
        0.01914972
                   0.1484832
                    1.6670943
sigma
        1.01003258
lambda -7.23001656
                   4.2091915
alpha1
        0.85666906
                           NA
                           NA
alpha2
        0.99316310
alpha3
        2.11027355
                           NA
n = 500^\circ = 0^[38]
                 1
beta1
      -0.05879451 -1.0023310
beta2 -0.99741537
                    0.9543304
beta3 -2.02919835
                    1.9557199
beta4 -2.98909424
                    3.0643886
delta -1.04849535
                    1.4968790
gama
        0.04607943
                    0.1311990
sigma
        1.07024387
                    1.5400798
lambda -4.88441929
                    4.1325813
alpha1
        0.72606312
                           NA
alpha2
        0.84432200
                           NA
alpha3
                           NA
        2.01029391
```

```
n = 500^\circ = 0^[39]
                           2
                1
beta1 -0.08032815 -0.7035757
beta2 -0.96845661 0.9988368
beta3 -1.95323373 1.9635382
beta4 -3.03044658 2.8901832
delta -0.92475138 1.2969234
gama
       0.06353407 0.1620244
sigma
       0.95848797
                   1.3579524
lambda -3.66877980
                  3.2219892
alpha1
       0.70577040
                          NA
alpha2 1.27076477
                          NA
alpha3
       2.35150335
                          NA
n = 500^\circ = 0^[40]
                1
                           2
beta1 -0.12459641 -1.5460537
beta2 -1.01245585 1.0554532
beta3 -2.01641608 1.9502134
beta4 -2.94815862 3.1226957
delta -0.95387808 1.2803762
gama
       0.04926469 0.2026884
sigma
       0.97936106 1.3572220
                   2.8439580
lambda -4.29759027
alpha1
       0.80503141
                          NA
alpha2
       1.25711427
                          NA
       2.29886928
alpha3
                          NA
n = 500^\circ = 0^\circ [41]
                1
                           2
beta1
       0.28731720 -1.5286729
beta2 -1.04075726 1.1325836
beta3 -1.97543567 1.9435551
beta4 -3.01618445 3.0059344
delta -1.07013224 1.4615683
       0.01198676 0.2146567
gama
sigma
       1.07571826 1.5332444
lambda -9.77432176
                  3.1546186
alpha1
       0.82283296
                          NA
alpha2
       1.12238601
                          NA
       1.99662028
                          NA
alpha3
n = 500^\circ = 0^[42]
```

```
1
beta1
       0.02158733 -0.4512963
beta2 -1.02695332
                  0.9263683
beta3
      -1.97999765
                   1.9517793
beta4
      -2.97930083
                   2.9176116
delta -1.05945887
                   1.2244196
gama
       0.02042428
                   0.1943083
sigma
       1.06905443
                   1.3013499
lambda -7.41328625
                   2.7776950
alpha1
       0.81224815
                          NA
alpha2
       0.99328118
                          NA
alpha3
       1.73890152
                          NA
n = 500 cen = 0 [[43]]
                  1
beta1
       0.003825765 -0.9911382
beta2
     -0.992384827
                    1.0309182
beta3 -2.017345105
                    1.9897713
beta4 -2.990044074 2.9200299
delta -1.094806810 1.3265735
       0.012945202 0.1708619
gama
sigma
       1.100703027
                    1.3894816
lambda -9.622392488
                    3.2092876
alpha1
       0.434008217
                           NA
alpha2
       0.898591949
                           NA
alpha3
                           NA
       1.720611161
n = 500^\circ = 0^[44]
beta1
      -0.06341539 -1.0201830
beta2 -1.00251299
                  1.0009135
beta3
      -2.00923971
                   1.8904484
beta4 -2.97397304 3.0354029
delta -0.96093199
                   1.2926963
gama
       0.03901868
                   0.3494558
sigma
       0.98102445
                   1.4214498
                   2.1867564
lambda -4.86470322
alpha1
       0.69078461
                          NA
alpha2
       0.83264624
                          NA
alpha3 1.94602376
                          NA
n = 500 cen = 0 [[45]]
                 1
                           2
```

```
beta1
      -0.08222316 -0.9898931
beta2 -0.95033316 0.9719164
beta3 -2.00517008 2.0464809
beta4 -3.04974091
                   3.0027824
delta -0.91876427
                   1.2649822
       0.04707390 0.1391560
gama
sigma
       0.94403479
                   1.3188389
lambda -4.23461586 3.3910447
alpha1 0.81656792
                          NA
                          NA
alpha2 1.00299536
                          NA
alpha3
       2.15055709
n = 500^\circ = 0^[46]
                            2
       0.25160544 -1.34378167
beta1
beta2 -1.05434084 1.02890086
beta3 -2.02893108
                  1.94777790
beta4 -3.01916909 3.06800618
delta -1.01093537
                   1.40992256
gama
       0.02257571 0.09549159
sigma
       1.02204013
                   1.44338949
lambda -6.72825842 4.56260324
alpha1 0.65125504
                           NA
alpha2
       0.88682563
                           NA
alpha3
       1.73004505
                           NA
n = 500 cen = 0 [[47]]
                           2
                1
beta1
      -0.16144535 -0.8778967
beta2 -0.97787073
                   1.0150392
beta3 -1.99982524
                  1.9635106
beta4 -2.96321026 3.0264154
delta -0.99348636 1.0805944
       0.03950549 0.2298119
gama
sigma
       1.01317354
                   1.1821574
lambda -4.99842515
                   2.2541169
alpha1
       0.63925612
                          NA
alpha2
       1.09127670
                          NA
alpha3
       2.24937036
                          NA
n = 500^\circ = 0^[48]
                           2
                1
beta1 -0.13804348 -0.9219444
```

```
beta2 -0.99987259 1.0107039
beta3 -2.02022917 1.9783250
beta4 -2.93793378 3.0809372
delta -0.99037271 1.0223633
gama
       0.02552547 0.4671809
sigma
       1.00317674 1.2297999
lambda -6.19885950
                  1.4957627
alpha1 0.76930698
                         NA
alpha2 1.02285609
                         NA
alpha3 2.10068608
                         NA
n = 500^\circ = 0^[49]
                          2
                1
beta1
       0.15912790 -0.5882914
beta2 -1.02226944 0.8604898
beta3 -2.00438829 2.0572159
beta4 -3.02511907 3.0024553
delta -1.02258506 1.4615436
gama
       0.03975235 0.1327232
sigma
       1.04184094 1.5062646
lambda -5.12882686 4.0117908
alpha1 0.98939919
                         NA
alpha2 1.45482771
                         NA
alpha3 2.59821398
                         NA
n = 500 cen = 0 [[50]]
                          2
                1
beta1 -0.05173732 -1.1858531
beta2 -0.96612932 1.0537222
beta3 -1.99572967 2.0100421
beta4 -2.98471911 3.0271120
delta -1.05052717 1.3436678
gama
       0.01171810 0.1790977
sigma
       1.05608969 1.4087373
lambda -9.70462314 3.1750228
alpha1 0.70355381
                         NA
alpha2 1.02125876
                         NA
alpha3 2.02313619
                         NA
n = 500 cen = 0 [[51]]
                  1
                            2
beta1
        0.202594871 -0.7423078
beta2
       -1.010661619 0.9401346
```

```
beta3
       -2.022631123 1.9409212
beta4
       -3.041385849 2.9763735
delta
       -1.096344969 1.3313851
gama
        0.003899168 0.1567955
sigma
        1.098121787 1.3890219
lambda -17.557441474 3.3623038
alpha1
        0.855261226
alpha2
        1.187807161
                            NA
alpha3
        1.958369938
                            NA
n = 500^\circ = 0^{[52]}
                1
beta1
      -0.02975540 -1.0656659
beta2 -0.99893488 0.9539625
beta3
      -1.96280897
                   2.0865739
beta4 -3.01631010 3.0525438
delta -0.97872382 1.3043636
       0.04019726 0.1425975
gama
       0.99904833 1.3579256
sigma
lambda -4.88159693 3.4541615
alpha1
       0.69434651
                          NA
alpha2
       0.95571071
alpha3 1.98987151
                          NA
n = 500 cen = 0 [[53]]
                           2
                1
beta1 -0.01433678 -0.9862901
beta2 -0.97847951 1.0193395
beta3 -2.02332249 2.0868732
beta4 -3.00343528 3.0401152
delta -0.98544123 1.1477095
       0.03042024 0.3289412
gama
sigma
       1.00075704 1.2830348
lambda -5.65001282
                  2.0011187
alpha1
       0.84041714
                          NA
alpha2
       0.95435479
                          NA
alpha3
       1.88294526
                          NA
n = 500 cen = 0 [[54]]
                1
beta1 -0.14986392 -1.041963
beta2 -0.97320761 1.052208
beta3 -1.98367706 2.015738
```

```
beta4 -3.03405337 2.971343
delta -0.79700441 1.417210
gama
       0.06335571
                   0.276136
sigma
       0.83580604
                   1.511496
                   2.696948
lambda -3.16641500
alpha1
       0.58498144
                          NA
alpha2
       1.04737662
                         NA
alpha3
       2.00138551
                          NA
n = 500 cen = 0 [[55]]
                           2
                 1
beta1
       0.06865277 -0.8174886
beta2 -1.05105344
                   1.0137363
beta3
      -2.01342932
                   2.0043435
beta4
      -2.94751272
                   2.9519739
delta -1.06353229
                   1.1803645
gama
       0.02576159 0.2732068
sigma
       1.07557544
                   1.2909172
lambda -6.62619743
                   2.2582416
alpha1
       0.69018791
                          NA
alpha2
       1.27589898
                          NA
alpha3
                          NA
       2.24351575
n = 500 cen = 0 [[56]]
                 1
                           2
      -0.08489474 -1.2221748
beta1
beta2 -0.99401959
                   1.0328052
beta3 -1.96606292
                   2.0678571
beta4 -2.95667609
                   3.0026452
delta -0.99743320
                   1.4849575
gama
       0.04336452
                   0.1260986
sigma
       1.01893940
                   1.5268259
lambda -4.78979080
                   4.1817577
alpha1
       0.71389229
                          NA
alpha2
                          NA
       0.95617289
alpha3
       2.12534970
                          NA
n = 500 cen = 0 [[57]]
                           2
                 1
beta1 -0.33308341 -0.6830103
beta2 -0.97560300 0.9292633
beta3 -1.99910327
                   2.0172803
beta4 -2.93683585 2.9480170
```

```
delta -0.86435266 1.4010451
       0.08341429 0.1883180
gama
sigma
       0.91132859
                   1.4667124
lambda -2.99275205 3.2285404
alpha1
       0.59752766
                          NA
alpha2 0.96265266
                          NA
alpha3 1.92347461
                          NA
n = 500 cen = 0 [[58]]
                           2
                1
       0.03039714 -0.8012095
beta1
beta2 -1.00421064 1.0012991
beta3 -2.00524484 1.9893109
beta4 -3.02288870 2.9689824
delta -0.90451011 1.1338238
gama
       0.03115391 0.2379529
sigma
       0.92157064 1.2343052
lambda -5.12456685 2.3243423
alpha1
       0.90879781
                          NA
alpha2 0.99859953
                          NA
alpha3 1.85108210
                          NA
n = 500^\circ = 0^[59]
                 1
beta1
        0.16713257 -0.8633937
beta2
       -1.03085434 1.0466882
beta3
       -2.00731448 1.9812090
beta4
       -2.99162878 2.8586138
       -1.13073378 1.3761478
delta
gama
        0.00239372 0.1855425
sigma
        1.13179176 1.4419865
lambda -23.11126216 3.1947981
alpha1
        0.94549181
                           NA
alpha2
        1.27362382
                           NA
alpha3
                           NA
        2.27824311
n = 500^\circ = 0^[60]
                1
beta1
       0.06952693 -1.0708513
beta2 -0.99219494 0.9983163
beta3 -1.98631776 1.8789205
beta4 -3.03241359 3.0127298
delta -1.00973978 1.4314641
```

```
gama
        0.04573626 0.1369502
                   1.4785262
sigma
        1.03213889
lambda -4.72149097
                    3.8681133
alpha1
                          NA
        0.73750820
alpha2
        1.04771747
                          NA
alpha3
        2.13137309
                          NA
n = 500 cen = 0 [[61]]
                  1
                             2
beta1 -0.004027561 -1.0487755
beta2 -0.988723843 1.0039911
beta3 -1.994837316 1.8909114
beta4 -3.019816084 3.0499131
delta -0.936307944 1.3509001
gama
        0.047687278
                    0.2203284
        0.961436344 1.4301257
sigma
lambda -4.287631392
                    2.8779814
alpha1
        0.688323597
                           NA
alpha2
        0.980719371
                           NA
alpha3
        1.958389116
                           NA
n = 500 cen = 0 [[62]]
                 1
                           2
beta1
        0.14689485 -0.8594268
beta2 -1.00450890 0.9322758
beta3 -2.05128891
                   1.9956175
beta4 -3.01891835 3.0267268
delta -1.01810090
                   1.3471375
        0.03670233 0.1763102
gama
sigma
        1.03596900
                   1.4110597
lambda -5.31427451
                    3.2082869
alpha1
        0.78842109
                          NA
alpha2
        0.97746461
                          NA
alpha3
        2.09478847
                          NA
n = 500^\circ = 0^[[63]]
                           2
                 1
beta1
        0.13212885 -0.8680669
beta2 -0.97589761 0.9729883
beta3 -1.96932677
                   1.8861645
beta4 -3.04961380 2.9760185
delta -1.03704523
                   1.3435868
gama
        0.01671062 0.1838385
```

```
sigma
        1.04507102 1.4103418
                    3.1336285
lambda -8.02234601
alpha1
        0.64210077
                          NA
alpha2
                          NA
        0.79159298
alpha3
        1.72884334
                          NA
n = 500^\circ = 0^[64]
                 1
beta1 -0.04387411 -1.347601
beta2 -0.97374324
                  1.012878
beta3 -1.97807991
                   2.014505
beta4 -2.99842634
                   3.106164
delta -0.96406000
                   1.387877
gama
        0.05192652
                   0.173781
sigma
        0.99062516
                   1.449132
lambda -4.23067308
                    3.329276
alpha1
        0.81786534
                         NA
alpha2
        1.21006194
                         NA
alpha3
        2.08183417
                         NA
n = 500^\circ = 0^[65]
                            2
                 1
beta1
        0.17080851 -0.6941726
beta2 -1.05307083 0.9581193
beta3 -2.02277919 1.9343457
beta4 -3.01370582
                   2.9012282
delta -0.92012991
                    1.2818627
gama
        0.04439808
                   0.1775130
sigma
        0.94394763
                   1.3493276
lambda -4.36683755
                    3.0424705
alpha1
        0.65327669
                          NA
alpha2
        0.88363036
                          NA
alpha3
        1.69125874
                          NA
n = 500^\circ = 0^[66]
                             2
                  1
beta1
        0.008830502 -1.0237791
beta2 -1.022532986 1.0511967
beta3 -2.015679186 1.9974393
beta4 -2.961949657 2.9063916
delta -0.936146121 1.6414517
        0.044167351 0.1354222
gama
sigma
        0.959446147 1.6821967
```

```
lambda -4.454438495 4.4604970
alpha1
       0.813445459
                           NA
alpha2
                           NA
       1.051980488
                           NA
alpha3
       1.971730808
n = 500 cen = 0 [[67]]
                           2
beta1
       0.10969933 -0.9838775
beta2 -0.96977715 1.0415244
beta3 -1.93526751 2.0960717
beta4 -3.08661313 2.9519387
delta -0.89848085
                   1.3217132
       0.03716482 0.1813817
gama
sigma
       0.91893018
                   1.3886351
lambda -4.66061026 3.1034199
alpha1
       0.68655747
                          NA
alpha2
       1.07908370
                          NA
alpha3 1.88211676
                          NA
n = 500^\circ = 0^[68]
                           2
                1
beta1 -0.01582456 -1.4188867
beta2 -1.01010763 1.0635182
beta3 -2.00683738 2.0258407
beta4 -2.97475495 3.0798303
delta -0.98692536 1.3878924
                   0.2222108
gama
       0.02405627
sigma
       0.99903850
                   1.4657613
lambda -6.36312074
                   2.9442401
alpha1
       0.71076354
                          NA
alpha2
       0.99325854
                          NA
alpha3
       1.85114070
                          NA
n = 500 cen = 0 [[69]]
                             2
                  1
beta1
       -0.052831074 -1.1415133
beta2
       -1.025913042 0.9314369
beta3
       -2.009314299 2.0061794
beta4
       -2.926686205 3.0437205
delta
       -1.009410235 1.4494708
        0.005191455 0.1209527
gama
sigma
        1.011978497
                     1.4906100
lambda -14.009516991 4.1677494
```

```
alpha1
         0.752451642
                             NA
alpha2
                             NA
         1.166662675
alpha3
         2.285607781
                             NA
n = 500^\circ = 0^[70]
beta1
       -0.06183105 -1.1008143
beta2 -0.98336162
                   1.0119938
beta3 -2.01069779
                    2.0009537
beta4 -3.00168221
                    3.0066588
delta
      -0.99424904
                    1.4802192
                    0.2094899
gama
        0.02323784
        1.00586729
                    1.5493672
sigma
                    3.2340337
lambda -6.52224750
alpha1
        0.69860871
                           NA
alpha2
        0.91007163
                           NA
alpha3
        2.13804991
                           NA
n = 500 cen = 0 [[71]]
                            2
                 1
beta1
        0.15191495 -1.1683564
beta2 -1.04523179
                   1.0348087
beta3 -1.96677408
                   1.9623550
beta4 -3.01059943 3.0179147
delta -0.94958308
                   1.3130254
gama
        0.04439397
                    0.2439119
                    1.4028355
sigma
        0.97267775
lambda -4.50682807
                    2.6586222
alpha1
        0.79041232
                           NA
alpha2
        0.92772225
                           NA
alpha3
        2.28961280
                           NA
n = 500 cen = 0 [[72]]
                 1
                            2
      -0.22639964 -0.9502132
beta1
beta2 -0.95589685
                   0.9549615
beta3 -2.01581420
                    2.0208372
beta4 -2.96705396
                   3.0228193
delta -0.92164379
                   1.3771971
gama
        0.03390569
                    0.1476445
sigma
        0.93985795
                    1.4297959
lambda -5.00526164
                    3.5841607
alpha1
        0.80182995
                           NA
```

```
alpha2
        1.10298945
                           NA
alpha3
        2.43584677
                           NA
n = 500 cen = 0 [[73]]
                            2
                 1
      -0.10144906 -0.7425110
beta1
beta2
      -0.97985526 0.9574182
beta3
      -2.02897173 2.0219541
beta4 -2.98887587
                    3.0046926
delta -1.05239286
                   1.1462620
gama
                   0.2321522
        0.04149138
sigma
        1.07192449
                    1.2434101
lambda -5.16653018
                    2.3790167
alpha1
        0.67733023
                           NA
alpha2
        1.01680101
                           NA
        1.82332648
                           NA
alpha3
n = 500^\circ = 0^[74]
                1
                            2
beta1
      -0.9102225 -0.02567941
beta2
        1.0013767 -0.98779085
beta3
        2.1094878 -1.99972439
beta4
        2.9106782 -2.99278944
       1.4322307 -1.01780044
delta
gama
        0.1258090 0.03630825
        1.4754978
                  1.03548345
sigma
lambda
       4.0379149 -5.34145992
alpha1 -0.4513639
                           NA
alpha2 -0.9631840
                           NA
alpha3 -1.8474140
                           NA
n = 500^\circ = 0^[[75]]
                            2
                1
beta1
        0.1231852 -1.07790933
beta2 -1.0379430 0.99587830
beta3 -2.0065478 2.06691803
beta4 -2.9847756 3.02087511
delta -0.9765160 1.39771670
gama
        0.0141848 0.09754779
sigma
        0.9837522 1.43218706
lambda -8.1991300
                  4.47517921
alpha1
        0.4669925
                           NA
alpha2
        0.8210361
                           NA
```

```
alpha3 1.9024731
n = 500 cen = 0 [[76]]
                 1
                           2
beta1
        0.07783723 -0.6339149
beta2 -1.01607737
                   0.9381281
beta3 -2.00797975
                   1.9543216
beta4 -3.01878847 2.9487034
delta -1.01158061 1.4040116
gama
        0.04855021 0.2240299
sigma
        1.03529973
                   1.4816472
lambda -4.59097517
                   2.9663176
alpha1
        0.79283766
                          NA
alpha2
        1.18185283
                          NA
alpha3
       2.75658035
                          NA
n = 500^\circ = 0^[77]
                           2
                 1
beta1
        0.02699874 -1.2738654
beta2 -0.98062180
                   1.0480435
beta3 -2.02683268
                   1.9824784
beta4 -3.03960377
                   3.0139919
delta -0.96267023 1.3894214
gama
        0.03724771 0.1031864
sigma
        0.98182569
                   1.4260710
                   4.3253649
lambda -4.98801525
        0.75087474
alpha1
                          NA
alpha2
        1.05409122
                          NA
       2.01878368
alpha3
                          NA
n = 500 cen = 0 [[78]]
                 1
                           2
beta1 -0.14868664 -0.7472330
beta2 -0.98783731 0.9579657
beta3 -2.02096628
                   1.9645181
beta4 -2.96033918 3.0072768
delta -0.93388352
                  1.1830873
gama
        0.04879622 0.2062515
sigma
        0.95965341
                   1.2672597
lambda -4.22765564 2.6050632
alpha1 0.74428478
                          NA
alpha2
                          NA
        0.91886938
```

alpha3 1.71068131

NA

NA

```
n = 500^\circ = 0^[79]
                              2
                   1
beta1
         0.317296302 -0.7923998
beta2
        -1.032960321 0.9788213
beta3
        -1.968111178
                      2.0456764
beta4
        -3.046512449 2.9597445
delta
        -1.155834377
                      1.2328105
         0.008122464 0.1841526
gama
sigma
         1.159342733
                     1.3053636
                      2.8728132
lambda -12.824832535
alpha1
                             NA
         0.770528811
alpha2
         0.984780665
                             NA
alpha3
                             NA
         1.768311238
n = 500^\circ = 0^\circ [80]
                   1
                              2
beta1
         0.035710929 -0.9498214
beta2
        -1.017053263
                      1.0483790
beta3
        -2.017397696
                     1.9713782
beta4
        -2.972349865 2.9449995
delta
        -1.028980724 1.2058478
gama
         0.009609453 0.2776576
                     1.3159508
sigma
         1.033639581
lambda -10.496823686
                      2.2884304
alpha1
         0.696021382
                             NA
         1.226573590
                             NA
alpha2
                             NA
alpha3
         2.127163056
n = 500^\circ = 0^[[81]]
                 1
beta1
      -0.04736116 -1.0722674
beta2 -0.99102170 0.9678776
beta3 -2.02738770
                   2.0284643
beta4 -3.02100437
                    3.0295313
delta -0.86663415
                    1.3532078
gama
        0.06941634 0.1084183
sigma
        0.90579859
                   1.3926915
lambda -3.28931101
                   4.1097301
alpha1
        0.65959554
                           NA
alpha2
       1.03937053
                           NA
alpha3
        1.98040941
                           NA
```

```
n = 500 cen = 0 [[82]]
                 1
                            2
beta1 -0.001516844 -1.3107222
beta2 -1.006876175 1.0470650
beta3 -1.987520586 2.0494520
beta4 -3.006500319 3.0400345
delta -0.916215455 1.5173406
gama
       0.027503910 0.1116399
sigma
       0.931104006 1.5536932
lambda -5.524594376 4.5412282
alpha1
       0.541363212
                           NA
alpha2
       0.795526383
                           NA
       1.735570033
                           NA
alpha3
n = 500^\circ = 0^[[83]]
                1
                           2
beta1
       0.03059244 -1.4267690
beta2 -1.02226544 0.9818842
beta3 -2.00325435 1.9978804
beta4 -3.00315012 3.1871561
delta -0.87048659 1.4348482
gama
       0.05996410 0.1363762
sigma
       0.90427374 1.4816091
lambda -3.55481041 3.8854080
alpha1
                          NA
       0.65307836
alpha2
       0.93612295
                          NA
       2.01458159
alpha3
                          NA
n = 500 cen = 0 [[84]]
               1
beta1 -1.5310860 0.04131594
beta2
       1.0382019 -1.05037005
beta3
       2.0278129 -1.94603142
beta4
       3.1444832 -2.92875152
delta
       1.4498066 -1.07931621
gama
       0.1334129 0.02171563
sigma
       1.4951094 1.08932967
lambda 3.9692754 -7.32423821
alpha1 -0.4703871
alpha2 -1.0180102
                          NA
alpha3 -2.1111993
                          NA
n = 500 cen = 0 [[85]]
```

```
1
beta1
      -0.006366038 -0.8381557
beta2
      -1.004648033
                    1.0366720
beta3
      -1.969188704
                    2.0452391
                    2.9854617
beta4
      -3.005302200
delta -0.878101980
                    1.0614785
gama
        0.053091518
                    0.3496660
sigma
        0.907829613
                    1.2150731
lambda -3.810942417
                     1.7950829
alpha1
        0.835487635
                            NA
                            NA
alpha2
        0.973815839
alpha3
        2.027795531
                            NA
n = 500 cen = 0 [[86]]
beta1
        0.09603210 -1.2355861
beta2
      -1.00501195
                   1.0145483
beta3
      -1.99018464 2.0071760
beta4
      -3.00436586
                    3.0602067
delta -0.98119063
                   1.3262398
gama
        0.03280111
                    0.1131185
sigma
        0.99776559
                   1.3682216
lambda -5.41762697
                    3.9432581
alpha1
        0.67760712
                          NA
alpha2
        0.98917248
                          NA
alpha3
       1.89515061
                           NA
n = 500^\circ = 0^[[87]]
beta1
      -0.30471560 -1.0486745
beta2
      -0.96112282 0.9344890
beta3
      -2.05524545
                   2.0575621
beta4 -2.95070565
                    3.0501197
delta -0.91326099
                   1.5112999
gama
        0.04798341
                    0.1015284
sigma
        0.93916401
                    1.5445244
                    4.7430407
lambda -4.16916737
alpha1
        0.58712197
                           NA
alpha2
        0.86779894
                          NA
alpha3 2.05863611
                          NA
n = 500 cen = 0 [[88]]
                 1
                            2
```

```
beta1
      -0.19900697 -1.0709553
beta2 -0.96064530 0.9871099
beta3 -1.94712279
                   1.9313369
beta4 -2.96437958 3.0537295
delta -1.05275176 1.3084363
       0.04533374 0.2048964
gama
sigma
       1.07406704
                   1.3845223
lambda -4.94441841 2.8905829
alpha1 0.49641280
                          NA
                          NA
alpha2
       0.85410603
                          NA
alpha3
       1.79788954
n = 500^\circ = 0^[[89]]
                           2
beta1
       0.02894952 -0.9736027
beta2 -1.01581632 1.0005992
beta3 -2.00967488 2.0359828
beta4 -2.98395093 2.9847090
delta -1.00638642 1.3160939
gama
       0.02644338 0.1714831
sigma
       1.01943955
                   1.3797051
lambda -6.18879807
                   3.1781634
alpha1 0.78737404
                          NA
alpha2 1.01144761
                          NA
alpha3
       1.94598602
                          NA
n = 500 cen = 0 [[90]]
                           2
               1
beta1 -0.8475751 0.33637931
beta2
       0.9624404 -1.05315656
beta3
       1.9666620 -2.00737114
beta4
       2.9694177 -3.08142661
delta
       1.5098373 -0.95102967
       0.1542715 0.02868872
gama
sigma
       1.5600898 0.96599490
lambda 3.8440342 -5.61485408
alpha1 -0.4349750
alpha2 -0.8701576
                          NA
alpha3 -1.9291626
                          NA
n = 500^\circ = 0^[91]
                           2
               1
beta1 -0.7449838 0.17394977
```

```
beta2
       0.9423396 -1.03223211
       2.0901091 -1.98192208
beta3
beta4
       3.0118146 -3.04773493
delta
       1.3303945 -0.89768424
gama
       0.2511627 0.03880527
       1.4216583 0.91904421
sigma
lambda 2.6546230 -4.55699203
alpha1 -0.5484109
alpha2 -0.9369059
                         NA
alpha3 -1.7353479
                         NA
n = 500 cen = 0 [[92]]
                           2
                1
beta1 -0.12586901 -1.1431902
beta2 -0.96783300 1.0044106
beta3 -1.96018710 2.0253792
beta4 -2.98747159 3.0262407
delta -1.01075981 1.3748786
gama
       0.01501435 0.1030691
sigma
       1.01815998 1.4118641
lambda -8.24887421 4.2825268
alpha1 0.97175706
                         NA
alpha2 1.32075811
                         NA
alpha3 2.36002565
                         NA
n = 500 cen = 0 [[93]]
                           2
                1
beta1 -0.15574759 -1.3800915
beta2 -1.00223457 1.0940361
beta3 -2.05374796 1.9640045
beta4 -2.97432561 3.0610959
delta -0.93119885 1.2542526
gama
       0.07878989 0.2133024
sigma
       0.97258480
                  1.3365822
lambda -3.31747144 2.7157333
alpha1
       0.54995997
                         NA
alpha2 0.65074326
                         NA
alpha3 1.78840798
                         NA
n = 500 cen = 0 [[94]]
                           2
                1
beta1 -0.22641301 -1.3630905
beta2 -0.98539263 1.1200372
```

