

MCMC Diagnostics - IFLS data

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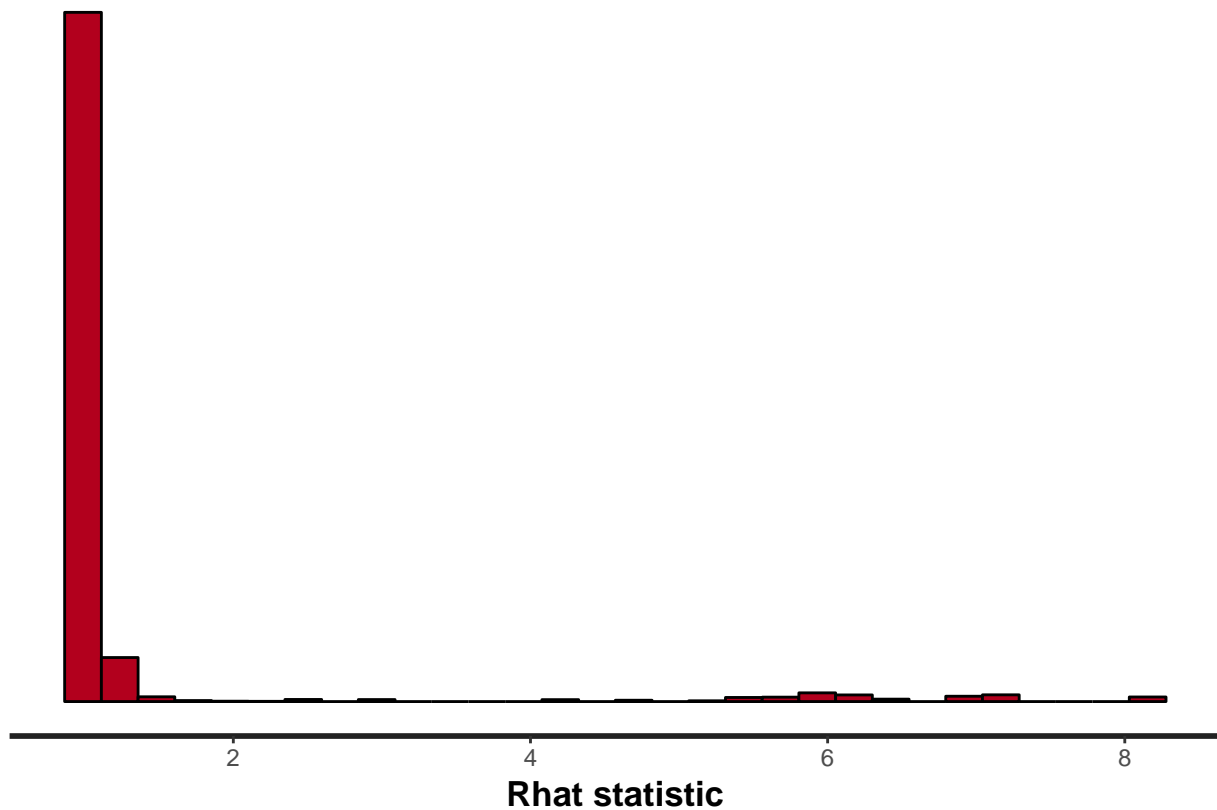
```
K <- 7  
Ti <- 3  
N <- 1973
```

General MCMC diagnostic plots

Overall model diagnostics from rstan package.

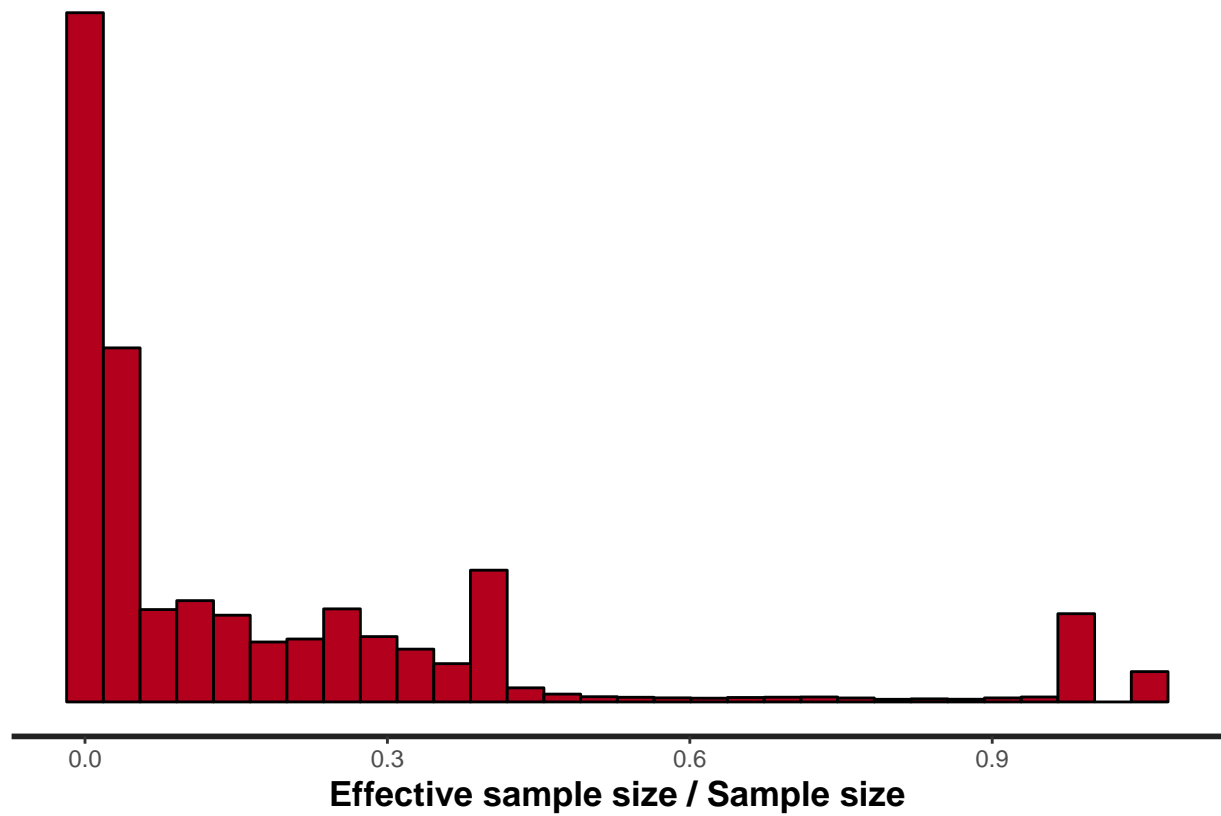
```
## `stat_bin()` using `bins = 30`. Pick better value with `binwidth`.
```

```
## Warning: Removed 2 rows containing non-finite values (stat_bin).
```



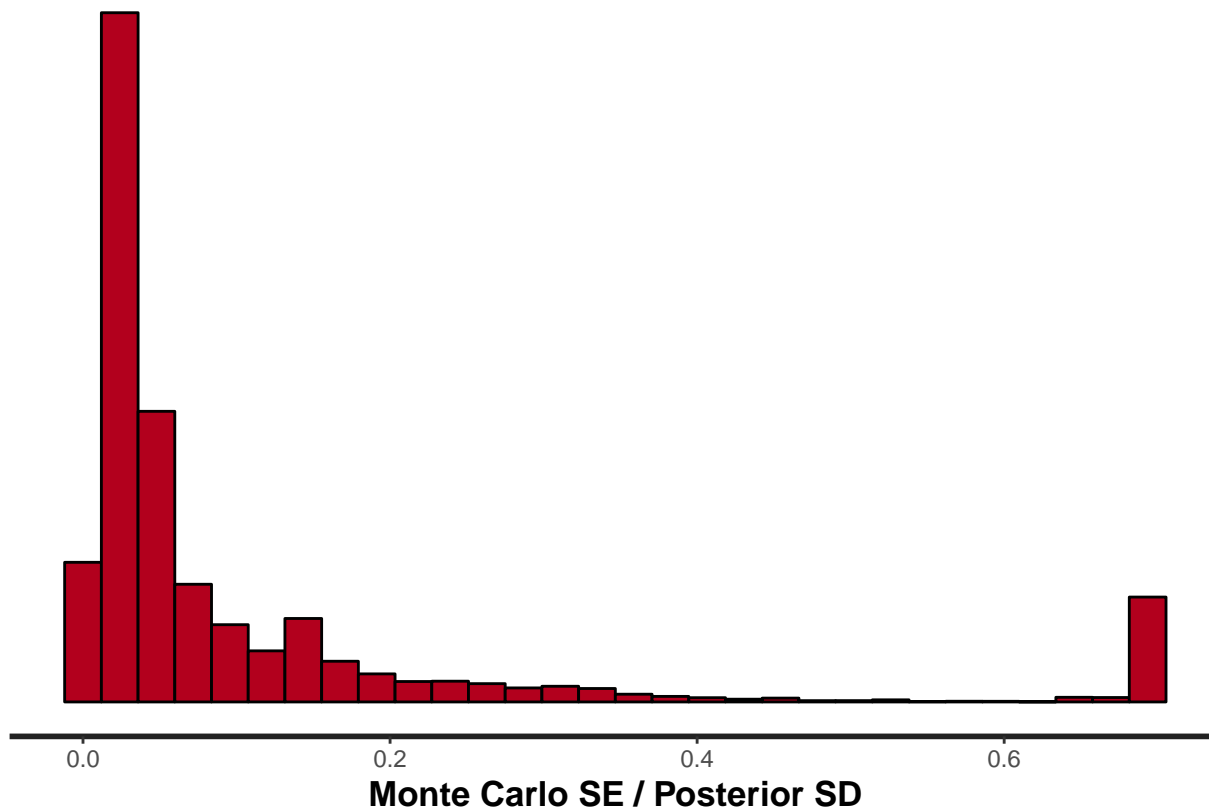
```
## `stat_bin()` using `bins = 30`. Pick better value with `binwidth`.
```

```
## Warning: Removed 2 rows containing non-finite values (stat_bin).
```



```
## `stat_bin()` using `bins = 30`. Pick better value with `binwidth`.
```

```
## Warning: Removed 4 rows containing non-finite values (stat_bin).
```



Individual Parameter Diagnostics

Individual parameter plots. Autocorrelation and trace plots for individual parameters, and histograms of posterior medians for group parameters.

```
get_single_plots <- function(fit, param) {
  print(fit_summ[param,c(1,2,3,5,6,7,9,10)])
  print(stan_ac(fit, pars = param))
  print(rstan::traceplot(fit, pars = param))
}

get_aggreg_plots <- function(fit, param, trim = F, trim_amount) {
  ind <- grep(paste0("^",param), rownames(as.data.frame(summary(fit)$summary)))
  medians <- data.frame(avg = as.data.frame(summary(fit)$summary)$`50%`[ind])
  print(paste0("Summary statistics for posterior medians of ",param))
  print(summary(medians))
  title <- paste0("Posterior Medians of ",param)
  print(ggplot(medians, aes(x = avg)) + geom_histogram(bins = 60) + ggtitle(title))
  if (trim == T) {
    lim <- quantile(abs(medians$avg), probs = trim_amount)
    meds_trim <- medians %>% filter(abs(medians$avg) < lim)
    print(ggplot(meds_trim, aes(x = avg)) + geom_histogram(bins = 60) +
      ggtitle(paste0(title, " Without Extreme ",100*(1-trim_amount),"%")))
  }
}

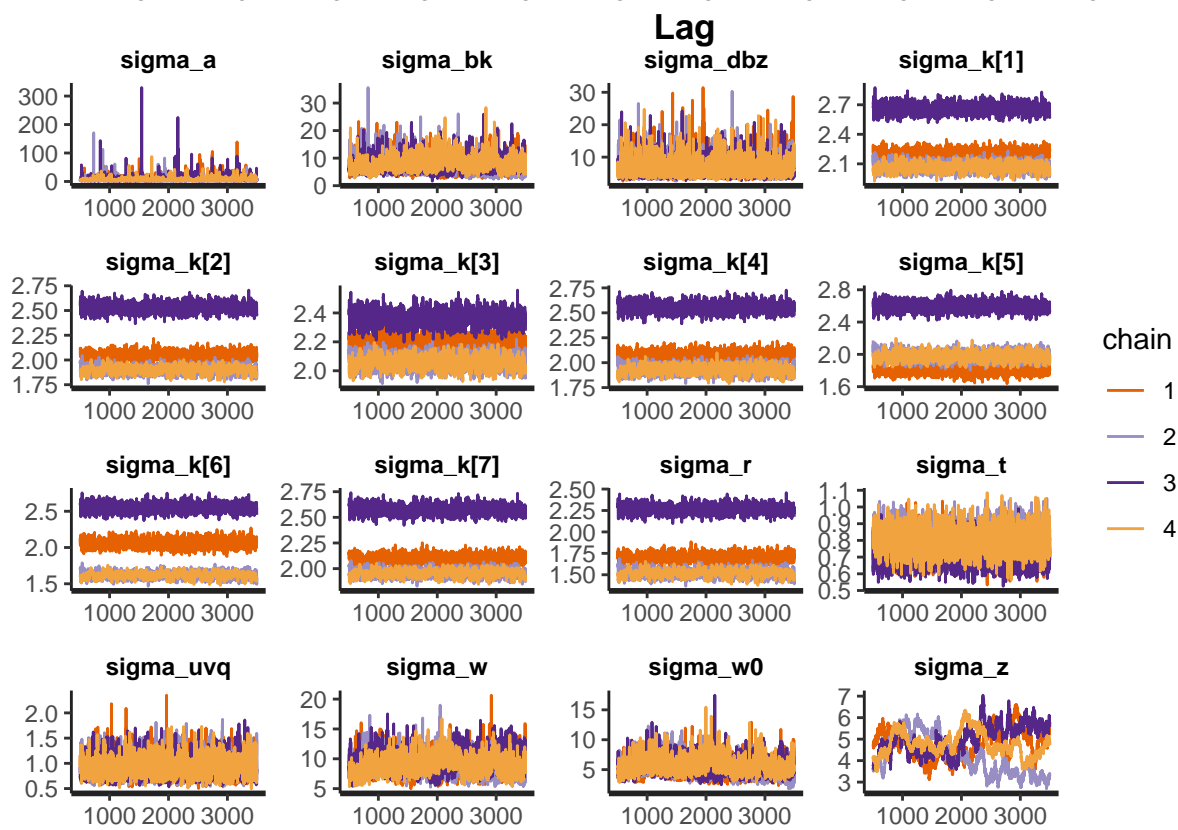
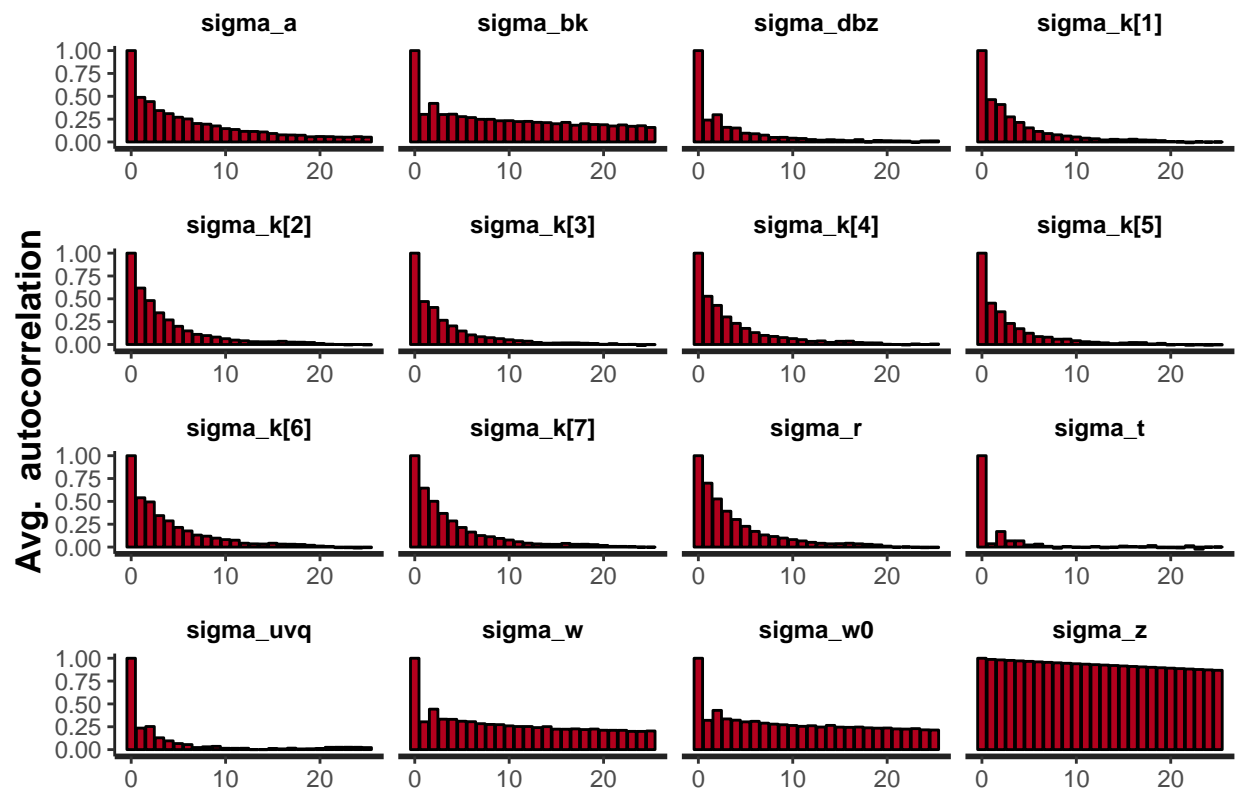
plot_fit <- function(fit) {
  get_single_plots(fit, sigma_params)
  get_single_plots(fit, beta_k)
```

```

get_single_plots(fit, other_1d)
get_single_plots(fit, u)
get_single_plots(fit, v)
get_single_plots(fit, q)
get_aggreg_plots(fit, "w")
get_aggreg_plots(fit, "z")
get_aggreg_plots(fit, "p")
get_aggreg_plots(fit, "eta", trim = T, trim_amount = .60)
get_aggreg_plots(fit, "lambda", trim = T, trim_amount = .60)
get_aggreg_plots(fit, "kappa", trim = T, trim_amount = .60)
}
plot_fit(fit)