```
beta3 -2.05165627 2.0397694
beta4 -2.90134922 2.9637164
delta -1.05568406
                  1.4062213
gama
       0.02782357 0.1777331
sigma
       1.06878080
                  1.4680571
lambda -6.32888985
                   3.3355655
alpha1
       0.88318163
alpha2 1.07893034
                          NA
alpha3 2.08639206
                          NA
n = 500^\circ = 0^[95]
                           2
                1
       0.02061944 -0.7972033
beta1
beta2 -1.00209298 0.9160928
beta3
      -2.00287177
                   2.0832538
beta4 -3.00609214 3.0351386
delta -1.06835425
                  1.2975422
       0.02861134 0.1882865
gama
       1.08166175 1.3681748
sigma
lambda -6.31605917 2.9902806
alpha1
       0.78046981
                          NA
alpha2 0.92295409
alpha3 2.09288696
                          NA
n = 500 cen = 0 [[96]]
                           2
                1
beta1 -0.04324703 -0.8992797
beta2 -1.01480776 1.0122036
beta3 -1.99658150 1.9928946
beta4 -2.97203984 2.9554678
delta -0.97769886 1.2656649
gama
       0.04050416 0.2879144
sigma
       0.99819799
                  1.3747080
lambda -4.85797520
                   2.3587779
alpha1
       0.81585405
                          NA
alpha2
       1.16943916
                          NA
alpha3 2.54356249
                          NA
n = 500 cen = 0 [[97]]
                           2
                1
beta1
       0.10094840 -0.9952410
beta2 -0.98281259 0.9870327
beta3 -2.05060334 1.9149072
```

```
beta4 -3.03950146 2.9528776
delta -1.01113394 1.4796522
gama
       0.03825722
                   0.1740961
sigma
       1.02987818
                   1.5373571
lambda -5.16954098
                    3.5462153
alpha1
       0.79465721
                          NA
alpha2
       1.22428945
                          NA
alpha3
       2.16373194
                          NA
n = 500 cen = 0 [[98]]
                            2
                 1
beta1
       0.17457159 -1.1319453
beta2 -1.02176555
                   1.0181336
beta3 -2.02244594
                   2.1395322
beta4 -3.02245190
                   3.0154804
delta -1.05066549
                   1.3413382
gama
       0.02031455
                   0.1743526
sigma
       1.06028888
                   1.4048276
lambda -7.37158434
                   3.2123588
alpha1
       1.00019038
                          NA
alpha2
       1.04076338
                          NA
alpha3
                          NA
       2.31993972
n = 500^\circ = 0^[99]
                 1
                            2
      -0.07770961 -0.7855321
beta1
beta2 -0.99979457
                   0.9276027
beta3 -2.00058077
                    2.0694045
beta4 -3.00038032
                   2.9575096
delta -0.84157728
                   1.5883077
gama
       0.06465001
                   0.0693549
sigma
       0.87914864
                   1.6099926
lambda -3.30986048
                    6.0310937
alpha1
       0.59237690
                          NA
alpha2
                          NA
       0.99772704
alpha3
       1.87712765
                          NA
n = 500 cen = 0 [[100]]
                            2
                 1
beta1
       0.29420378 -1.2546559
beta2 -1.04261379
                   1.0210822
beta3 -1.97236262
                   2.1240009
beta4 -3.04712420 3.0115627
```

```
delta -1.09724139 1.5026613
                   0.1037902
gama
       0.02744828
sigma
       1.10967876
                   1.5368088
lambda -6.62284499
                   4.6642623
alpha1
       0.64641709
                          NA
alpha2
       0.92394736
                          NA
alpha3
       1.94334050
                          NA
n = 500 cen = 0.075
, , 1
                            2
                 1
beta1
      -0.62967469 -1.1601579
beta2
                   1.0796574
      -1.04620302
beta3
      -2.05296062 1.9697706
beta4 -3.01560922 3.0143816
delta
       0.05014363 1.1790933
gama
       0.31852010 0.1879996
       0.56659905
sigma
                   1.2562884
       0.08884793
lambda
                   2.7193788
alpha1
                          NA
       0.66769067
alpha2
       0.88499945
                          NA
alpha3
       1.65529729
                          NA
, , 2
                            2
                 1
beta1
      -0.72222763 -0.7672801
beta2
      -1.05648651 0.9849923
beta3
      -2.02078946 2.0039302
beta4 -2.96177216 2.8894951
delta
       0.05114300 1.3974214
gama
       0.34054568 0.2126640
                   1.4715470
sigma
       0.58579970
lambda
       0.08763921
                   3.0302639
alpha1
       0.79188505
                           NA
alpha2
       1.02826770
                          NA
alpha3
       2.32733901
                          NA
, , 3
```

1

2

```
beta1
      -0.77696020 -0.9681874
beta2 -0.98828500
                   0.9515584
beta3
      -1.99187960
                   1.9860195
beta4 -3.02449155
                   3.0657351
delta
       0.04556061
                    1.3459681
gama
       0.33343743 0.2193491
sigma
       0.57923501
                   1.4251243
lambda
       0.07890098
                  2.8738685
alpha1
       0.68734889
                          NA
alpha2
                          NA
       1.02752420
       2.04755163
                          NA
alpha3
, , 4
                 1
beta1
      -0.71600082 -0.7260373
beta2
      -0.98390719
                   1.0523396
beta3
      -1.97604863
                   2.0435285
beta4 -3.05191091
                   2.9254960
delta
       0.06779283
                   1.0927169
       0.30233550
                   0.2841535
gama
sigma
       0.55401387
                   1.2158057
lambda 0.12329322
                   2.0498929
alpha1
       0.82321406
                          NA
alpha2
       1.08346012
                          NA
alpha3
                          NA
       1.98018115
, , 5
                 1
                            2
beta1
      -0.75420464 -0.7679593
beta2
      -1.02746051 0.9668197
beta3
      -2.07550973 1.9916212
beta4 -2.99972207
                   2.9995115
delta
       0.06283817
                   1.1336209
gama
       0.33345612 0.2661061
                   1.2454727
sigma
       0.58086552
lambda 0.10881887
                    2.1975585
alpha1
       0.83324374
                          NA
alpha2
                          NA
       1.03072764
alpha3
       1.79737642
                          NA
```

, , 6

```
2
                 1
       -0.95492266 -1.1151452
beta1
beta2
       -1.00583165
                    0.9939787
beta3
       -1.96986609
                     1.9488420
beta4
      -2.94143364
                     3.0402433
delta
        0.06495955
                     1.2803345
gama
        0.34221893
                    0.1796215
sigma
        0.58859041
                     1.3486578
lambda
                     3.0209548
        0.11104296
alpha1
        0.76537152
                            NA
alpha2
        1.16479255
                            NA
alpha3
        2.28487735
                            NA
, , 7
                 1
                              2
       -0.89991978 -1.51618419
beta1
beta2
      -0.98503344
                     1.08505676
beta3
      -2.03878629
                     2.02863185
      -2.98807638
                     3.03043190
beta4
delta
        0.04792879
                     1.54190800
gama
        0.34878345
                     0.05368651
sigma
        0.59252057
                     1.55921993
lambda
        0.08115561
                     6.65465981
        0.81203117
alpha1
                             NA
alpha2
        1.11960816
                             NA
                             NA
alpha3
        2.10351690
, , 8
                 1
       -0.95126113 -0.73241427
beta1
beta2
       -0.95999205
                    0.96834090
beta3
       -1.95507280
                     1.95363058
beta4
      -3.00973634
                     2.90841169
delta
                     1.30608143
        0.06385628
gama
        0.38239584
                    0.08004769
sigma
        0.62166990
                     1.33637434
lambda
                     4.61631933
        0.10326354
alpha1
        0.64139353
                             NA
                             NA
alpha2
        1.02497912
alpha3
        2.14786358
                             NA
```

, , 9

```
2
                  1
beta1
       -0.96820275 -0.9717296
beta2
       -0.93590910
                     0.9548763
beta3
       -2.01356536
                     2.0046984
beta4
      -3.02335891
                     3.0198587
delta
        0.06621244
                     1.3387655
gama
        0.35271064
                     0.1486722
sigma
        0.59757403
                     1.3931853
lambda
        0.11148856
                     3.4720793
alpha1
        0.54172819
                            NA
alpha2
                            NA
        0.88359140
alpha3
        1.96979386
                            NA
, , 10
                  1
                             2
beta1
       -0.73887139 -1.0777925
beta2
       -0.98630589
                     1.0038340
beta3
                     2.0176736
       -2.02774462
beta4 -3.00109782
                     3.0158709
delta
        0.02697992
                     1.3129869
gama
        0.35888595
                     0.0919598
sigma
        0.59967814
                     1.3475513
lambda
        0.04503627
                     4.3297357
alpha1
        0.76542892
                            NA
alpha2
        1.03322051
                            NA
alpha3
        2.10902357
                            NA
, , 11
                  1
                             2
beta1
       -0.99796455 -1.0080488
beta2
       -0.97769817
                     1.0081174
beta3
                     2.0323999
       -1.97519935
beta4
      -2.95919452
                     3.0072530
delta
        0.06177734
                     1.3632467
        0.34511226
                     0.2399306
gama
sigma
        0.59070187
                     1.4485759
lambda
        0.10515962
                     2.7831183
alpha1
        0.69053051
                            NA
```

```
alpha2
        0.86318263
                            NA
alpha3
        1.73066289
                            NA
, , 12
                  1
                              2
beta1
       -0.79529136 -1.23835867
beta2
       -1.01207117
                    0.99963252
beta3
       -2.00914397
                     2.06457373
beta4
      -3.00082408
                    3.05738286
delta
        0.06385679
                     1.44698018
                     0.09834188
gama
        0.37476159
        0.61549921
                     1.48057202
sigma
lambda
        0.10431086
                     4.61416725
alpha1
        0.68117734
                             NA
alpha2
        1.10817543
                             NA
alpha3
        2.57554410
                             NA
, , 13
                             2
                  1
beta1
       -0.97125862 -1.1253695
beta2
       -0.94330139
                    1.0237445
beta3
       -1.97037552
                    2.0654840
beta4
      -3.04084905
                    2.9859152
delta
        0.06304033
                     1.3581189
                    0.1275273
gama
        0.44061326
sigma
        0.66677384
                     1.4042842
lambda
                     3.8030858
        0.09497071
alpha1
        0.72614373
                            NA
alpha2
        1.12774704
                            NA
alpha3
        1.65110442
                            NA
, , 14
                             2
                  1
beta1
       -0.74226769 -0.6943242
beta2
      -1.02210670
                    0.9647332
beta3
       -2.03625579
                    2.0064907
beta4 -3.03719566
                    2.9880026
delta
        0.06698065
                    1.1329002
```

0.40159603

0.63724598

gama sigma 0.2941847

1.2560444

```
lambda
        0.10569506 2.0887268
alpha1
        0.87628996
                           NA
alpha2
        1.16055010
                           NA
alpha3
        1.79185019
                           NA
, , 15
                1
                           2
beta1 -1.0234855 -0.7734640
beta2
      -1.0023704 0.9574556
      -2.0420787
beta3
                   1.9587400
beta4 -2.9370718 2.9893548
delta
        0.0772768 1.3294251
gama
        0.3316956 0.1485724
sigma
        0.5810915 1.3841761
lambda
        0.1341774
                  3.4490126
alpha1
        0.6457445
                          NA
                          NA
alpha2
        0.8758732
alpha3
        1.9547445
                          NA
, , 16
                 1
                            2
beta1 -0.79224195 -0.7250593
beta2 -0.96811405
                   1.0605114
beta3
                    2.0136400
      -2.04331082
beta4 -3.04069996
                    2.9353382
delta
        0.04265349
                    0.9524397
        0.37014927
gama
                    0.4315664
sigma
        0.60989228
                    1.1570254
lambda
        0.07010777
                    1.4498187
alpha1
        0.87415625
                           NA
alpha2
        1.01144073
                           NA
alpha3
        1.71738929
                           NA
, , 17
                 1
                            2
beta1
      -0.86676266 -1.1894347
beta2 -0.97912289
                    0.9698975
beta3 -1.95667646
                    1.9708287
beta4 -2.99879670
                    3.0752927
```

delta

0.04685903

1.5066125

```
0.37198930 0.1401580
gama
                    1.5524301
sigma
        0.61170668
lambda
        0.07682951
                    4.0243217
alpha1
                           NA
        0.60835424
alpha2
        0.89476770
                           NA
alpha3
        2.03598458
                           NA
, , 18
                             2
                 1
       -1.32686847 -1.2965200
beta1
beta2
                    1.0193384
      -0.95643999
beta3
       -2.00010319
                    2.0705137
beta4
      -2.89303850
                    3.0332751
delta
        0.05959857
                    1.4038284
gama
        0.38253903
                    0.1188959
sigma
        0.62136223
                    1.4455553
lambda
        0.09636025
                    4.0712757
alpha1
        0.86431272
                           NA
alpha2
        1.00721165
                           NA
alpha3
        1.68276393
                           NA
, , 19
                 1
                             2
       -1.03919640 -0.8502261
beta1
beta2
      -0.97836987
                    1.0599877
beta3
      -1.99255146
                    2.0001422
beta4 -2.97345603
                    2.9159293
delta
        0.05785805
                    1.1871626
gama
        0.42509875
                    0.2329950
sigma
        0.65455810
                    1.2815420
                    2.4594438
lambda
        0.08873989
alpha1
        0.70741624
                           NA
alpha2
                           NA
        1.11257097
alpha3
        1.89280675
                           NA
, , 20
                             2
                 1
beta1 -0.96678322 -0.9243778
beta2 -0.93817787
                    1.0259200
```

beta3 -1.96719423 1.9929850

```
beta4 -3.00573312 2.9272740
delta
       0.05535720 1.2459452
gama
       0.38239765
                   0.1066588
sigma
       0.62085592
                   1.2880366
lambda
                   3.8150528
       0.08951927
alpha1
       0.66812506
                          NA
alpha2
       1.03967828
                          NA
alpha3
       2.04504855
                          NA
, , 21
                           2
                1
      -0.0669924 -0.5320401
beta1
beta2 -1.0087362 0.9901406
beta3
      -1.9637739 2.0142993
beta4 -2.9449256 2.8802697
delta -1.0009650 1.4303267
gama
       0.0242575 0.2202344
sigma
       1.0130096 1.5053468
lambda -6.4268166 3.0478433
alpha1
       0.7296650
                          NA
alpha2 1.0137244
                         NA
alpha3
       2.0498008
                          NA
, , 22
                1
                           2
beta1
      -0.76820595 -1.4349424
beta2
                  1.0411006
      -1.01921120
beta3
      -1.96467579 2.0248334
beta4 -2.98963594 3.0494153
delta
       0.02728543
                   1.4340513
gama
       0.35583466 0.1111261
sigma
       0.59714249
                   1.4722871
lambda
                   4.3018636
       0.04574111
alpha1
       0.85241376
                          NA
alpha2
                          NA
       1.13095102
alpha3
       2.16391694
                          NA
, , 23
                           2
                1
beta1 -0.5483391 -0.9921485
```

```
beta2 -1.0622228 1.0126144
beta3
     -2.0233317 1.9517814
beta4 -3.0551468 3.0564155
delta
       0.0778687
                  1.1577368
gama
       0.3573542 0.2612717
sigma
       0.6028414
                  1.2655537
lambda
       0.1302607
                  2.2649761
alpha1
       0.9468570
alpha2 1.0923384
                         NA
alpha3
       2.2592387
                         NA
, , 24
                            2
                1
beta1
      -0.81263600 -1.10019320
beta2 -0.99194059
                   0.99486341
beta3
     -1.95023724
                   2.02857090
beta4 -3.02398136 2.95351316
delta
       0.03404248
                   1.51530971
gama
       0.37507028 0.05412837
                   1.53306617
sigma
       0.61337523
lambda
       0.05558592 6.51311781
alpha1
       0.89850935
                           NA
alpha2
       1.30107966
                           NA
alpha3
       2.49911871
                           NA
, , 25
                1
beta1
      -0.69912279 -0.6815177
beta2
     -1.00363989
                  0.9906886
beta3
      -2.00193975
                   2.0021223
beta4 -3.03642149
                   2.9260205
delta
       0.05526883
                   1.1971761
gama
       0.40039725
                   0.2431207
sigma
       0.63517863
                   1.2947399
lambda 0.08734434
                   2.4279911
alpha1
       0.50605979
                          NA
alpha2
       0.90618184
                          NA
alpha3
       1.97199269
                          NA
```

, , 26

```
2
                 1
beta1
       -0.86289432 -1.3497275
beta2
      -1.03607748
                    1.0285097
beta3
      -2.01714905
                    2.0593608
beta4
      -2.95121331
                    3.0727612
delta
        0.05807320
                    1.4757960
gama
        0.34896857
                    0.2171649
sigma
        0.59358324
                    1.5476236
lambda
        0.09830658
                    3.1668795
alpha1
        0.89504507
                            NA
alpha2
                           NA
        1.20658705
alpha3
        2.06054826
                            NA
, , 27
                             2
                 1
beta1
       -0.82925363 -1.1505238
beta2
      -1.01180409
                    1.0996485
beta3
      -1.98152292
                    2.0136284
beta4 -2.98960688
                    2.9580041
delta
        0.05071609
                    1.2849323
gama
        0.36290300
                    0.1657854
sigma
        0.60454538
                    1.3479008
lambda
        0.08418806
                    3.1557829
alpha1
        0.72182244
                           NA
alpha2
                            NA
        1.07053795
alpha3
        1.82484053
                            NA
, , 28
                             2
                 1
beta1
       -0.67809398 -1.2196134
beta2
      -0.95968742
                    0.9809848
beta3
      -1.96962530
                    2.0052068
beta4 -3.09640530
                    3.0765609
delta
        0.03325668
                    1.4656019
gama
        0.42249741
                    0.1505837
sigma
        0.65084823
                    1.5161044
lambda
        0.05116428
                    3.7768265
alpha1
        0.62253364
                           NA
alpha2
        1.02462277
                           NA
alpha3
        2.03904404
                            NA
```

```
2
                  1
beta1
       -1.14106024 -1.1169142
beta2
                     1.0285671
       -0.92909159
beta3
       -1.94253160
                     1.9705843
beta4
      -2.95295711
                     3.0338297
delta
        0.05686057
                     1.3290487
gama
        0.37233826
                     0.2397136
sigma
        0.61283879
                     1.4163629
                     2.7145296
lambda
        0.09318422
alpha1
        0.75559793
                            NA
alpha2
        1.12363794
                            NA
alpha3
        2.50653332
                            NA
, , 30
                             2
                  1
beta1
       -0.95471894 -1.0800456
beta2
       -0.98452975
                     0.9701904
beta3
       -1.97496132
                     1.9556357
beta4
      -2.94981182
                     3.0492928
delta
        0.04911914
                     1.4460259
gama
        0.41860387
                     0.1437508
sigma
        0.64885789
                     1.4949052
lambda
                     3.8139148
        0.07591877
alpha1
        0.61991736
                            NA
alpha2
        0.98126901
                            NA
alpha3
        1.92714790
                            NA
, , 31
                             2
                  1
beta1
       -0.74547913 -0.9785340
beta2
                     0.9790958
      -0.95411826
beta3
       -1.99287879
                     2.0078742
beta4
      -3.08710265
                     3.0024572
delta
        0.04351888
                     1.4047187
        0.38180166
                     0.1932934
gama
                     1.4719131
sigma
        0.61943164
lambda
        0.07043017
                     3.1950733
alpha1
        0.57299446
                            NA
alpha2
        1.07517872
                            NA
```

```
alpha3
        1.87596632
                            NA
, , 32
                              2
                  1
beta1
        0.10685836 -1.14612073
beta2
       -0.99414847
                     1.05935538
beta3
       -2.03381689
                    2.01052437
beta4 -3.04888569
                     2.95997197
delta -1.06519253
                     1.41714677
gama
        0.02462206
                     0.09848758
                     1.45147944
sigma
        1.07668806
lambda -6.78837637
                     4.51568967
alpha1
        1.23504606
                             NA
alpha2
        1.33591989
                             NA
alpha3
        2.21285214
                             NA
, , 33
                  1
                             2
beta1
       -0.87848588 -0.8048824
beta2
       -1.02632031
                     1.0213430
beta3
      -1.97591110
                    1.9567649
beta4 -2.95680191
                     2.9356731
delta
        0.06782197
                     1.1683508
gama
        0.36996496
                     0.2093290
        0.61201698
                     1.2547401
sigma
lambda
        0.11150391
                     2.5536336
alpha1
        0.94369356
                            NA
alpha2
        0.96250406
                            NA
alpha3
        2.13321322
                            NA
, , 34
                             2
                  1
beta1
       -0.81131369 -1.2859741
beta2
       -0.95854966
                    0.9956349
beta3
       -2.03219923
                     2.0423683
beta4
      -3.06555884
                     3.1555551
delta
        0.04751353
                     1.1646431
        0.33976503
                    0.2253586
gama
```

0.58482695

0.08151320

1.2576773

2.4533292

sigma

lambda

```
alpha1
        0.74982461
                           NA
alpha2
        0.90582219
                           NA
alpha3
        1.69990603
                           NA
, , 35
                 1
                             2
beta1
      -0.82708650 -1.3009218
beta2 -1.02047908
                    1.0884239
beta3
       -2.02661621
                    2.0203341
beta4
      -2.97794152
                    3.0423615
delta
        0.05891070
                    1.2585727
gama
        0.38816653
                    0.2108036
sigma
        0.62580908
                    1.3397047
lambda
        0.09455514
                    2.7411909
alpha1
        0.77839224
                           NA
alpha2
        1.01196389
                           NA
alpha3
        1.99103131
                           NA
, , 36
                             2
                 1
beta1
       -0.60832460 -0.7491969
beta2
      -1.01700095
                    0.9989544
beta3
      -2.06300380
                    2.0474005
beta4 -3.05665472
                    2.9810825
delta
        0.02975460
                    1.0185520
gama
        0.32967569
                    0.3825731
                    1.1916465
sigma
        0.57494437
lambda
        0.05182159
                    1.6467436
alpha1
        0.72194797
                           NA
alpha2
        0.97606901
                           NA
alpha3
        1.87123323
                           NA
, , 37
                            2
                1
beta1 -1.1512984 -1.3093233
beta2 -0.9893744
                  1.0133220
beta3
      -1.9756002 2.0270619
beta4 -2.9020321 3.1257118
delta
        0.0600430 1.3860421
```

0.4241896 0.2113191

gama

```
sigma
       0.6540602 1.4602848
lambda
       0.0921897 3.0151372
alpha1
       1.0193345
                         NA
alpha2
                         NA
       1.2026711
alpha3
                         NA
       2.1479482
, , 38
                           2
               1
beta1 -0.8444827 -0.68588271
       0.9686457 -1.03736980
beta2
beta3
       2.0283478 -2.03047046
beta4
       2.9510639 -3.03627488
delta
       1.3968409 0.07232808
gama
       0.1315882 0.40545812
sigma
       1.4431745 0.64085058
lambda 3.8506888 0.11358839
alpha1 -0.6517036
                          NA
alpha2 -1.1465085
                          NA
alpha3 -2.0399788
                          NA
, , 39
                           2
                1
beta1 -0.88234711 -0.5510062
beta2 -0.98671877 0.9543870
beta3 -2.04943921
                   1.9919650
beta4 -2.99580786 2.9054075
delta
       0.02616025 1.4448336
gama
       0.39403199 0.1490286
sigma
       0.62826455
                   1.4955176
lambda
       0.04167505
                   3.7426822
alpha1
       0.68544942
                          NA
alpha2
       1.08543479
                          NA
alpha3
                          NA
       2.01025959
, , 40
                           2
                 1
beta1 -0.85054244 -0.4767472
beta2 -0.98661780 0.9096184
```

beta3 -2.01996411

beta4 -2.99456167 2.9324457

```
delta
       0.05704060 1.2611469
       0.37329723 0.2604415
gama
sigma
       0.61363740
                   1.3604900
lambda
       0.09335911
                   2.4712152
alpha1
       0.92943086
                          NA
alpha2
       0.98268543
                          NA
alpha3
       2.22978569
                           NA
, , 41
                            2
                 1
beta1
      -0.90809549 -1.0049785
beta2
      -1.01421050
                   0.9278269
beta3
      -1.98298696
                   1.9756615
beta4 -2.95860129 3.1233936
delta
       0.06683958 1.1910057
gama
       0.38858490
                   0.2290070
sigma
       0.62693894
                   1.2835504
lambda 0.10722370
                   2.4887969
alpha1
       0.72901790
                          NA
alpha2
       1.29102344
                          NA
alpha3
                          NA
       1.82152399
, , 42
                1
beta1 -0.7403216 -0.97440908
beta2
       0.9595137 -0.98615382
beta3
       2.0031425 -1.99400547
beta4
       2.9963091 -2.98934566
delta
       1.2317516 0.04107004
gama
       0.2793218 0.42107817
sigma
       1.3403484 0.65020375
lambda 2.3306161 0.06329126
alpha1 -0.5260562
                          NA
alpha2 -0.9658429
                          NA
alpha3 -1.8814631
                           NA
, , 43
                            2
                 1
beta1 -0.68425604 -1.0823646
beta2 -1.03200351 0.9705365
```

```
beta3
      -2.03963360 2.0070425
beta4
      -3.01006105
                    3.0443939
delta
        0.03011333
                    1.4469130
gama
        0.33100107
                    0.2146648
sigma
        0.57611447
                    1.5192834
lambda
        0.05234125
                    3.1229285
alpha1
        0.90473650
alpha2
        1.12381748
                           NA
alpha3
        2.14164753
                           NA
, , 44
                            2
                 1
beta1
       -0.92793790 -1.0317879
beta2
       -0.99492102
                    1.0432619
beta3
      -1.99628163
                    2.0081137
beta4 -2.97584610
                    2.9610445
delta
        0.05973591
                    1.3371605
gama
        0.37743592
                    0.1511419
sigma
        0.61725545
                    1.3925301
lambda
        0.09723303
                    3.4394668
alpha1
        0.90640193
                           NA
alpha2
        1.05901031
                           NA
alpha3
        1.83020745
                           NA
, , 45
                            2
                 1
beta1
       -0.76130068 -0.9648321
beta2
      -1.07348460
                    1.0185921
beta3
      -1.98254786
                    1.9904898
beta4 -2.96540857
                    2.9995982
delta
        0.06024425
                    1.2638147
gama
        0.43332970
                    0.3043244
sigma
        0.66102879
                    1.3789677
                    2.2909470
lambda
        0.09151797
alpha1
        0.57446269
                           NA
alpha2
        0.92559911
                           NA
alpha3
        2.18748405
                           NA
, , 46
```

1

2

```
beta1 -0.9991519 -0.41918438
beta2
       0.9653342 -0.96649472
beta3
       2.0213968 -1.98157415
beta4
       3.0502604 -3.19373471
delta
       1.3890565 0.04833440
gama
       0.1560676 0.34481177
sigma
       1.4441418 0.58919266
lambda 3.5161192 0.08231241
alpha1 -0.5044482
                          NA
alpha2 -1.1018083
                          NA
alpha3 -2.3074888
                          NA
, , 47
                1
beta1
      -0.75789616 -0.9556077
beta2 -0.99028423
                   1.0359719
beta3 -1.98238884
                   2.0817049
beta4 -3.02455805
                   3.0425596
delta
       0.03329248 0.9622537
       0.39320638
gama
                   0.3700738
sigma
       0.62794488
                   1.1384226
lambda 0.05309282
                   1.5817776
alpha1
       0.78656961
                          NA
alpha2
       0.89268187
                          NA
alpha3
                          NA
       2.08909438
, , 48
                1
```

beta1 -0.81597648 -0.9896870 beta2 -1.00168072 0.9494050 beta3 -2.03646298 1.9905100 beta4 -3.00332731 3.0447862 delta 0.04361910 1.4465027 gama 0.37415872 0.1117528 sigma 0.61323841 1.4846288 lambda 0.07130972 4.3270314 alpha1 0.91161545 NA alpha2 NA 1.00163648 alpha3 2.08858583 NA

, , 49