```

| ## | | mean | se_mean | sd | 25% | 50% | 75% |
|----|------------|-------------|-------------|------------|-----------|-----------|------------|
| ## | sigma_a | 7.7396420 | 0.325510572 | 9.15842542 | 3.7034592 | 5.3344208 | 8.4437416 |
| ## | sigma_bk | 7.4151159 | 0.228987402 | 2.72773369 | 5.5408285 | 6.9111323 | 8.7594828 |
| ## | sigma_dbz | 6.9057508 | 0.052170507 | 2.73764736 | 5.0608597 | 6.2678934 | 7.9797502 |
| ## | sigma_k[1] | 2.2484694 | 0.172881954 | 0.24770795 | 2.0659225 | 2.1415736 | 2.3916285 |
| ## | sigma_k[2] | 2.0933468 | 0.182963489 | 0.26129869 | 1.9009850 | 1.9746283 | 2.2550649 |
| ## | sigma_k[3] | 2.1680470 | 0.090000711 | 0.13408187 | 2.0581218 | 2.1326814 | 2.2732165 |
| ## | sigma_k[4] | 2.1213620 | 0.181277935 | 0.25944740 | 1.9306300 | 2.0074002 | 2.2613478 |
| ## | sigma_k[5] | 2.0866549 | 0.213293047 | 0.30521361 | 1.8772866 | 1.9755003 | 2.2540175 |
| ## | sigma_k[6] | 1.9621013 | 0.271357321 | 0.38644220 | 1.6216253 | 1.8320833 | 2.2951523 |
| ## | sigma_k[7] | 2.1456990 | 0.180005240 | 0.25703297 | 1.9565873 | 2.0290552 | 2.2945047 |
| ## | sigma_r | 1.7512860 | 0.216130137 | 0.30850472 | 1.5216253 | 1.6160276 | 1.9382675 |
| ## | sigma_t | 0.7734867 | 0.023834882 | 0.07990191 | 0.7169453 | 0.7699371 | 0.8259698 |
| ## | sigma_uvq | 0.9271636 | 0.002974833 | 0.18458614 | 0.7970917 | 0.9002368 | 1.0294713 |
| ## | sigma_w | 9.1127230 | 0.173955833 | 1.64018332 | 7.9517498 | 8.9513925 | 10.0630647 |
| ## | sigma_w0 | 5.3644081 | 0.137107952 | 1.39176271 | 4.3905987 | 5.1717247 | 6.1340415 |
| ## | sigma_z | 4.6787293 | 0.200308391 | 0.76577451 | 4.1526590 | 4.6869695 | 5.2672303 |
| ## | | n_eff | Rhat | | | | |
| ## | sigma_a | 791.610291 | 1.011230 | | | | |
| ## | sigma_bk | 141.899465 | 1.031035 | | | | |
| ## | sigma_dbz | 2753.625605 | 1.002173 | | | | |
| ## | sigma_k[1] | 2.052960 | 5.972306 | | | | |
| ## | sigma_k[2] | 2.039603 | 6.900456 | | | | |
| ## | sigma_k[3] | 2.219465 | 3.060345 | | | | |
| ## | sigma_k[4] | 2.048372 | 6.234047 | | | | |
| ## | sigma_k[5] | 2.047644 | 6.268495 | | | | |
| ## | sigma_k[6] | 2.028084 | 8.165211 | | | | |
| ## | sigma_k[7] | 2.038954 | 6.974792 | | | | |
| ## | sigma_r | 2.037478 | 7.110046 | | | | |
| ## | sigma_t | 11.237983 | 1.111886 | | | | |
| ## | sigma_uvq | 3850.108833 | 1.000339 | | | | |
| ## | sigma_w | 88.901029 | 1.040396 | | | | |
| ## | sigma_w0 | 103.039823 | 1.040123 | | | | |
| ## | sigma_z | 14.615158 | 1.418550 | | | | |

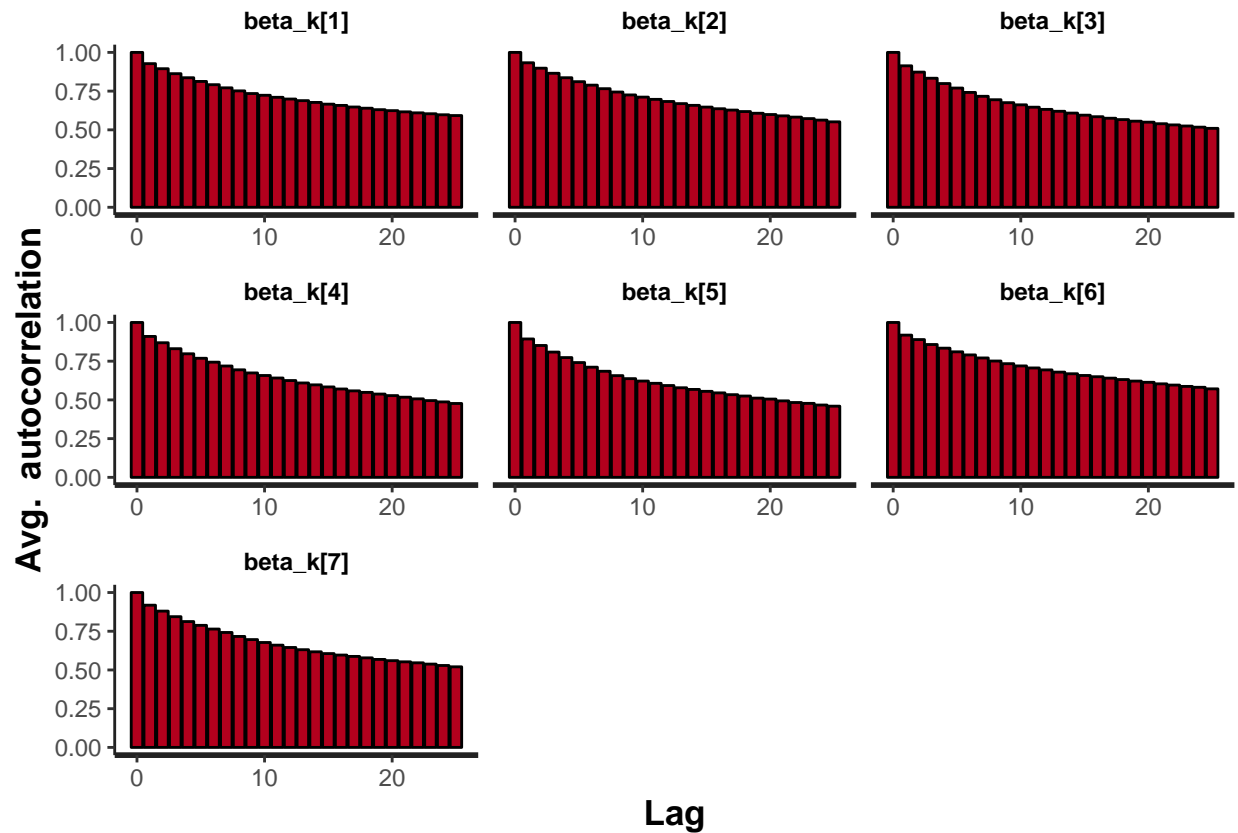


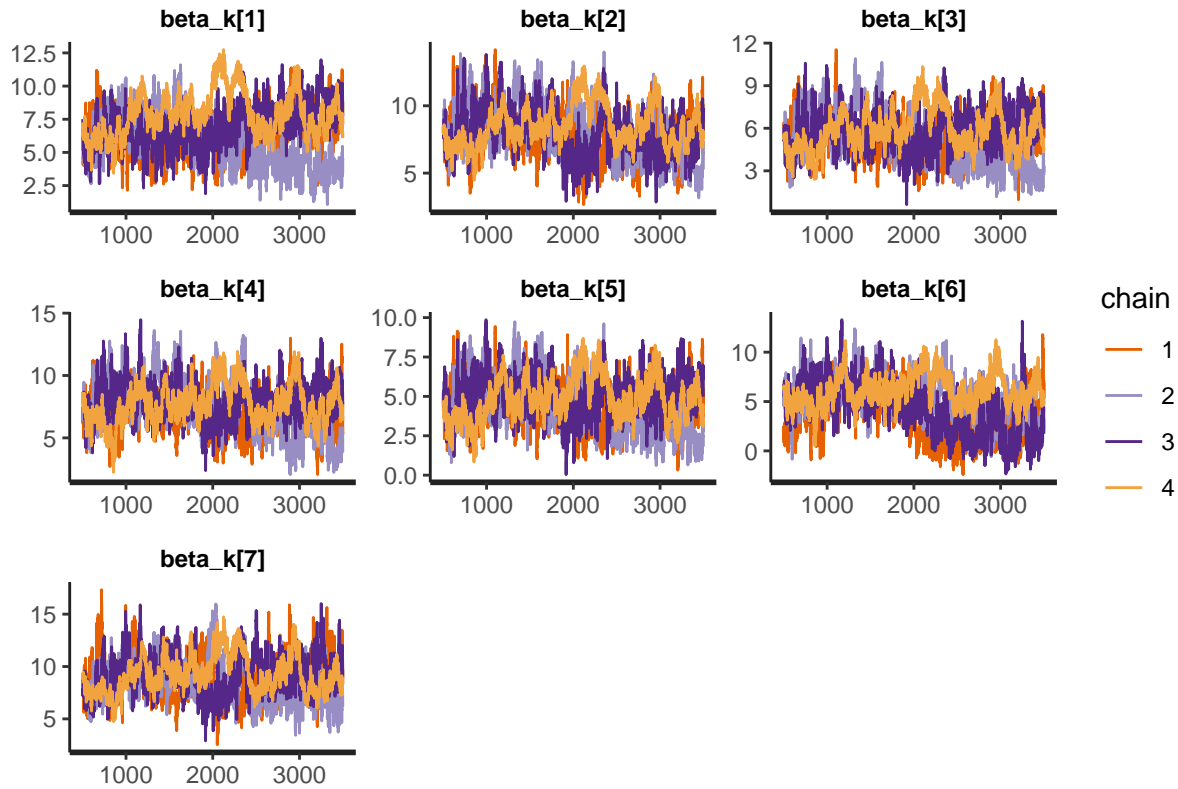
| ## | mean | se_mean | sd | 25% | 50% | 75% | n_eff |
|--------------|----------|-----------|----------|----------|----------|----------|----------|
| ## beta_k[1] | 6.715909 | 0.5070333 | 1.875957 | 5.435958 | 6.728485 | 7.951714 | 13.68903 |
| ## beta_k[2] | 8.102699 | 0.2477696 | 1.752708 | 6.942867 | 8.005779 | 9.177015 | 50.04067 |

```

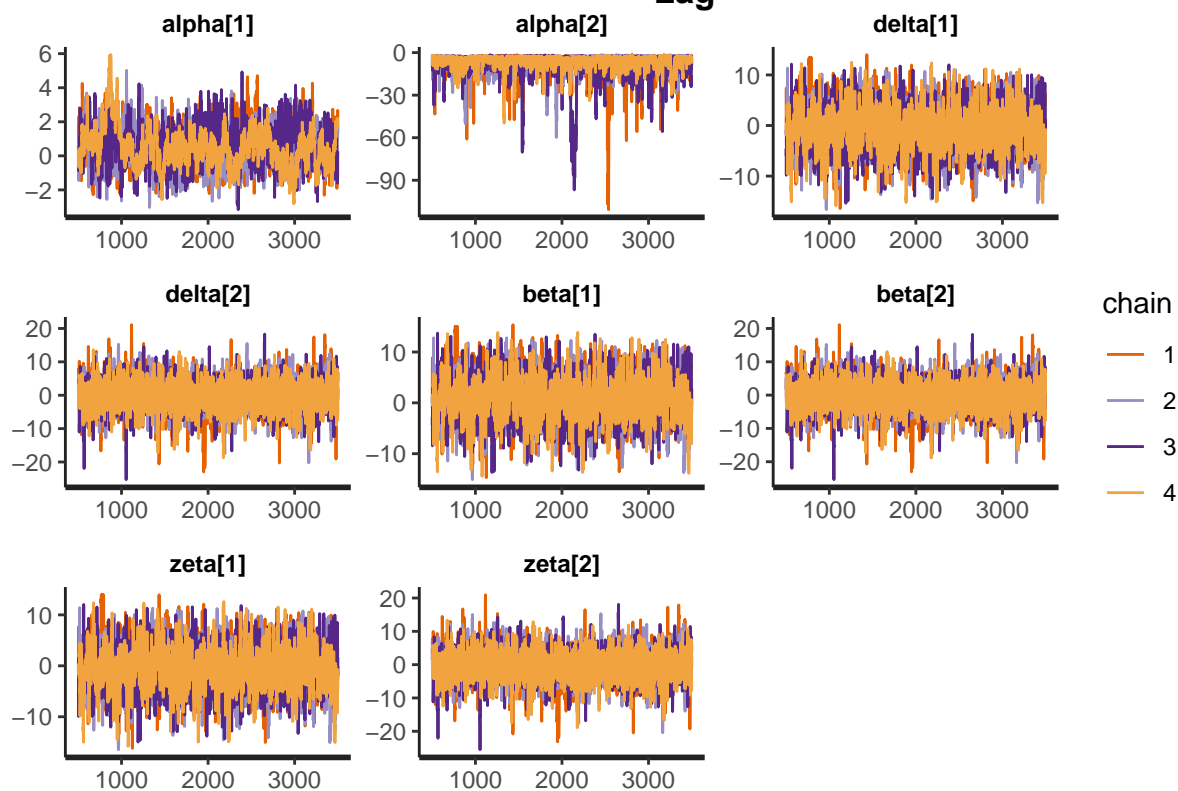
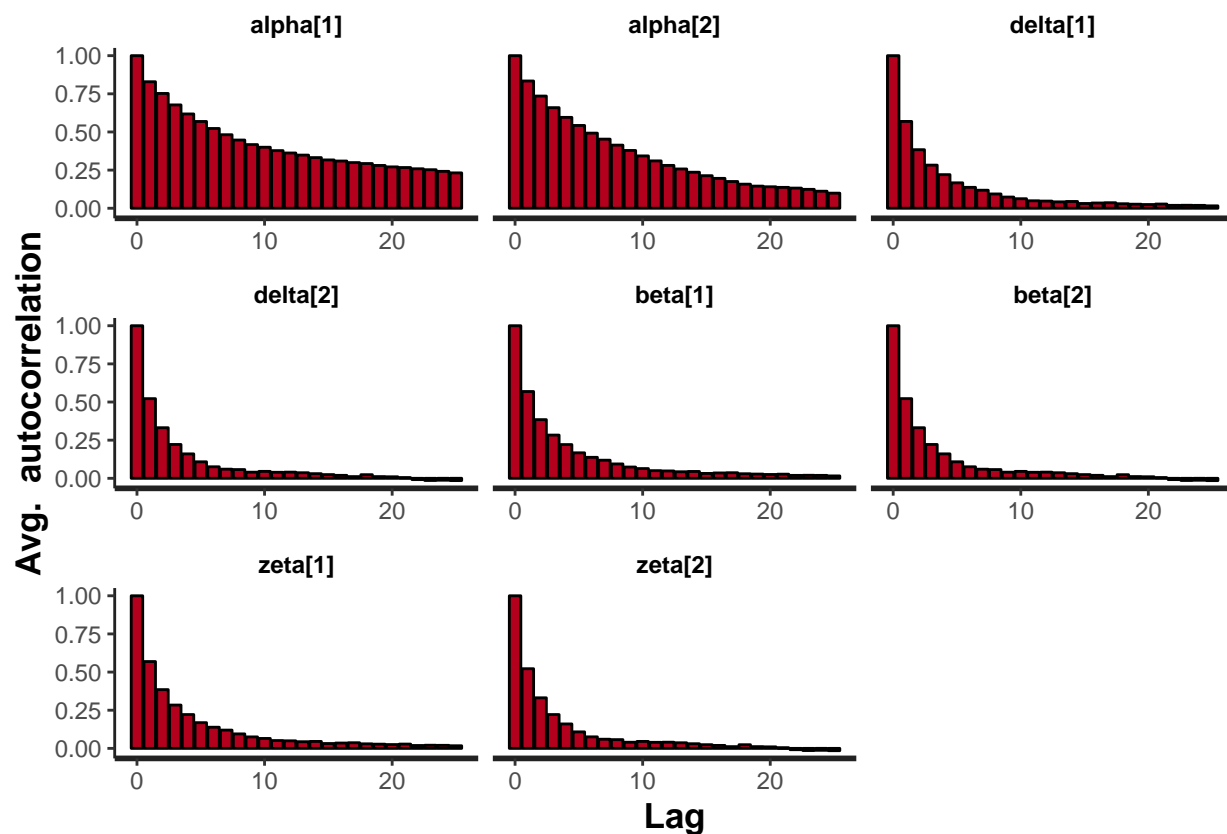
## beta_k[3] 5.577125 0.2536426 1.531604 4.545288 5.535452 6.557586 36.46266
## beta_k[4] 7.559357 0.2673501 1.759385 6.410902 7.520322 8.672995 43.30729
## beta_k[5] 4.717733 0.2097336 1.460239 3.724259 4.669588 5.680483 48.47436
## beta_k[6] 4.846907 0.6233050 2.450486 3.182989 5.059817 6.513880 15.45622
## beta_k[7] 8.895327 0.2266194 1.911621 7.572511 8.724157 10.087123 71.15563
##
##           Rhat
## beta_k[1] 1.323205
## beta_k[2] 1.092648
## beta_k[3] 1.110156
## beta_k[4] 1.096568
## beta_k[5] 1.083191
## beta_k[6] 1.340313
## beta_k[7] 1.049823

```





| ## | | mean | se_mean | sd | 25% | 50% | 75% |
|----|----------|------------|------------|----------|-----------|-------------|-----------|
| ## | alpha[1] | 0.5640430 | 0.06857562 | 1.106786 | -0.161410 | 0.53654126 | 1.233827 |
| ## | alpha[2] | -7.7333103 | 0.41683463 | 8.458215 | -8.501205 | -5.25744385 | -3.492863 |
| ## | delta[1] | -0.5506452 | 0.09585896 | 4.130369 | -2.928259 | -0.53354662 | 1.910429 |
| ## | delta[2] | -0.1099698 | 0.08860660 | 4.284045 | -2.540166 | -0.02499262 | 2.402400 |
| ## | beta[1] | 0.9238292 | 0.09620493 | 4.131597 | -1.449580 | 0.93311320 | 3.379833 |
| ## | beta[2] | -0.1754555 | 0.08861818 | 4.284250 | -2.601192 | -0.08647083 | 2.339132 |
| ## | zeta[1] | -0.4282174 | 0.09650579 | 4.132357 | -2.807511 | -0.41375190 | 2.046978 |
| ## | zeta[2] | -0.3193618 | 0.08860156 | 4.283707 | -2.743581 | -0.23101321 | 2.191934 |
| ## | | n_eff | Rhat | | | | |
| ## | alpha[1] | 260.4882 | 1.015715 | | | | |
| ## | alpha[2] | 411.7464 | 1.021409 | | | | |
| ## | delta[1] | 1856.5741 | 1.001076 | | | | |
| ## | delta[2] | 2337.6307 | 1.000916 | | | | |
| ## | beta[1] | 1844.3412 | 1.001102 | | | | |
| ## | beta[2] | 2337.2433 | 1.000915 | | | | |
| ## | zeta[1] | 1833.5339 | 1.001124 | | | | |
| ## | zeta[2] | 2337.5274 | 1.000915 | | | | |

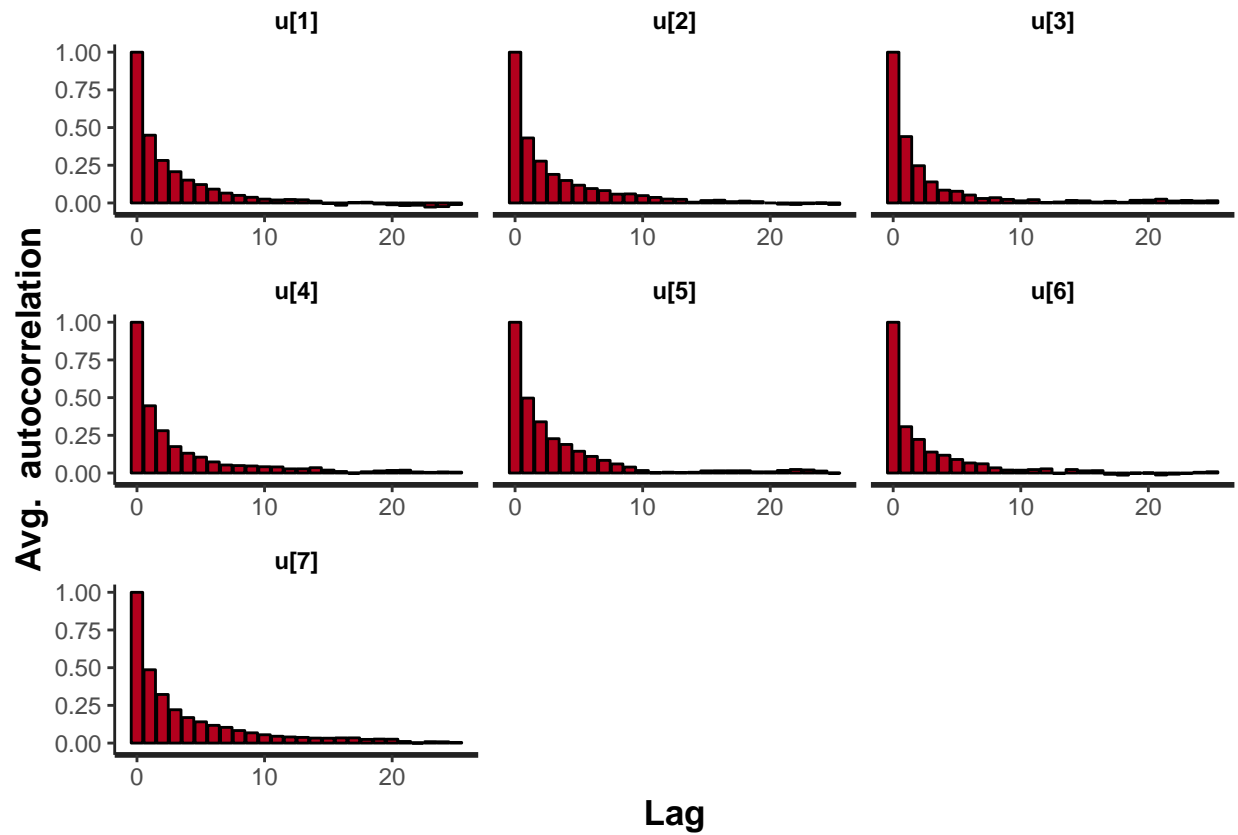


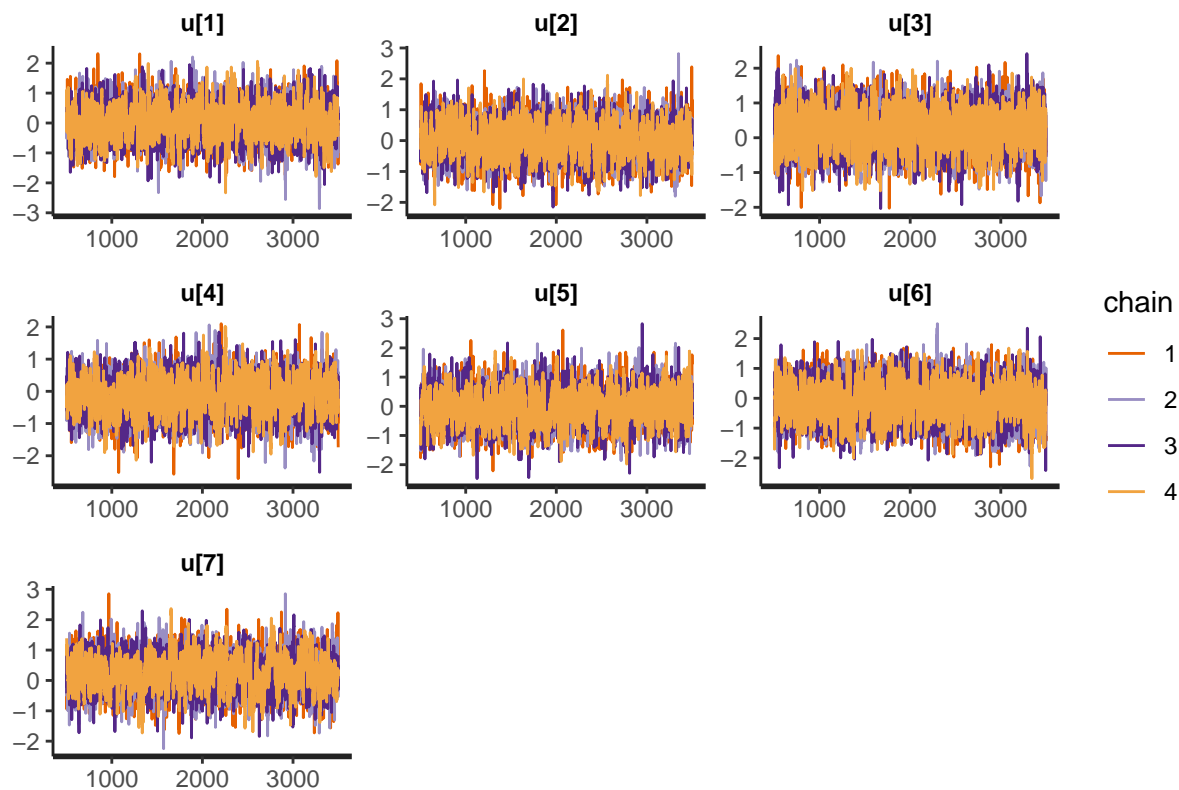
| ## | | mean | se_mean | sd | 25% | 50% | 75% |
|----|------|------------|-------------|-----------|------------|------------|-----------|
| ## | u[1] | 0.07065703 | 0.010528056 | 0.5712528 | -0.2985958 | 0.07754219 | 0.4408754 |
| ## | u[2] | 0.03396065 | 0.010582072 | 0.5567456 | -0.3299436 | 0.03538330 | 0.4006200 |


```

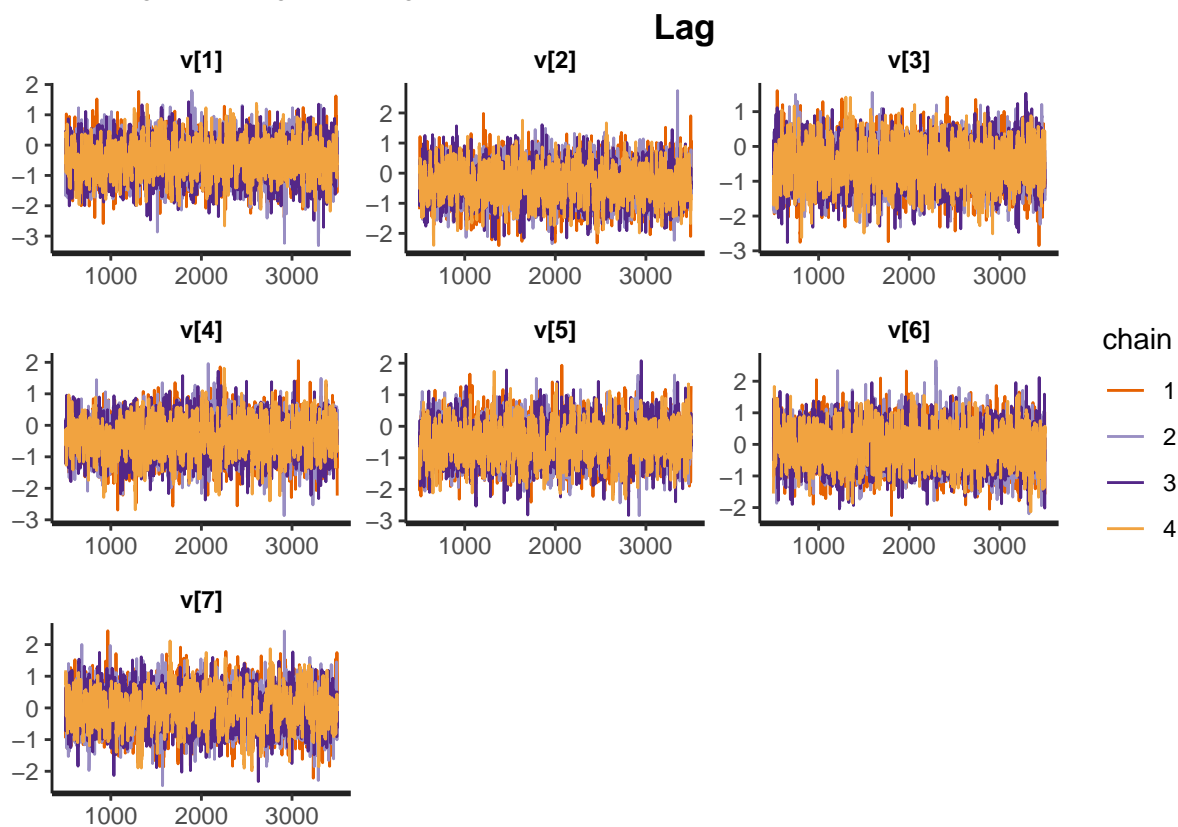
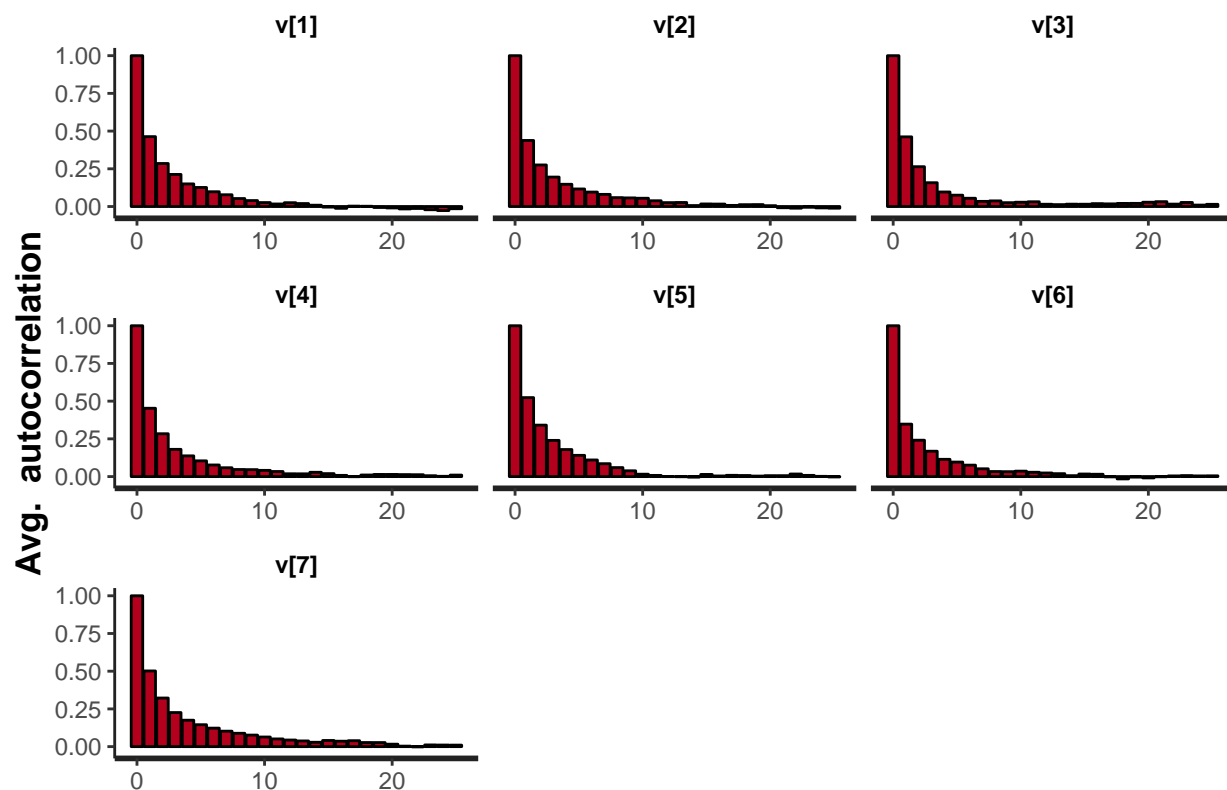
## u[3]  0.23505994  0.009705517  0.5617583 -0.1332419  0.23401222  0.6054674
## u[4] -0.15501702  0.010711912  0.5604607 -0.5193306 -0.14775775  0.2096153
## u[5] -0.01417823  0.011105751  0.5715984 -0.3778709 -0.01477596  0.3549501
## u[6] -0.09861135  0.009974519  0.6030535 -0.4896557 -0.10097663  0.2953710
## u[7]  0.21347201  0.011854261  0.5608587 -0.1460588  0.21174184  0.5722138
##      n_eff      Rhat
## u[1] 2944.153 1.0003595
## u[2] 2768.038 1.0005214
## u[3] 3350.129 1.0000027
## u[4] 2737.514 1.0020470
## u[5] 2649.026 1.0013061
## u[6] 3655.340 0.9999838
## u[7] 2238.504 0.9999908