```
2
                1
beta1
      -0.9568223 -0.75338993
beta2
        1.0198805 -1.02045080
beta3
        2.0790343 -1.96626373
beta4
        3.0178921 -3.02125873
delta
        1.1929853 0.04766529
gama
        0.2961220 0.40174056
sigma
        1.3112345
                  0.63561981
                  0.07520201
lambda
        2.1922990
alpha1 -0.5453248
                           NA
alpha2 -1.1007075
                           NA
alpha3 -2.3390385
                           NA
, , 50
                 1
                            2
       -0.86031359 -0.9371785
beta1
beta2 -1.00076915
                    1.0084342
beta3
      -1.97489799
                    2.0184027
beta4 -2.97646740
                    3.0081009
delta
        0.05410379
                    1.1924709
gama
        0.32804015
                    0.3979540
sigma
        0.57529763
                    1.3490518
lambda
        0.09446353
                    1.8903028
alpha1
        0.47011556
                           NA
alpha2
        0.78024784
                           NA
alpha3
        1.85864339
                           NA
, , 51
                 1
                            2
      -0.81544760 -1.1322335
beta1
beta2
      -1.00308215
                    0.9938936
beta3 -1.96678534
                    2.0726158
beta4 -2.97542288
                    3.0679733
delta
        0.04417111
                    1.4640783
gama
        0.34911508
                    0.1768146
sigma
                    1.5232662
        0.59250837
lambda
                    3.4818116
        0.07475737
alpha1
        0.74587120
                           NA
alpha2
        1.07980858
                           NA
alpha3
        2.19082245
                           NA
```

```
2
                  1
       -1.04287107 -0.71975786
beta1
beta2
       -0.95867979
                     0.91037620
beta3
       -1.94448169
                     1.98085966
beta4
      -2.99516210
                     2.94523044
delta
        0.05785443
                     1.51629154
gama
        0.40805902
                     0.08370278
sigma
        0.64140950
                     1.54364595
lambda
                     5.24098329
        0.09056807
alpha1
        0.59471701
                             NA
alpha2
                             NA
        0.89536780
alpha3
        1.92103432
                             NA
, , 53
                  1
                             2
beta1
       -0.82468185 -0.8579050
                     0.9072046
beta2
       -0.97373543
beta3
       -1.97967406
                     1.9895031
beta4 -3.01641819
                     3.0312809
delta
        0.05208307
                     1.4110880
gama
        0.33991548
                     0.2010375
                     1.4806102
sigma
        0.58534445
lambda
        0.08933283
                     3.1471366
alpha1
        0.86211356
                            NA
alpha2
        1.09977575
                            NA
alpha3
        2.19849176
                            NA
, , 54
                  1
                             2
beta1
       -0.56900657 -0.1530785
       -1.03698665
beta2
                     0.9752372
beta3
       -1.96423965
                     2.0143841
beta4
      -3.08405523
                     3.0113806
                     0.3638744
delta
        0.05478849
gama
        0.39317733
                     0.8237283
sigma
        0.62942761
                     0.9778205
lambda
        0.08737660
                     0.4009217
alpha1
        0.71477557
                            NA
```

```
alpha2
        0.96391603
                            NA
alpha3
                            NA
        1.31196772
, , 55
                 1
                             2
beta1
       -1.07290330 -1.2246250
beta2
      -0.98244404
                    0.9964836
beta3
      -2.01513720
                    1.9980174
beta4
      -2.95487934
                    3.0957350
delta
        0.09706027
                    1.3542912
                    0.1704266
gama
        0.39491303
        0.63587242
                    1.4158147
sigma
lambda
                    3.2805248
        0.15445102
alpha1
        0.60362455
                            NA
alpha2
        0.97869072
                            NA
alpha3
        2.02976701
                            NA
, , 56
                            2
                1
beta1
       -0.8151871 -0.7773663
beta2
      -1.0120966
                   0.9505000
beta3
      -2.0263153
                   1.8967589
beta4
      -2.9911400 2.9790165
delta
        0.0701201
                   1.2965562
        0.3163287
                   0.1897399
gama
sigma
        0.5667853
                   1.3677711
lambda
                   2.9765417
        0.1246732
alpha1
        0.7791835
                           NA
alpha2
        0.9066984
                           NA
alpha3
        1.9554028
                           NA
, , 57
                             2
                 1
beta1
       -0.76252113 -0.7885419
beta2
      -1.04844420
                    1.0243544
beta3
                    2.0059518
      -1.99225508
beta4 -2.97529658
                    2.8945110
delta
        0.05732606
                    1.2921982
```

0.36758491

0.60899194

gama sigma 0.1808366

```
lambda
        0.09455255 3.0386865
alpha1
        0.65983318
                           NA
alpha2
        0.90708715
                           NA
alpha3
        1.79566325
                           NA
, , 58
                 1
                            2
beta1
      -0.86992070 -0.9629008
beta2
                   1.0044332
      -1.00123948
beta3
      -2.04961633
                    1.9631359
beta4 -2.97187172
                    2.9672877
delta
        0.05091668
                   1.4731336
gama
        0.26428771
                    0.1113566
sigma
        0.51660451
                    1.5104566
lambda
        0.09904250
                    4.4145270
alpha1
        0.53212520
                           NA
alpha2
        0.89114451
                           NA
alpha3
        2.16450057
                           NA
, , 59
                 1
                            2
beta1 -0.74190019 -1.1108309
beta2 -0.98216834
                   1.0152700
                    1.9663028
beta3
      -1.99835297
beta4 -3.05354504 3.0195030
delta
        0.05071842
                    1.3180416
        0.34173659
                    0.1548958
gama
sigma
        0.58677845
                    1.3755470
lambda
        0.08676009
                    3.3489554
alpha1
        0.74397906
                           NA
alpha2
        1.07432242
                           NA
alpha3
        1.93514905
                           NA
, , 60
                 1
                            2
beta1 -1.01114556 -1.0768156
beta2 -0.98478829 0.9770828
beta3 -2.02927423
                    1.9986248
beta4 -2.96108704
                    3.1060704
delta
        0.05345401
                   1.2019114
```

```
0.32457021 0.3405749
gama
        0.57221284
                    1.3361010
sigma
lambda
        0.09382659
                    2.0595206
alpha1
        0.69399024
                           NA
alpha2
        1.05293101
                           NA
alpha3
        1.75667803
                           NA
, , 61
                            2
                 1
       -0.78570219 -0.5747381
beta1
beta2
      -0.98463537
                    0.9648503
beta3
       -1.97805353
                    1.9295322
beta4
      -3.01004754
                    2.8545615
delta
        0.03231162
                    1.3905429
gama
        0.32191043
                    0.1667094
sigma
        0.56829083
                    1.4492477
lambda
        0.05694968
                    3.4056845
alpha1
        0.53149699
                           NA
alpha2
        1.02414255
                           NA
alpha3
        1.70502519
                           NA
, , 62
                 1
                            2
       -0.86196789 -0.6494846
beta1
beta2
      -0.97692505
                    1.0194970
beta3
      -2.01847064
                    1.9270200
beta4 -2.99119601
                    2.9955533
delta
        0.01967450
                    0.8813751
gama
        0.37195801
                    0.4034519
sigma
        0.61020086
                    1.0864041
lambda
        0.03225943
                    1.3876020
alpha1
        0.67439984
                           NA
alpha2
                           NA
        1.00308620
alpha3
        1.52880644
                           NA
, , 63
                            2
                 1
beta1 -0.95626626 -0.8952821
beta2 -1.00302921
                    1.0134179
```

beta3 -2.03070726 1.9851587

```
beta4 -2.91197065 2.9343384
delta
        0.05007920 1.3168551
gama
        0.37008615
                   0.1926036
sigma
                   1.3880601
        0.61040484
lambda
                   3.0005839
       0.08232011
alpha1
        0.72620696
                          NA
alpha2
        0.98647450
                          NA
alpha3
        1.94143573
                          NA
, , 64
                            2
                 1
beta1
      -0.82193547 -0.9524171
beta2
      -0.97600298 0.9641854
beta3
      -2.00598893
                   1.9492909
beta4 -3.01761189 2.9970876
delta
        0.03947574 1.3918471
gama
        0.32432133 0.2324941
sigma
        0.57085870
                   1.4730012
lambda
       0.06931744
                   2.8865931
alpha1
        0.76030359
                           NA
alpha2
                          NA
        0.99302498
alpha3
        1.94466036
                          NA
, , 65
                            2
                 1
beta1
      -1.09758323 -0.6266194
beta2
      -0.93155217 0.9528872
beta3
      -1.94555671
                   2.0133022
beta4 -2.96966198 2.9618453
delta
        0.06178191
                   1.2321339
gama
        0.35683083 0.2938339
sigma
        0.60053962
                   1.3461010
lambda
                   2.2730394
       0.10342610
alpha1
        0.79158401
                          NA
alpha2
                          NA
        0.84516061
alpha3
        2.01194188
                          NA
, , 66
                            2
                 1
beta1 -1.17068353 -1.0894768
```

```
beta2 -0.98219823 1.0003668
                   1.9822068
beta3
     -1.96554136
beta4 -2.87579423
                   3.0334530
delta
                   1.2962801
       0.06569603
gama
       0.36116421
                   0.1394243
sigma
       0.60454957
                   1.3489872
lambda
       0.10931677
                   3.4715998
alpha1
       0.60835913
                          NA
alpha2 1.03217770
                          NA
alpha3
       2.03422166
                          NA
, , 67
                           2
                1
      -0.73588602 -1.0342189
beta1
beta2 -1.01597996
                   1.0295337
beta3
      -2.00917855
                   2.0957225
beta4 -3.02895754
                   2.9703653
delta
       0.03919863
                   1.3656843
gama
       0.45361995 0.1309768
       0.67465286
                   1.4128236
sigma
lambda
                  3.7735771
       0.05820024
alpha1
       1.00250035
                          NA
alpha2
       1.23883141
                          NA
alpha3
       2.13114798
                          NA
, , 68
                          2
               1
beta1
      -0.7322086 -1.2081816
beta2
     -1.0313279 1.0852916
beta3
      -2.0202227
                  2.0723324
beta4 -2.9941414 3.0171035
delta
       0.0635842 1.2758324
gama
       0.3878644 0.2140338
sigma
       0.6260251
                  1.3571228
lambda 0.1020961 2.7577348
alpha1
       0.7162435
                         NA
alpha2
       0.9516704
                         NA
alpha3
       1.7340000
                         NA
, , 69
```

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1
beta1
       -0.72756538 -0.7440760
beta2
      -1.01493455
                    0.9248713
beta3
      -1.98078774
                    2.0129982
beta4
                    2.9973236
      -3.04964733
delta
        0.04727869
                    1.3463913
gama
        0.46701528
                    0.1741815
sigma
        0.68501865
                    1.4095925
lambda 0.06918308
                    3.2260442
alpha1
        0.56537074
                           NA
alpha2
                           NA
        1.04017044
alpha3
        2.14784115
                           NA
, , 70
                            2
                 1
beta1
      -1.01203091 -0.8187463
beta2
      -1.04441151
                    1.0362578
beta3
      -1.98294122
                    1.9908173
beta4 -2.90113270
                    2.9673694
delta
        0.04392147
                    0.9823202
gama
        0.43415389
                    0.3869775
sigma
        0.66036580
                    1.1627255
lambda
        0.06665842
                    1.5791022
alpha1
        0.76287329
                           NA
alpha2
                           NA
        1.01386627
alpha3
        1.76781285
                           NA
, , 71
                           2
                1
beta1
       -0.8107837 -0.6698371
beta2
      -0.9995012
                  0.9731451
      -1.9754171
beta3
                   2.0148377
beta4 -3.0007600 2.9827112
delta
        0.0672805
                   1.1426668
                   0.1929349
gama
        0.3306803
sigma
        0.5789706
                   1.2241823
lambda
        0.1169998
                   2.6014424
alpha1
        0.4689579
                          NA
                          NA
alpha2
        0.8371776
alpha3
        1.8074244
                          NA
```

```
1
                             2
beta1
       -0.74593196 -0.6652392
beta2
       -1.03135467
                     0.9819915
beta3
       -2.00908193
                     2.0076773
beta4
      -2.97045387
                     2.9170232
delta
        0.05355840
                    1.2582933
        0.32678114
                    0.2732009
gama
sigma
        0.57415123
                     1.3625354
                    2.4073588
lambda
        0.09369126
alpha1
        0.58045914
                            NA
alpha2
        0.81471917
                            NA
alpha3
                            NA
        2.23702533
, , 73
                             2
                 1
beta1
       -0.81086787 -0.7552560
beta2
       -1.00682084
                    0.9273494
beta3
       -2.05079898
                     2.0885927
beta4 -3.00883387
                     2.9918522
delta
        0.07673218
                    1.3028924
gama
        0.34825758
                    0.1424151
sigma
        0.59510118
                    1.3564452
lambda
                     3.4524750
        0.13002511
alpha1
        0.78496815
                            NA
alpha2
        1.04554373
                            NA
alpha3
        2.02848670
                            NA
, , 74
                            2
                1
beta1
      -0.7525999 -1.0286645
beta2
      -0.9975785
                   1.0546566
beta3
       -1.9335304
                   1.9175760
beta4
      -3.0297191
                   2.9977807
delta
        0.0618535
                   1.2176204
        0.3767096 0.2870861
gama
                   1.3302953
sigma
        0.6168755
lambda
        0.1007769
                   2.2725103
alpha1
        0.7086619
                           NA
alpha2
        0.9430345
                           NA
```

```
alpha3
        1.9429276
, , 75
                             2
                  1
beta1
       -0.94950322 -1.1559020
beta2
       -0.99867174
                    0.9845523
beta3
       -1.93408459
                    1.9476165
beta4 -2.98815132
                    3.0217766
delta
        0.07799002
                    1.3915858
gama
        0.38628216
                    0.2108837
sigma
        0.62639014
                     1.4653992
lambda
        0.12548353
                     3.0303202
alpha1
        0.71429573
                            NA
alpha2
        0.98275697
                            NA
alpha3
        2.11166669
                            NA
, , 76
                             2
                  1
beta1
       -0.96315014 -0.9254221
beta2
                    1.0111136
      -0.96823931
beta3
      -1.96636822
                    1.9303563
beta4 -3.01546071
                    2.9496474
delta
        0.08248397
                    1.4167645
gama
        0.38250521
                     0.1527926
        0.62394617
                     1.4696987
sigma
lambda
        0.13336777
                     3.6244863
alpha1
        0.92852541
                            NA
alpha2
        1.05346016
                            NA
alpha3
        2.00732525
                            NA
, , 77
                             2
                  1
beta1
       -0.78845804 -0.5926925
beta2
      -1.02490898
                    1.0283480
beta3
      -2.01767430
                    1.9780954
                    2.8569807
beta4
      -2.98224237
delta
        0.05548479
                    1.1089945
        0.36659618
                    0.2589476
gama
```

sigma

lambda

0.60800883

0.09163892

1.2201706

2.1793321

NA

```
alpha1
        0.69861101
                           NA
alpha2
        0.83259184
                           NA
alpha3
        2.19232304
                           NA
, , 78
                             2
                 1
beta1
       -0.84993678 -0.7963287
beta2
      -0.97274403
                    0.9381875
beta3
       -1.99564452
                    1.9620307
beta4
      -3.01903254
                    2.9799001
delta
        0.06372101
                    1.3370202
gama
        0.31992141
                    0.1136625
sigma
        0.56919397
                    1.3788711
lambda
        0.11265773
                    3.9657861
alpha1
        0.74740151
                           NA
alpha2
        1.08389447
                           NA
alpha3
        1.88035905
                           NA
, , 79
                             2
                 1
beta1
       -0.92076195 -1.0074290
beta2
      -0.96492803 0.9535766
beta3
      -1.98367523
                    2.0025359
beta4 -2.98293144
                    3.0469760
delta
        0.07370742
                    1.3831594
gama
        0.30645947
                    0.1252552
                    1.4277203
sigma
        0.55847315
lambda
        0.13314495
                    3.9081783
alpha1
        0.77241455
                           NA
alpha2
        0.99324720
                           NA
alpha3
        2.22436813
                           NA
, , 80
                             2
                 1
beta1 -0.54993845 -1.3676658
beta2 -1.08355649
                    1.0233692
beta3
      -2.04132088
                    1.9510378
beta4 -2.98684179
                    3.0957036
delta
        0.06112469
                    1.3066958
```

0.31324773 0.1219288

gama

```
sigma
        0.56301329
                   1.3525468
lambda
                    3.7421508
        0.10921259
alpha1
        0.76431824
                           NA
alpha2
                           NA
        0.84460198
alpha3
        1.77617148
                           NA
, , 81
                             2
                 1
      -1.01680342 -1.29332263
beta1
beta2
      -0.96238229
                   1.01953709
beta3
                    2.03923635
      -2.01254451
beta4 -2.96642971
                    3.05324267
delta
        0.03751825
                    1.56845649
gama
        0.38125757
                    0.07204291
sigma
        0.61859938
                    1.59125695
lambda
        0.06076217
                    5.84355130
alpha1
        0.79191226
                            NA
alpha2
        1.09199978
                            NA
alpha3
        1.81188619
                            NA
, , 82
                 1
                            2
beta1
       -0.69670425 -0.4416921
beta2
      -1.02595778
                    0.8903772
beta3
      -2.03333300
                    2.0093075
beta4 -3.00977892
                    2.9507800
delta
        0.07147453
                    1.2977631
gama
        0.37633609
                    0.1605824
sigma
        0.61761210
                    1.3582236
lambda
        0.11651005
                    3.2385187
        0.82894154
alpha1
                           NA
alpha2
        0.89766528
                           NA
alpha3
                           NA
        1.81532867
, , 83
                            2
                 1
beta1 -0.69456082 -1.1855970
beta2 -0.98011397
                    1.0452060
beta3 -1.99856659
                    2.0114419
```

beta4 -3.05997625

```
delta
        0.04523780 1.4292842
                    0.1072302
gama
        0.36314821
sigma
        0.60431339
                    1.4663163
lambda
                    4.3647573
        0.07506882
alpha1
        0.99773568
                           NA
alpha2
        1.12240366
                           NA
alpha3
        2.20195461
                           NA
, , 84
                            2
                 1
beta1
      -0.71239985 -0.5958253
beta2
      -1.01859998
                   0.9222116
beta3
      -2.06261993
                   1.9999608
beta4 -3.00632123
                    2.9716525
delta
        0.04610580
                   1.1335285
gama
        0.33825201
                   0.2201136
sigma
        0.58341902
                   1.2267846
lambda
       0.07927483
                   2.4160675
alpha1
        0.95463770
                           NA
alpha2
        1.13351213
                           NA
alpha3
        2.27419064
                           NA
, , 85
                            2
                 1
beta1
      -0.73543605 -1.2518452
beta2
      -1.02058413
                   1.0490259
beta3
                    2.0136196
      -2.06144148
beta4 -2.99716060
                    3.0004905
delta
        0.05375132
                   1.5096006
gama
        0.32076936
                   0.1416431
sigma
        0.56890998
                    1.5558076
lambda
       0.09490579
                    4.0111075
alpha1
        0.67424210
                           NA
alpha2
        0.96015690
                           NA
alpha3
                           NA
        2.19022118
, , 86
                            2
                 1
beta1 -1.20800996 -0.8564502
beta2 -0.93849079 0.9911201
```

```
beta3
      -2.06727770 2.0002737
      -2.95824611
                    2.9530285
beta4
delta
        0.05658484
                    1.2319876
gama
        0.38995995
                    0.1679725
                    1.2983705
sigma
        0.62702615
lambda
        0.09061291
                    3.0059878
alpha1
        0.71114458
alpha2
        1.00472364
                           NA
alpha3
        1.71150808
                           NA
, , 87
                1
                           2
beta1
      -0.8280416 -0.8969499
beta2
      -1.0002497
                   0.9229035
beta3
      -2.0098305 2.0223545
beta4 -2.9996777 3.0867157
delta
        0.0540436 1.2019198
gama
        0.3704129 0.2729663
sigma
        0.6110103 1.3105638
lambda
        0.0887976 2.3004933
alpha1
        0.6264131
                          NΑ
alpha2
        0.9484735
                          NA
alpha3
        2.0231272
                          NA
, , 88
                            2
                 1
beta1
      -0.79467591 -0.7932205
beta2
      -1.01357290
                   1.0078771
beta3
      -2.00051167
                    2.0164969
beta4 -2.98414462 2.9639738
delta
        0.05295939
                    1.2669134
gama
        0.33788256 0.2782073
sigma
        0.58368421
                    1.3723254
lambda
        0.09110876
                   2.4019430
alpha1
        0.77479441
                           NA
alpha2
        1.01659534
                           NA
alpha3
        2.17676678
                           NA
, , 89
```

2

1

```
beta1
      -0.73446543 -0.5893524
beta2 -1.00295155
                   1.0336968
beta3 -2.00152659
                   2.0275782
beta4 -3.04301342
                   2.7950471
delta
       0.07940892
                   1.4116296
       0.31999197
                   0.1707463
gama
sigma
       0.57122478
                   1.4708652
lambda
       0.14037822 3.4162141
alpha1
       0.86145211
                          NA
                          NA
alpha2
       1.14245586
       2.00051467
                          NA
alpha3
, , 90
               1
beta1
      -0.7505799 -0.8907023
beta2 -1.0258724 0.9021610
beta3 -2.0052768 1.9857342
beta4 -2.9960383 3.0437408
delta
       0.0794310 1.4334108
gama
       0.3530701 0.1774677
sigma
       0.5994826 1.4940329
lambda 0.1336779 3.4026007
alpha1
       0.5485837
                         NA
alpha2
       0.8749735
                         NA
alpha3
                         NA
       2.0199422
, , 91
                1
beta1 -0.95031110 -1.27480340
beta2
      -0.95680511 0.95550368
beta3 -2.01385589
                   1.95379187
beta4 -2.99242116 3.07569125
delta
                   1.63822337
       0.06275623
gama
       0.33944376 0.04961559
sigma
       0.58598814
                   1.65329713
lambda
       0.10771419
                   7.35468424
alpha1
       0.64716274
                           NA
alpha2
       0.82034120
                           NA
alpha3
       1.90965995
                           NA
```

, , 92

```
2
                 1
beta1
      -0.85247347 -1.0151733
beta2
       -0.97967299
                   0.9978186
                    1.9897695
beta3
       -2.00993197
beta4 -3.03316886
                    3.0025303
delta
        0.07288805
                    1.3121614
gama
        0.33062724
                    0.1673459
sigma
        0.57960323
                    1.3744502
lambda
                    3.2075959
        0.12676139
alpha1
        0.66848365
                            NA
alpha2
        0.92857941
                            NA
alpha3
        2.18575685
                            NA
, , 93
                 1
                             2
beta1
       -1.16898302 -1.1295407
beta2
      -0.95209298
                    1.0509692
beta3
      -1.98390147
                    1.9692509
beta4
      -2.94986155
                    3.0017448
delta
        0.07200312
                    1.1829535
gama
        0.40456621
                    0.1913729
sigma
        0.64011769
                    1.2612501
lambda
        0.11320263
                    2.7041289
alpha1
        0.81564274
                            ΝA
alpha2
        0.85857083
                            NA
alpha3
        2.13951769
                            NA
, , 94
                 1
                             2
       -0.83254987 -0.9640677
beta1
beta2
      -1.00093824
                    1.0311980
beta3
      -2.00489263
                    2.0034055
beta4 -3.01824268
                    2.9630086
delta
        0.05966396
                    1.2276370
gama
        0.38506911
                    0.2786145
sigma
        0.62340107
                    1.3363036
lambda
        0.09614854
                    2.3257772
alpha1
        0.55351784
                           NA
alpha2
        0.92242084
                            NA
alpha3
        1.84794450
                            NA
```

```
2
                  1
       -0.79515071 -1.3151253
beta1
beta2
       -1.02453674
                     1.0362066
beta3
       -1.98250791
                     2.0929123
beta4
      -2.97508155
                     3.0356857
delta
        0.03105079
                     1.4978482
gama
        0.38401510
                     0.1452752
sigma
        0.62046696
                     1.5455822
lambda
        0.05010700
                     3.9298143
alpha1
        0.65679702
                            NA
alpha2
                            NA
        0.90501208
alpha3
        1.98299433
                            NA
, , 96
                  1
                             2
beta1
       -0.63307569 -0.7092192
beta2
       -1.01543294
                     0.9711676
beta3
                     2.0129238
       -1.97654927
beta4 -3.01610431
                     2.9017209
delta
        0.07265784
                     1.3714479
gama
        0.29932075
                     0.2408978
sigma
        0.55190571
                     1.4566287
                     2.7942348
lambda
        0.13280489
alpha1
        0.76092306
                            NA
alpha2
                            NA
        1.19982599
alpha3
        2.29558904
                            NA
, , 97
                  1
                             2
beta1
       -0.67647805 -0.7569861
beta2
       -1.05770917
                     0.9604184
beta3
                     2.0203683
       -2.00113622
beta4
      -2.99098989
                     2.9414101
delta
        0.07438003
                     1.3776182
                     0.1685563
gama
        0.37849563
sigma
        0.61969995
                     1.4374937
lambda
        0.12089989
                     3.3554937
alpha1
        0.63060229
                            NA
```

```
alpha2
        1.24848705
                           NA
alpha3
        2.07063668
                            NA
, , 98
                 1
                             2
beta1
       -0.58465587 -1.1886684
beta2
      -1.05627375
                    1.0271347
beta3
                    2.0124538
      -1.97354128
beta4
      -3.01912193
                    3.0109455
delta
        0.03261186
                    1.3271280
                    0.2424978
gama
        0.33263807
        0.57766911
                    1.4155446
sigma
lambda
                    2.6950008
        0.05654440
alpha1
        0.75279030
                            NA
alpha2
        1.13085978
                           NA
alpha3
        2.16616412
                           NA
, , 99
                            2
                1
       -0.9125858 -1.1230546
beta1
beta2
      -0.9762545
                   1.0025641
beta3
      -1.9712129
                   2.0000556
beta4
      -2.9981055 3.0291827
delta
        0.0857140
                   1.3562419
        0.4066800
                   0.1939769
gama
sigma
        0.6434492
                   1.4259625
lambda
                   3.0793721
        0.1344081
alpha1
        0.6708547
                           NA
alpha2
        1.0081363
                           NA
alpha3
        2.2931081
                           NA
, , 100
                             2
                 1
beta1
      -0.52494531 -1.0755832
beta2
      -1.04549900
                    1.0285851
beta3
      -2.03591535
                    1.9995796
beta4 -3.05053919
                    2.9886461
delta
        0.04124531
                    1.3716591
                    0.1983211
gama
        0.32389189
```

sigma

0.57060762

```
lambda
       0.07247271 3.0800779
alpha1
        0.75571096
                          NA
alpha2
        1.10672493
                          NA
alpha3
        1.86924849
                          NA
n = 500 cen = 0.15
, , 1
                 1
                             2
      -0.82977735 -1.39065365
beta1
beta2
      -1.00740579
                    1.01880431
beta3
      -1.95753484
                    2.09226442
beta4 -2.99283343
                   3.09151132
delta
        0.06165785 1.45407534
gama
        0.33418598 0.08919785
sigma
        0.58136707
                    1.48443017
       0.10665821
lambda
                    4.86866314
alpha1
        0.82376470
                            NA
alpha2
        1.07768140
                            NA
alpha3
        2.15068565
                            NA
, , 2
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                            2
      -0.61960949 -1.1564749
beta1
beta2
      -1.02039843 0.9763459
beta3
      -2.00992401
                    1.9723399
beta4 -3.06386077
                    3.0444577
delta
        0.08303138
                   1.4513397
gama
        0.38578001
                   0.2164620
sigma
        0.62663723
                   1.5240895
lambda
       0.13368184
                   3.1194513
alpha1
        0.76693476
                          NA
alpha2
                          NA
        1.02905816
alpha3
        2.32386839
                          NA
, , 3
                            2
                 1
beta1 -0.51614397 -0.9688724
beta2 -1.01778799 0.9188368
```

beta3 -1.95577553 1.9698236

```
beta4 -3.07197889 3.0614161
delta
       0.06110556 1.3393098
gama
       0.29332694
                   0.2015982
sigma
                    1.4125682
       0.54503287
lambda
                   2.9828932
       0.11282485
alpha1
       0.80113202
                          NA
alpha2
       1.19443433
                          NA
alpha3
       2.26196315
                          NA
, , 4
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beta1
      -0.77700463 -1.1856238
beta2
      -0.98732379
                   1.0051396
beta3
      -1.96142695
                   2.0352053
beta4 -3.02375417
                   3.0174367
delta
       0.05263448
                   1.3277205
gama
       0.35779945 0.1656213
sigma
       0.60047468
                   1.3886911
lambda 0.08799348
                   3.2624855
alpha1
       0.84295644
                          NA
alpha2
                          NA
       0.99686395
alpha3
       1.65952409
                          NA
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beta1
      -0.9253749 -1.3234688
beta2
      -0.9653874 1.0115125
beta3
      -2.0405708 2.0956510
beta4 -3.0028188 3.1447379
       0.1009606 1.2100781
delta
gama
       0.2649711 0.2354022
sigma
       0.5245609 1.3037221
lambda
       0.1961338 2.4940671
alpha1
       0.4465053
                          NA
alpha2
                         NA
       0.9287502
alpha3
       2.0134233
                         NA
, , 6
                            2
                 1
beta1 -0.69570526 -1.1165764
```

```
beta2 -1.06270700 1.0097330
beta3
     -2.02616811
                   2.0210048
beta4 -2.99317587
                   3.0560249
delta
       0.06719227
                   1.1605160
gama
       0.38534243
                   0.2874673
sigma
       0.62438548
                   1.2783837
lambda
       0.10824203
                   2.1644966
alpha1
       0.62834758
                          NA
alpha2
       0.79436443
                          NA
alpha3
                          NA
       1.78539293
, , 7
                1
                           2
beta1
      -0.35011851 -0.7180606
beta2 -1.00349404
                   1.0074501
beta3
      -2.01774571
                   2.0361158
beta4 -3.17861396 2.9294932
delta
       0.03181942 1.0772625
gama
       0.36438513 0.3270526
       0.60448127
                   1.2196504
sigma
lambda
       0.05271230 1.8837043
alpha1
       0.94171743
                          NA
alpha2
       1.08596411
                          NA
alpha3
       1.96241599
                          NA
, , 8
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beta1
      -0.83074112 -1.56261186
beta2
      -0.97345755 0.97397840
beta3
      -1.94931608
                   1.92416986
beta4 -3.01281333
                   3.20373590
delta
       0.06460765
                   1.45799640
                   0.07866846
gama
       0.36169004
sigma
       0.60486708
                   1.48472959
lambda 0.10742755
                   5.19823763
alpha1
       0.90726963
                           NA
                           NA
alpha2
       1.25165832
alpha3
       2.00021277
                           NA
, , 9
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1
beta1
       -0.58459589 -0.89497925
beta2
      -1.03979373
                    0.96831871
beta3
      -2.13627802
                    1.99414129
beta4
                    2.94692428
      -3.09506917
delta
        0.05636643
                    1.47141341
gama
        0.34251874
                    0.09025801
sigma
        0.58795911
                    1.50177077
lambda 0.09631155
                    4.89769608
alpha1
        0.73773709
                             NA
alpha2
                             NA
        0.96937892
alpha3
                             NA
        2.23123371
, , 10
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beta1
       -0.49357072 -1.2051526
beta2
      -1.04167954
                    1.0105055
beta3
      -2.07212183
                    1.9649338
beta4 -3.06583836
                    3.0707080
delta
        0.04867782
                    1.3312238
                    0.2249801
gama
        0.37891433
sigma
        0.61748187
                    1.4132009
lambda
        0.07907890
                    2.8065901
alpha1
        0.63886983
                           NA
alpha2
                           NA
        0.94674223
alpha3
        1.98228702
                           NA
, , 11
                             2
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beta1
       -1.05208015 -0.5079704
beta2
      -0.96595587
                    0.9445470
beta3
      -2.05079890
                    1.9270364
beta4 -2.94895807
                    2.9712056
delta
        0.04836283
                    1.0336766
                    0.3926691
gama
        0.38076232
sigma
        0.61895176
                    1.2087831
        0.07837629
lambda
                    1.6495723
alpha1
        0.68375988
                           NA
alpha2
        1.04451965
                           NA
alpha3
        1.82741206
                           NA
```

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1
                             2
beta1
       -0.65045922 -0.9434576
beta2
       -1.02231806
                     1.0074639
beta3
       -2.04699236
                     1.9765484
beta4
       -3.00031879
                     2.9576572
delta
        0.06206003
                     1.4173051
        0.30226876
                     0.1931717
gama
sigma
        0.55328131
                     1.4838886
                     3.2247168
lambda
        0.11287957
alpha1
        0.88686324
                            NA
alpha2
        1.16706009
                            NA
alpha3
                            NA
        1.98861844
, , 13
                            2
                 1
beta1
       -0.9025253 -1.0602171
beta2
       -0.9868830
                    1.0345898
beta3
       -1.9519371
                    2.0367035
beta4
      -2.9838578
                    2.9953251
delta
        0.0782179
                    1.1488523
        0.3557427
                    0.3029026
gama
sigma
        0.6015486
                    1.2738776
lambda
                    2.0874337
        0.1311409
alpha1
        1.0860440
                           NA
alpha2
        1.3938086
                           NA
alpha3
        2.3498798
                           NA
, , 14
                             2
                  1
beta1
       -0.71773667 -1.0813222
beta2
      -0.99620345
                     0.9873613
beta3
       -2.04548386
                     2.0065845
beta4 -3.04396913
                     3.0583934
delta
        0.04230873
                     1.3657824
        0.33050722
                     0.2529106
gama
                     1.4554285
sigma
        0.57645230
lambda
        0.07359350
                     2.7158012
alpha1
        0.49208048
                            NA
alpha2
        0.81638340
                            NA
```

```
alpha3
        1.77930633
                            NA
, , 15
                             2
                  1
beta1
       -0.85366214 -0.6630838
beta2
       -1.03768888
                     0.9504957
beta3
       -1.91150521
                     1.9431962
beta4 -2.90983831
                     3.0081764
delta
        0.03686357
                     1.1190785
gama
        0.39473144
                     0.3711996
                     1.2741806
sigma
        0.62935710
lambda
        0.05867411
                     1.8367786
alpha1
        0.70458864
                            NA
alpha2
        1.03146627
                            NA
alpha3
        1.82020677
                            NA
, , 16
                              2
                  1
beta1
       -0.85527506 -1.06651197
beta2
       -0.98801595
                     0.97737188
beta3
      -2.01525996
                     2.04433397
beta4 -3.01791349
                     3.00607866
delta
        0.06121320
                     1.43992900
gama
        0.38865073
                     0.09145685
        0.62641663
                     1.47134374
sigma
lambda
        0.09818957
                     4.76138119
alpha1
        0.81091491
                             NA
alpha2
        1.02461843
                             NA
alpha3
        1.90404484
                             NA
, , 17
                             2
                  1
beta1
       -0.74445860 -0.8917359
beta2
       -1.02700586
                     0.9625552
beta3
       -2.03515526
                     2.0003667
beta4
      -3.01040703
                    2.9565114
delta
        0.07126108
                     1.3335134
        0.30442626
                     0.1215025
gama
```

sigma

lambda

0.55633120

0.12915503

1.3783180

```
alpha1
        0.81739413
                           NA
alpha2
        1.13098838
                           NA
alpha3
        2.21450852
                           NA
, , 18
                 1
                            2
beta1 -0.65214982 -0.7719075
beta2 -1.03216922
                    1.0033395
beta3
      -2.04121785
                    2.0354388
beta4
      -3.03524926
                    2.9385732
delta
        0.07069951
                    1.4081323
gama
        0.39717671
                    0.2463300
sigma
        0.63417279
                    1.4930393
lambda
        0.11218234
                    2.8371664
alpha1
        0.76299194
                           NA
alpha2
        1.02310745
                           NA
alpha3
        2.17831540
                           NA
, , 19
                             2
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beta1
      -0.64182784 -0.8908964
beta2 -1.01619230
                   0.9564691
beta3
      -2.02606705
                    2.0453280
beta4 -3.05827188
                    3.0144897
delta
        0.06409771
                    1.3120779
gama
        0.32675292
                    0.2068966
                    1.3886846
sigma
        0.57520556
lambda
        0.11213283
                    2.8845826
alpha1
        0.72521085
                           NA
alpha2
        0.98806629
                           NA
alpha3
        2.24878443
                           NA
, , 20
                              2
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beta1 -0.95244499 -0.78650888
beta2 -0.96667566 0.92973264
beta3
      -2.04411847
                    2.04602959
beta4 -2.99304763
                    2.94304419
delta
        0.04123720
                    1.36180025
```

gama

0.40050701

```
sigma
        0.63419833 1.39250117
lambda
                   4.68308433
        0.06516046
alpha1
        1.01010162
                            NA
alpha2
                           NA
        0.98302086
alpha3
        2.25774903
                            NA
, , 21
                            2
                1
beta1 -0.6904285 -1.03027662
beta2
      -0.9959334
                  1.02759104
beta3
                  2.00145542
      -2.0251167
beta4 -3.0784009 2.94251711
delta
        0.0816639 1.42985695
gama
        0.3541672 0.07469416
sigma
        0.6006964 1.45574210
lambda
        0.1372227 5.23177743
alpha1
        0.7047114
                          NA
alpha2
        1.1589074
                          NA
alpha3
        2.2318660
                          NA
, , 22
                 1
                            2
beta1
      -1.25724061 -0.8258441
beta2
      -0.93428714 1.0624332
beta3
      -2.01412476
                   1.9153800
beta4 -2.91541523
                   2.8959883
delta
        0.07848011
                   1.2460565
gama
        0.41291500
                   0.1598099
sigma
        0.64735935
                   1.3086125
lambda
        0.12213194
                   3.1169933
alpha1
        0.76896309
                          NA
alpha2
        1.18961309
                          NA
alpha3
                          NA
        2.42686731
, , 23
                            2
                 1
beta1 -0.84702089 -1.2671722
beta2 -1.05288205
                   1.0563313
beta3 -2.03316004
                   2.0695560
```

beta4 -2.93460445 3.0513422

```
delta
        0.05029112 1.3113692
        0.38201815 0.1880297
gama
sigma
        0.62011881
                    1.3812020
lambda
                   3.0242084
        0.08136719
alpha1
        1.04932510
                           NA
alpha2
        1.20858133
                           NA
alpha3
        2.35993384
                           NA
, , 24
                            2
                 1
      -1.30644331 -1.1476276
beta1
beta2
      -0.87997243
                    1.0477418
beta3
      -1.96069975
                    1.9602596
beta4 -2.94552337
                    2.9909051
delta
        0.07670416 1.4663909
gama
        0.38454009
                   0.2318675
sigma
        0.62483888
                   1.5434279
lambda 0.12369385
                    3.0452981
alpha1
        0.76206264
                           NA
alpha2
        1.17701643
                           NA
alpha3
       2.56959371
                           NA
, , 25
                            2
                 1
beta1
      -0.78033627 -0.8267214
beta2
      -1.03208706 0.9914775
beta3
      -2.03730364
                    2.0400464
beta4 -3.03482365
                    2.9661024
delta
        0.07180484
                   1.2927802
gama
        0.38618604 0.1877335
sigma
        0.62557331
                    1.3634567
lambda
       0.11554613
                   2.9836903
alpha1
        0.61763847
                           NA
alpha2
        0.99549717
                           NA
alpha3
                           NA
        2.03246645
, , 26
                            2
                 1
beta1 -0.49119583 -1.0450706
beta2 -1.06848689 1.0542225
```

```
beta3
      -2.00383081 2.0958862
      -3.05477985 2.9501139
beta4
delta
        0.06204311
                    1.2564865
gama
        0.43495410
                    0.1846276
sigma
        0.66242241
                    1.3279254
lambda
        0.09407448
                    2.9242167
alpha1
        0.84102395
alpha2
        1.05861704
                           NA
alpha3
        2.56333211
                           NA
, , 27
                             2
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beta1
       -1.13998655 -1.15703138
beta2
      -0.96849703
                    1.08861299
beta3
      -1.99811164
                    1.98173281
beta4 -2.90263974
                    2.92430713
delta
        0.06604342
                   1.51827690
gama
        0.34030630
                    0.04600067
sigma
        0.58708435
                    1.53335104
lambda
        0.11321254
                    7.07895073
alpha1
        0.60063064
                            NA
alpha2
        0.83858934
                            NA
alpha3
        2.16189403
                            NA
, , 28
                            2
                 1
beta1
       -0.74647626 -1.0517935
beta2
      -1.02461154 0.9890006
beta3
      -1.97535362
                   2.0197754
beta4 -2.99510436
                    3.0386091
delta
        0.05006046
                    1.2909900
gama
        0.41021144
                    0.2381028
sigma
        0.64243092
                    1.3801297
lambda
        0.07816116
                    2.6457002
alpha1
        0.70980269
                           NA
alpha2
        0.79955235
                           NA
alpha3
        1.96129658
                           NA
, , 29
```

1

2

```
beta1
      -0.77089065 -1.06488935
beta2 -1.03993009
                   0.96592520
beta3 -1.96353786
                   1.87532558
beta4 -2.97956714
                   3.00695036
delta
       0.04090185
                   1.49757961
       0.35419327
                   0.04568909
gama
sigma
       0.59654524
                   1.51275702
                  7.00621818
lambda
       0.06872628
alpha1
       0.74284097
                           NA
                           NA
alpha2
       1.02278508
       2.22217821
                           NA
alpha3
, , 30
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beta1
      -0.7273523 -0.7643097
beta2 -0.9999322 0.9483541
beta3 -2.0432067
                  1.9529003
beta4 -3.0660035 3.0409121
delta
       0.0907677
                  1.1516987
gama
       0.3623362 0.2758771
sigma
       0.6087487
                  1.2658148
lambda 0.1507910 2.1927092
alpha1
       0.7511707
                         NA
alpha2
       0.9327232
                         NA
alpha3
                         NA
       2.3416431
, , 31
               1
                          2
beta1 -0.9543395 -1.1667513
beta2
      -0.9322956 1.0328855
beta3 -1.9557093 2.1312162
beta4 -3.0157876 3.0784588
delta
       0.0773027
                  1.2507373
gama
       0.3264466 0.2123847
sigma
       0.5765608 1.3329398
lambda
       0.1352971 2.7139668
alpha1
       0.7492275
                         NA
alpha2
       1.1057356
                         NA
                         NA
alpha3
       2.2434018
```

, , 32

```
2
                 1
beta1
      -0.82340523 -1.0786084
beta2
      -1.04394963
                    1.0372937
                    1.9810498
beta3
      -2.04013486
beta4 -2.97342839
                    3.0148134
delta
        0.09073046
                    1.3615535
gama
        0.35260290
                    0.1801076
sigma
        0.60069536
                    1.4261611
lambda
                    3.2082532
        0.15279535
alpha1
        0.46167176
                           NA
alpha2
        0.72176607
                           NA
        1.62091270
alpha3
                           NA
, , 33
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beta1
beta2
      -1.01101564
                    0.9315506
beta3
      -2.00102349
                    1.9816720
beta4 -2.96934479
                    3.0276076
delta
                    1.2131048
        0.04664725
gama
        0.37082592
                    0.2836524
sigma
        0.61073880
                    1.3248682
lambda
        0.07660216
                    2.2777452
alpha1
        0.47781855
                           NA
alpha2
        0.84766962
                           NA
alpha3
        2.14279489
                           NA
, , 34
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                             2
      -0.99074137 -1.3127995
beta1
beta2
      -0.97911832
                    0.9590087
beta3
      -1.93461688
                    1.9930839
beta4 -2.95347162
                    3.1220456
delta
        0.06967158
                    1.4260037
gama
        0.32764443
                    0.1247878
sigma
        0.57662688
                    1.4691067
lambda
        0.12171785
                    4.0367753
alpha1
        0.65541552
                           NA
alpha2
        0.87686521
                           NA
alpha3
        2.01334490
                           NA
```

```
2
                  1
       -0.64686779 -0.8581140
beta1
beta2
       -1.02471636
                     1.0094898
beta3
       -1.97480119
                     2.0460133
beta4
      -3.01536947
                     2.9475039
delta
        0.05601830
                     1.2067997
gama
        0.36291404
                     0.2142926
sigma
        0.60502239
                     1.2925394
lambda
                     2.6069436
        0.09298825
alpha1
        0.60789848
                            NA
alpha2
                            NA
        0.97541465
alpha3
        2.17492618
                            NA
, , 36
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                             2
beta1
       -0.89295765 -0.9715753
beta2
       -0.96896254
                     1.0338233
beta3
       -2.02034976
                     2.0460817
beta4 -3.00994120
                     2.9965314
delta
        0.07661387
                     1.2583693
gama
        0.32191003
                    0.3133579
sigma
        0.57252049
                     1.3772622
        0.13503307
lambda
                     2.2479559
alpha1
        0.96437733
                            NA
alpha2
        1.15959563
                            NA
alpha3
        2.32032212
                            NA
, , 37
                  1
                             2
beta1
       -1.31331949 -0.9809149
beta2
       -0.94510766
                     0.9397564
beta3
       -1.93136383
                     2.0139796
beta4
      -2.85027026
                     3.0065929
delta
        0.06950694
                     1.4769152
gama
        0.33459530
                     0.1123674
sigma
        0.58260323
                     1.5144788
lambda
        0.12016231
                     4.4059072
alpha1
        0.66584823
                            NA
```

```
alpha2
        1.06859420
                            NA
                            NA
alpha3
        2.28473144
, , 38
                  1
                             2
beta1
       -0.70304667 -0.9416241
beta2
       -1.01937868
                    0.9709168
beta3
      -2.05000883
                    2.0015080
beta4
      -3.03410639
                     2.9943603
delta
        0.08095084
                     1.4091998
gama
        0.40300009
                     0.1175181
        0.63996338
                     1.4502972
sigma
lambda
        0.12751720
                     4.1107424
alpha1
        0.59504577
                            NA
alpha2
        0.99523178
                            NA
alpha3
        2.12561390
                            NA
, , 39
                             2
                  1
       -1.02628802 -1.2778747
beta1
beta2
      -1.01860982
                    1.1085689
beta3
      -1.93046081
                     1.9966588
beta4
      -2.88357175
                    3.0851794
delta
        0.04667542
                     1.0409837
                    0.3632387
gama
        0.39971406
sigma
        0.63395004
                     1.2028656
lambda
                     1.7272209
        0.07382672
alpha1
        0.96389606
                            NA
alpha2
        1.21977434
                            NA
alpha3
        1.90411014
                            NA
, , 40
                              2
                  1
beta1
       -0.94508008 -0.62280148
beta2
        1.01489781 -1.02513971
        2.09458665 -1.95544386
beta3
beta4
        2.93924244 -3.06940695
delta
        1.40594412
                    0.08055672
```

0.08909798

gama sigma 0.36907451

1.43728106 0.61283268

```
lambda 4.71014341 0.13260038
alpha1 -0.51076521
                            NA
alpha2 -1.00238615
                            NA
alpha3 -1.90246838
                            NA
, , 41
                 1
                            2
beta1 -0.64048177 -1.2891937
beta2 -1.03234225
                   1.0581988
beta3
      -2.00700026
                    1.9823570
beta4 -3.01092902
                    2.9997149
delta
        0.05426752
                   1.5236806
gama
        0.25573783
                   0.1039001
sigma
        0.50860869
                    1.5574025
lambda
        0.10731056
                    4.7270038
alpha1
        0.63879870
                           NA
alpha2
        0.93367905
                           NA
alpha3
                           NA
        1.77886225
, , 42
                 1
                            2
beta1 -0.97672559 -0.8307442
beta2 -1.00116907 0.9292114
                    2.0054874
beta3
      -1.97106877
beta4 -2.94244254 3.0694255
delta
        0.07138822
                   1.2561043
        0.37480900 0.2903275
gama
sigma
        0.61636457
                    1.3667939
lambda
        0.11660618
                    2.3312111
alpha1
        0.57968521
                           NA
alpha2
        0.95659064
                           NA
alpha3
        1.84014605
                           NA
, , 43
                 1
                            2
beta1 -0.65400924 -0.8688625
beta2 -1.01806400 0.9211454
beta3 -1.97762074
                   1.9622344
beta4 -3.05180948
                    3.0185361
```

delta

0.07009615

1.3228887

```
0.37387934 0.1238955
gama
                    1.3689156
sigma
        0.61546147
lambda
        0.11463796
                    3.7583356
alpha1
                           NA
        0.51859353
alpha2
        0.76975611
                           NA
alpha3
        2.01914025
                           NA
, , 44
                            2
                 1
      -0.51417899 -1.2336809
beta1
beta2
                    1.0104660
      -1.03308874
beta3
      -1.94548619
                    2.0472972
beta4 -3.09063132
                    3.0246229
delta
        0.05764352
                   1.5064435
gama
        0.41779139
                   0.2179726
sigma
        0.64893310
                    1.5771317
lambda
        0.08918068
                    3.2266503
alpha1
        0.68932194
                           NA
       0.88950049
alpha2
                           NA
alpha3
        2.08471344
                           NA
, , 45
                 1
                            2
      -0.81714142 -0.9817431
beta1
beta2
      -0.97178505
                   0.9269871
beta3
      -2.05045567
                    1.9204392
beta4 -3.05127478 3.0522621
delta
        0.05990943
                   1.4792228
gama
        0.29484273
                   0.1711553
sigma
        0.54628918
                   1.5359868
lambda
       0.11033162
                   3.5755139
alpha1
        0.70891785
                           NA
alpha2
                           NA
        1.10388544
alpha3
        1.94812030
                           NA
, , 46
                            2
                 1
beta1 -1.17245019 -1.3969762
beta2 -0.90862876 0.9681951
```

beta3 -1.95658920 2.0360828

```
beta4 -2.96451984 3.1271794
delta
        0.06738794 1.4959664
gama
        0.37068179
                   0.1423698
sigma
                   1.5428174
        0.61255442
lambda
                    3.9647236
       0.11068317
alpha1
        0.86413920
                          NA
alpha2
        1.05953001
                          NA
alpha3
        2.49589001
                          NA
, , 47
                 1
beta1
      -0.50293666 -0.93959169
beta2
      -1.05183076 0.93299275
beta3
      -1.96728482
                   2.05363404
beta4 -3.07404340 3.01400842
delta
        0.06814322
                   1.57518626
gama
        0.41847639 0.07604832
sigma
        0.65047666
                   1.59914354
lambda 0.10533852
                   5.71198559
alpha1
        0.77723757
                            NA
alpha2
                            NA
        1.11980984
alpha3
        2.18661247
                            NA
, , 48
                            2
                 1
beta1
      -0.80031794 -0.9648170
beta2
      -1.00739823
                   1.0234061
beta3
      -1.97232041
                   1.9678194
beta4 -3.00272323 2.9821750
delta
        0.08523492 1.3317951
gama
        0.34774546 0.1395051
sigma
        0.59582754
                   1.3831787
lambda
                   3.5656799
        0.14453960
alpha1
        0.72278885
                          NA
alpha2
                          NA
        0.86816963
alpha3
        1.95073124
                          NA
, , 49
                            2
                 1
beta1 -0.64716009 -1.0561046
```

```
beta2 -1.03303287 0.9966013
beta3 -1.94905305
                   1.9805099
beta4 -3.02433234
                   3.0466103
delta
       0.08576382
                   1.2806391
gama
       0.31258855
                   0.2246980
sigma
       0.56563591
                   1.3655528
lambda
       0.15339726
                   2.7016382
alpha1
       0.77471152
alpha2 1.24273708
                          NA
alpha3
       2.04658903
                          NA
, , 50
                           2
      -0.9261884 -0.92268846
beta1
beta2
       0.9737128 -1.02004330
beta3
       2.0841670 -1.99139104
beta4
       3.0506876 -2.94914336
delta
       1.2064568 0.06726738
gama
       0.3432868 0.37772148
sigma
       1.3412027 0.61826077
lambda 2.0591273 0.10945072
alpha1 -0.3171892
                          NA
alpha2 -0.7930535
                          NA
alpha3 -2.0548359
                          NA
, , 51
                1
beta1
      -0.64721139 -1.5023903
beta2 -1.10851080
                  1.1000553
beta3 -2.00655384
                   1.9799324
beta4 -2.98808760
                   3.0864984
delta
       0.09144984
                  1.3796232
gama
       0.41586730
                   0.1775722
sigma
       0.65132970
                   1.4425437
lambda 0.14180958
                   3.2739575
alpha1
       0.74581862
                          NA
alpha2
       0.86975238
                          NA
alpha3
                          NA
       1.89628635
, , 52
```

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```
2
                1
beta1
      -0.8642885 -0.8361245
beta2
      -0.9748251
                  0.9462043
beta3
      -1.9981296
                   1.9480746
beta4 -3.0187028
                   2.9946770
delta
        0.0828772
                   1.3911191
gama
        0.3119845 0.1465531
sigma
        0.5646708
                   1.4428324
lambda 0.1483777
                   3.6338480
alpha1
        0.6030695
                          NA
alpha2
                          NΑ
        0.8645577
alpha3
        1.8199910
                          NA
, , 53
                           2
                1
beta1
      -1.1416608 -0.8385619
      -0.9277816
beta2
                  0.9705351
beta3
      -2.0644673
                   2.0539198
beta4 -2.9581357
                   2.9735709
delta
        0.0804348 1.2403706
        0.3572555 0.2306797
gama
sigma
        0.6030964 1.3301124
lambda
       0.1345719 2.5825385
alpha1
        0.5449367
                          NA
alpha2
        0.7920480
                          NA
alpha3
        2.0502257
                          NA
, , 54
                            2
                 1
beta1
      -0.78823444 -0.6828986
                    0.8949422
beta2 -0.99963655
beta3
      -2.06702567
                    1.9775954
beta4 -3.04130062
                    2.9964826
delta
        0.04775841
                    1.3303567
                    0.2115151
gama
        0.42683189
sigma
        0.65506698
                    1.4076093
lambda
        0.07310069
                    2.8926604
alpha1
        0.58189830
                           NA
alpha2
        0.95936661
                           NA
alpha3
        1.96516216
                           NA
```

```
2
                  1
beta1
       -0.59738857 -0.4814692
beta2
       -1.00715350
                     0.8929202
beta3
       -1.95644967
                     1.9392408
beta4
       -3.10293375
                     2.8838865
delta
        0.07594793
                     1.4094060
        0.41623124
                     0.1446168
gama
sigma
        0.64961476
                     1.4598089
lambda
        0.11771956
                     3.7061817
alpha1
        0.60882950
                            NA
alpha2
        0.85920527
                            NA
alpha3
                            NA
        1.90381681
, , 56
                             2
                  1
beta1
       -0.56155393 -0.8496641
beta2
       -1.05000694
                     0.9440982
beta3
       -2.06660643
                     2.0300081
beta4
      -3.05785752
                     2.9873564
delta
        0.05423901
                     1.4973606
        0.38561774
                     0.1736253
gama
sigma
        0.62334550
                     1.5542568
lambda
                     3.5935188
        0.08734404
alpha1
        0.74437140
                            NA
alpha2
        1.18250017
                            NA
alpha3
        2.31936668
                            NA
, , 57
                             2
                  1
beta1
       -0.97708765 -0.8142860
beta2
      -1.03172503
                     1.0111121
beta3
       -1.91767458
                     1.9613963
beta4
      -2.89622743
                     2.9227003
delta
        0.05410028
                     1.2068824
        0.39480151
                     0.3403361
gama
                     1.3404855
sigma
        0.63065707
lambda
        0.08610138
                     2.0687639
alpha1
        0.84085025
                            NA
alpha2
        1.00190110
                            NA
```

```
, , 58
                            2
                1
beta1
       -0.9943052 -1.0982741
beta2
       -1.0438005
                   0.9925845
beta3
      -2.0442918 2.0546772
beta4 -2.8621894 3.0785615
delta
        0.0756367
                   1.3454532
        0.3247969
gama
                   0.2060567
        0.5749068
                   1.4199652
sigma
lambda
        0.1327170
                   2.9639796
alpha1
        0.7635728
                           NA
alpha2
        1.0168939
                           NA
alpha3
        1.9049735
                           NA
, , 59
                 1
                             2
beta1
       -0.87050828 -1.1108214
beta2
       -0.97736369
                    0.9727705
beta3
      -2.06849547
                    1.9635763
beta4 -3.02786943
                    3.0504740
delta
        0.08661185
                    1.3105472
gama
        0.38987828
                    0.1608018
        0.63038075
                    1.3705239
sigma
lambda
        0.13871161
                    3.2681895
alpha1
        0.52839904
                            NA
alpha2
        1.04470972
                            NA
alpha3
        1.93894492
                            NA
, , 60
                             2
                 1
beta1
       -0.60690364 -1.2369368
beta2
      -1.03764003
                    0.9923485
beta3
       -1.99175213
                    2.0011286
                    3.0308702
beta4 -3.05283758
delta
        0.04353385
                    1.6217580
        0.37688541
                    0.0472973
gama
```