```





| ## | | mean | se_mean | sd | 25% | 50% | 75% |
|----|------|-------------|-------------|-----------|------------|-------------|-------------|
| ## | v[1] | -0.46212972 | 0.010504532 | 0.5663740 | -0.8299371 | -0.45844823 | -0.09275735 |
| ## | v[2] | -0.32081352 | 0.010513810 | 0.5529587 | -0.6799349 | -0.32239977 | 0.03569353 |
| ## | v[3] | -0.53051170 | 0.010390271 | 0.5588931 | -0.8878419 | -0.52761719 | -0.17132300 |
| ## | v[4] | -0.42589034 | 0.010336768 | 0.5523996 | -0.7881149 | -0.41601780 | -0.06232317 |
| ## | v[5] | -0.47971431 | 0.010917859 | 0.5648862 | -0.8420895 | -0.47516381 | -0.11036211 |
| ## | v[6] | -0.05221723 | 0.009918245 | 0.5773270 | -0.4319799 | -0.04876659 | 0.32526820 |
| ## | v[7] | -0.03999690 | 0.011873589 | 0.5557945 | -0.4007386 | -0.03558019 | 0.31962570 |
| ## | | n_eff | Rhat | | | | |
| ## | v[1] | 2907.055 | 1.000286 | | | | |
| ## | v[2] | 2766.082 | 1.000363 | | | | |
| ## | v[3] | 2893.369 | 1.000102 | | | | |
| ## | v[4] | 2855.862 | 1.001774 | | | | |
| ## | v[5] | 2676.991 | 1.001219 | | | | |
| ## | v[6] | 3388.239 | 1.000090 | | | | |
| ## | v[7] | 2191.111 | 1.000049 | | | | |

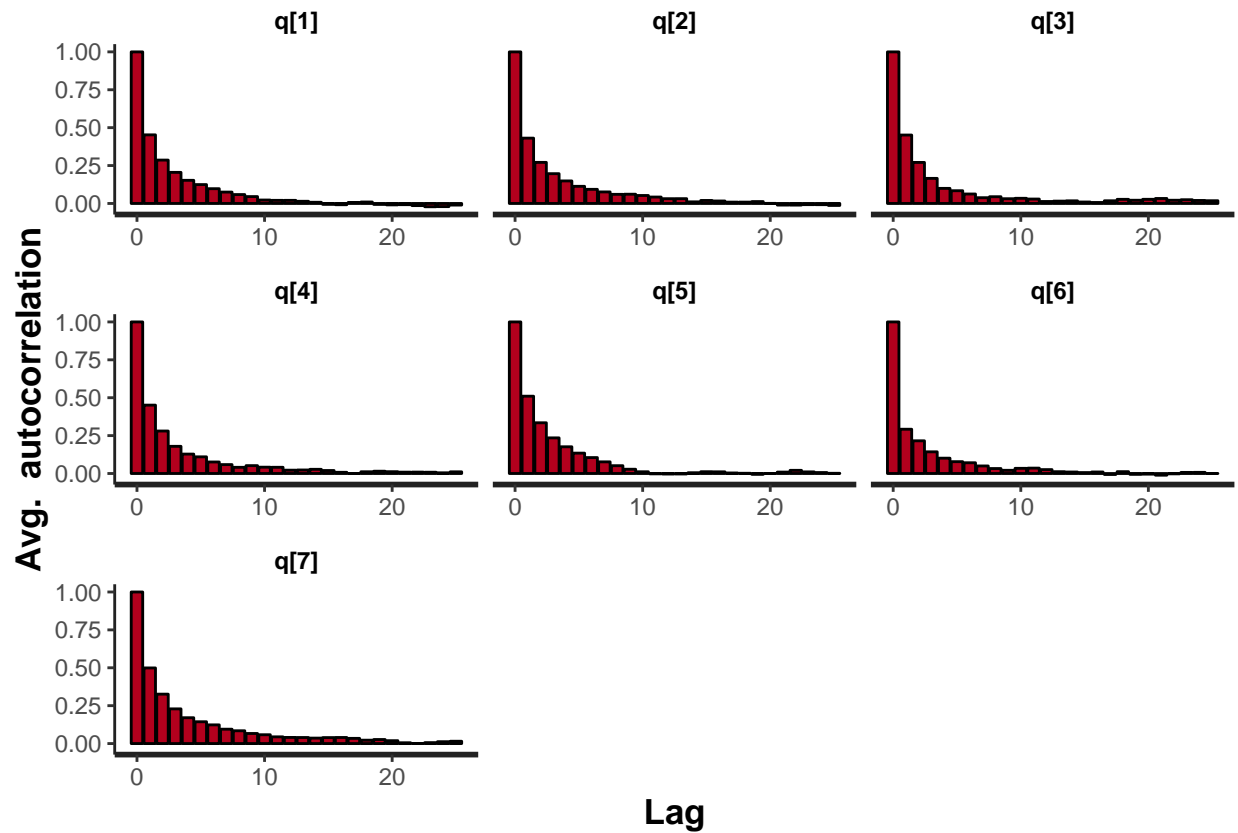


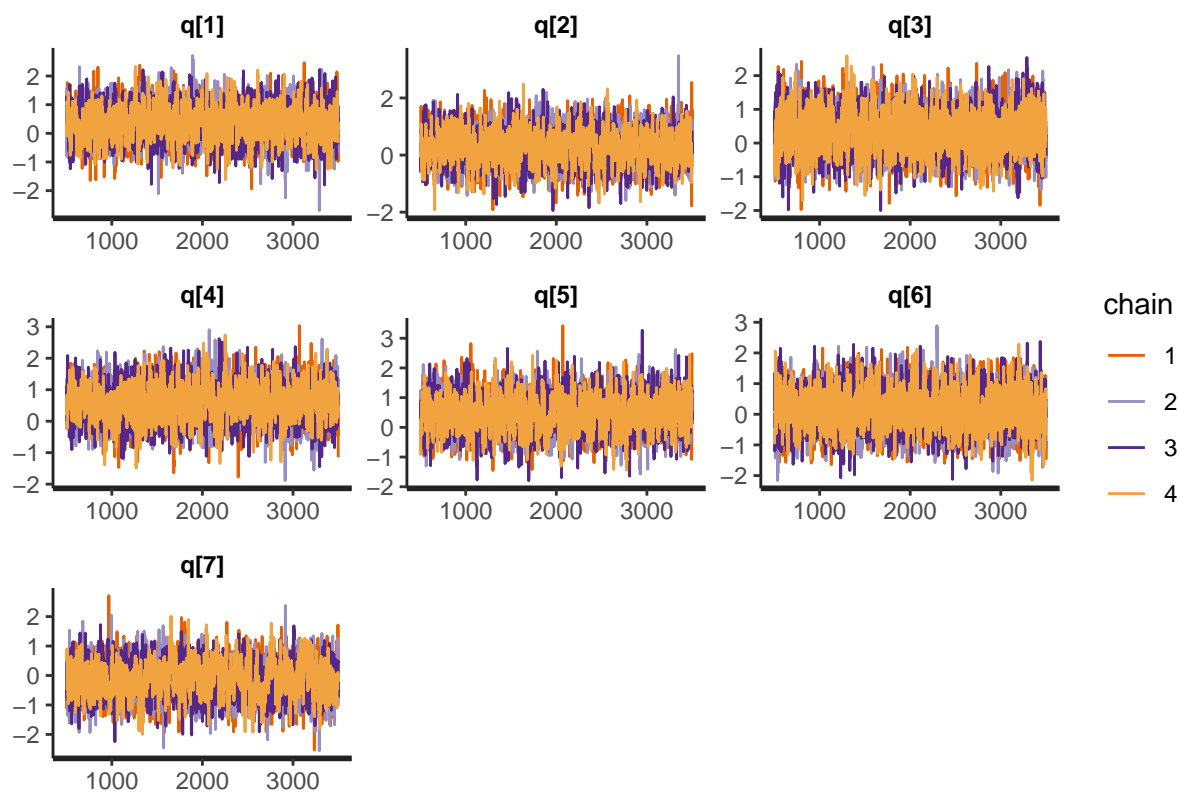
| ## | mean | se_mean | sd | 25% | 50% | 75% |
|---------|-----------|-------------|-----------|-------------|-----------|-----------|
| ## q[1] | 0.3533593 | 0.010500691 | 0.5694493 | -0.01555229 | 0.3570830 | 0.7206882 |
| ## q[2] | 0.2904578 | 0.010597747 | 0.5563533 | -0.07134797 | 0.2859234 | 0.6554691 |

```

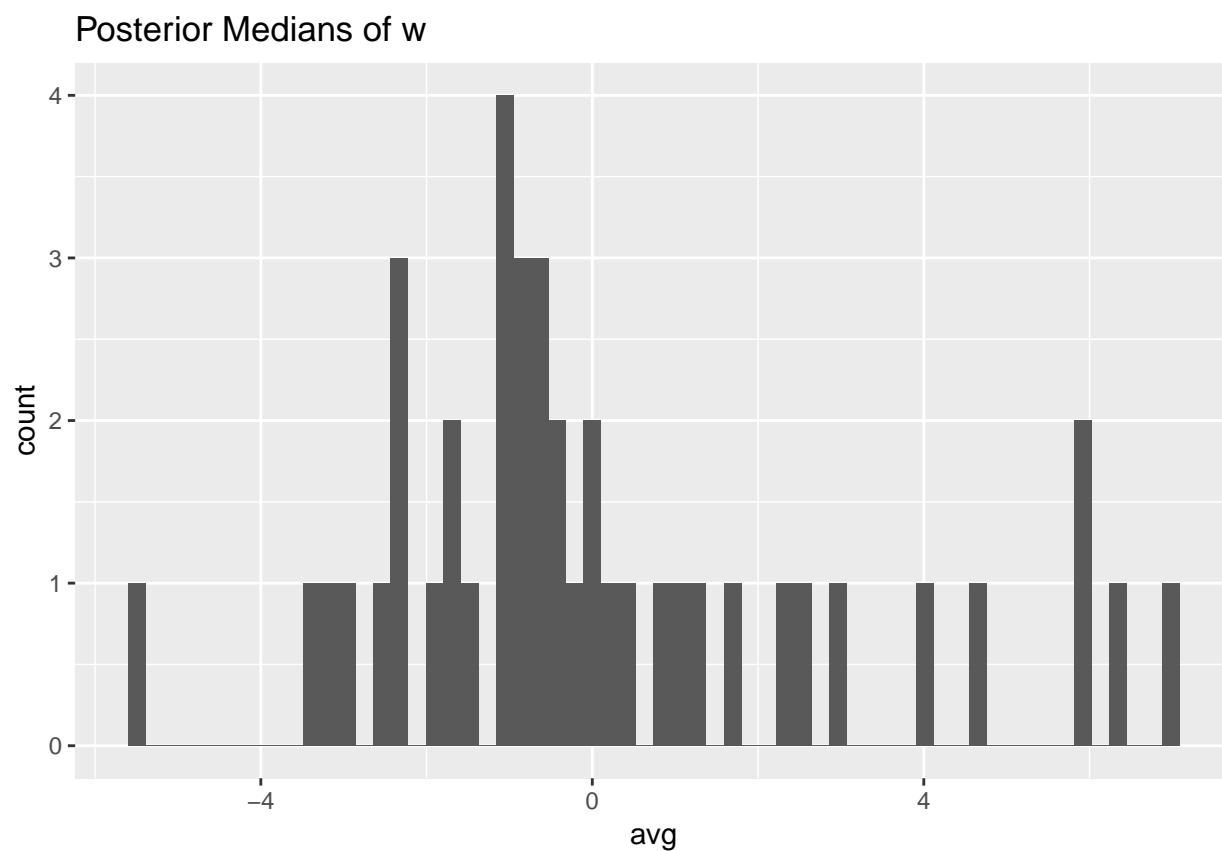
## q[3]  0.3224942  0.010828004  0.5714564 -0.04450582   0.3218713  0.6882127
## q[4]  0.5870135  0.010566239  0.5565401   0.21717921   0.5899959  0.9560585
## q[5]  0.4968510  0.010809944  0.5696540   0.12673415   0.4950261  0.8588896
## q[6]  0.1580874  0.009738611  0.5969801 -0.23256678   0.1585784  0.5507779
## q[7] -0.1475418  0.011943897  0.5592812 -0.51414523  -0.1529020  0.2164966
##      n_eff      Rhat
## q[1] 2940.861 1.000305
## q[2] 2755.969 1.000182
## q[3] 2785.283 1.000106
## q[4] 2774.291 1.001769
## q[5] 2776.996 1.000978
## q[6] 3757.732 1.000054
## q[7] 2192.645 1.000248