0.61545155

0.07091244

1.6362752

7.4570641

sigma

lambda

alpha3

1.81806938

NA

```
alpha1
        0.72576697
                           NA
alpha2
        1.03830547
                           NA
alpha3
        2.00498354
                           NA
, , 61
                 1
                            2
beta1 -0.74463779 -1.2448641
beta2 -1.04267442 0.9827849
beta3
      -2.04214930
                    1.9013177
beta4
      -3.02423572
                    3.1112371
delta
        0.05104814
                    1.2484905
gama
        0.37772809
                    0.2282233
sigma
        0.61671225
                    1.3367692
lambda
        0.08305968
                    2.6133963
alpha1
        0.70979309
                           NA
alpha2
        0.86392391
                           NA
alpha3
        1.70193386
                           NA
, , 62
                           2
                 1
beta1
       -0.78997544 -1.334114
beta2 -0.99375074
                    1.079376
beta3
      -2.02840757
                    2.007425
beta4 -3.01121788
                    3.046728
delta
        0.05948266
                    1.220555
gama
        0.37190976
                    0.235001
        0.61273807
                    1.313299
sigma
lambda
        0.09753750
                    2.517806
alpha1
        0.65816939
                          NA
alpha2
        0.99651049
                          NA
alpha3
        2.02544500
                          NA
, , 63
                 1
beta1 -1.00431758 -1.2217988
beta2 -1.04047889 0.9970845
beta3
      -1.94711283
                   1.9593035
beta4 -2.90173831
                    3.0593110
delta
        0.07985295
                    1.2592209
```

gama

0.41656097

0.1688664

```
sigma
        0.65033642 1.3245768
lambda
                    3.0642935
        0.12372335
alpha1
        0.81804005
                           NA
alpha2
                           NA
        1.12367309
alpha3
        1.90400848
                           NA
, , 64
                            2
                 1
beta1 -1.00115380 -0.9045639
beta2
      -0.92234223
                   1.0355610
beta3
                    1.9768923
      -2.05039329
beta4 -2.99054474
                    2.9795804
delta
        0.07707428
                    1.2314716
gama
        0.32810236 0.1903696
sigma
        0.57796436
                    1.3064808
lambda
        0.13455654
                    2.8224457
alpha1
        0.91076439
                           NA
alpha2
        1.07605846
                           NA
alpha3
        1.87438855
                           NA
, , 65
                 1
                            2
beta1
      -0.74288920 -1.1463088
beta2
      -0.97373505
                    0.9754461
      -2.01218738
                    1.9795734
beta3
beta4 -3.03308898
                    3.0089209
delta
        0.04738337
                    1.5165892
gama
        0.34478000
                    0.0646350
sigma
        0.58908843
                    1.5377509
lambda
        0.08069654
                    5.9653249
alpha1
        0.51705703
                           NA
alpha2
        0.89164539
                           NA
alpha3
                           NA
        2.09979020
, , 66
                            2
                1
beta1 -1.0089923 -0.81595846
beta2
        1.0362175 -1.01657399
beta3
        1.9753469 -1.91659922
```

2.9583334 -2.99505878

beta4

```
delta
       1.2849962 0.07193691
       0.2269937 0.36310804
gama
sigma
       1.3704776 0.60686322
lambda 2.6970871 0.11938063
alpha1 -0.5811600
                          NA
alpha2 -1.2008342
                          NA
alpha3 -2.3001864
                          NA
, , 67
                             2
                 1
beta1
      -0.47003609 -1.22545437
beta2
      -0.98145566
                   1.04942680
beta3
                   1.94825429
      -2.00512442
beta4 -3.17252541
                   2.99988401
delta
       0.04300731 1.47922025
gama
       0.37433588 0.06960779
sigma
       0.61333964
                   1.50256459
lambda 0.07029292
                   5.60665623
alpha1
       0.85517531
                           NA
alpha2
       1.03497928
                           NA
alpha3
                            NA
       1.98307544
, , 68
                            2
                 1
beta1
      -0.60879500 -0.9066135
beta2 -1.05593935
                   1.0522435
beta3
      -1.97488336 2.0296770
beta4 -3.02405241
                   2.9719241
delta
       0.05913794 1.2971610
gama
       0.41632394 0.2548639
sigma
       0.64793614
                   1.3919377
lambda 0.09165381
                   2.5694471
alpha1
                          NA
       0.65660291
alpha2
       1.06502100
                          NA
alpha3
                          NA
       2.21159407
, , 69
                          2
                1
beta1 -0.9315606 -0.8884656
beta2 -1.0500231 1.0026222
```

```
beta3
      -1.9546368 1.9423972
beta4
      -2.9144608 2.9873461
delta
        0.0865966 1.4067801
gama
        0.3964637
                  0.1889334
sigma
        0.6355806 1.4724007
lambda
        0.1375305 3.2364716
alpha1
        0.8922362
alpha2
        1.0677199
                          NA
alpha3
        1.8823144
                          NA
, , 70
                            2
                 1
beta1
      -0.79067078 -0.7315138
beta2
      -1.02702488
                   0.9448866
beta3
      -1.99965807
                    1.9664279
beta4 -3.00491999
                    2.9960242
delta
        0.07259982
                   1.2586388
gama
        0.29494300
                    0.1742515
sigma
        0.54791763
                    1.3260555
                    3.0151773
lambda
        0.13368002
alpha1
        0.67461771
                           NA
alpha2
        1.16144375
                           NA
alpha3
        2.16854842
                           NA
, , 71
                           2
                1
beta1
      -0.8985870 -1.0716346
beta2
      -0.9981530
                  0.9600444
beta3
      -1.9096752 1.9645060
beta4 -2.9627364 3.1165488
delta
        0.0707192 1.2563694
gama
        0.3127158 0.1759414
        0.5636639 1.3245398
sigma
lambda
        0.1264627
                  2.9952515
alpha1
        0.4813257
                          NA
alpha2
        0.9345041
                          NA
alpha3
        2.2905456
                          NA
, , 72
```

1 2

```
beta1
      -0.64776717 -1.0623604
beta2 -1.08954047
                   1.0811111
beta3 -1.91330317
                   2.0304926
beta4 -2.95587317
                   2.9112562
delta
       0.09911581
                   1.3193641
gama
       0.36816123 0.1619611
sigma
       0.61480499
                   1.3793777
lambda
       0.16335179
                   3.2783797
alpha1
       0.66153619
                          NA
alpha2
                          NA
       0.99346498
alpha3
       2.13681052
                          NA
, , 73
```

1 beta1 -0.6491199 -1.268851 beta2 -1.0152876 1.095301 beta3 -2.0043553 2.003530 beta4 -3.1159295 2.982049 delta 0.1017427 1.411899 gama 0.3753181 0.182340 0.6210231 1.475059 sigma lambda 0.1660748 3.306455 alpha1 0.6484596 NAalpha2 1.1161257 NA alpha3 2.1278924 NA

, , 74

1 beta1 -1.10217096 -1.2390020 -0.95287225 1.0017626 beta2 beta3 -2.00420705 1.9628164 beta4 -2.95507529 3.0917270 delta 0.07178971 1.1868236 gama 0.38185462 0.1873548 0.62209998 1.2632914 sigma lambda 0.11617513 2.7419139 alpha1 0.80441757 NA alpha2 1.05824007 NA alpha3 1.83592120 NA

, , 75

```
2
                 1
       -0.67628800 -1.28254970
beta1
beta2
       -1.01570297
                    1.03314327
                    2.04508385
beta3
       -2.03485211
beta4
      -3.02092867
                    2.97325857
delta
        0.04821508
                    1.71933925
gama
        0.31513132
                    0.06167465
sigma
        0.56343235
                    1.73718224
lambda
                    6.92322166
        0.08588891
alpha1
        0.89354756
                             NA
alpha2
                             NA
        1.15228211
alpha3
        2.39352421
                             NA
, , 76
                 1
                             2
       -1.11430279 -0.9838479
beta1
beta2
      -0.93167642
                    0.9705837
beta3
      -1.99475882
                    2.0872142
beta4
      -2.96743251
                    2.9993594
delta
        0.06746004
                    1.4115143
gama
        0.35133240
                    0.1915142
sigma
        0.59655952
                    1.4777980
lambda
        0.11381186
                    3.2254088
        0.57608736
alpha1
                            ΝA
alpha2
        0.90127447
                            NA
alpha3
        2.11888707
                            NA
, , 77
                 1
                             2
       -1.05044884 -1.3651250
beta1
beta2
      -0.91762940
                    1.0019289
beta3
      -1.94791558
                    1.9366293
beta4 -3.00482485
                    3.1430377
delta
        0.08094581
                    1.4028895
gama
        0.29705449
                    0.2450218
sigma
        0.55100518
                    1.4876561
lambda
        0.14851705
                    2.8341388
alpha1
        0.62330345
                            NA
alpha2
        0.78043275
                            NA
alpha3
        1.78553348
                            NA
```

```
2
                  1
       -0.69636927 -1.0834333
beta1
beta2
       -0.99347243
                     1.0129923
beta3
       -1.88728396
                     1.9735392
beta4 -3.05900733
                    2.9457628
delta
        0.07442525
                    1.3712289
gama
        0.41109934
                    0.1310541
sigma
        0.64547537
                     1.4182112
lambda
                     3.7877792
        0.11607719
alpha1
        0.59670963
                            NA
alpha2
                            NA
        0.75100156
alpha3
        1.77161318
                            NA
, , 79
                  1
                             2
beta1
       -0.97379803 -0.9068747
beta2
      -0.91669326
                    1.0502654
beta3
       -1.99642262
                    1.9422011
beta4 -3.02020494
                    2.9568890
delta
        0.05871394
                    1.1415989
gama
        0.35002577
                    0.2996812
                     1.2660684
sigma
        0.59453604
lambda
        0.09924102
                     2.0853734
alpha1
        0.75666418
                            NA
alpha2
        0.95122570
                            NA
alpha3
        2.07294741
                            NA
, , 80
                  1
                             2
beta1
      -1.04604612 -1.0655680
beta2
      -0.95180131
                    0.9931400
beta3
      -2.01743222
                    2.0058148
beta4 -2.98161599
                    3.0444586
delta
        0.08616268
                    1.2083056
                    0.2650068
gama
        0.36801072
sigma
        0.61272729
                    1.3133961
lambda
        0.14203290
                     2.3471901
alpha1
        0.68733500
                            NA
```

```
alpha2
        0.89022502
                            NA
alpha3
        1.82482360
                            NA
, , 81
                 1
                             2
beta1
       -0.68090116 -0.6245734
beta2
      -1.03156453
                    0.9973240
beta3
      -2.06896452
                    1.9869623
beta4
      -3.02939528
                    2.9385271
delta
        0.07522398
                    1.1685379
gama
        0.33572180
                    0.2347541
        0.58427771
                    1.2650039
sigma
lambda
        0.12982746
                    2.4117718
alpha1
        0.59194007
                            NA
alpha2
        0.96033247
                            NA
alpha3
        2.21731467
                            NA
, , 82
                             2
                 1
       -0.63854068 -0.7145960
beta1
beta2
      -1.04458054
                    1.0430219
beta3
      -1.97612323
                    2.0171742
beta4
      -3.01116964
                    2.9400280
delta
        0.05422526
                    1.0552680
        0.35237608
                    0.2850953
gama
sigma
        0.59608427
                    1.1826605
lambda
                    1.9763678
        0.09134787
alpha1
        0.67538701
                            NA
alpha2
        0.90618910
                            NA
alpha3
        2.05926306
                            NA
, , 83
                             2
                 1
beta1
       -0.86937906 -0.8111647
beta2
      -1.00135050
                    1.0032055
beta3
                    1.8961339
      -1.98401861
beta4 -2.97309786
                    2.9235457
delta
        0.06817631
                    1.2487029
        0.31092948
                    0.1954422
gama
```

sigma

0.56176284

1.3246513

```
lambda
        0.12226511 2.8245548
alpha1
        0.77479989
                           NA
alpha2
        1.13388624
                           NA
alpha3
        2.30156671
                           NA
, , 84
                1
                           2
beta1 -1.1689789 -0.9609159
beta2
      -0.9862967
                   1.0266413
beta3
      -2.0039206
                   1.9826124
beta4 -2.9057123 2.9760146
delta
        0.0831892 1.2620877
gama
        0.3865863 0.2143129
sigma
        0.6273012 1.3443133
lambda
        0.1337962
                  2.7262483
alpha1
        0.7040650
                          NA
                          NA
alpha2
        0.8758043
alpha3
        1.8665737
                          NA
, , 85
                 1
                            2
beta1 -0.78888327 -0.8932755
beta2 -1.04877671 0.9274936
                    2.0156886
beta3
      -2.00603665
beta4 -2.98891389
                    3.0279204
delta
        0.08181132
                   1.3849408
                    0.2259231
gama
        0.34578256
sigma
        0.59369660
                    1.4642350
lambda
        0.13912714
                    2.9137404
alpha1
        0.74433756
                           NA
alpha2
        0.87778444
                           NA
alpha3
        1.89175029
                           NA
, , 86
                 1
                           2
beta1 -0.63931165 -1.132350
beta2 -1.09533253 1.062949
beta3 -2.06674225
                    1.994433
beta4 -3.02194805
                    2.977116
delta
                    1.347486
```

0.09096597

```
gama
        0.42657334 0.155267
                    1.403918
sigma
        0.65943017
lambda
        0.13927786
                   3.419673
alpha1
                          NΑ
        0.68553202
alpha2
                          NA
        0.84370297
alpha3
        1.51421911
                          NA
, , 87
                1
                           2
      -1.2431192 -1.0188677
beta1
beta2
      -0.9327089 1.1102450
beta3
      -2.0075598 2.0217268
beta4 -2.9194777 2.9000685
delta
        0.0888649 1.3177059
gama
        0.3152898 0.2669559
sigma
        0.5684952 1.4153815
lambda
        0.1582615 2.5503439
alpha1
        0.6418069
                          NA
alpha2
        1.1319970
                          NA
alpha3
        1.9153316
                          NA
, , 88
                1
                            2
      -0.8022465 -0.57776160
beta1
beta2
        0.9625396 -1.01774615
beta3
        1.9741162 -2.05057926
beta4
        3.0081385 -3.12013145
delta
        1.2180043 0.05435426
gama
        0.2385169 0.37895579
sigma
        1.3122696 0.61798882
lambda 2.4939587 0.08829566
alpha1 -0.5025696
                           NA
alpha2 -1.2473268
                           NA
alpha3 -1.8861729
                           NA
, , 89
                            2
                 1
beta1 -0.86109373 -0.7427455
```

beta2 -1.01632920 0.9534755 beta3 -1.94818508 1.9678070

```
beta4 -2.96764485 2.9935296
delta
       0.08726935 1.2267017
gama
       0.36879996 0.1990415
sigma
                   1.3053117
       0.61352743
lambda
                  2.7495848
       0.14370316
alpha1
       0.87000300
                          NA
alpha2
       1.17225616
                          NA
alpha3
       1.99671655
                          NA
, , 90
               1
beta1 -0.6701268 -0.90857495
beta2
       0.9925689 -0.95767821
beta3
       1.9345351 -2.01244507
beta4
       2.9373603 -3.07304664
delta
       1.2306185 0.06840427
gama
       0.3164215 0.46119081
sigma
       1.3530866 0.68254667
lambda 2.1877137 0.10072630
alpha1 -0.6018874
alpha2 -1.1722028
                          NA
alpha3 -1.8557498
                          NA
, , 91
                          2
                1
beta1 -1.05127077 -1.046396
beta2 -0.97085201
                  1.058215
beta3 -2.04095252 2.046982
beta4 -2.94029403 2.990097
delta
       0.05870337 1.201712
gama
       0.45920699 0.329938
sigma
       0.68018606
                   1.331935
lambda 0.08662810 2.092109
alpha1
       0.98529118
                         NA
alpha2
                         NA
       1.12585448
alpha3
       2.11129838
                         NA
, , 92
                           2
                1
beta1 -1.03338464 -0.7625863
```

```
beta2 -1.00099949 0.9986141
beta3
      -1.96337029
                    1.9653347
beta4 -2.89313981
                    2.9066199
delta
       0.05949618
                    1.3217494
                    0.1229128
gama
       0.37360070
sigma
       0.61411766
                    1.3674554
lambda
       0.09733863
                    3.7700808
alpha1
       0.63682080
                          NA
alpha2
       0.77810833
                          NA
alpha3
       1.95993522
                          NA
, , 93
                            2
                 1
      -0.73764519 -1.5033031
beta1
beta2 -0.99970791
                   1.1431435
beta3
      -1.98633664
                   1.9357852
beta4 -3.01717728
                   3.0711340
delta
       0.05669374
                   1.3229236
gama
       0.30727260
                   0.2309577
sigma
       0.55721340
                   1.4075101
lambda
                   2.7527613
       0.10227587
alpha1
       0.86475720
                          NA
alpha2
       0.98907226
                          NA
alpha3
       1.90616096
                          NA
, , 94
                 1
beta1
      -0.94198450 -0.8403264
beta2
      -0.96717633
                   1.0146681
beta3
      -1.99501229
                   2.0864437
beta4 -3.01361668
                   2.9680668
delta
       0.07881883
                   1.2356700
gama
       0.37029910
                   0.2419268
sigma
       0.61360533
                   1.3299651
lambda 0.12952501
                   2.5122363
alpha1
       0.62940259
                           NA
alpha2
       0.92631813
                          NA
alpha3
       2.24898996
                          NA
, , 95
```

```
1
beta1
      -0.77126918 -0.9542280
beta2
      -0.98547545
                    0.9880123
beta3
      -2.02859294
                    2.0468784
beta4 -3.04454790
                    2.9774755
delta
        0.07235746
                    1.4343724
gama
        0.30742315
                    0.2004072
sigma
        0.55915897
                    1.5026082
lambda 0.13050135
                    3.2040938
alpha1
        0.67888251
                           NA
alpha2
        0.75074943
                           NA
alpha3
                           NA
        2.01327353
, , 96
                           2
                1
beta1
      -0.6754744 -1.0217789
beta2
      -0.9713974 1.0112431
beta3
      -2.0230626 2.0354783
beta4 -3.1186332 2.9814902
delta
        0.1041580 1.3717545
        0.3678829 0.1817491
gama
sigma
        0.6154119 1.4364747
lambda
       0.1717267
                   3.2176606
alpha1
        0.5563867
                          NA
alpha2
        1.0370772
                          NA
alpha3
        1.9962553
                          NA
, , 97
                            2
                 1
      -0.79265694 -0.7801072
beta1
beta2 -0.99275851
                    0.9824823
beta3
      -2.03459799
                    1.9504274
beta4 -3.03684725
                    3.0290189
delta
        0.08696399
                    1.2278123
gama
        0.36110174
                    0.1617739
sigma
        0.60717747
                    1.2920127
lambda
        0.14471870
                    3.0526549
alpha1
        0.48026859
                           NA
alpha2
        0.91140576
                           NA
       2.02621832
alpha3
                           NA
```

```
1
                             2
beta1
       -0.93567656 -1.1123021
beta2
                     0.9445795
       -0.99484342
beta3
       -2.01164094
                     2.1166553
beta4
      -2.96359320
                     3.0943755
delta
        0.05943424
                     1.4359823
        0.31214521
                     0.1510609
gama
sigma
        0.56185197
                     1.4876512
lambda
        0.10637961
                     3.6946474
alpha1
        0.86946471
                            NA
alpha2
        1.05108520
                            NA
alpha3
                            NA
        1.91454197
, , 99
                             2
                  1
beta1
       -0.83247864 -1.3024548
beta2
       -1.00297588
                     1.0586586
beta3
       -1.94904227
                     1.9824288
beta4
      -2.98037822
                     3.0275332
delta
        0.06043049
                     1.4027458
        0.38019369
                     0.1199464
gama
sigma
        0.61955269
                     1.4448676
lambda
                     4.0502831
        0.09800623
alpha1
        0.61398331
                            NA
alpha2
        0.93325985
                            NA
alpha3
        1.63337837
                            NA
, , 100
                             2
                  1
beta1
       -0.77960726 -0.9988083
beta2
      -0.98824385
                     1.0326244
beta3
       -2.04978267
                     2.0280192
beta4 -3.02162825
                     3.0206816
delta
        0.04602823
                     1.2223227
        0.33918323
                     0.1624476
gama
                     1.2870588
sigma
        0.58421043
lambda
        0.07903275
                     3.0326989
alpha1
        0.68599672
                            NA
alpha2
        0.90183867
                            NA
```

```
n = 500^{\circ} = 0.3^{\circ}
```

2 1 beta1 -1.0589942 -1.0694077 beta2 -1.0475684 1.0716324 beta3 -1.9462515 1.9630477 -2.8733875 2.9911056 beta4 delta 0.1046857 1.2952927 gama 0.4425463 0.2280479 sigma 0.6734281 1.3805184 lambda 0.1573649 2.7124074 alpha1 0.8577143 NAalpha2 1.0462427 NAalpha3 2.3393668 NA

## , , 2

2 1 beta1 -0.77229277 -0.8014530 beta2 -0.97652554 0.9964559 beta3 -1.99221832 2.0156367 beta4 -3.02260376 2.8882894 delta 0.08381336 1.4238782 gama 0.31456947 0.1964813 1.4912781 sigma 0.56709272 lambda 0.14943591 3.2122717 alpha1 0.51768112 NAalpha2 0.89131634 NAalpha3 1.89471857 NA

## , , 3

1 2
beta1 -0.7728963 -0.6448086
beta2 -1.0941437 0.9563726
beta3 -2.0615279 2.0344381
beta4 -2.9108588 2.8811212
delta 0.0889389 1.3585405
gama 0.3008247 0.2607350

```
sigma
        0.5556391 1.4513329
lambda
                   2.6605592
        0.1621567
alpha1
        0.8077535
                          NA
alpha2
        1.0770203
                          NA
alpha3
                          NA
        2.1079944
, , 4
                           2
                1
beta1 -0.7793064 -1.1797647
beta2
      -1.0146305 0.9613618
beta3
      -1.9931407
                   2.0643710
beta4 -2.9956479 3.0875061
delta
        0.1011694 1.5271955
gama
        0.3293968 0.1559445
sigma
        0.5827796 1.5774253
lambda
       0.1762746 3.8673161
alpha1
        0.6363542
                          NA
alpha2
        1.0506256
                          NA
alpha3
        2.2296705
                          NA
, , 5
                 1
                            2
beta1
      -0.50702900 -1.1840152
                    1.0297654
beta2
      -1.02633499
beta3
                    1.9271292
      -2.02747170
beta4 -3.10703194
                    3.0747112
delta
                    1.2713427
        0.08045128
gama
        0.32914305
                    0.3103582
sigma
        0.57932328
                   1.3880455
lambda
        0.14022989
                    2.2820809
alpha1
        0.91871438
                           NA
alpha2
        1.14520968
                           NA
alpha3
                           NA
        2.08076102
, , 6
                            2
                 1
beta1 -0.75983688 -1.1211756
beta2 -1.03557058 0.9786456
beta3 -1.97138864
                    2.0156311
```

beta4 -3.03867289 3.0709582

```
delta
        0.09430418 1.2629209
        0.37236834 0.1347531
gama
sigma
        0.61746386
                   1.3151891
lambda
                   3.4403830
        0.15454130
alpha1
        0.84247252
                           NA
alpha2
        1.13848137
                           NA
alpha3
        2.09175784
                           NA
, , 7
                            2
                 1
beta1
      -0.61099066 -0.8781510
                    1.0054897
beta2
      -1.07759946
beta3
                   1.9958126
      -2.04721083
beta4 -3.05137772
                    2.9560459
delta
        0.09474401 1.3800196
gama
        0.39243495
                   0.1758873
sigma
        0.63357034
                   1.4423388
lambda 0.15124044
                    3.2905465
alpha1
        0.64574563
                           NA
alpha2
        0.89396089
                           NA
alpha3
                           NA
        2.12249501
, , 8
                            2
                 1
      -0.75147970 -1.3250271
beta1
beta2
      -1.05356144
                   1.0362138
beta3
                    2.0580523
      -1.93393699
beta4 -2.94565975
                    3.0858629
delta
        0.09562728
                   1.3008226
gama
        0.25266595
                   0.1751342
sigma
        0.51167424
                   1.3664823
lambda
       0.19024289
                    3.1083689
alpha1
        0.45437654
                           NA
alpha2
        0.90061697
                           NA
alpha3
                           NA
        1.97570769
, , 9
                            2
                 1
beta1 -0.44445434 -0.9475817
beta2 -1.06148648 0.9917141
```

```
beta3
      -2.05958111 2.0601491
      -3.12452810
                    2.9656362
beta4
delta
        0.06825645
                    1.3987295
gama
        0.29313224
                    0.1828110
sigma
        0.54570246
                    1.4626192
lambda
        0.12607004
                    3.2713922
alpha1
        0.88886273
alpha2
        1.19560113
                           NA
alpha3
        2.10957429
                           NA
, , 10
                1
                           2
beta1
      -1.1418278 -1.2899091
beta2
      -0.9874091
                   1.0534127
beta3
      -1.9942019 1.9698459
beta4 -2.9227459 3.0270745
delta
        0.1027372 1.4780706
gama
        0.3910350 0.1224896
sigma
        0.6337112
                  1.5189412
lambda
        0.1642933 4.2232373
alpha1
        0.6744559
                          NΑ
                          NA
alpha2
        0.9885380
alpha3
        2.4036847
                          NA
, , 11
                            2
                 1
beta1
       -0.23386402 -0.8544746
beta2
      -1.13315234
                    0.9964634
beta3
      -2.09223503
                   2.0924932
beta4 -3.14009335
                    2.9618051
delta
        0.08851485
                    1.3046002
gama
        0.36224136
                    0.2162184
sigma
        0.60833892
                    1.3849910
lambda
        0.14706764
                    2.8056346
        0.76313350
alpha1
                           NA
alpha2
        1.00961712
                           NA
alpha3
        1.90646983
                           NA
, , 12
```

1

2

```
beta1
      -1.24284870 -0.7181887
beta2 -0.93946806 0.9596490
beta3 -1.93817414
                   1.9853699
beta4 -2.89619422
                   2.9697331
delta
                   1.2586276
       0.09325519
gama
       0.33770326 0.2445415
sigma
       0.58855738
                   1.3522888
lambda
       0.16047426
                   2.5451945
alpha1
       0.69748349
                          NA
alpha2
                          NA
       1.04293984
alpha3
                          NA
       1.91250208
, , 13
                 1
beta1
      -0.77053115 -0.7898347
beta2
      -1.02755321
                   0.9057596
beta3 -2.07081296
                   1.9711588
beta4 -3.02365632
                   3.0336157
delta
       0.09360107
                   1.2343358
       0.39580878
gama
                   0.2477697
sigma
       0.63605813
                   1.3309224
lambda 0.14877779
                   2.4797576
alpha1
       0.79868451
                          NA
alpha2
       1.02872917
                          NA
alpha3
       2.11076408
                          NA
, , 14
                1
beta1 -0.7906721 -0.7612755
      -1.0558740 1.0022307
beta2
beta3 -1.8901064 1.9601372
beta4 -2.9389806 2.9191385
delta
       0.1020150 1.3395817
gama
       0.2984874 0.1838868
sigma
       0.5557827
                  1.4065440
lambda
       0.1867243 3.1238774
alpha1
       0.6054315
                         NA
alpha2
       1.0379038
                         NA
                         NA
alpha3
       1.7277705
```

, , 15

```
2
                1
      -0.6332956 -1.0082432
beta1
beta2
      -1.0242840
                   0.9801314
beta3
       -2.0858061
                   2.0116539
beta4
      -3.1280201
                   3.0305304
delta
        0.1062234
                   1.2901515
gama
        0.3804702 0.1710790
sigma
        0.6259023
                   1.3548320
lambda
        0.1722106
                   3.1191936
alpha1
        0.8612637
                          NA
alpha2
        1.0531466
                          NA
alpha3
        1.7928021
                          NA
, , 16
                 1
                             2
       -0.88324083 -1.3400085
beta1
beta2
      -0.96673939
                    1.0415405
beta3
      -1.98201892
                    2.0104443
beta4 -2.97447274
                    3.0822739
delta
        0.09622073
                    1.4815954
gama
        0.23395154
                    0.1262898
sigma
        0.49316323
                    1.5236189
lambda
        0.19893247
                    4.1691305
        0.69944416
alpha1
                            ΝA
alpha2
        1.07632654
                           NA
alpha3
        2.05087856
                           NA
, , 17
                 1
                             2
       -1.00851037 -1.1658568
beta1
beta2
      -0.94484063
                    1.0392658
beta3
      -2.05971263
                    2.0375306
beta4 -3.01060464
                    2.9355063
delta
        0.07439712
                    1.6783338
gama
        0.39873591
                    0.1033147
sigma
        0.63582297
                    1.7088355
lambda
                    5.2215231
        0.11781848
alpha1
        0.59396802
                           NA
alpha2
        0.81965499
                           NA
```

alpha3

1.82997629

NA

```
2
                 1
       -0.96061523 -1.1571057
beta1
beta2
       -0.99806777
                    0.9970924
beta3
       -1.95935092
                    2.0635388
beta4
      -2.95512932
                    3.0193153
delta
        0.08883767
                    1.5244140
gama
        0.35666408
                    0.1363691
sigma
        0.60378490
                    1.5685048
lambda
                    4.1280494
        0.14875359
alpha1
        0.65236518
                            NA
alpha2
                            NA
        1.01899194
alpha3
        2.28398554
                            NA
, , 19
                 1
                             2
beta1
       -0.92231019 -0.6314049
beta2
      -0.97685357
                    0.9713189
beta3
       -2.05226460
                    1.9741615
beta4 -3.01885776
                    2.8879744
delta
        0.08862865
                    1.2751833
gama
        0.37910501
                    0.1630204
sigma
        0.62206113
                    1.3375772
lambda
        0.14394426
                    3.1582875
alpha1
        0.81732548
                            NA
alpha2
        0.94173392
                            NA
alpha3
        2.01939258
                            NA
, , 20
                1
                            2
beta1
       -0.6018877 -1.3249809
beta2
       -1.0318925
                    1.0381625
beta3
      -2.0102464
                   1.9790569
beta4
      -3.0752790 3.1099961
delta
        0.1007596 1.2026713
        0.3107621
                   0.2606494
gama
sigma
        0.5664932
                   1.3065480
lambda
        0.1807476
                   2.3556923
alpha1
        0.7550681
                           NA
```

```
alpha2
        1.0591791
                          NA
alpha3
        1.7533466
                          NA
, , 21
                1
                           2
beta1
       -0.5696859 -1.0332297
beta2
      -1.0568359
                   1.0158282
beta3
      -2.0050955
                   2.0005241
beta4 -3.0716134 3.0131040
delta
        0.1032477
                   1.1976259
        0.4372283
                  0.2298785
gama
sigma
        0.6692446
                   1.2900335
lambda
                   2.4978826
        0.1561444
alpha1
        0.7669801
                          NA
alpha2
        1.0231914
                          NA
alpha3
        2.0538971
                          NA
, , 22
                           2
                 1
beta1
      -0.54671026 -1.068481
beta2 -1.03476624
                    1.035161
beta3
      -2.11242444
                    2.016119
beta4 -3.15648987
                    2.980096
delta
        0.09581138
                    1.387712
        0.36192557
                    0.122834
gama
sigma
        0.60918420
                    1.431286
lambda
                    3.959498
        0.15926027
alpha1
        0.77829715
                          NA
alpha2
        1.07270851
                          NA
alpha3
        2.43160352
                          NA
, , 23
                           2
                1
beta1
      -1.1667047 -1.1933810
beta2
      -0.9972564 1.0066076
beta3
      -1.9949611 1.9653749
beta4 -2.8835383 3.0025755
delta
        0.0813314 1.5241047
```

0.3932789 0.1197084

0.6323715 1.5628831

gama sigma

```
lambda
        0.1296904 4.4050667
alpha1
        0.7826902
                          NA
alpha2
        0.9305831
                          NA
alpha3
        2.3387175
                          NA
, , 24
                 1
                             2
beta1 -0.76681560 -1.54493225
beta2 -0.93873661
                   1.12161504
beta3
      -2.01445614 2.06022963
beta4 -3.12453793
                    3.03032963
delta
        0.09092047
                    1.37438458
gama
        0.32619998
                    0.09368144
sigma
        0.57833079
                    1.40805341
lambda
        0.15919145
                    4.49036336
alpha1
        0.87371916
                            NA
alpha2
        1.08104717
                            NA
alpha3
        1.97895642
                            NA
, , 25
                1
                            2
beta1 -1.0949348 -0.97097308
beta2
        1.0607142 -0.95793378
beta3
        1.9627389 -1.94923381
beta4
        2.9761869 -2.98471680
delta
        1.3160728 0.09226471
        0.1532344 0.29649925
gama
sigma
        1.3730557
                  0.55227894
lambda
        3.3620315 0.16944307
alpha1 -0.3974973
                           NA
alpha2 -1.0090465
                           NA
alpha3 -2.3016432
                           NA
, , 26
                 1
beta1 -1.18369260 -0.8807304
beta2 -0.96154099 1.0184863
beta3 -2.00310476 2.0807774
beta4 -2.89440996
                   2.9670678
```

delta

0.08335138

1.1536793

```
0.33169912 0.2498787
gama
                    1.2573204
sigma
        0.58193348
lambda
        0.14472403
                    2.3079183
alpha1
        0.82792402
                           NA
alpha2
        0.90225065
                           NA
alpha3
        1.68492153
                           NA
, , 27
                            2
                 1
       -0.63484499 -0.9275564
beta1
beta2
      -1.00442069
                    0.9817576
beta3
       -2.02977995
                    2.0481897
beta4
      -3.15033773
                    3.0184169
delta
        0.08812685
                    1.1925738
gama
        0.34230766
                    0.2237312
sigma
        0.59167052
                    1.2829511
lambda
        0.15062600
                    2.5212851
alpha1
        0.64968393
                           NA
alpha2
        0.93280279
                           NA
alpha3
        1.82425046
                           NA
, , 28
                 1
                            2
       -0.85584867 -0.7681915
beta1
beta2
      -0.95089284
                   0.9445811
beta3
      -2.01269011
                    2.0122456
beta4 -3.04912598
                    2.9620921
delta
        0.09056742
                    1.2998312
gama
        0.36373636
                    0.1331438
                    1.3500759
sigma
        0.60986787
lambda
        0.15016842
                    3.5622666
alpha1
        0.71035873
                           NA
alpha2
                           NA
        1.11884015
alpha3
        2.15273557
                           NA
, , 29
                            2
                 1
beta1 -0.86998186 -0.1902851
beta2 -1.00457340 0.9696324
```

beta3 -2.03739930 2.0370071

```
beta4 -2.98591026 2.7651425
delta
       0.09747247 1.3185316
gama
       0.36774303 0.1667337
sigma
                   1.3803113
       0.61420185
lambda 0.16073474
                   3.2290807
alpha1
       0.73975326
                          NA
alpha2
       1.17117424
                          NA
alpha3
       2.22247761
                          NA
, , 30
               1
beta1 -0.6884685 -0.8129139
beta2
       0.8982180 -0.9779715
beta3
       1.9779782 -1.9162327
beta4
       3.0314812 -2.9991560
delta
       1.2845509 0.1014113
gama
       0.1622191 0.2703486
sigma
       1.3462132 0.5297479
lambda 3.1893367 0.1950403
alpha1 -0.6526821
                         NA
alpha2 -1.0061140
                         NA
alpha3 -2.3849739
                         NA
, , 31
                1
beta1 -0.84849661 -0.7518478
beta2
      -0.97797633 0.9734843
beta3 -1.99350529 2.0892886
beta4 -3.01811310 2.9522892
delta
       0.08110868 1.2439811
gama
       0.35327094 0.1564709
sigma
       0.59987462
                   1.3053581
lambda 0.13646251
                   3.1448283
       0.58675637
alpha1
                          NA
alpha2
                          NA
       0.90560964
alpha3
       2.04079496
                          NA
, , 32
                          2
               1
beta1 -0.9764891 -0.7152012
```

```
beta2 -0.9733630 0.9763131
beta3
      -2.0349286 2.0347786
beta4 -3.0156935 2.9813608
delta
       0.1069229
                  1.1945602
gama
       0.3805642 0.2203880
sigma
       0.6260964
                  1.2834960
lambda
       0.1733232 2.5445684
alpha1
       0.6273317
                         NA
alpha2 1.0599221
                         NA
alpha3
                         NA
       2.1662258
, , 33
                            2
beta1
      -0.87696137 -1.1805456
beta2 -1.02653569
                   1.0000377
beta3
      -2.02380869
                   1.9172105
beta4 -2.96975690
                   3.0451909
delta
       0.08811649
                   1.3478474
gama
       0.33978365
                   0.1347901
sigma
       0.58953216
                   1.3969548
lambda
                   3.6712305
       0.15116663
alpha1
       0.74748559
                          NA
alpha2
       0.96037946
                          NA
alpha3
       1.74069134
                          NA
, , 34
               1
beta1
      -1.1235451 -0.9233934
beta2
      -0.9558246 0.9582640
beta3
      -1.9217371 1.9041271
beta4 -2.9295600 3.0190173
delta
       0.0598430 1.2762615
gama
       0.3501925 0.1971334
sigma
       0.5947888 1.3512870
lambda 0.1011253 2.8744819
alpha1
       0.8165827
                         NA
alpha2
       1.2600734
                         NA
alpha3
       2.8086390
                         NA
```

, , 35

```
1
beta1
      -0.84261803 -0.8097987
beta2
      -0.93141010
                   0.9430812
beta3
      -2.02827021
                    2.0219761
beta4 -3.05280074 2.9979969
delta
       0.07966913
                   1.3010889
gama
       0.30428773
                   0.1631536
sigma
       0.55734630
                   1.3623458
lambda 0.14442682
                   3.2211328
alpha1
       0.71335366
                           NA
alpha2
                          NA
       0.87830926
alpha3
       1.80505088
                           NA
, , 36
                           2
                1
beta1
      -0.7562279 -0.4554458
beta2
       0.9734113 -1.1078932
beta3
       1.9921774 -1.9541009
beta4
       3.0405319 -3.0339946
delta
       1.0472081 0.1123262
       0.4013036 0.2871329
gama
sigma
       1.2239070 0.5474943
lambda 1.6530899 0.2096232
alpha1 -0.6482711
                         NA
alpha2 -1.1915301
                         NA
alpha3 -2.0085924
                          NA
, , 37
                 1
                            2
      -0.98935095 -1.0251974
beta1
beta2 -0.99645470 0.9930980
beta3 -1.96975655
                   1.9819368
beta4 -2.92118061
                   2.9537928
delta
       0.09308344 1.4905567
       0.28893503 0.1267135
gama
sigma
       0.54552687
                    1.5324728
       0.17316987
lambda
                   4.1873281
alpha1
       0.64437707
                          NA
alpha2
       1.03047156
                          NA
alpha3
       1.57461818
                           NA
```

```
2
                1
beta1
       -0.8477519 -0.7318834
beta2
                    0.9873261
       -1.0588047
beta3
       -2.0895028
                    2.0350107
beta4
       -2.9477667
                    2.9266179
delta
        0.0766087
                    1.2473186
gama
        0.3649596
                    0.2351591
sigma
        0.6089569
                    1.3382686
                    2.5721515
lambda
        0.1268106
alpha1
                           NA
        0.5902777
                           NA
alpha2
        0.8537533
alpha3
                           NA
        1.7889310
, , 39
                             2
                  1
beta1
       -0.76081115 -0.8839063
beta2
       -1.02718243
                     1.0630377
beta3
       -2.04519717
                     1.9693976
beta4
      -3.01012819
                     2.8930489
delta
        0.07158774
                    1.3585069
        0.31867772
                    0.1714269
gama
sigma
        0.56903649
                     1.4202000
lambda
                     3.2811218
        0.12681272
alpha1
        0.67374044
                            NA
alpha2
        0.91159191
                            NA
alpha3
        2.13551447
                            NA
, , 40
                             2
                  1
beta1
       -0.54297489 -0.9923302
beta2
      -1.03278336
                     1.0032596
beta3
       -1.92116448
                    2.0621334
beta4
      -3.10569945
                     3.0146842
delta
        0.08162462
                    1.3625315
        0.27505966
                    0.2499515
gama
sigma
        0.53077513
                     1.4513592
lambda
        0.15563515
                     2.7253273
alpha1
        0.55876347
                            NA
alpha2
        1.10697268
                            NA
```

```
alpha3
        1.99352637
, , 41
                             2
                  1
beta1
       -0.70452960 -0.9442728
beta2
       -0.97455474
                     1.0077156
beta3
       -2.06826382
                     1.9650159
beta4 -3.12811074
                     2.9656320
delta
        0.09835593
                     1.3161714
gama
        0.32299437
                     0.1702301
                     1.3793249
sigma
        0.57677401
lambda
        0.17306254
                     3.1900265
alpha1
        0.69064340
                            NA
alpha2
        1.13254632
                            NA
alpha3
        1.96074870
                            NA
, , 42
                             2
                  1
beta1
       -0.64273734 -1.0876414
beta2
       -0.97398056
                     0.9675380
beta3
      -2.13264386
                     1.9233622
beta4 -3.14924982
                     3.0547527
delta
        0.08273842
                     1.3327761
gama
        0.34837631
                     0.1259408
        0.59600499
                     1.3792146
sigma
lambda
        0.14017898
                     3.7555536
alpha1
        0.83506640
                            NA
alpha2
        1.28064063
                            NA
alpha3
        2.54734871
                            NA
, , 43
                             2
                  1
beta1
       -0.33286059 -0.7910541
beta2
       -1.11861460
                     0.9485561
beta3
       -1.99058325
                     1.9425127
beta4
      -3.09456681
                     3.0217558
delta
        0.09200024
                     1.3607103
        0.34544920
                     0.2494577
gama
```

0.59490608

0.15652973

sigma lambda 1.4494793

2.7243772

NA

```
alpha1
        0.62218428
                           NA
alpha2
        0.91163572
                           NA
alpha3
        1.80233524
                           NA
, , 44
                1
                            2
beta1
      -1.0533313 -0.78408317
beta2
        1.0098673 -1.02557783
beta3
        2.0237016 -1.99438931
        3.0398369 -2.98165005
beta4
delta
        1.2086141 0.09500456
gama
        0.1995571
                  0.31469584
sigma
        1.2885283 0.56896547
lambda 2.7055404 0.16935536
alpha1 -0.5104121
                           NA
alpha2 -1.0651591
                           NA
alpha3 -1.6120579
                           NA
, , 45
                            2
                 1
beta1 -1.18985163 -0.5355271
beta2 -0.95264929 0.9374256
beta3 -2.01865687
                    1.9160602
                    2.8568254
beta4 -2.93172214
delta
        0.08519776
                   1.4975823
gama
        0.41018661
                    0.1171653
                    1.5362025
sigma
        0.64610005
lambda
        0.13302628
                    4.3751329
alpha1
        0.91332168
                           NA
alpha2
        1.11455636
                           NA
alpha3
        2.15830336
                           NA
, , 46
                            2
                 1
beta1 -0.62170851 -1.3721465
beta2 -1.06323270 1.0224479
beta3 -1.99578650 2.0565492
beta4 -3.04537156 3.0781612
delta
        0.09035171
                    1.4057831
```

0.31767465 0.2054917

gama

```
sigma
        0.57082228 1.4770640
lambda
                    3.1011385
        0.16030428
alpha1
        0.70004457
                           NA
alpha2
        1.10968979
                           NA
alpha3
        1.78005257
                           NA
, , 47
                            2
                 1
beta1 -1.03538224 -0.8791101
beta2
      -0.94859022
                   1.0191411
beta3
                    2.0603923
      -1.93123801
beta4 -2.94188759
                    3.0140354
delta
                    1.2353744
        0.08907519
gama
        0.30797881
                    0.3575840
sigma
        0.56206157
                    1.3724919
lambda
        0.16050787
                    2.0659014
alpha1
        0.74740638
                           NA
alpha2
        1.26526455
                           NA
alpha3
        2.00668219
                           NA
, , 48
                 1
                            2
beta1
      -0.58949290 -1.1194536
beta2
      -1.08021671
                    1.0454947
      -2.01775412
                    2.0917069
beta3
beta4 -3.00569079
                    3.0030600
delta
        0.08675081
                    1.2517806
gama
        0.25600526
                    0.1975348
sigma
        0.51335267
                    1.3283409
lambda
        0.17145458
                    2.8164786
alpha1
        0.79352336
                           NA
alpha2
        1.06247399
                           NA
alpha3
                           NA
        1.72652196
, , 49
                1
                            2
beta1 -0.9048701 -0.82390433
beta2
        1.0188055 -1.02611127
```

1.9925953 -2.04561223

2.9498574 -3.00153412

beta3

beta4

```
delta
        1.3847278 0.09647797
gama
        0.2427877 0.41673720
sigma
        1.4697819 0.65272138
lambda 2.8102896 0.14945039
alpha1 -0.6583780
                           NA
alpha2 -1.2656500
                           NA
alpha3 -2.3559976
                           NA
, , 50
                            2
                 1
beta1
      -0.84858535 -0.9864439
                    1.0762383
beta2
      -0.93190088
beta3
      -1.98660484
                    2.0023253
beta4 -3.02065907
                    2.9069018
delta
        0.05860993
                   1.3762811
gama
        0.37046434 0.1329442
sigma
        0.61147320
                   1.4237604
lambda 0.09629372
                   3.7746135
alpha1
        0.89252209
                          NA
alpha2
        1.01507201
                          NA
alpha3
                          NA
        2.10886892
, , 51
                 1
beta1
      -0.92162101 -1.0744754
beta2
      -0.96402650
                   1.0359724
beta3
                    1.9779409
      -2.05025251
beta4 -3.01267869 3.0324648
delta
        0.08826067
                    1.1941130
gama
        0.34846909
                   0.2211614
sigma
        0.59687439
                    1.2833812
lambda
       0.14951511
                    2.5391642
alpha1
        0.47844858
                          NA
alpha2
        0.84635794
                          NA
alpha3
                          NA
        1.58315545
, , 52
                            2
                 1
beta1 -0.78983818 -1.1722290
beta2 -0.99836172 1.0771281
```

```
beta3
      -1.94768494 1.8734068
                    2.9927992
beta4
      -3.00953850
delta
        0.08113384
                    1.2674319
gama
                    0.2908954
        0.29387615
sigma
        0.54814127
                    1.3774175
lambda
        0.14966486
                    2.3499368
alpha1
        0.95351282
alpha2
        1.16168596
                           NA
alpha3
        1.92302372
                           NA
, , 53
                            2
                 1
beta1
       -0.43363800 -1.1781904
beta2
       -1.05986615
                    1.0078658
beta3
      -2.06012917
                    2.0283899
beta4 -3.09844812
                    3.0335153
delta
        0.08452424
                    1.4251258
gama
        0.28884400
                    0.2085949
sigma
        0.54404811
                    1.4965221
lambda
        0.15727135
                    3.1203358
alpha1
        0.71804791
                           NA
alpha2
        1.08342129
                           NA
alpha3
        2.23358506
                           NA
, , 54
                            2
                 1
beta1
       -1.09626509 -1.0170671
beta2
      -0.99436187
                    1.1016847
beta3
      -2.13322823
                    1.9498545
beta4
      -2.94823114
                    2.9003172
delta
        0.08233687
                    1.3866380
gama
        0.40145208
                    0.1277894
                    1.4319757
sigma
        0.63892992
lambda
        0.12995036
                    3.8789628
alpha1
        0.88631392
                           NA
alpha2
        1.07345343
                           NA
alpha3
        2.00683698
                           NA
, , 55
```

1 2

```
beta1
      -1.07768593 -0.9368278
beta2 -0.97635396
                   1.0066122
beta3
      -1.96650257
                    2.0488391
beta4 -2.87935093
                   2.9767333
delta
        0.07947269
                    1.2557065
        0.32136333
                   0.2679371
gama
sigma
        0.57243274
                   1.3582106
lambda
       0.14019087
                   2.4258937
alpha1
        0.70706085
                          NA
                          NA
alpha2
        0.85715165
                          NA
alpha3
        2.09602710
, , 56
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beta1
      -0.79168681 -1.2592858
beta2
      -0.98478630
                   1.0981966
beta3 -2.05987977
                    1.9140297
beta4 -3.01245793
                   3.0209490
delta
        0.08732504
                   1.2210189
gama
        0.24450477
                   0.2261041
sigma
        0.50212591
                   1.3103402
lambda 0.17660180
                   2.5678410
alpha1
        0.69521236
                          NA
alpha2
        0.98338329
                          NA
alpha3
                          NA
        2.36780352
, , 57
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                            2
beta1 -0.46483927 -0.9973683
beta2
      -1.10144670 0.9531928
beta3
      -2.03835045 2.0177445
beta4 -3.03663943
                   2.9923221
delta
        0.07706946
                   1.5047633
gama
        0.33113245 0.1327200
sigma
        0.58057915
                   1.5482353
lambda
       0.13393111
                   4.1304755
alpha1
        0.66604024
                          NA
alpha2
        0.99264680
                          NA
alpha3
        1.97720250
                          NA
```

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2
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beta1
      -0.89523736 -0.3885873
beta2
      -0.96057306
                   0.9349180
beta3
      -1.88401066
                    1.9946019
beta4 -2.94022374
                    2.9005322
delta
        0.07402136
                    1.2099852
gama
        0.30883304 0.2490336
sigma
        0.56063553
                    1.3088536
lambda
                    2.4246612
        0.13319722
alpha1
        0.62326796
                           NA
alpha2
                           NA
        0.98650434
alpha3
        2.09332922
                           NA
, , 59
                1
                            2
      -1.1413716 -1.16194473
beta1
beta2
        1.0603899 -0.97737069
beta3
        1.9958036 -1.91608910
        3.0480601 -2.83219736
beta4
delta
        1.2697875 0.08597507
gama
        0.2929052 0.30889655
sigma
        1.3803135
                  0.56239512
lambda
        2.3462131 0.15469134
alpha1 -0.5620560
                           NA
alpha2 -1.1240747
                           NA
alpha3 -2.1813041
                           NA
, , 60
                1
                           2
      -0.9322582 -1.1134110
beta1
beta2 -1.0708614
                   1.0342282
beta3 -2.0331633
                   2.0489347
beta4 -2.9233997
                   3.0102349
delta
        0.1089898 1.2143456
gama
        0.4228440 0.1693174
sigma
        0.6593351
                   1.2821671
lambda
       0.1676083 2.9511516
alpha1
        0.9055918
                          NA
alpha2
        1.1483097
                          NA
alpha3
        1.9388648
                          NA
```

```
2
                  1
       -0.88056369 -0.9861388
beta1
beta2
       -0.99561378
                     0.9495749
beta3
       -2.00738736
                     1.9458450
beta4
      -2.98724075
                     3.0571357
delta
        0.09596693
                     1.2331107
gama
        0.31316749
                     0.1387175
sigma
        0.56778265
                     1.2881303
lambda
                     3.3108269
        0.17148781
alpha1
        0.60419907
                            NA
        0.82233812
alpha2
                            NA
alpha3
        1.96018948
                            NA
, , 62
                  1
                             2
beta1
       -0.98575789 -0.8419572
                     0.9831038
beta2
       -0.98177927
beta3
       -2.07266576
                    2.0296437
beta4 -3.01192024
                     3.0216056
delta
        0.09279721
                     1.0246977
gama
        0.38364881
                     0.2825709
sigma
        0.62630674
                     1.1543726
lambda
        0.14981938
                     1.9276672
alpha1
        0.47808468
                            NA
        0.66802601
                            NA
alpha2
alpha3
        1.70545805
                            NA
, , 63
                  1
                             2
beta1
       -0.71781642 -0.9917025
beta2
       -0.98195883
                     1.0531770
beta3
       -1.99722825
                     2.1548585
beta4
      -3.12596998
                     2.9432343
delta
        0.09774647
                     1.3701064
                     0.2734604
gama
        0.41978671
sigma
        0.65524124
                     1.4665101
lambda
        0.15086438
                     2.6200351
alpha1
        0.75680703
                            NA
```

```
alpha2
        0.99159021
                           NA
alpha3
        1.86716946
                           NA
, , 64
                1
                           2
beta1
       -0.8881098 -0.7477355
beta2
        0.9443408 -1.0399859
beta3
        2.0294141 -2.1154253
beta4
        3.0477282 -3.0071641
        1.3185216 0.0870288
delta
                  0.2641955
gama
        0.1863658
        1.3873950
                  0.5213152
sigma
lambda
        3.0542472
                  0.1693169
alpha1 -0.5148001
                          NA
alpha2 -0.8033326
                          NA
alpha3 -1.9908742
                          NA
, , 65
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                            2
      -0.51452106 -0.8341368
beta1
beta2 -1.10332591
                   0.9632384
beta3
      -2.08734437
                    2.0811171
beta4 -3.06836204 2.9916763
delta
        0.05764749
                    1.2665947
                    0.3270189
gama
        0.35847386
sigma
        0.60149571
                    1.3897054
lambda
                    2.2148852
        0.09628345
alpha1
        0.71791774
                           NA
alpha2
        0.82564127
                           NA
alpha3
        2.03469242
                           NA
, , 66
                            2
                 1
beta1
      -1.16438296 -0.9429662
beta2
      -0.97026334 0.9996995
beta3 -1.99901791 2.0421380
beta4 -2.90159268 2.9859786
delta
        0.09589203
                   1.3454228
```

0.32157017

0.57512212

gama sigma 0.1492749

1.3997991

```
lambda
        0.16910040 3.4822937
alpha1
        0.45793279
                          NA
alpha2
        0.94299982
                          NA
alpha3
        2.29533709
                          NA
, , 67
                 1
                           2
beta1 -0.66744436 -0.9362478
beta2 -1.07488743 0.9747033
beta3
      -1.87841767
                   1.9634125
beta4 -2.92168910 2.9909590
delta
        0.08572462
                   1.3336160
gama
        0.30285708 0.2164659
sigma
        0.55696121
                   1.4124438
lambda 0.15577103
                   2.8663952
alpha1
        0.69946714
                          NA
alpha2
        0.96544311
                          NA
alpha3
        2.21714592
                          NA
, , 68
                          2
                1
beta1 -0.9673739 -0.8673132
beta2 -0.9706403 0.9720342
beta3
      -2.0312016 2.0057892
beta4 -2.9926287 2.9913045
delta
        0.1060881 1.3274878
        0.4325369 0.2142788
gama
sigma
        0.6661768 1.4058815
lambda
       0.1613077 2.8677477
alpha1
        0.7246713
                         NA
alpha2
        0.9616100
                         NA
alpha3
        1.8763567
                         NA
, , 69
                1
                          2
beta1 -1.0176844 -0.9103227
beta2 -1.0220899 0.9425775
beta3 -2.0546012 1.9632344
beta4 -2.9826714 3.0421810
```

0.1174734 1.2850813

delta

```
gama
        0.3935960 0.1899437
                  1.3569737
sigma
        0.6382758
lambda
        0.1872466
                   2.9486158
alpha1
        0.5862907
                          NΑ
alpha2
                          NA
        1.1569805
alpha3
        1.9288809
                          NA
, , 70
                            2
                 1
      -0.53330543 -0.8165292
beta1
beta2
      -1.05661132
                    1.0019468
beta3
      -2.05817942
                    1.9868371
beta4 -3.10707468
                    2.9600533
delta
        0.09171406
                   1.1760794
gama
        0.37331329
                    0.2500448
sigma
        0.61783878
                    1.2779701
lambda
        0.15010639
                    2.3519482
alpha1
        0.74042132
                           NA
alpha2
        1.02345509
                           NA
alpha3
        1.89908815
                           NA
, , 71
                 1
                            2
      -0.74871220 -1.2360148
beta1
beta2
      -0.96571452
                   1.0515550
beta3
      -1.93729582
                    1.9968088
beta4 -3.09048356
                    3.0674806
delta
        0.08257104
                    1.1815989
gama
        0.37153814
                    0.2596717
sigma
        0.61510659
                    1.2867975
                    2.3187706
lambda
        0.13546467
alpha1
        0.69627468
                           NA
alpha2
                           NA
        1.14088024
alpha3
        1.96599657
                           NA
, , 72
                          2
                1
beta1 -1.1218212 -1.052291
beta2 -0.8970309 1.074705
```

beta3 -2.0269990 2.028569

```
beta4 -3.0311459 2.890313
delta
       0.0802842 1.532277
gama
       0.3571410 0.112786
sigma
       0.6029814
                  1.568649
lambda
                  4.562573
       0.1343415
alpha1
       0.7408537
                         NA
alpha2
       1.0401005
                         NA
alpha3
       2.4847901
                         NA
, , 73
                            2
                1
      -1.1570716 -1.57608024
beta1
beta2
      -0.9099784 1.07599726
beta3
      -2.0121515 1.96741454
beta4 -2.9855882 3.09768014
delta
       0.1014876 1.50425442
gama
       0.3326221 0.09575392
sigma
       0.5855953 1.53575235
lambda 0.1759694 4.86119464
alpha1
       0.7218437
alpha2
                          NA
       0.9148805
alpha3
       1.8953679
                          NA
, , 74
                            2
                 1
beta1
      -0.54060054 -1.3182168
beta2
      -1.05732480 0.9920821
beta3
      -1.95723608
                   2.0103807
beta4 -3.06429963 3.1340122
delta
       0.08829928
                   1.3851007
gama
       0.43739342 0.1323789
                   1.4320904
sigma
       0.66722573
lambda
                   3.8069040
       0.13351223
alpha1
       0.82080164
                          NA
alpha2
                          NA
       1.20047869
alpha3
       2.17011828
                          NA
, , 75
                            2
                 1
```

beta1 -0.51271428 -1.0613742