```

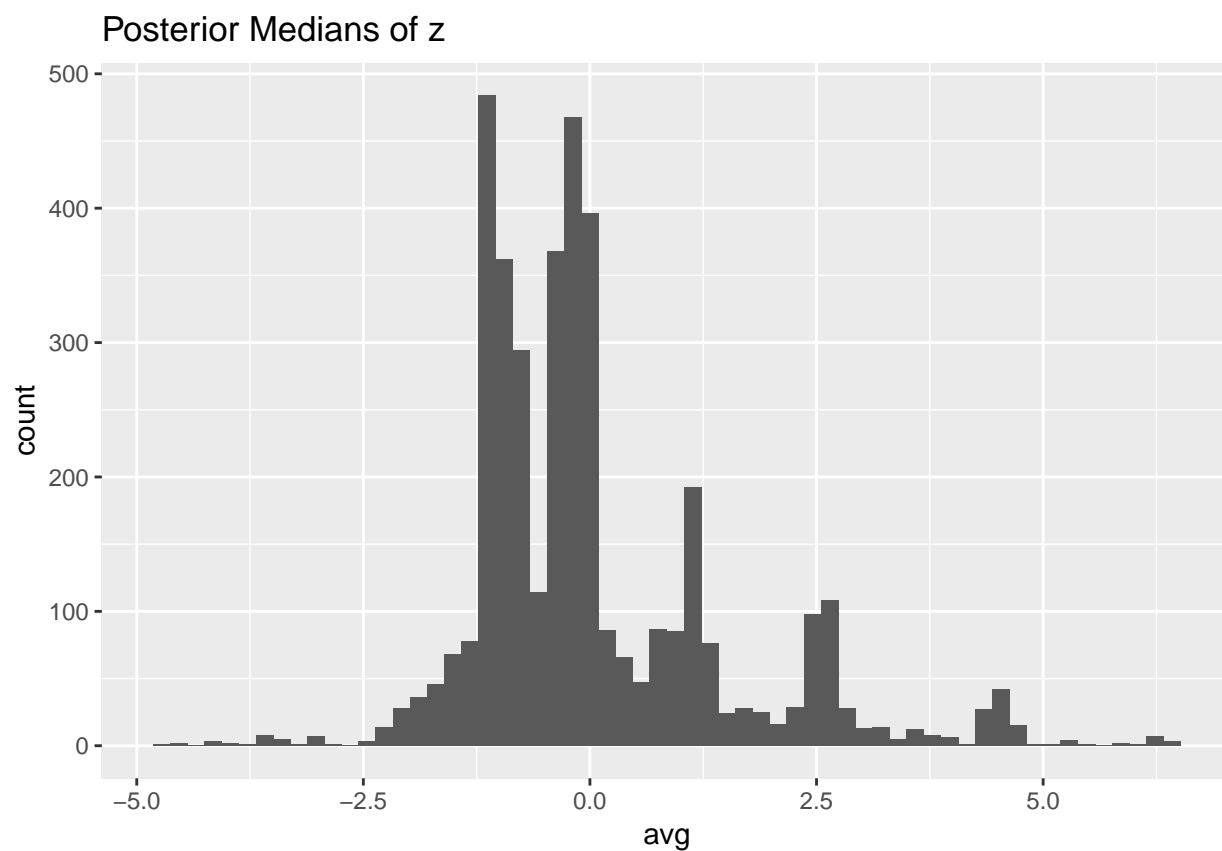




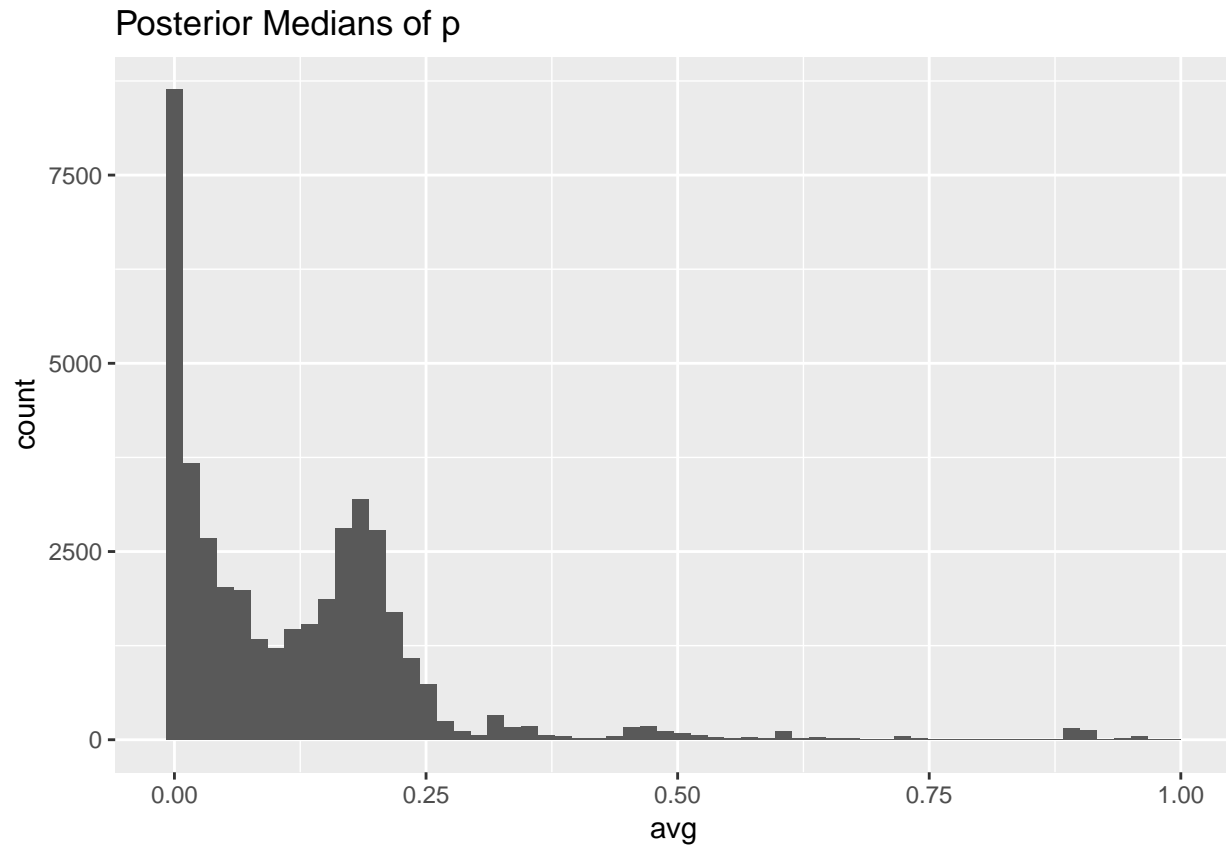
```
## [1] "Summary statistics for posterior medians of w"
##      avg
##  Min.   :-5.4901
## 1st Qu.: -1.5742
##  Median :-0.6923
##   Mean   : 0.1545
## 3rd Qu.:  1.2506
##   Max.   :  6.9899
```



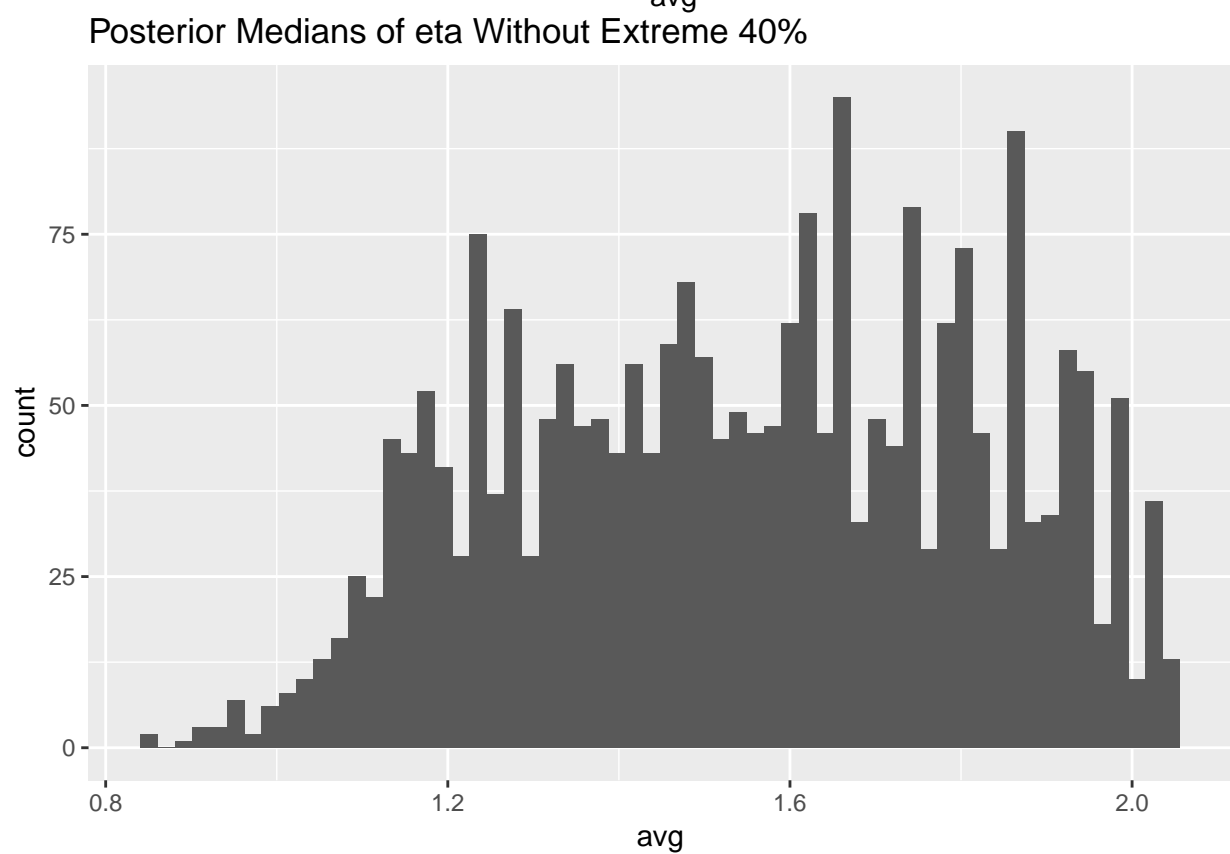
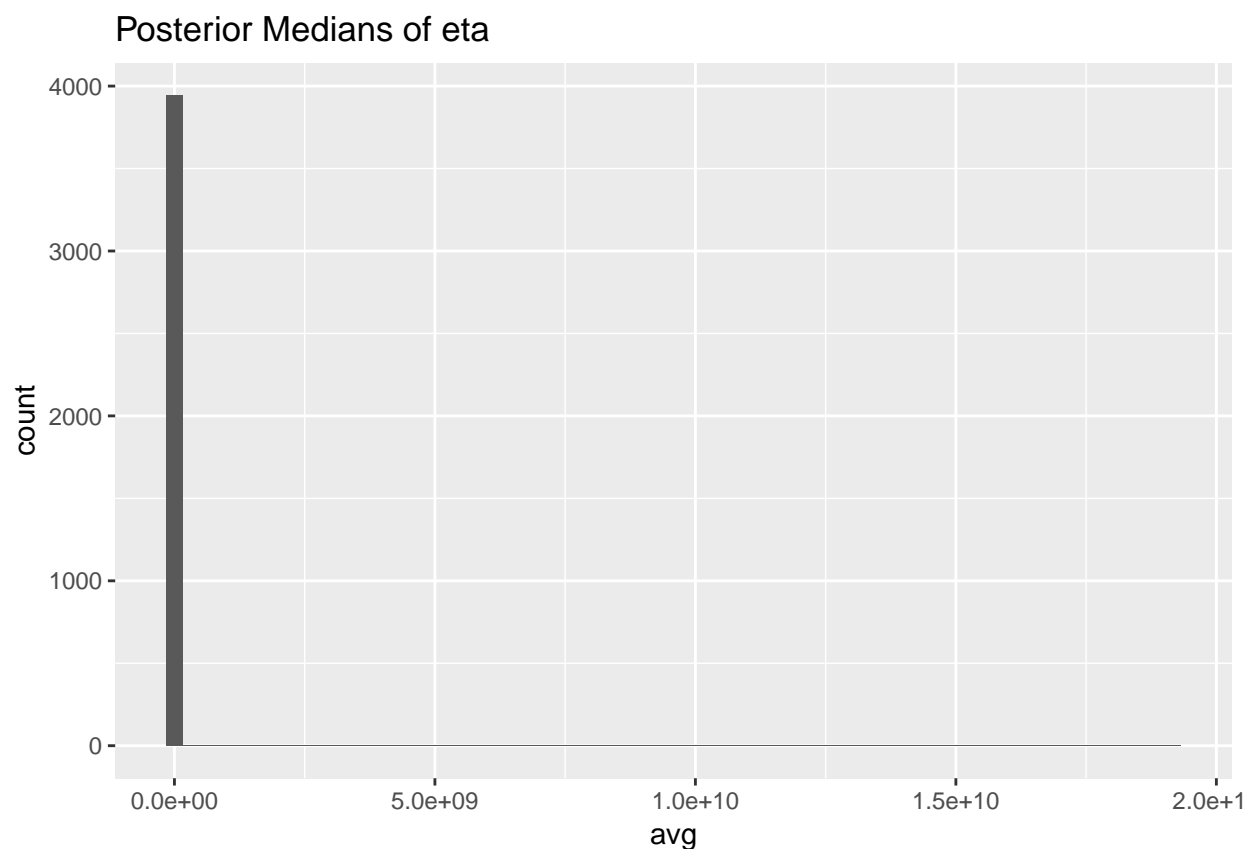
```
## [1] "Summary statistics for posterior medians of z"
##      avg
##  Min.   :-4.65294
## 1st Qu. :-0.95908
## Median :-0.26275
## Mean    : 0.02467
## 3rd Qu. : 0.53766
## Max.    : 6.49440
```



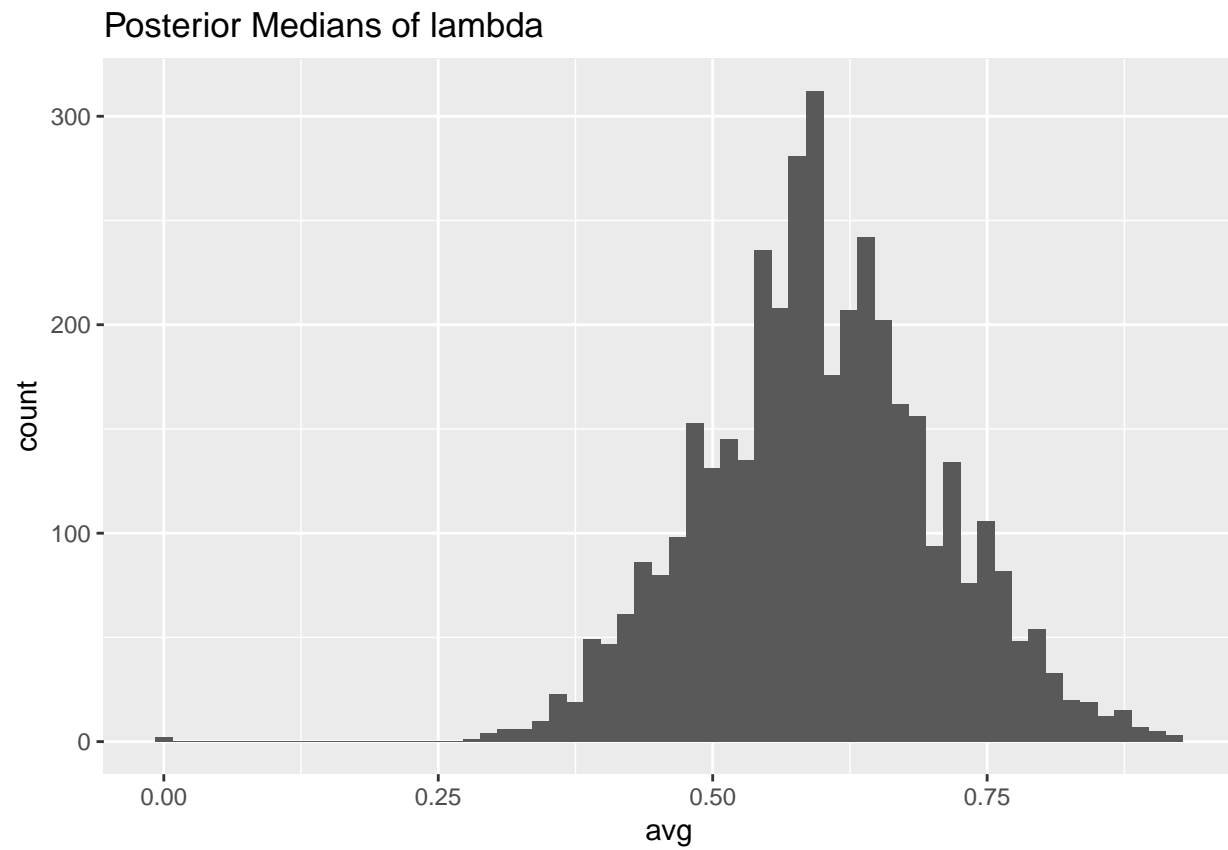
```
## [1] "Summary statistics for posterior medians of p"
##      avg
##  Min.   :0.00000
## 1st Qu.:0.01364
##  Median :0.09821
##   Mean  :0.12197
## 3rd Qu.:0.18421
##   Max.  :0.99213
```

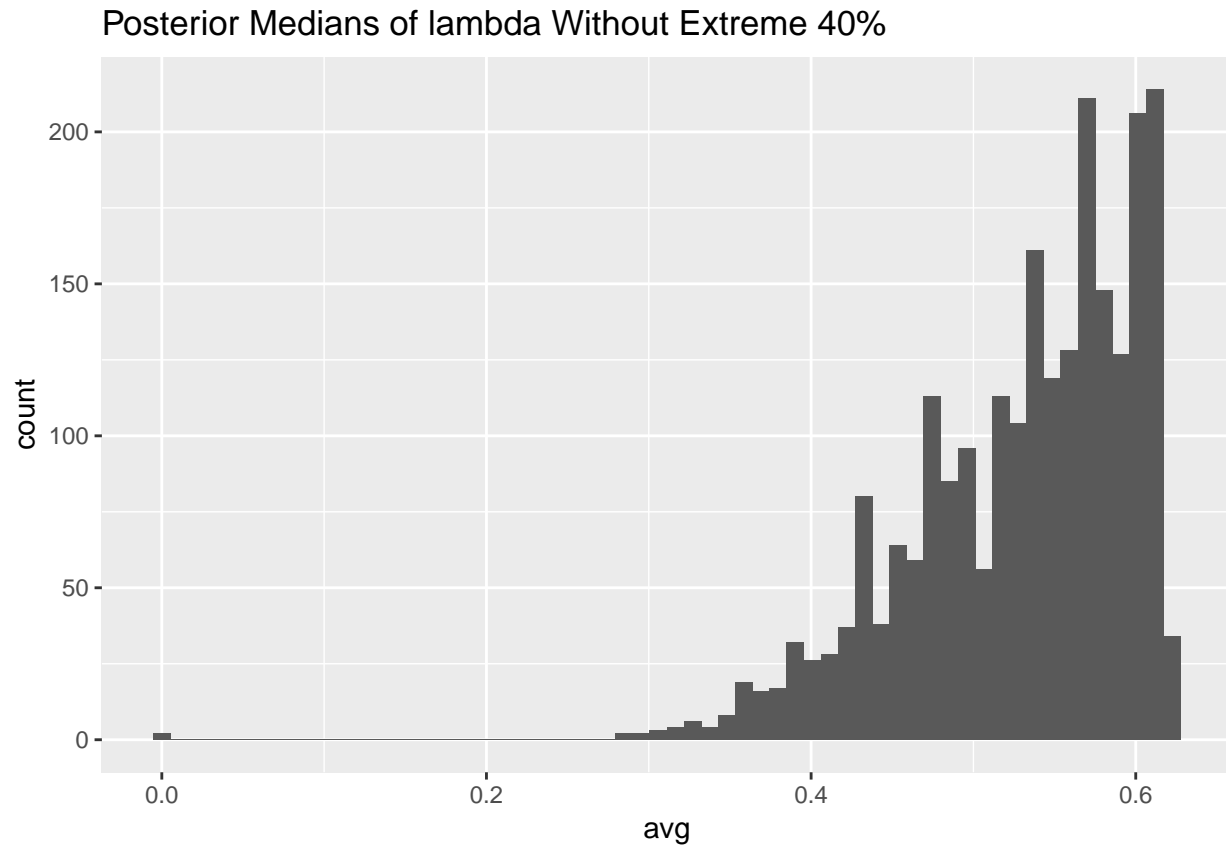


```
## [1] "Summary statistics for posterior medians of eta"
##      avg
##  Min.   :1.000e+00
## 1st Qu.:1.000e+00
##  Median :2.000e+00
##   Mean  :8.715e+06
## 3rd Qu.:2.000e+00
##   Max.  :1.916e+10
```