```
beta2 -1.06595523 0.9756608
beta3
                    2.0679739
      -2.06480877
beta4 -3.14636419
                   3.0829830
delta
       0.08072973
                   1.2519797
                   0.2391146
gama
       0.38004104
sigma
       0.62173815
                    1.3440862
lambda
       0.13095384
                   2.5603200
alpha1
       0.90724975
                           NA
alpha2 1.32125139
                          NA
alpha3
       2.56256295
                          NA
, , 76
                            2
                 1
      -0.93566201 -1.0545625
beta1
beta2 -0.99723455
                   0.9830405
beta3
      -2.03642185
                   1.9898286
beta4 -2.95639274
                   3.0898511
delta
       0.09413188
                   1.1892664
gama
       0.31079239
                   0.2888337
       0.56537882
sigma
                   1.3050626
lambda
                   2.2128663
       0.16885018
alpha1
       0.93549986
                          NA
alpha2
       1.40005787
                          NA
alpha3
       2.09943652
                          NA
, , 77
                 1
beta1
      -0.52120134 -0.9910711
beta2
      -1.06907269
                   1.0058739
beta3
      -2.03840738
                   1.9427817
beta4 -3.02362674
                   2.9639248
delta
       0.08932586
                   1.4887224
                   0.1264802
gama
       0.28872462
sigma
       0.54470517
                    1.5306125
lambda 0.16623991
                   4.1860317
alpha1
       0.65390777
                           NA
alpha2
       0.87333993
                          NA
alpha3
       1.97381501
                          NA
```

, , 78

```
2
                1
beta1
      -0.9266324 -0.9208861
beta2
      -1.0001687 0.9741882
beta3
      -2.0144584
                  1.9328426
beta4 -2.9607600 3.0143537
delta
        0.0845412
                  1.2545229
gama
        0.3602743 0.2403149
sigma
        0.6061530 1.3469011
lambda 0.1408484 2.5591056
alpha1
        0.7764748
                          NA
alpha2
        0.9822696
                          NΑ
alpha3
        1.9422666
                          NA
, , 79
                           2
                 1
beta1
      -0.36753587 -1.192840
beta2
      -1.07602532 1.061478
beta3
      -2.19578501 2.013369
beta4 -3.19311860 3.044939
delta
        0.09558293
                   1.325338
        0.29952438 0.281693
gama
sigma
        0.55557221
                   1.427661
lambda 0.17464826
                   2.497116
alpha1
        0.50060696
                          NA
alpha2
        0.83475051
                          NA
alpha3
        2.43075242
                          NA
, , 80
                            2
                 1
      -0.92635526 -1.3007301
beta1
                    1.0273218
beta2 -0.99516541
beta3 -2.00838754
                   1.9692298
beta4 -3.00118307
                    3.0654832
delta
       0.07441426
                   1.3563843
        0.33204166
                   0.1840359
gama
sigma
        0.58101561
                   1.4226082
lambda
       0.12913974
                   3.1617788
alpha1
        0.77854255
                          NA
alpha2
        1.06348036
                          NA
alpha3
        1.97653985
                           NA
```

```
1
                             2
beta1
       -1.04918101 -1.1635757
beta2
       -0.99007899
                     1.0158642
beta3
       -1.93146166
                     2.0112318
beta4
      -2.89932667
                     3.0851113
delta
        0.08903181
                     1.2884953
gama
        0.30787493
                    0.3984111
sigma
        0.56196227
                     1.4347931
                     2.0413483
lambda
        0.16045677
alpha1
        0.80657643
                            NA
alpha2
        0.85166534
                            NA
alpha3
                            NA
        1.92549149
, , 82
                             2
                  1
beta1
       -0.76110067 -1.5063351
beta2
       -1.00305708
                     1.0208056
beta3
       -1.95316698
                     1.8917230
beta4
      -3.01357921
                     3.1582932
delta
        0.09259335
                    1.3914907
gama
        0.34772290
                    0.1449972
sigma
        0.59690571
                     1.4426516
lambda
                     3.6542688
        0.15702295
alpha1
        0.82464100
                            NA
alpha2
        1.02406630
                            NA
alpha3
        2.18880700
                            NA
, , 83
                             2
                  1
beta1
       -0.89219008 -0.8589839
beta2
      -1.07502621
                     1.0277206
beta3
       -1.97931775
                    2.0144416
beta4 -2.87430440
                    2.9148786
delta
        0.09393919
                    1.2868073
        0.31244910
                    0.2455307
gama
sigma
        0.56681008
                     1.3789140
lambda
        0.16805721
                     2.5969320
alpha1
        0.62299292
                            NA
alpha2
        0.79766877
                            NA
```

```
alpha3
        2.34158288
                           NA
, , 84
                             2
                 1
beta1
       -0.96570116 -0.8865476
beta2
       -0.97125304
                    0.9839352
beta3
      -2.06548456
                    2.0286440
beta4 -2.97404243
                    2.9686035
delta
        0.08335867
                    1.3486569
gama
        0.35630264
                    0.1049794
                    1.3870309
sigma
        0.60270333
lambda
        0.13965010
                    4.1624529
alpha1
        0.58698674
                            NA
alpha2
        0.93199420
                            NA
alpha3
        1.85767111
                           NA
, , 85
                             2
                 1
beta1
       -0.98243331 -0.9963440
beta2
      -0.99999374
                    1.0290434
beta3 -2.06373838
                    1.9596965
beta4 -2.96614202 3.0170548
delta
        0.09035087
                    1.1890477
gama
        0.30967788
                    0.1739737
                    1.2600826
sigma
        0.56377403
lambda
        0.16235934
                    2.8507391
alpha1
        0.55181189
                            NA
alpha2
        1.14340747
                           NA
alpha3
        2.33011192
                            NA
, , 86
                            2
                1
beta1
       -1.0352190 -0.8904325
beta2
      -1.0307819
                   0.9825354
beta3
      -1.9171323
                   2.0442499
beta4 -2.8575211 2.9940340
delta
        0.0977797
                   1.3338797
        0.2965250
                   0.1451448
gama
```

sigma

lambda

0.5532503

0.1795635 3.5011920

1.3872202

```
alpha1
        0.6860677
                           NA
alpha2
                           NA
        0.9938255
alpha3
        1.9297663
                           NA
, , 87
                 1
                             2
beta1
       -0.63927322 -0.9400552
beta2
      -0.98307049
                    1.0550273
beta3
       -1.98466474
                    1.9784912
beta4
      -3.09191479
                    2.9676025
delta
        0.05149768
                    1.0754677
gama
        0.40123339
                    0.4165888
sigma
        0.63551979
                    1.2542805
lambda
        0.08129973
                    1.6662632
        0.61883985
alpha1
                            NA
alpha2
        0.91003011
                            NA
alpha3
        1.79253080
                            NA
, , 88
                             2
                 1
beta1
       -0.71216780 -0.8856399
beta2
      -1.04489775
                    0.9370803
beta3
      -2.06634590
                    1.9733626
beta4 -3.02194006
                    3.0408836
delta
        0.09065193
                    1.2621457
gama
        0.30863709
                    0.1566405
                    1.3227442
sigma
        0.56289863
lambda
        0.16317477
                    3.1890215
alpha1
        0.51272034
                            NA
alpha2
        0.68714432
                            NA
alpha3
        1.78692981
                            NA
, , 89
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                 1
beta1 -1.51767442 -0.8039385
beta2 -0.94846359
                    1.0169646
                    1.9411738
beta3
      -1.92732119
beta4 -2.70536902
                    2.9600069
delta
        0.09421869
                    1.1652627
```

gama

0.38079080

0.2795437

```
sigma
        0.62423390 1.2796019
lambda
                    2.2039360
        0.15268411
alpha1
        0.62327642
                          NA
alpha2
                          NA
        0.86777894
alpha3
        1.72581915
                           NA
, , 90
                            2
                 1
beta1 -1.07440022 -0.8018414
beta2 -0.94441417 0.9215729
beta3 -1.92447419
                   1.9946791
beta4 -2.95316175 3.0049347
delta
        0.09945946
                   1.3511572
gama
        0.27101874 0.1342924
sigma
        0.53001030
                   1.3999708
lambda
        0.19104973
                   3.6870594
alpha1
        0.65165446
                          NA
alpha2
        1.03914912
                          NA
alpha3
       2.08685918
                          NA
, , 91
                1
                            2
beta1 -0.9652372 -0.71244061
beta2
        1.0393183 -1.00392735
beta3
        1.9899727 -1.99198714
beta4
        2.9245585 -3.00611858
delta
        1.2455886 0.08187155
gama
        0.1404023 0.27719690
sigma
        1.3007279 0.53282253
lambda
        3.3242022 0.15550302
alpha1 -0.4884438
                          NA
alpha2 -0.9570936
                          NA
alpha3 -2.1820491
                          NA
, , 92
                            2
                 1
beta1 -0.63583711 -1.2329390
beta2 -0.98446282 1.1007313
beta3 -2.01080316
                   1.9998728
```

beta4 -3.13568836 2.9285117

```
delta
        0.09137195 1.4034208
        0.38137753 0.2164288
gama
sigma
        0.62428067
                    1.4785191
lambda
                   3.0166876
        0.14795694
alpha1
        0.78873387
                          NA
alpha2
        1.15034428
                          NA
alpha3
        2.16705813
                           NA
, , 93
                            2
                 1
beta1
      -1.04409673 -0.7071887
                   0.9753460
beta2
      -0.96675681
beta3
      -1.99945932
                   1.9847005
beta4 -2.93258949
                   2.9379973
delta
        0.09351716 1.2525039
gama
        0.35261954 0.2310566
sigma
        0.60113642
                   1.3415747
lambda 0.15748461
                   2.6056730
alpha1
        0.81709319
                          NA
alpha2
        1.07038000
                          NA
alpha3
       2.09785622
                          NA
, , 94
                            2
                 1
beta1
      -0.75790193 -1.1964614
beta2
      -1.00725984
                   1.0103039
beta3
      -1.97838200 2.0119276
beta4 -3.01535068 3.0500461
delta
        0.08705527
                   1.3243330
gama
        0.33564618 0.2309592
sigma
        0.58585391
                   1.4088353
lambda 0.15026375
                   2.7556851
alpha1
        0.48916060
                          NA
alpha2
        1.01708907
                          NA
alpha3
                          NA
        2.32784994
, , 95
                            2
                1
beta1 -1.1611205 -0.95840988
beta2
        0.9720492 -1.00047670
```

```
beta3
       2.0492021 -1.97004643
beta4
       3.0771447 -2.96442878
delta
       1.3630776 0.09353735
gama
       0.2117394 0.36731288
sigma
       1.4386522 0.61323904
lambda 2.9622369 0.15433590
alpha1 -0.5226308
alpha2 -1.0014812
                          NA
alpha3 -2.0667878
                          NA
, , 96
                           2
                 1
beta1
      -0.55691471 -1.1213235
beta2
      -1.01527122 0.9687891
beta3
      -2.07010730 2.0169476
beta4 -3.14679530 3.0511866
delta
       0.09601458 1.3897866
gama
       0.29280461 0.1836623
sigma
       0.54956656
                   1.4543621
                   3.2429344
lambda
       0.17743866
alpha1
       0.79594120
                          NA
alpha2
       0.96412324
                          NA
alpha3
       1.64244649
                          NA
, , 97
                           2
                 1
beta1
      -0.77637428 -1.160107
beta2 -0.99788885
                   1.053932
beta3
      -1.98635098
                   1.965064
beta4 -3.01857534 2.997897
delta
       0.08193089
                   1.522039
gama
       0.27155094 0.104307
sigma
       0.52750698
                   1.555927
       0.15722515\quad 4.712692
lambda
alpha1
                         NA
       0.77720183
alpha2
       0.86081875
                          NΑ
alpha3
       1.79179738
                         NA
, , 98
```

1 2