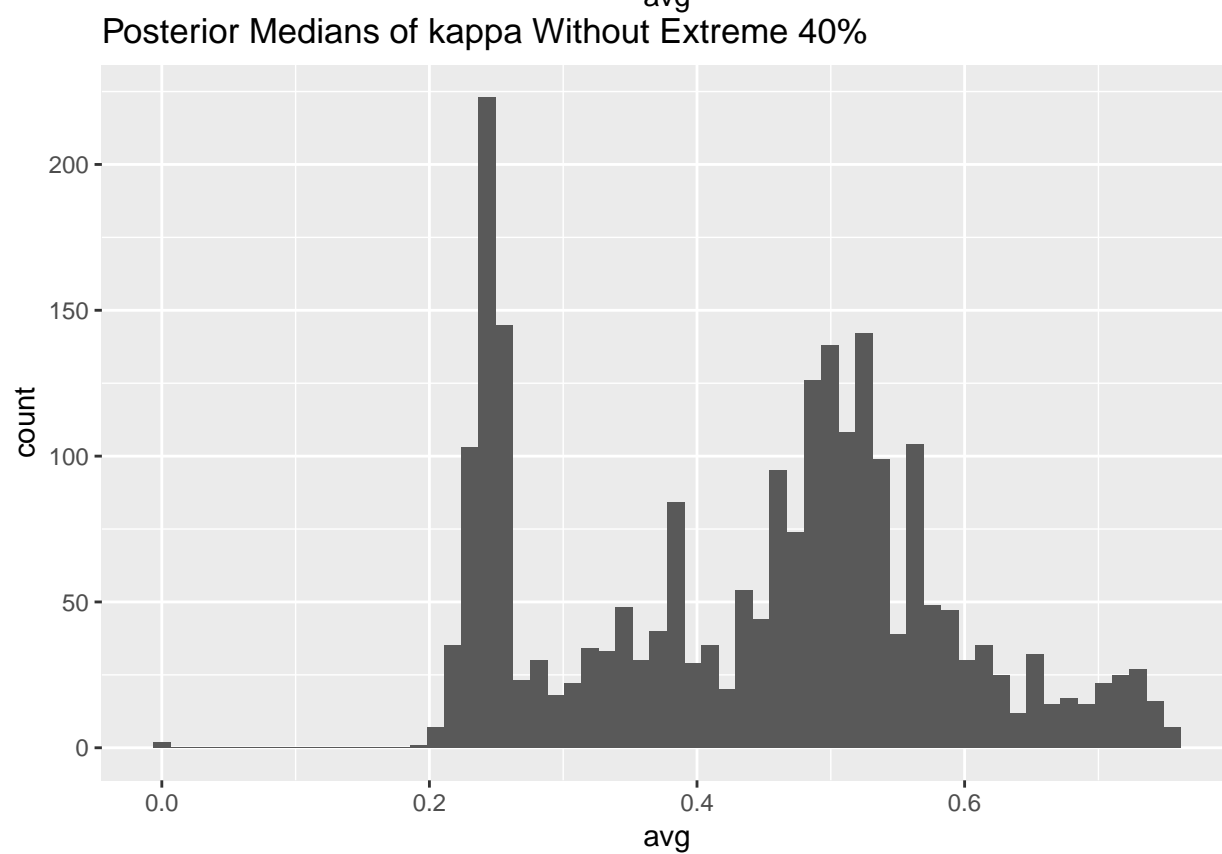
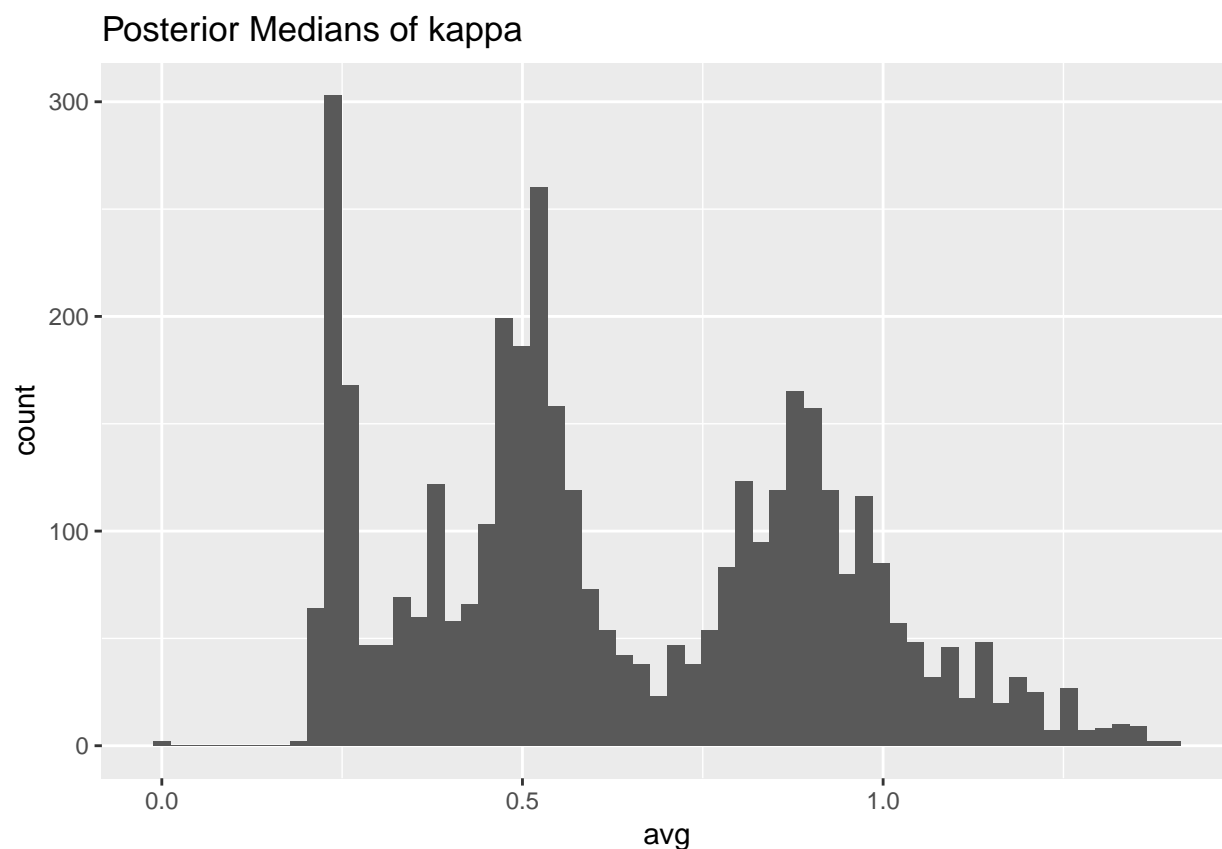



```
## [1] "Summary statistics for posterior medians of lambda"
##      avg
##  Min.   :0.000001
## 1st Qu.:0.530662
##  Median :0.597919
##   Mean  :0.598693
## 3rd Qu.:0.667672
##   Max.   :0.920368
```





```
## [1] "Summary statistics for posterior medians of kappa"
##      avg
##  Min.   :0.0000098
## 1st Qu.:0.4342111
##  Median :0.5687195
##   Mean  :0.6448605
## 3rd Qu.:0.8871484
##   Max.  :1.4007608
```



Identifying Parameters with Large Rhats

```
summary(fit_summ$Rhat)
```

```
##      Min. 1st Qu.  Median    Mean 3rd Qu.    Max.      NA's  
## 0.9997  1.0052  1.0107  1.3556  1.0370  8.1652         2
```

```
big_Rhat <- fit_summ$Rhat > 5  
big_Rhat_dat <- fit_summ[big_Rhat,c(1,2,10)]  
big_Rhat_dat
```

```
##              mean  se_mean    Rhat  
## sigmasq_k[1]      5.1169686 0.8194254 6.163233  
## sigmasq_k[2]      4.4503720 0.8130589 7.063171  
## sigmasq_k[4]      4.5674842 0.8151660 6.430335  
## sigmasq_k[5]      4.4472762 0.9517610 6.511759  
## sigmasq_k[6]      3.9991665 1.1238138 8.090080  
## sigmasq_k[7]      4.6700847 0.8180475 7.114126  
## sigma_r          1.7512860 0.2161301 7.110046  
## sigmasq_r          3.1621700 0.8214707 7.387146  
## sigma_k[1]        2.2484694 0.1728820 5.972306  
## sigma_k[2]        2.0933468 0.1829635 6.900456  
## sigma_k[4]        2.1213620 0.1812779 6.234047  
## sigma_k[5]        2.0866549 0.2132930 6.268495  
## sigma_k[6]        1.9621013 0.2713573 8.165211  
## sigma_k[7]        2.1456990 0.1800052 6.974792  
## sigmasq_ik[1,1]    1.5562343 0.4479309 6.137446  
## sigmasq_ik[1,2]    5.7216340 0.7863639 5.382462  
## sigmasq_ik[3,2]    4.6700847 0.8180475 7.114126  
## sigmasq_ik[3,3]    4.6700847 0.8180475 7.114126  
## sigmasq_ik[5,2]    5.2747501 0.7849615 6.008411  
## sigmasq_ik[6,2]    5.7216340 0.7863639 5.382462  
## sigmasq_ik[6,3]    5.1169686 0.8194254 6.163233  
## sigmasq_ik[7,2]    4.6700847 0.8180475 7.114126  
## sigmasq_ik[7,3]    4.6700847 0.8180475 7.114126  
## sigmasq_ik[8,2]    4.6700847 0.8180475 7.114126  
## sigmasq_ik[8,3]    4.6700847 0.8180475 7.114126  
## sigmasq_ik[11,2]   5.7216340 0.7863639 5.382462  
## sigmasq_ik[12,2]   5.1169686 0.8194254 6.163233  
## sigmasq_ik[12,3]   5.0550374 0.7799850 5.963171  
## sigmasq_ik[13,2]   5.1169686 0.8194254 6.163233  
## sigmasq_ik[14,2]   5.1169686 0.8194254 6.163233  
## sigmasq_ik[16,2]   5.1169686 0.8194254 6.163233  
## sigmasq_ik[17,2]   5.1721496 0.7820584 5.551926  
## sigmasq_ik[17,3]   5.2747501 0.7849615 6.008411  
## sigmasq_ik[18,3]   5.1721496 0.7820584 5.551926  
## sigmasq_ik[20,2]   5.1169686 0.8194254 6.163233  
## sigmasq_ik[22,3]   5.1169686 0.8194254 6.163233  
## sigmasq_ik[24,3]   4.4503720 0.8130589 7.063171  
## sigmasq_ik[26,2]   5.1169686 0.8194254 6.163233  
## sigmasq_ik[26,3]   5.1169686 0.8194254 6.163233  
## sigmasq_ik[27,2]   5.1169686 0.8194254 6.163233
```

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## sigmasq_ik[28,2] 5.7216340 0.7863639 5.382462
## sigmasq_ik[29,2] 4.6700847 0.8180475 7.114126
## sigmasq_ik[29,3] 4.6700847 0.8180475 7.114126
## sigmasq_ik[31,2] 5.1169686 0.8194254 6.163233
## sigmasq_ik[32,2] 5.1169686 0.8194254 6.163233
## sigmasq_ik[36,1] 1.5562343 0.4479309 6.137446
## sigmasq_ik[36,2] 1.5562343 0.4479309 6.137446
## sigmasq_ik[38,3] 5.2747501 0.7849615 6.008411
## sigmasq_ik[40,2] 4.5674842 0.8151660 6.430335
## sigmasq_ik[41,2] 5.2747501 0.7849615 6.008411
## sigmasq_ik[41,3] 5.0550374 0.7799850 5.963171
## sigmasq_ik[42,2] 5.0519417 0.9265776 5.839034
## sigmasq_ik[42,3] 4.4472762 0.9517610 6.511759
## sigmasq_ik[45,3] 5.1169686 0.8194254 6.163233
## sigmasq_ik[46,2] 5.0550374 0.7799850 5.963171
## sigmasq_ik[46,3] 5.7216340 0.7863639 5.382462
## sigmasq_ik[54,2] 5.0550374 0.7799850 5.963171
## sigmasq_ik[54,3] 4.4503720 0.8130589 7.063171
## sigmasq_ik[55,3] 4.6700847 0.8180475 7.114126
## sigmasq_ik[56,2] 5.2747501 0.7849615 6.008411
## sigmasq_ik[56,3] 4.6700847 0.8180475 7.114126
## sigmasq_ik[60,3] 5.2747501 0.7849615 6.008411
## sigmasq_ik[61,2] 4.4503720 0.8130589 7.063171
## sigmasq_ik[61,3] 4.4503720 0.8130589 7.063171
## sigmasq_ik[62,2] 1.5562343 0.4479309 6.137446
## sigmasq_ik[62,3] 1.5562343 0.4479309 6.137446
## sigmasq_ik[64,2] 5.0519417 0.9265776 5.839034
## sigmasq_ik[64,3] 4.4472762 0.9517610 6.511759
## sigmasq_ik[65,2] 5.0519417 0.9265776 5.839034
## sigmasq_ik[65,3] 4.4472762 0.9517610 6.511759
## sigmasq_ik[68,2] 4.6700847 0.8180475 7.114126
## sigmasq_ik[69,2] 4.6700847 0.8180475 7.114126
## sigmasq_ik[69,3] 4.6700847 0.8180475 7.114126
## sigmasq_ik[70,3] 4.6700847 0.8180475 7.114126
## sigmasq_ik[71,3] 5.1169686 0.8194254 6.163233
## sigmasq_ik[73,2] 4.6700847 0.8180475 7.114126
## sigmasq_ik[73,3] 4.6700847 0.8180475 7.114126
## sigmasq_ik[76,2] 5.7216340 0.7863639 5.382462
## sigmasq_ik[76,3] 4.6038319 1.0885083 7.112732
## sigmasq_ik[77,2] 4.6700847 0.8180475 7.114126
## sigmasq_ik[78,2] 4.6700847 0.8180475 7.114126
## sigmasq_ik[78,3] 4.6700847 0.8180475 7.114126
## sigmasq_ik[79,1] 1.5562343 0.4479309 6.137446
## sigmasq_ik[79,2] 5.0550374 0.7799850 5.963171
## sigmasq_ik[79,3] 4.6038319 1.0885083 7.112732
## sigmasq_ik[80,2] 4.6700847 0.8180475 7.114126
## sigmasq_ik[80,3] 4.6700847 0.8180475 7.114126
## sigmasq_ik[81,2] 1.5562343 0.4479309 6.137446
## sigmasq_ik[82,2] 4.6700847 0.8180475 7.114126
## sigmasq_ik[83,2] 4.6700847 0.8180475 7.114126
## sigmasq_ik[84,2] 5.1721496 0.7820584 5.551926
## sigmasq_ik[86,2] 5.2747501 0.7849615 6.008411
## sigmasq_ik[86,3] 4.6700847 0.8180475 7.114126
## sigmasq_ik[87,2] 5.0519417 0.9265776 5.839034

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## sigmasq_ik[87,3] 4.4472762 0.9517610 6.511759
## sigmasq_ik[89,2] 5.0550374 0.7799850 5.963171
## sigmasq_ik[89,3] 5.2747501 0.7849615 6.008411
## sigmasq_ik[90,2] 4.4503720 0.8130589 7.063171
## sigmasq_ik[91,2] 4.4503720 0.8130589 7.063171
## sigmasq_ik[91,3] 5.0519417 0.9265776 5.839034
## sigmasq_ik[92,2] 5.0550374 0.7799850 5.963171
## sigmasq_ik[94,2] 5.2747501 0.7849615 6.008411
## sigmasq_ik[94,3] 5.1721496 0.7820584 5.551926
## sigmasq_ik[95,2] 5.0550374 0.7799850 5.963171
## sigmasq_ik[96,3] 5.1721496 0.7820584 5.551926
## sigmasq_ik[98,2] 4.6700847 0.8180475 7.114126
## sigmasq_ik[99,3] 5.1721496 0.7820584 5.551926
## sigmasq_ik[100,1] 1.5562343 0.4479309 6.137446
## sigmasq_ik[103,2] 5.1169686 0.8194254 6.163233
## sigmasq_ik[103,3] 5.1169686 0.8194254 6.163233
## sigmasq_ik[104,2] 5.1169686 0.8194254 6.163233
## sigmasq_ik[105,3] 5.2747501 0.7849615 6.008411
## sigmasq_ik[108,3] 5.1721496 0.7820584 5.551926
## sigmasq_ik[110,2] 5.1169686 0.8194254 6.163233
## sigmasq_ik[111,3] 4.6700847 0.8180475 7.114126
## sigmasq_ik[113,2] 4.6700847 0.8180475 7.114126
## sigmasq_ik[114,2] 4.6700847 0.8180475 7.114126
## sigmasq_ik[115,2] 4.4472762 0.9517610 6.511759
## sigmasq_ik[115,3] 4.6038319 1.0885083 7.112732
## sigmasq_ik[121,2] 5.2747501 0.7849615 6.008411
## sigmasq_ik[122,3] 4.6700847 0.8180475 7.114126
## sigmasq_ik[123,2] 5.0550374 0.7799850 5.963171
## sigmasq_ik[123,3] 5.1721496 0.7820584 5.551926
## sigmasq_ik[125,1] 1.5562343 0.4479309 6.137446
## sigmasq_ik[125,3] 5.0519417 0.9265776 5.839034
## sigmasq_ik[126,1] 1.5562343 0.4479309 6.137446
## sigmasq_ik[126,2] 5.2747501 0.7849615 6.008411
## sigmasq_ik[126,3] 5.0550374 0.7799850 5.963171
## sigmasq_ik[127,3] 4.5674842 0.8151660 6.430335
## sigmasq_ik[128,3] 5.1721496 0.7820584 5.551926
## sigmasq_ik[129,3] 4.6700847 0.8180475 7.114126
## sigmasq_ik[131,1] 1.5562343 0.4479309 6.137446
## sigmasq_ik[131,3] 5.2747501 0.7849615 6.008411
## sigmasq_ik[133,2] 4.6700847 0.8180475 7.114126
## sigmasq_ik[135,2] 5.0519417 0.9265776 5.839034
## sigmasq_ik[136,1] 1.5562343 0.4479309 6.137446
## sigmasq_ik[136,2] 1.5562343 0.4479309 6.137446
## sigmasq_ik[137,1] 1.5562343 0.4479309 6.137446
## sigmasq_ik[137,2] 1.5562343 0.4479309 6.137446
## sigmasq_ik[138,1] 1.5562343 0.4479309 6.137446
## sigmasq_ik[138,2] 1.5562343 0.4479309 6.137446
## sigmasq_ik[139,3] 4.6700847 0.8180475 7.114126
## sigmasq_ik[140,2] 5.0550374 0.7799850 5.963171
## sigmasq_ik[140,3] 4.4503720 0.8130589 7.063171
## sigmasq_ik[141,1] 1.5562343 0.4479309 6.137446
## sigmasq_ik[141,3] 5.1721496 0.7820584 5.551926
## sigmasq_ik[143,3] 5.1721496 0.7820584 5.551926
## sigmasq_ik[144,2] 5.2747501 0.7849615 6.008411

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## sigmasq_ik[144,3] 5.0550374 0.7799850 5.963171
## sigmasq_ik[146,2] 5.7216340 0.7863639 5.382462
## sigmasq_ik[147,2] 4.6700847 0.8180475 7.114126
## sigmasq_ik[148,3] 1.5562343 0.4479309 6.137446
## sigmasq_ik[149,3] 1.5562343 0.4479309 6.137446
## sigmasq_ik[150,2] 4.5674842 0.8151660 6.430335
## sigmasq_ik[150,3] 4.5674842 0.8151660 6.430335
## sigmasq_ik[151,3] 5.2747501 0.7849615 6.008411
## sigmasq_ik[153,2] 5.1721496 0.7820584 5.551926
## sigmasq_ik[153,3] 5.2747501 0.7849615 6.008411
## sigmasq_ik[155,1] 1.5562343 0.4479309 6.137446
## sigmasq_ik[155,3] 5.0519417 0.9265776 5.839034
## sigmasq_ik[159,1] 1.5562343 0.4479309 6.137446
## sigmasq_ik[159,2] 5.2747501 0.7849615 6.008411
## sigmasq_ik[161,2] 4.6700847 0.8180475 7.114126
## sigmasq_ik[161,3] 4.6700847 0.8180475 7.114126
## sigmasq_ik[163,2] 4.4472762 0.9517610 6.511759
## sigmasq_ik[163,3] 5.1721496 0.7820584 5.551926
## sigmasq_ik[164,3] 4.6038319 1.0885083 7.112732
## sigmasq_ik[166,3] 4.6700847 0.8180475 7.114126
## sigmasq_ik[167,3] 4.6700847 0.8180475 7.114126
## sigmasq_ik[168,3] 5.1721496 0.7820584 5.551926
## sigmasq_ik[169,3] 5.2747501 0.7849615 6.008411
## sigmasq_ik[170,2] 4.4503720 0.8130589 7.063171
## sigmasq_ik[172,2] 4.4503720 0.8130589 7.063171
## sigmasq_ik[172,3] 4.4503720 0.8130589 7.063171
## sigmasq_ik[175,3] 4.6038319 1.0885083 7.112732
## sigmasq_ik[179,3] 4.6700847 0.8180475 7.114126
## sigmasq_ik[182,2] 4.6700847 0.8180475 7.114126
## sigmasq_ik[182,3] 4.6700847 0.8180475 7.114126
## sigmasq_ik[183,2] 4.6700847 0.8180475 7.114126
## sigmasq_ik[184,3] 4.6700847 0.8180475 7.114126
## sigmasq_ik[185,2] 4.6700847 0.8180475 7.114126
## sigmasq_ik[187,2] 5.2747501 0.7849615 6.008411
## sigmasq_ik[188,2] 5.1721496 0.7820584 5.551926
## sigmasq_ik[188,3] 5.7216340 0.7863639 5.382462
## sigmasq_ik[190,2] 5.7216340 0.7863639 5.382462
## sigmasq_ik[190,3] 5.2747501 0.7849615 6.008411
## sigmasq_ik[192,2] 4.6700847 0.8180475 7.114126
## sigmasq_ik[195,2] 5.7216340 0.7863639 5.382462
## sigmasq_ik[195,3] 5.2747501 0.7849615 6.008411
## sigmasq_ik[197,2] 4.6700847 0.8180475 7.114126
## sigmasq_ik[197,3] 4.6700847 0.8180475 7.114126
## sigmasq_ik[198,2] 5.0550374 0.7799850 5.963171
## sigmasq_ik[199,2] 4.6038319 1.0885083 7.112732
## sigmasq_ik[199,3] 3.9991665 1.1238138 8.090080
## sigmasq_ik[200,3] 5.7216340 0.7863639 5.382462
## sigmasq_ik[201,2] 5.1169686 0.8194254 6.163233
## sigmasq_ik[201,3] 5.1169686 0.8194254 6.163233
## sigmasq_ik[203,2] 5.2747501 0.7849615 6.008411
## sigmasq_ik[203,3] 5.0550374 0.7799850 5.963171
## sigmasq_ik[204,2] 4.6700847 0.8180475 7.114126
## sigmasq_ik[206,3] 5.0519417 0.9265776 5.839034
## sigmasq_ik[210,1] 1.5562343 0.4479309 6.137446

```



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## sigmasq_ik[210,2] 5.2747501 0.7849615 6.008411
## sigmasq_ik[210,3] 4.6700847 0.8180475 7.114126
## sigmasq_ik[211,2] 4.6700847 0.8180475 7.114126
## sigmasq_ik[211,3] 4.6700847 0.8180475 7.114126
## sigmasq_ik[212,2] 4.4472762 0.9517610 6.511759
## sigmasq_ik[212,3] 4.4472762 0.9517610 6.511759
## sigmasq_ik[215,3] 5.1721496 0.7820584 5.551926
## sigmasq_ik[218,2] 4.6700847 0.8180475 7.114126
## sigmasq_ik[220,2] 5.1721496 0.7820584 5.551926
## sigmasq_ik[221,3] 4.5674842 0.8151660 6.430335
## sigmasq_ik[222,2] 4.6700847 0.8180475 7.114126
## sigmasq_ik[222,3] 4.6700847 0.8180475 7.114126
## sigmasq_ik[223,2] 4.6700847 0.8180475 7.114126
## sigmasq_ik[223,3] 4.6700847 0.8180475 7.114126
## sigmasq_ik[224,2] 4.6700847 0.8180475 7.114126
## sigmasq_ik[225,2] 1.5562343 0.4479309 6.137446
## sigmasq_ik[225,3] 4.6038319 1.0885083 7.112732
## sigmasq_ik[227,2] 5.2747501 0.7849615 6.008411
## sigmasq_ik[227,3] 4.6700847 0.8180475 7.114126
## sigmasq_ik[228,1] 1.5562343 0.4479309 6.137446
## sigmasq_ik[228,3] 5.2747501 0.7849615 6.008411
## sigmasq_ik[233,2] 4.6700847 0.8180475 7.114126
## sigmasq_ik[234,2] 5.0550374 0.7799850 5.963171
## sigmasq_ik[234,3] 4.6038319 1.0885083 7.112732
## sigmasq_ik[235,2] 5.2747501 0.7849615 6.008411
## sigmasq_ik[235,3] 4.6700847 0.8180475 7.114126
## sigmasq_ik[237,2] 5.7216340 0.7863639 5.382462
## sigmasq_ik[238,2] 5.2747501 0.7849615 6.008411
## sigmasq_ik[238,3] 4.6700847 0.8180475 7.114126
## sigmasq_ik[241,2] 5.1721496 0.7820584 5.551926
## sigmasq_ik[243,3] 5.2747501 0.7849615 6.008411
## sigmasq_ik[246,1] 1.5562343 0.4479309 6.137446
## sigmasq_ik[246,2] 5.0550374 0.7799850 5.963171
## sigmasq_ik[247,2] 4.6700847 0.8180475 7.114126
## sigmasq_ik[247,3] 4.6700847 0.8180475 7.114126
## sigmasq_ik[248,1] 1.5562343 0.4479309 6.137446
## sigmasq_ik[249,2] 5.2747501 0.7849615 6.008411
## sigmasq_ik[250,2] 5.2747501 0.7849615 6.008411
## sigmasq_ik[251,2] 4.5674842 0.8151660 6.430335
## sigmasq_ik[251,3] 4.5674842 0.8151660 6.430335
## sigmasq_ik[252,2] 4.4472762 0.9517610 6.511759
## sigmasq_ik[252,3] 4.4472762 0.9517610 6.511759
## sigmasq_ik[253,1] 1.5562343 0.4479309 6.137446
## sigmasq_ik[253,3] 5.7216340 0.7863639 5.382462
## sigmasq_ik[254,2] 5.2747501 0.7849615 6.008411
## sigmasq_ik[254,3] 5.1721496 0.7820584 5.551926
## sigmasq_ik[256,2] 4.6700847 0.8180475 7.114126
## sigmasq_ik[258,2] 4.4472762 0.9517610 6.511759
## sigmasq_ik[258,3] 4.4472762 0.9517610 6.511759
## sigmasq_ik[259,2] 5.1169686 0.8194254 6.163233
## sigmasq_ik[259,3] 5.1169686 0.8194254 6.163233
## sigmasq_ik[260,2] 5.0519417 0.9265776 5.839034
## sigmasq_ik[260,3] 4.4472762 0.9517610 6.511759
## sigmasq_ik[261,2] 5.2747501 0.7849615 6.008411

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## sigmasq_ik[261,3] 4.6700847 0.8180475 7.114126
## sigmasq_ik[264,2] 5.1169686 0.8194254 6.163233
## sigmasq_ik[265,2] 5.1169686 0.8194254 6.163233
## sigmasq_ik[265,3] 5.1169686 0.8194254 6.163233
## sigmasq_ik[266,2] 5.1169686 0.8194254 6.163233
## sigmasq_ik[267,2] 4.6700847 0.8180475 7.114126
## sigmasq_ik[267,3] 5.0550374 0.7799850 5.963171
## sigmasq_ik[268,2] 4.6700847 0.8180475 7.114126
## sigmasq_ik[269,3] 5.1169686 0.8194254 6.163233
## sigmasq_ik[271,2] 5.1169686 0.8194254 6.163233
## sigmasq_ik[272,3] 5.0550374 0.7799850 5.963171
## sigmasq_ik[275,2] 5.0519417 0.9265776 5.839034
## sigmasq_ik[275,3] 5.0550374 0.7799850 5.963171
## sigmasq_ik[277,2] 5.7216340 0.7863639 5.382462
## sigmasq_ik[277,3] 5.1169686 0.8194254 6.163233
## sigmasq_ik[278,2] 1.5562343 0.4479309 6.137446
## sigmasq_ik[278,3] 5.0550374 0.7799850 5.963171
## sigmasq_ik[279,2] 5.1721496 0.7820584 5.551926
## sigmasq_ik[279,3] 4.5674842 0.8151660 6.430335
## sigmasq_ik[280,2] 1.5562343 0.4479309 6.137446
## sigmasq_ik[281,1] 1.5562343 0.4479309 6.137446
## sigmasq_ik[281,3] 1.5562343 0.4479309 6.137446
## sigmasq_ik[282,2] 4.4472762 0.9517610 6.511759
## sigmasq_ik[284,2] 5.2747501 0.7849615 6.008411
## sigmasq_ik[284,3] 4.6700847 0.8180475 7.114126
## sigmasq_ik[285,1] 1.5562343 0.4479309 6.137446
## sigmasq_ik[285,2] 5.0550374 0.7799850 5.963171
## sigmasq_ik[285,3] 1.5562343 0.4479309 6.137446
## sigmasq_ik[287,2] 5.0519417 0.9265776 5.839034
## sigmasq_ik[288,1] 1.5562343 0.4479309 6.137446
## sigmasq_ik[288,2] 5.0550374 0.7799850 5.963171
## sigmasq_ik[288,3] 1.5562343 0.4479309 6.137446
## sigmasq_ik[292,3] 4.6700847 0.8180475 7.114126
## sigmasq_ik[293,2] 4.6700847 0.8180475 7.114126
## sigmasq_ik[293,3] 4.6700847 0.8180475 7.114126
## sigmasq_ik[296,2] 5.0550374 0.7799850 5.963171
## sigmasq_ik[297,2] 5.2747501 0.7849615 6.008411
## sigmasq_ik[300,2] 4.6038319 1.0885083 7.112732
## sigmasq_ik[300,3] 3.9991665 1.1238138 8.090080
## sigmasq_ik[301,3] 4.6700847 0.8180475 7.114126
## sigmasq_ik[302,2] 5.0519417 0.9265776 5.839034
## sigmasq_ik[302,3] 5.2747501 0.7849615 6.008411
## sigmasq_ik[303,2] 5.2747501 0.7849615 6.008411
## sigmasq_ik[303,3] 4.6700847 0.8180475 7.114126
## sigmasq_ik[304,2] 4.6700847 0.8180475 7.114126
## sigmasq_ik[305,2] 5.2747501 0.7849615 6.008411
## sigmasq_ik[307,2] 4.6700847 0.8180475 7.114126
## sigmasq_ik[310,2] 4.6700847 0.8180475 7.114126
## sigmasq_ik[311,2] 1.5562343 0.4479309 6.137446
## sigmasq_ik[311,3] 5.2747501 0.7849615 6.008411
## sigmasq_ik[312,2] 5.2747501 0.7849615 6.008411
## sigmasq_ik[312,3] 4.6700847 0.8180475 7.114126
## sigmasq_ik[313,2] 5.2747501 0.7849615 6.008411
## sigmasq_ik[315,2] 5.0550374 0.7799850 5.963171

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## sigmasq_ik[322,2] 4.4503720 0.8130589 7.063171
## sigmasq_ik[323,2] 5.2747501 0.7849615 6.008411
## sigmasq_ik[323,3] 4.6038319 1.0885083 7.112732
## sigmasq_ik[324,2] 4.6700847 0.8180475 7.114126
## sigmasq_ik[324,3] 4.6700847 0.8180475 7.114126
## sigmasq_ik[325,2] 4.6700847 0.8180475 7.114126
## sigmasq_ik[325,3] 4.6700847 0.8180475 7.114126
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## sigmasq_ik[326,2] 1.5562343 0.4479309 6.137446
## sigmasq_ik[326,3] 1.5562343 0.4479309 6.137446
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## sigmasq_ik[328,2] 4.6700847 0.8180475 7.114126
## sigmasq_ik[329,2] 5.7216340 0.7863639 5.382462
## sigmasq_ik[330,2] 5.1721496 0.7820584 5.551926
## sigmasq_ik[331,2] 5.2747501 0.7849615 6.008411
## sigmasq_ik[334,2] 5.2747501 0.7849615 6.008411
## sigmasq_ik[335,2] 5.2747501 0.7849615 6.008411
## sigmasq_ik[340,2] 5.0550374 0.7799850 5.963171
## sigmasq_ik[340,3] 5.2747501 0.7849615 6.008411
## sigmasq_ik[345,2] 4.5674842 0.8151660 6.430335
## sigmasq_ik[345,3] 5.0550374 0.7799850 5.963171
## sigmasq_ik[346,3] 5.7216340 0.7863639 5.382462
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## sigmasq_ik[348,2] 1.5562343 0.4479309 6.137446
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## sigmasq_ik[350,3] 4.4503720 0.8130589 7.063171
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## sigmasq_ik[357,3] 5.0519417 0.9265776 5.839034
## sigmasq_ik[358,2] 4.5674842 0.8151660 6.430335
## sigmasq_ik[358,3] 4.5674842 0.8151660 6.430335
## sigmasq_ik[359,2] 4.5674842 0.8151660 6.430335
## sigmasq_ik[359,3] 4.5674842 0.8151660 6.430335
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## sigmasq_ik[365,3] 3.9991665 1.1238138 8.090080
## sigmasq_ik[366,2] 5.0519417 0.9265776 5.839034
## sigmasq_ik[366,3] 4.6038319 1.0885083 7.112732
## sigmasq_ik[367,2] 5.1721496 0.7820584 5.551926
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## sigmasq_ik[368,3] 3.9991665 1.1238138 8.090080
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## sigmasq_ik[374,2] 4.6700847 0.8180475 7.114126
## sigmasq_ik[374,3] 5.0550374 0.7799850 5.963171
## sigmasq_ik[375,2] 5.2747501 0.7849615 6.008411
## sigmasq_ik[378,2] 5.1721496 0.7820584 5.551926
## sigmasq_ik[378,3] 4.6038319 1.0885083 7.112732

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## sigmasq_ik[379,2] 4.6700847 0.8180475 7.114126
## sigmasq_ik[381,3] 4.6700847 0.8180475 7.114126
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## sigmasq_ik[386,2] 5.2747501 0.7849615 6.008411
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## sigmasq_ik[387,3] 1.5562343 0.4479309 6.137446
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## sigmasq_ik[392,3] 4.6700847 0.8180475 7.114126
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## sigmasq_ik[409,3] 4.6038319 1.0885083 7.112732
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## sigmasq_ik[411,3] 4.6700847 0.8180475 7.114126
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## sigmasq_ik[439,2] 4.6700847 0.8180475 7.114126
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## sigmasq_ik[443,2] 5.0550374 0.7799850 5.963171
## sigmasq_ik[444,2] 4.4472762 0.9517610 6.511759
## sigmasq_ik[444,3] 5.0550374 0.7799850 5.963171
## sigmasq_ik[446,3] 4.6700847 0.8180475 7.114126

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## sigmasq_ik[447,2] 5.1721496 0.7820584 5.551926
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## sigmasq_ik[449,2] 5.0550374 0.7799850 5.963171
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## sigmasq_ik[451,2] 4.4503720 0.8130589 7.063171
## sigmasq_ik[452,2] 5.2747501 0.7849615 6.008411
## sigmasq_ik[452,3] 5.0519417 0.9265776 5.839034
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## sigmasq_ik[455,2] 5.2747501 0.7849615 6.008411
## sigmasq_ik[455,3] 4.6038319 1.0885083 7.112732
## sigmasq_ik[456,2] 5.0550374 0.7799850 5.963171
## sigmasq_ik[458,2] 4.6700847 0.8180475 7.114126
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## sigmasq_ik[469,3] 5.1721496 0.7820584 5.551926
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## sigmasq_ik[471,2] 5.0550374 0.7799850 5.963171
## sigmasq_ik[471,3] 4.6038319 1.0885083 7.112732
## sigmasq_ik[472,2] 4.4503720 0.8130589 7.063171
## sigmasq_ik[472,3] 4.4503720 0.8130589 7.063171
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## sigmasq_ik[475,3] 5.7216340 0.7863639 5.382462
## sigmasq_ik[476,2] 4.6700847 0.8180475 7.114126
## sigmasq_ik[476,3] 4.6700847 0.8180475 7.114126
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## sigmasq_ik[481,2] 4.4503720 0.8130589 7.063171
## sigmasq_ik[482,2] 4.4503720 0.8130589 7.063171
## sigmasq_ik[482,3] 4.4503720 0.8130589 7.063171
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## sigmasq_ik[484,3] 4.4503720 0.8130589 7.063171
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## sigmasq_ik[489,3] 5.0550374 0.7799850 5.963171
## sigmasq_ik[491,2] 4.4503720 0.8130589 7.063171
## sigmasq_ik[491,3] 4.4503720 0.8130589 7.063171
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## sigmasq_ik[493,2] 5.2747501 0.7849615 6.008411

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## sigmasq_ik[498,3] 4.4472762 0.9517610 6.511759
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## sigmasq_ik[509,3] 4.4503720 0.8130589 7.063171
## sigmasq_ik[510,2] 4.4503720 0.8130589 7.063171
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## sigmasq_ik[546,3] 5.0550374 0.7799850 5.963171

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## sigmasq_ik[547,2] 4.6700847 0.8180475 7.114126
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## sigmasq_ik[550,2] 5.0550374 0.7799850 5.963171
## sigmasq_ik[551,2] 5.1721496 0.7820584 5.551926
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## sigmasq_ik[553,2] 5.1721496 0.7820584 5.551926
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## sigmasq_ik[555,2] 5.2747501 0.7849615 6.008411
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## sigmasq_ik[556,3] 1.5562343 0.4479309 6.137446
## sigmasq_ik[558,2] 1.5562343 0.4479309 6.137446
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## sigmasq_ik[564,2] 1.5562343 0.4479309 6.137446
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## sigmasq_ik[566,2] 1.5562343 0.4479309 6.137446
## sigmasq_ik[566,3] 4.6038319 1.0885083 7.112732
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## sigmasq_ik[570,2] 4.4503720 0.8130589 7.063171
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## sigmasq_ik[571,3] 5.0550374 0.7799850 5.963171
## sigmasq_ik[572,2] 5.1721496 0.7820584 5.551926
## sigmasq_ik[573,2] 4.4503720 0.8130589 7.063171
## sigmasq_ik[574,3] 4.6038319 1.0885083 7.112732
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## sigmasq_ik[586,2] 5.1169686 0.8194254 6.163233
## sigmasq_ik[586,3] 5.0550374 0.7799850 5.963171
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## sigmasq_ik[587,2] 1.5562343 0.4479309 6.137446
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## sigmasq_ik[588,3] 1.5562343 0.4479309 6.137446
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## sigmasq_ik[590,2] 5.1721496 0.7820584 5.551926

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## sigmasq_ik[590,3] 5.2747501 0.7849615 6.008411
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## sigmasq_ik[597,2] 1.5562343 0.4479309 6.137446
## sigmasq_ik[597,3] 1.5562343 0.4479309 6.137446
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## sigmasq_ik[599,2] 1.5562343 0.4479309 6.137446
## sigmasq_ik[601,1] 1.5562343 0.4479309 6.137446
## sigmasq_ik[601,2] 1.5562343 0.4479309 6.137446
## sigmasq_ik[601,3] 1.5562343 0.4479309 6.137446
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## sigmasq_ik[604,3] 1.5562343 0.4479309 6.137446
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## sigmasq_ik[608,3] 4.6700847 0.8180475 7.114126
## sigmasq_ik[609,2] 4.4503720 0.8130589 7.063171
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## sigmasq_ik[612,3] 4.6700847 0.8180475 7.114126
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## sigmasq_ik[614,2] 1.5562343 0.4479309 6.137446
## sigmasq_ik[615,2] 4.6700847 0.8180475 7.114126
## sigmasq_ik[617,1] 1.5562343 0.4479309 6.137446
## sigmasq_ik[617,2] 5.0550374 0.7799850 5.963171
## sigmasq_ik[619,1] 1.5562343 0.4479309 6.137446
## sigmasq_ik[619,2] 5.2747501 0.7849615 6.008411
## sigmasq_ik[620,1] 1.5562343 0.4479309 6.137446
## sigmasq_ik[620,3] 5.0550374 0.7799850 5.963171
## sigmasq_ik[621,2] 5.0550374 0.7799850 5.963171
## sigmasq_ik[622,1] 1.5562343 0.4479309 6.137446
## sigmasq_ik[622,2] 5.0550374 0.7799850 5.963171
## sigmasq_ik[622,3] 4.4503720 0.8130589 7.063171
## sigmasq_ik[623,1] 1.5562343 0.4479309 6.137446
## sigmasq_ik[623,2] 5.0550374 0.7799850 5.963171
## sigmasq_ik[623,3] 4.4503720 0.8130589 7.063171
## sigmasq_ik[625,3] 4.4503720 0.8130589 7.063171
## sigmasq_ik[626,1] 1.5562343 0.4479309 6.137446
## sigmasq_ik[626,2] 5.0550374 0.7799850 5.963171
## sigmasq_ik[626,3] 4.4503720 0.8130589 7.063171
## sigmasq_ik[627,1] 1.5562343 0.4479309 6.137446
## sigmasq_ik[627,3] 5.1721496 0.7820584 5.551926
## sigmasq_ik[628,1] 1.5562343 0.4479309 6.137446
## sigmasq_ik[628,2] 1.5562343 0.4479309 6.137446
## sigmasq_ik[629,2] 4.6700847 0.8180475 7.114126
## sigmasq_ik[630,3] 5.1721496 0.7820584 5.551926