```
beta1
      -0.81345765 -0.3369299
beta2 -1.01602923 0.8481532
beta3 -1.92165636
                   1.9154993
beta4 -2.93995582 2.8341833
delta
       0.09776174 1.6286213
gama
       0.36691774 0.1036612
sigma
       0.61357567
                   1.6601411
lambda
       0.16139296 5.0583875
alpha1
       0.70205714
                          NA
alpha2
                          NA
       0.97961801
       2.17358898
                          NA
alpha3
, , 99
                1
beta1 -1.30255254 -1.0108454
beta2 -0.95016231
                  0.9495565
beta3 -1.99912744
                   1.9607418
beta4 -2.86422449
                   3.0326733
delta
       0.09119037
                   1.4150172
gama
       0.36407181 0.1354732
sigma
       0.61023560
                  1.4621036
lambda 0.15113166
                   3.8444566
alpha1
       0.85479817
                          NA
alpha2
       1.16087964
                          NA
alpha3
       2.09554527
                          NA
, , 100
                1
                           2
beta1 -0.56057497 -1.3406010
beta2 -1.06872186 1.0656600
beta3 -2.03566884
                   1.9681089
beta4 -2.99602802 2.9757973
delta
       0.09007396
                   1.4672839
gama
       0.32623558 0.1371133
                   1.5132862
sigma
       0.57822911
lambda 0.15770070
                   3.9625470
alpha1
       0.68158356
                          NA
alpha2
       0.84764445
                          NA
alpha3
       2.07183334
                          NA
```

	=======================================	50%
 	I	100%

Table 1: Resultados para simulações de tamanho 500 SN com censura à esquerda

			n =	100		n = 200							
Parâmetro	Verdadeiro	0%	7.5%	15%	30%	0%	7.5%	15%	30%				
Média α <sub>11</sub>	0.7	0.73	0.73	0.71	0.70	0.71	0.70	0.69	0.70				
Mediana $\alpha_{11}$	0.7	0.73	0.73	0.70	0.70	0.71	0.71	0.68	0.70				
EP $\alpha_{11}$	0.7	0.13	0.14	0.14	0.13	0.08	0.09	0.08	0.09				
Média α <sub>21</sub>	1.0	1.02	1.02	1.00	1.01	1.01	1.01	1.00	1.00				
Mediana $\alpha_{21}$	1.0	1.00	1.02	1.00	1.02	1.02	1.02	1.00	1.01				
EP $\alpha_{21}$	1.0	0.15	0.12	0.14	0.13	0.10	0.09	0.09	0.09				
Média α <sub>31</sub>	2.0	2.04	2.01	2.04	2.04	2.03	1.99	2.02	2.03				
Mediana $\alpha_{31}$	2.0	2.01	2.02	2.02	2.04	2.04	2.00	2.03	2.03				
EP $\alpha_{31}$	2.0	0.22	0.21	0.21	0.23	0.15	0.16	0.17	0.13				
Média $\beta_{11}$	0.0	0.01	-0.82	-0.82	-0.82	0.00	-0.80	-0.83	-0.81				
Mediana $\beta_{11}$	0.0	0.00	-0.81	-0.79	-0.81	-0.01	-0.83	-0.82	-0.81				
EP $\beta_{11}$	0.0	0.14	0.20	0.20	0.23	0.08	0.17	0.13	0.16				
Média $\beta_{12}$	-1.0	-1.02	-0.95	-1.01	-0.99	-0.99	-0.99	-0.99	-0.99				
Mediana $\beta_{12}$	-1.0	-1.00	-0.97	-1.00	-0.99	-1.00	-0.96	-1.00	-0.98				
EP $\beta_{12}$	-1.0	0.24	0.25	0.22	0.24	0.19	0.16	0.16	0.15				
Média β <sub>21</sub>	-1.0	-1.00	-1.00	-1.00	-1.01	-1.00	-1.00	-1.00	-1.00				
Mediana $\beta_{21}$	-1.0	-1.00	-1.00	-1.01	-1.00	-1.00	-1.00	-1.00	-1.01				
EP $\beta_{21}$	-1.0	0.03	0.03	0.04	0.05	0.02	0.02	0.03	0.03				
Média $\beta_{22}$	1.0	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00				
Mediana β <sub>22</sub>	1.0	1.00	1.00	1.00	1.00	1.00	0.99	1.00	1.01				
EP $\beta_{22}$	1.0	0.05	0.04	0.05	0.05	0.03	0.03	0.03	0.03				
Média β <sub>31</sub>	-2.0	-2.00	-2.00	-2.00	-2.01	-2.00	-2.00	-2.00	-2.00				
Mediana $\beta_{31}$	-2.0	-2.01	-2.00	-2.00	-2.01	-2.00	-2.00	-2.00	-2.00				
EP β <sub>31</sub>	-2.0	0.03	0.03	0.05	0.06	0.02	0.03	0.03	0.05				
Média β <sub>32</sub>	2.0	2.01	2.00	2.00	2.00	2.00	2.00	2.00	1.99				
Mediana $\beta_{32}$	2.0	2.01	2.00	1.99	2.00	2.00	2.00	2.00	1.99				
EP $\beta_{32}$	2.0	0.05	0.04	0.05	0.05	0.03	0.03	0.03	0.03				
Média $\beta_{41}$	-3.0	-3.00	-3.00	-3.01	-3.00	-3.00	-3.00	-3.00	-3.01				
Mediana $\beta_{41}$	-3.0	-3.00	-3.00	-3.01	-3.01	-3.00	-3.00	-3.00	-3.01				
EP $\beta_{41}$	-3.0	0.04	0.05	0.06	0.08	0.02	0.03	0.04	0.06				
Média $\beta_{42}$	3.0	3.01	3.00	3.01	3.00	3.00	3.00	3.00	3.00				
Mediana $\beta_{42}$	3.0	3.01	3.00	3.00	3.00	3.00	3.01	3.00	3.00				
EP $\beta_{42}$	3.0	0.06	0.06	0.06	0.07	0.04	0.04	0.04	0.05				
Média λ <sub>1</sub>	-5.0	-6.08	-0.04	0.11	0.15	-5.05	-0.04	0.10	0.12				
Mediana $\lambda_1$	-5.0	-5.34	0.09	0.11	0.16	-4.98	0.09	0.11	0.12				
EP $\lambda_1$	-5.0	2.89	0.94	0.03	0.02	0.75	0.98	0.01	0.01				
Média λ <sub>2</sub>	3.0	3.27	3.19	3.32	3.14	3.09	2.99	3.10	3.06				
Mediana $\lambda_2$	3.0	3.19	3.08	3.02	3.10	3.01	2.95	3.02	2.93				
EP $\lambda_2$	3.0	0.79	1.08	1.19	0.76	0.54	0.51	0.58	0.53				
Média $\sigma_1$	1.0	1.00	0.62	0.61	0.59	1.00	0.62	0.61	0.59				
Mediana $\sigma_1$	1.0	1.00	0.61	0.61	0.59	1.00	0.61	0.60	0.59				
EP $\sigma_1$	1.0	0.06	0.07	0.03	0.04	0.04	0.07	0.02	0.03				
Média σ <sub>2</sub>	1.4	1.41	1.38	1.40	1.40	1.41	1.40	1.41	1.41				
Mediana $\sigma_2$	1.4	1.41	1.39	1.39	1.39	1.42	1.41	1.41	1.41				
EP $\sigma_2$	1.4	0.10	0.12	0.10	0.10	0.07	0.08	0.07	0.06				

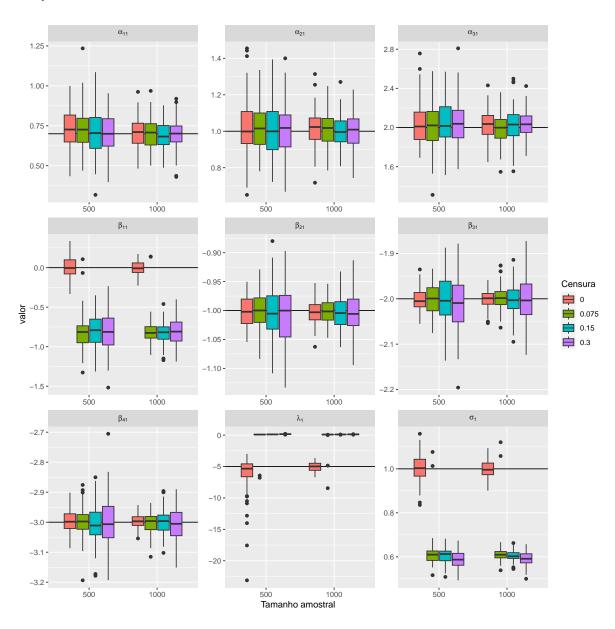
Table 2: Resultados para simulações de tamanho 500 SN com censura intervalar

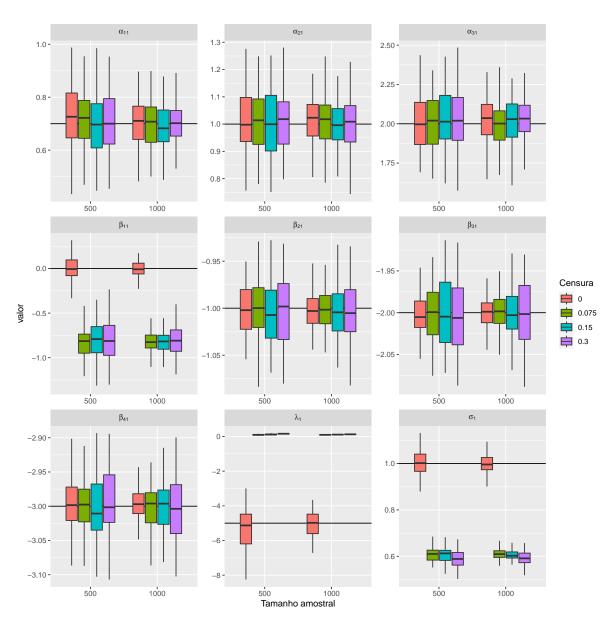
	Verdadeiro		n =	100			n = 200				n =	500		n = 1000				
Parâmetro		0%	7.5%	15%	30%	0%	7.5%	15%	30%	0%	7.5%	15%	30%	0%	7.5%	15%	30%	
Média $\alpha_{11}$	0.7	0.72	0.73	0.70	0.74	0.71	0.71	0.71	0.71	0.70	0.70	0.70	0.70	0.70	0.69	0.70	0.70	
Mediana $\alpha_{11}$	0.7	0.71	0.73	0.71	0.71	0.69	0.71	0.70	0.71	0.71	0.70	0.70	0.70	0.71	0.70	0.70	0.70	
EP α <sub>11</sub>	0.7	0.30	0.32	0.30	0.34	0.21	0.21	0.22	0.22	0.13	0.13	0.13	0.12	0.09	0.09	0.10	0.09	
Média α <sub>21</sub>	1.0	1.04	1.05	1.01	1.05	1.01	1.01	1.01	1.02	1.02	1.00	1.00	1.01	1.00	1.00	1.01	1.00	
Mediana α <sub>21</sub>	1.0	1.03	1.02	0.99	1.03	1.01	1.00	1.00	1.02	1.02	1.00	1.01	1.00	1.00	1.00	1.01	0.99	
EP α <sub>21</sub>	1.0	0.35	0.33	0.30	0.34	0.23	0.22	0.21	0.22	0.14	0.14	0.14	0.13	0.10	0.10	0.11	0.10	
Média α <sub>31</sub>	2.0	2.09	2.08	2.04	2.08	2.05	2.06	2.03	2.04	2.02	2.00	1.99	1.99	2.01	1.99	2.00	2.00	
Mediana α <sub>31</sub>	2.0	2.07	2.04	1.97	2.05	2.03	2.04	2.01	2.01	2.01	2.01	1.99	1.97	2.01	2.00	2.00	2.00	
EP α <sub>31</sub>	2.0	0.55	0.52	0.50	0.50	0.35	0.35	0.37	0.35	0.22	0.21	0.21	0.22	0.15	0.15	0.16	0.15	
Média $\beta_{11}$	0.0	-0.41	-0.44	-0.41	-0.40	-0.42	-0.44	-0.41	-0.44	-0.44	-0.46	-0.45	-0.45	-0.46	-0.46	-0.46	-0.45	
Mediana $\beta_{11}$	0.0	-0.46	-0.44	-0.43	-0.42	-0.44	-0.45	-0.43	-0.45	-0.45	-0.48	-0.46	-0.46	-0.47	-0.47	-0.48	-0.45	
EP β <sub>11</sub>	0.0	0.61	0.60	0.62	0.62	0.44	0.40	0.43	0.43	0.28	0.27	0.27	0.26	0.17	0.19	0.18	0.17	
Média $\beta_{12}$	-1.0	-0.56	-0.52	-0.53	-0.55	-0.60	-0.59	-0.64	-0.61	-0.69	-0.68	-0.69	-0.64	-0.75	-0.75	-0.72	-0.70	
Mediana $\beta_{12}$	-1.0	-0.58	-0.54	-0.57	-0.62	-0.63	-0.63	-0.65	-0.65	-0.74	-0.70	-0.76	-0.68	-0.81	-0.82	-0.80	-0.77	
EP $\beta_{12}$	-1.0	0.72	0.71	0.72	0.68	0.53	0.54	0.55	0.51	0.37	0.38	0.38	0.38	0.29	0.29	0.31	0.31	
Média $\beta_{21}$	-1.0	-1.00	-1.00	-0.99	-1.01	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	
Mediana $\beta_{21}$ Mediana $\beta_{21}$	-1.0	-1.00	-1.00	-0.99	-1.01	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	
EP $\beta_{21}$	-1.0	0.11	0.11	0.10	0.10	0.07	0.07	0.08	0.07	0.04	0.04	0.05	0.05	0.03	0.03	0.03	0.03	
	1.0	0.11	1.00	1.00	1.00	1.00	1.00		1.01	1.00	1.00	1.00		1.00	1.00		1.00	
Média β <sub>22</sub>	1.0	0.99	1.00	1.00	1.00	1.00	0.99	1.01 1.01	1.01	1.00	1.00	1.00	1.00 1.00	1.00	1.00	1.00 1.00	1.00	
Mediana $\beta_{22}$																		
EP $\beta_{22}$	1.0	0.12	0.13	0.12	0.12	0.08	0.08	0.08	0.08	0.05	0.05	0.05	0.05	0.03	0.03	0.03	0.03	
Média β <sub>31</sub>	-2.0	-2.01	-2.00	-2.01	-1.99	-2.01	-2.00	-1.99	-2.00	-2.00	-2.00	-2.00	-2.00	-2.00	-2.00	-2.00	-2.00	
Mediana $\beta_{31}$	-2.0	-2.01	-2.00	-2.00	-2.00	-2.01	-2.00	-1.99	-2.00	-2.00	-2.00	-2.00	-2.00	-2.00	-2.00	-2.00	-2.00	
EP $\beta_{31}$	-2.0	0.10	0.10	0.11	0.10	0.07	0.07	0.07	0.07	0.04	0.05	0.05	0.04	0.03	0.03	0.03	0.03	
Média $\beta_{32}$	2.0	2.00	2.00	2.00	1.99	1.99	2.01	2.00	1.99	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	
Mediana $\beta_{32}$	2.0	2.00	2.00	2.00	1.99	2.00	2.01	2.00	1.99	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	
EP $\beta_{32}$	2.0	0.13	0.12	0.13	0.12	0.08	0.08	0.08	0.08	0.05	0.05	0.05	0.05	0.03	0.03	0.03	0.04	
Média $\beta_{41}$	-3.0	-3.00	-3.00	-3.01	-3.01	-3.00	-3.00	-3.00	-3.00	-3.00	-3.00	-3.00	-3.00	-3.00	-3.00	-3.00	-3.00	
Mediana $\beta_{41}$	-3.0	-3.00	-3.00	-3.01	-3.00	-3.00	-2.99	-3.01	-3.00	-3.00	-3.00	-3.00	-3.00	-3.00	-3.00	-3.00	-3.00	
EP $\beta_{41}$	-3.0	0.15	0.13	0.14	0.13	0.10	0.10	0.09	0.10	0.06	0.06	0.06	0.06	0.04	0.04	0.04	0.04	
Média $\beta_{42}$	3.0	3.00	3.00	3.00	3.01	2.99	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	
Mediana $\beta_{42}$	3.0	3.01	3.00	3.01	3.01	2.99	3.00	3.00	3.00	3.00	2.99	3.00	3.00	3.00	3.00	3.00	3.00	
EP $\beta_{42}$	3.0	0.15	0.16	0.16	0.15	0.11	0.11	0.11	0.10	0.06	0.07	0.07	0.07	0.05	0.05	0.05	0.04	
Média $\lambda_1$	-1.0	-0.44	-0.39	-0.64	-0.52	-0.30	-0.23	-0.32	-0.24	-0.20	-0.20	-0.19	-0.16	-0.18	-0.19	-0.16	-0.17	
Mediana $\lambda_1$	-1.0	-0.11	-0.09	-0.13	-0.11	-0.14	-0.14	-0.13	-0.10	-0.14	-0.13	-0.13	-0.12	-0.16	-0.15	-0.14	-0.15	
EP $\lambda_1$	-1.0	1.51	1.53	3.51	2.34	0.83	0.54	0.68	0.66	0.34	0.35	0.30	0.27	0.19	0.24	0.16	0.18	
Média $\lambda_2$	3.0	4.03	3.38	3.66	2.79	1.96	2.00	1.98	1.81	1.88	1.81	1.87	1.66	1.93	1.91	1.81	1.76	
Mediana $\lambda_2$	3.0	1.83	0.61	0.63	0.70	1.93	1.94	1.92	1.66	2.19	2.08	2.16	1.95	2.18	2.14	2.11	2.04	
EP $\lambda_2$	3.0	7.13	6.43	6.63	4.74	1.90	1.90	1.84	1.59	1.08	1.04	1.03	1.04	0.80	0.81	0.84	0.84	
Média $\sigma_1$	1.0	0.87	0.88	0.88	0.86	0.86	0.85	0.86	0.84	0.84	0.84	0.84	0.83	0.84	0.84	0.83	0.83	
Mediana $\sigma_1$	1.0	0.83	0.83	0.83	0.81	0.84	0.83	0.83	0.83	0.83	0.83	0.83	0.82	0.83	0.83	0.83	0.83	
EP $\sigma_1$	1.0	0.16	0.17	0.19	0.17	0.12	0.10	0.12	0.11	0.07	0.07	0.06	0.06	0.04	0.05	0.04	0.04	
Média $\sigma_2$	1.4	1.15	1.11	1.12	1.10	1.17	1.17	1.16	1.14	1.21	1.21	1.21	1.17	1.25	1.24	1.22	1.21	
Mediana $\sigma_2$	1.4	1.14	1.05	1.04	1.04	1.19	1.18	1.17	1.13	1.27	1.26	1.27	1.23	1.30	1.30	1.29	1.27	
EP $\sigma_2$	1.4	0.28	0.29	0.29	0.28	0.24	0.24	0.25	0.24	0.19	0.20	0.19	0.20	0.15	0.15	0.16	0.17	

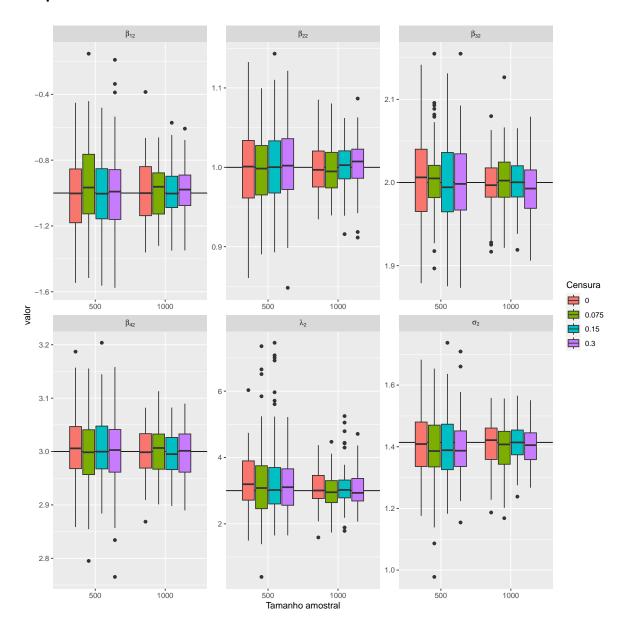
Table 3: Resultados para simulações de tamanho 500 ST com censura à esquerda

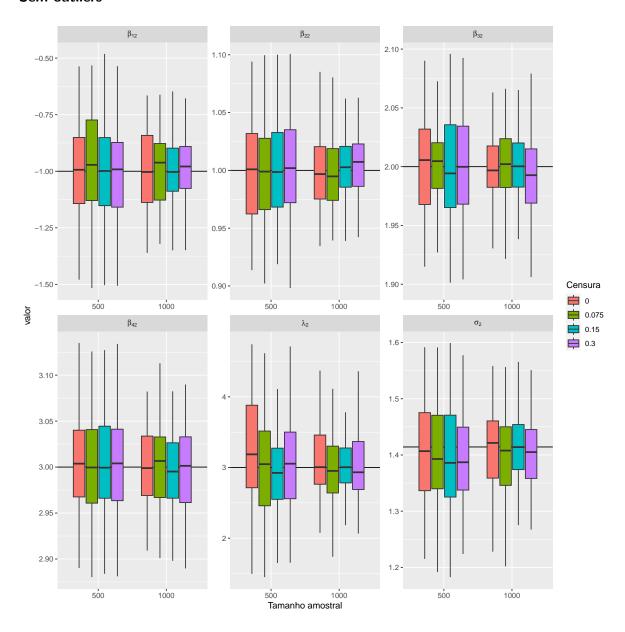
			n =	100			n =	200			n =	500		n = 1000				
Parâmetro	Verdadeiro	0%	7.5%	15%	30%	0%	7.5%	15%	30%	0%	7.5%	15%	30%	0%	7.5%	15%	30%	
Média $\alpha_{11}$	0.7	0.74	0.74	0.73	0.73	0.70	0.70	0.70	0.70	0.71	0.71	0.71	0.71	0.70	0.70	0.71	0.70	
Mediana $\alpha_{11}$	0.7	0.71	0.71	0.71	0.71	0.69	0.69	0.69	0.69	0.71	0.71	0.71	0.71	0.70	0.70	0.70	0.70	
EP $\alpha_{11}$	0.7	0.32	0.32	0.32	0.32	0.22	0.22	0.22	0.22	0.13	0.13	0.13	0.13	0.09	0.09	0.09	0.09	
Média α <sub>21</sub>	1.0	1.06	1.06	1.06	1.06	1.01	1.01	1.01	1.01	1.02	1.02	1.01	1.01	1.01	1.01	1.01	1.01	
Mediana α <sub>21</sub>	1.0	1.05	1.05	1.05	1.05	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.01	1.00	1.00	1.00	
EP $\alpha_{21}$	1.0	0.34	0.34	0.34	0.34	0.24	0.24	0.24	0.24	0.14	0.14	0.14	0.14	0.10	0.10	0.10	0.10	
Média α31	2.0	2.12	2.12	2.12	2.12	2.04	2.04	2.04	2.04	2.02	2.02	2.02	2.03	2.01	2.00	2.00	2.00	
Mediana $\alpha_{31}$	2.0	2.04	2.04	2.04	2.04	2.02	2.02	2.02	2.02	2.02	2.02	2.02	2.02	2.00	2.00	2.00	2.00	
EP $\alpha_{31}$	2.0	0.55	0.55	0.55	0.55	0.35	0.35	0.35	0.35	0.22	0.22	0.22	0.22	0.15	0.15	0.15	0.15	
Média $\beta_{11}$	0.0	-0.05	-0.03	-0.30	-1.38	0.02	0.01	-0.22	-1.38	0.07	0.09	-0.21	-1.37	0.08	0.11	-0.20	-1.39	
Mediana $\beta_{11}$	0.0	0.01	0.03	-0.31	-1.30	0.00	0.00	-0.25	-1.36	0.06	0.14	-0.24	-1.36	0.08	0.16	-0.25	-1.38	
EP $\beta_{11}$	0.0	0.78	0.95	1.11	1.22	0.53	0.65	0.83	0.81	0.31	0.41	0.64	0.47	0.23	0.33	0.55	0.34	
Média $\beta_{12}$	-1.0	-0.91	-0.91	-0.90	-0.92	-0.99	-0.99	-0.99	-1.00	-1.08	-1.08	-1.08	-1.08	-1.10	-1.11	-1.11	-1.10	
Mediana $\beta_{12}$	-1.0	-0.96	-0.96	-0.96	-0.96	-1.00	-1.01	-1.01	-1.02	-1.07	-1.08	-1.08	-1.08	-1.12	-1.12	-1.12	-1.12	
EP $\beta_{12}$	-1.0	0.73	0.72	0.73	0.72	0.44	0.44	0.45	0.44	0.28	0.29	0.29	0.28	0.20	0.20	0.21	0.20	
Média $\beta_{21}$	-1.0	-1.00	-1.02	-1.01	-0.98	-1.00	-1.01	-1.02	-0.98	-1.00	-1.01	-1.02	-0.99	-1.00	-1.01	-1.03	-0.98	
Mediana $\beta_{21}$	-1.0	-1.00	-1.01	-1.01	-0.98	-1.00	-1.01	-1.03	-0.99	-1.00	-1.01	-1.02	-0.98	-1.00	-1.02	-1.02	-0.99	
EP $\beta_{21}$	-1.0	0.13	0.14	0.16	0.22	0.09	0.10	0.11	0.15	0.05	0.06	0.06	0.09	0.04	0.04	0.05	0.06	
Média β <sub>22</sub>	1.0	1.00	1.00	1.00	1.00 1.01	1.00 0.99	1.00	1.00	1.00 0.99	1.00 1.00	1.00	1.00	1.00	1.00 1.00	1.00	1.00	1.00	
Mediana β <sub>22</sub>	1.0 1.0	1.00 0.15	1.00 0.15	1.01 0.15	0.15	0.99	0.99 $0.09$	0.99 $0.09$	0.99	0.06	1.00 0.06	1.00 0.06	1.00 0.06	0.04	0.04	$\frac{1.00}{0.04}$	1.00	
EP β <sub>22</sub>	-2.0	-2.00	-2.03	-2.03	-1.94	-2.00	-2.02	-2.04	-1.96	-2.00	-2.03	-2.05	-1.96	-2.00	-2.03	-2.06	0.04 -1.97	
Média $\beta_{31}$ Mediana $\beta_{31}$	-2.0 -2.0	-2.00	-2.03	-2.03	-1.94	-2.00	-2.02	-2.04	-1.96	-2.00	-2.03	-2.05 -2.05	-1.96	-2.00	-2.03	-2.06	-1.97	
EP $\beta_{31}$	-2.0	0.13	0.15	0.18	0.28	0.10	0.10	0.12	0.17	0.05	0.06	0.07	0.11	0.04	0.04	0.06	0.08	
Média $\beta_{32}$	2.0	1.99	1.99	1.99	1.99	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	
Mediana $\beta_{32}$	2.0	1.99	1.99	1.99	1.99	2.00	2.00	2.00	2.01	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	
EP $\beta_{32}$	2.0	0.14	0.14	0.14	0.14	0.10	0.10	0.10	0.10	0.06	0.06	0.06	0.06	0.04	0.04	0.04	0.04	
Média $\beta_{41}$	-3.0	-3.00	-3.04	-3.04	-2.90	-3.00	-3.03	-3.06	-2.93	-3.00	-3.04	-3.07	-2.94	-3.00	-3.04	-3.08	-2.94	
Mediana $\beta_{41}$	-3.0	-3.00	-3.03	-3.03	-2.91	-2.99	-3.02	-3.05	-2.92	-3.00	-3.04	-3.07	-2.94	-3.00	-3.04	-3.09	-2.94	
EP β <sub>41</sub>	-3.0	0.18	0.21	0.24	0.40	0.12	0.13	0.16	0.26	0.07	0.08	0.10	0.16	0.05	0.06	0.07	0.11	
Média $\beta_{42}$	3.0	3.00	3.01	3.00	3.00	2.99	2.99	2.99	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	
Mediana $\beta_{42}$	3.0	3.00	3.00	3.00	3.00	3.00	3.01	3.00	3.00	3.01	3.01	3.01	3.01	3.00	3.00	3.00	3.00	
EP $\beta_{42}$	3.0	0.18	0.19	0.19	0.18	0.12	0.12	0.12	0.13	0.07	0.07	0.07	0.07	0.05	0.05	0.05	0.05	
Média $\lambda_1$	-1.0	-1.51	-1.50	-1.08	0.88	-1.42	-1.16	-0.68	0.71	-1.25	-1.06	-0.48	0.67	-1.26	-1.05	-0.40	0.68	
Mediana $\lambda_1$	-1.0	-1.16	-1.17	-0.15	0.59	-1.26	-1.21	-0.20	0.63	-1.22	-1.12	-0.18	0.63	-1.24	-1.13	-0.20	0.66	
EP $\lambda_1$	-1.0	2.10	3.00	4.07	1.64	2.17	1.00	1.26	0.51	0.49	0.64	0.85	0.24	0.40	0.52	0.70	0.17	
Média $\lambda_2$	3.0	6.27	6.16	6.55	6.47	4.28	4.16	4.13	4.25	3.83	3.84	3.84	3.90	3.82	3.83	3.84	3.84	
Mediana $\lambda_2$	3.0	3.36	3.19	3.26	3.37	3.56	3.44	3.43	3.48	3.50	3.53	3.52	3.57	3.70	3.71	3.68	3.76	
EP $\lambda_2$	3.0	7.47	10.19	11.18	8.28	3.56	3.31	3.46	3.31	1.66	1.73	1.79	1.69	1.04	1.07	1.20	1.00	
Média $\nu_1$	3.0	5.47	7.87	10.51	16.28	3.79	5.49	8.21	15.11	3.29	4.44	6.31	14.05	3.25	4.14	5.54	12.88	
Mediana $\nu_1$	3.0	3.35	4.95	7.42	20.00	3.19	4.46	5.86	19.68	3.13	4.27	5.56	13.47	3.20	4.06	5.39	11.58	
EP $\nu_1$	3.0	5.45	6.25	6.95	5.85	2.61	3.94	5.37	5.68	0.78	1.58	2.91	5.11	0.56	0.69	1.43	4.31	
Média ν <sub>2</sub>	3.0	5.32	5.21	5.26	5.33	4.11	4.07	4.08	4.10	3.81	3.88	3.97	3.71	3.91	4.06	4.16	3.80	
Mediana $\nu_2$ EP $\nu_2$	3.0 3.0	$\frac{3.56}{4.98}$	$\frac{3.60}{4.72}$	$\frac{3.65}{4.77}$	$\frac{3.58}{4.93}$	$\frac{3.67}{2.30}$	$\frac{3.71}{2.05}$	3.73 $2.01$	$\frac{3.65}{2.39}$	3.70 1.03	3.79 $1.21$	3.81 $1.64$	3.66 $0.73$	3.78 $1.12$	3.88 1.35	$\frac{3.90}{1.74}$	3.74 $0.90$	
Média $\sigma_1$	1.0	1.07	1.22	1.25	1.18	1.07	1.18	1.23	1.19	1.03	1.17	1.18	1.22	1.12	1.35	1.74	1.23	
Mediana $\sigma_1$	1.0	1.07	1.18	1.16	1.18	1.07	1.18	1.23	1.19	1.06	1.17	1.18	1.22	1.08	1.16	1.10	1.23	
EP $\sigma_1$	1.0	0.30	0.30	0.36	0.29	0.26	0.22	0.28	0.18	0.15	0.16	0.20	0.11	0.14	0.13	0.17	0.08	
Média $\sigma_2$	1.4	1.45	1.46	1.46	1.46	1.54	1.55	1.55	1.53	1.61	1.64	1.64	1.61	1.65	1.68	1.69	1.64	
Mediana $\sigma_2$	1.4	1.42	1.44	1.44	1.45	1.54	1.52	1.52	1.51	1.60	1.61	1.62	1.59	1.64	1.67	1.67	1.64	
EP $\sigma_2$	1.4	0.41	0.41	0.41	0.42	0.30	0.32	0.32	0.30	0.24	0.25	0.27	0.23	0.17	0.18	0.22	0.16	
21 02	1.4	0.41	0.41	0.41	0.42	0.00	0.02	0.02	0.50	0.24	0.20	0.27	0.23	0.17	0.10	0.22	0.10	

#### Censura à Esquerda

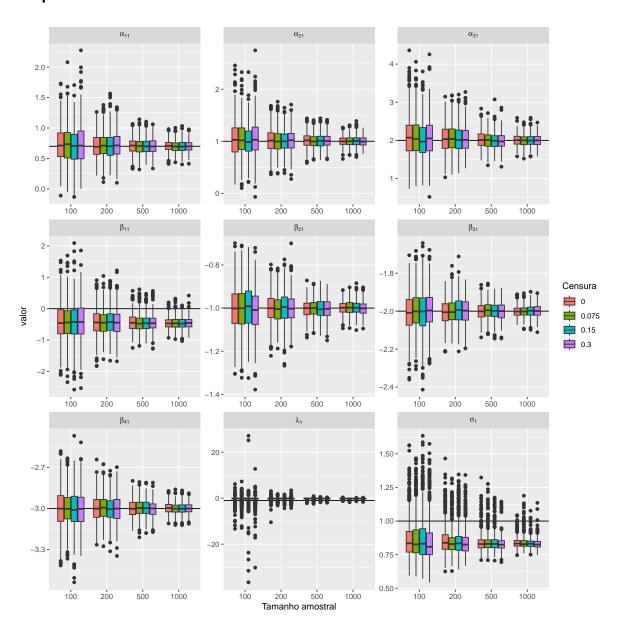


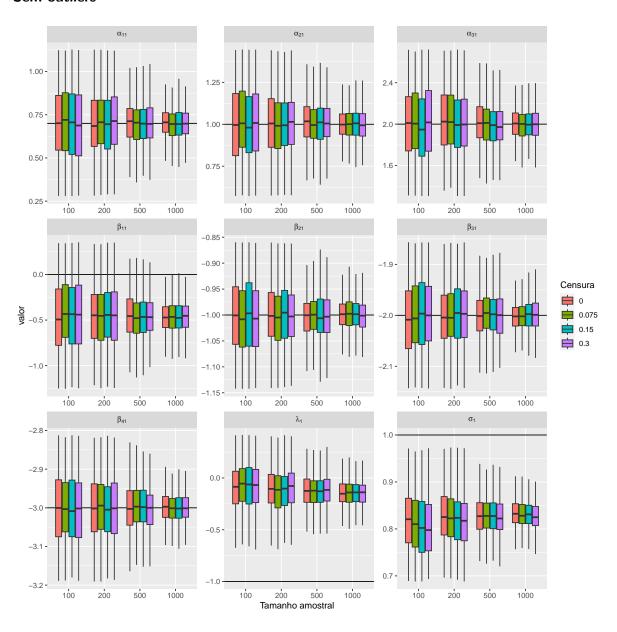


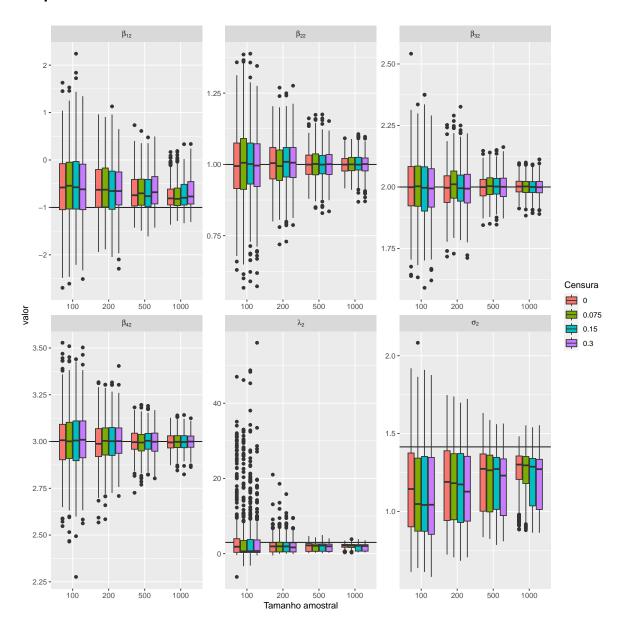


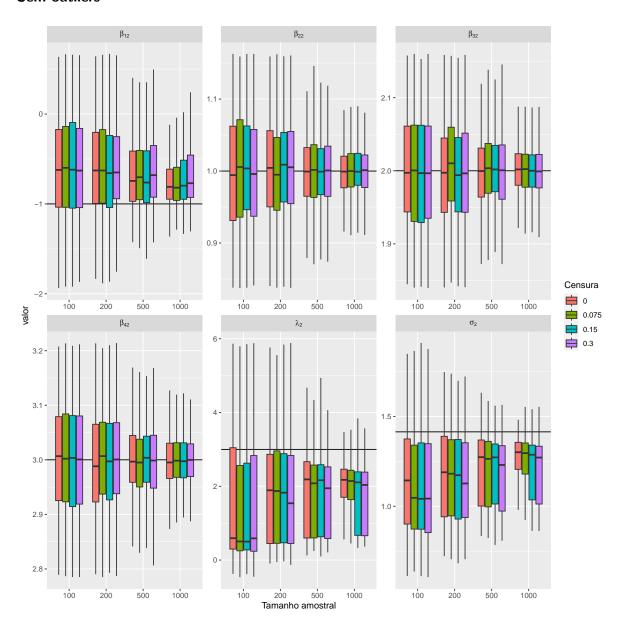


#### Censura Intervalar



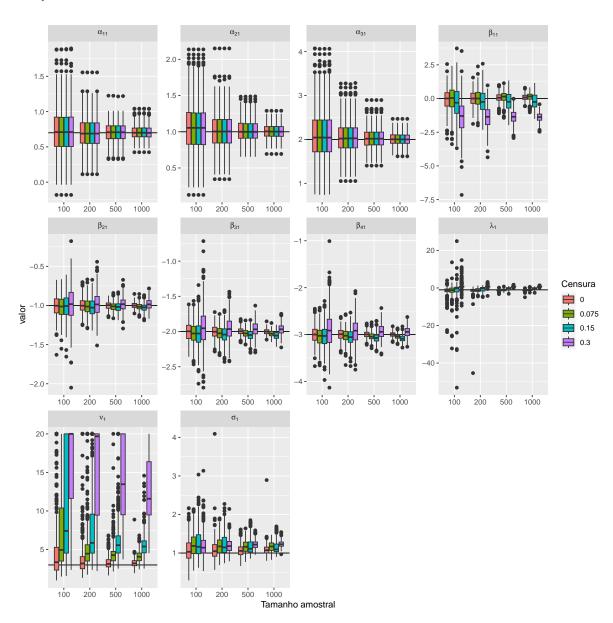


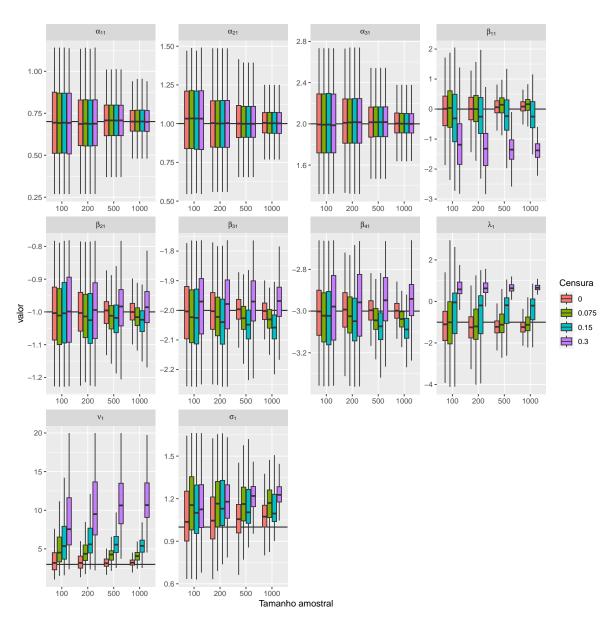


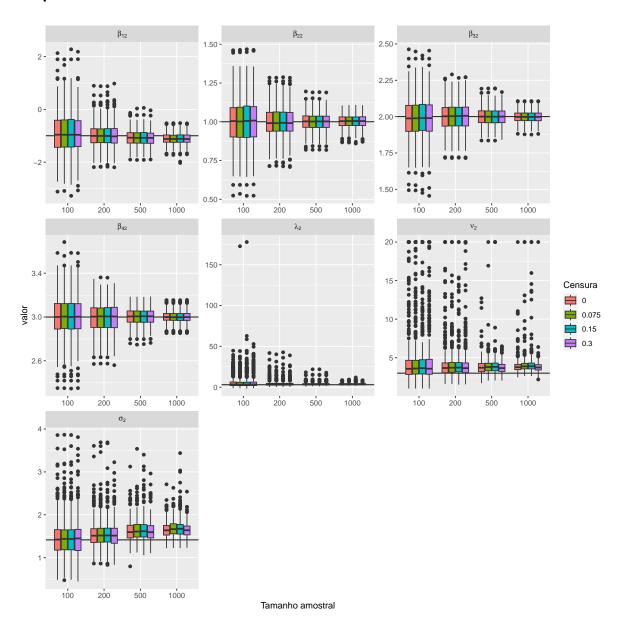


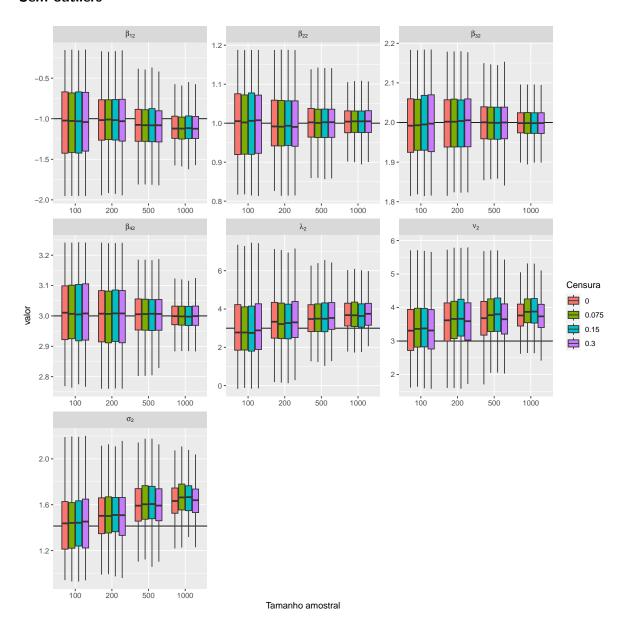
## Skew-T

#### Censura à Esquerda

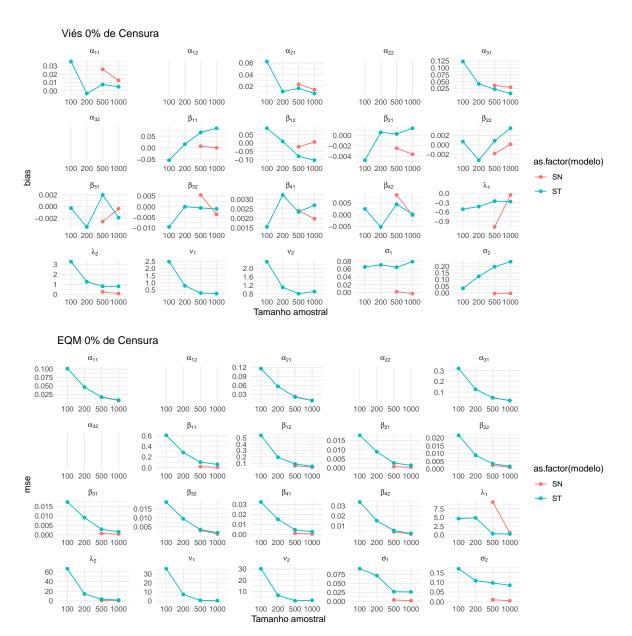


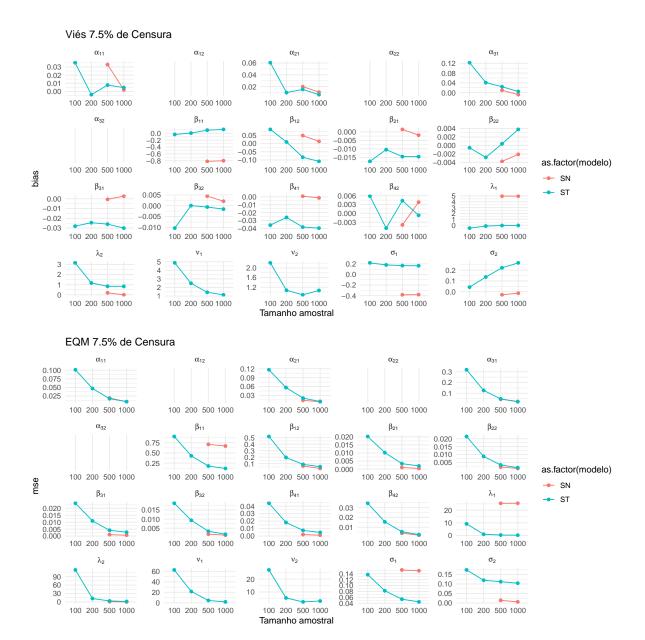


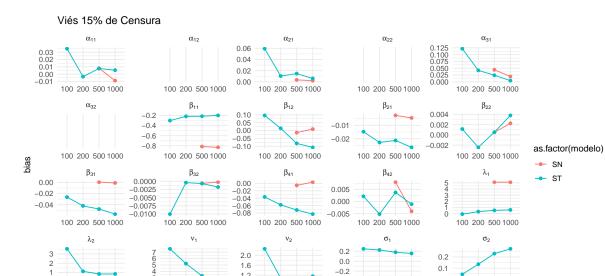




#### Bias x MSE







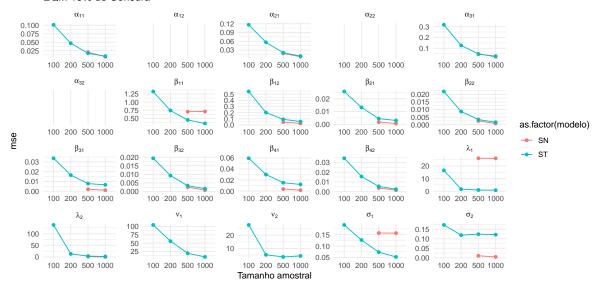
100 200 500 1000

Tamanho amostral

#### EQM 15% de Censura

100 200 500 1000

100 200 500 1000



-0.4

100 200 500 1000

0.0

100 200 500 1000