```



```

## sigmasq_ik[631,3] 5.0550374 0.7799850 5.963171
## sigmasq_ik[632,1] 1.5562343 0.4479309 6.137446
## sigmasq_ik[632,2] 5.0550374 0.7799850 5.963171
## sigmasq_ik[632,3] 4.4503720 0.8130589 7.063171
## sigmasq_ik[634,1] 1.5562343 0.4479309 6.137446
## sigmasq_ik[634,2] 1.5562343 0.4479309 6.137446
## sigmasq_ik[634,3] 1.5562343 0.4479309 6.137446
## sigmasq_ik[637,3] 5.2747501 0.7849615 6.008411
## sigmasq_ik[641,3] 4.6700847 0.8180475 7.114126
## sigmasq_ik[642,3] 5.0550374 0.7799850 5.963171
## sigmasq_ik[643,3] 4.6038319 1.0885083 7.112732
## sigmasq_ik[645,2] 5.2747501 0.7849615 6.008411
## sigmasq_ik[645,3] 5.1721496 0.7820584 5.551926
## sigmasq_ik[646,2] 1.5562343 0.4479309 6.137446
## sigmasq_ik[646,3] 1.5562343 0.4479309 6.137446
## sigmasq_ik[648,2] 5.0550374 0.7799850 5.963171
## sigmasq_ik[653,2] 5.2747501 0.7849615 6.008411
## sigmasq_ik[653,3] 4.6700847 0.8180475 7.114126
## sigmasq_ik[654,3] 4.4503720 0.8130589 7.063171
## sigmasq_ik[656,2] 4.6700847 0.8180475 7.114126
## sigmasq_ik[657,2] 5.0550374 0.7799850 5.963171
## sigmasq_ik[658,1] 1.5562343 0.4479309 6.137446
## sigmasq_ik[659,1] 1.5562343 0.4479309 6.137446
## sigmasq_ik[659,3] 5.1721496 0.7820584 5.551926
## sigmasq_ik[660,3] 5.1721496 0.7820584 5.551926
## sigmasq_ik[661,2] 4.4503720 0.8130589 7.063171
## sigmasq_ik[661,3] 4.6038319 1.0885083 7.112732
## sigmasq_ik[666,2] 5.2747501 0.7849615 6.008411
## sigmasq_ik[667,3] 5.2747501 0.7849615 6.008411
## sigmasq_ik[669,2] 5.1721496 0.7820584 5.551926
## sigmasq_ik[674,2] 5.1169686 0.8194254 6.163233
## sigmasq_ik[676,2] 5.1721496 0.7820584 5.551926
## sigmasq_ik[676,3] 5.0550374 0.7799850 5.963171
## sigmasq_ik[677,3] 5.1169686 0.8194254 6.163233
## sigmasq_ik[679,2] 5.2747501 0.7849615 6.008411
## sigmasq_ik[679,3] 4.6038319 1.0885083 7.112732
## sigmasq_ik[685,2] 5.2747501 0.7849615 6.008411
## sigmasq_ik[687,2] 4.4503720 0.8130589 7.063171
## sigmasq_ik[688,2] 1.5562343 0.4479309 6.137446
## sigmasq_ik[690,3] 5.1169686 0.8194254 6.163233
## sigmasq_ik[692,3] 4.6700847 0.8180475 7.114126
## sigmasq_ik[696,1] 1.5562343 0.4479309 6.137446
## sigmasq_ik[696,2] 5.0550374 0.7799850 5.963171
## sigmasq_ik[696,3] 4.4503720 0.8130589 7.063171
## sigmasq_ik[697,1] 1.5562343 0.4479309 6.137446
## sigmasq_ik[697,3] 5.0519417 0.9265776 5.839034
## sigmasq_ik[700,2] 4.6700847 0.8180475 7.114126
## sigmasq_ik[700,3] 4.6700847 0.8180475 7.114126
## sigmasq_ik[702,3] 4.4503720 0.8130589 7.063171
## sigmasq_ik[704,2] 4.4503720 0.8130589 7.063171
## sigmasq_ik[704,3] 4.4503720 0.8130589 7.063171
## sigmasq_ik[706,3] 5.0550374 0.7799850 5.963171
## sigmasq_ik[709,3] 5.0550374 0.7799850 5.963171
## sigmasq_ik[710,2] 5.7216340 0.7863639 5.382462

```

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## sigmasq_ik[710,3] 5.0550374 0.7799850 5.963171
## sigmasq_ik[713,2] 4.4503720 0.8130589 7.063171
## sigmasq_ik[713,3] 4.4503720 0.8130589 7.063171
## sigmasq_ik[716,2] 4.4503720 0.8130589 7.063171
## sigmasq_ik[716,3] 4.4503720 0.8130589 7.063171
## sigmasq_ik[717,2] 4.4503720 0.8130589 7.063171
## sigmasq_ik[720,2] 5.0550374 0.7799850 5.963171
## sigmasq_ik[720,3] 5.2747501 0.7849615 6.008411
## sigmasq_ik[721,2] 5.2747501 0.7849615 6.008411
## sigmasq_ik[722,2] 4.4503720 0.8130589 7.063171
## sigmasq_ik[722,3] 4.4503720 0.8130589 7.063171
## sigmasq_ik[724,2] 4.4503720 0.8130589 7.063171
## sigmasq_ik[725,2] 4.4472762 0.9517610 6.511759
## sigmasq_ik[725,3] 5.1721496 0.7820584 5.551926
## sigmasq_ik[726,2] 5.2747501 0.7849615 6.008411
## sigmasq_ik[726,3] 4.6700847 0.8180475 7.114126
## sigmasq_ik[727,1] 1.5562343 0.4479309 6.137446
## sigmasq_ik[727,2] 1.5562343 0.4479309 6.137446
## sigmasq_ik[727,3] 5.2747501 0.7849615 6.008411
## sigmasq_ik[728,2] 5.2747501 0.7849615 6.008411
## sigmasq_ik[729,2] 4.4503720 0.8130589 7.063171
## sigmasq_ik[729,3] 4.4503720 0.8130589 7.063171
## sigmasq_ik[730,3] 5.0550374 0.7799850 5.963171
## sigmasq_ik[731,2] 5.0519417 0.9265776 5.839034
## sigmasq_ik[732,2] 5.1169686 0.8194254 6.163233
## sigmasq_ik[732,3] 5.2747501 0.7849615 6.008411
## sigmasq_ik[735,2] 5.2747501 0.7849615 6.008411
## sigmasq_ik[736,3] 4.6700847 0.8180475 7.114126
## sigmasq_ik[737,2] 4.4503720 0.8130589 7.063171
## sigmasq_ik[739,2] 4.4503720 0.8130589 7.063171
## sigmasq_ik[739,3] 4.4503720 0.8130589 7.063171
## sigmasq_ik[740,2] 4.4503720 0.8130589 7.063171
## sigmasq_ik[740,3] 4.4503720 0.8130589 7.063171
## sigmasq_ik[744,3] 5.2747501 0.7849615 6.008411
## sigmasq_ik[747,2] 4.4503720 0.8130589 7.063171
## sigmasq_ik[748,2] 4.4503720 0.8130589 7.063171
## sigmasq_ik[750,2] 4.4503720 0.8130589 7.063171
## sigmasq_ik[750,3] 4.4503720 0.8130589 7.063171
## sigmasq_ik[751,3] 4.6038319 1.0885083 7.112732
## sigmasq_ik[756,2] 4.6700847 0.8180475 7.114126
## sigmasq_ik[756,3] 5.0519417 0.9265776 5.839034
## sigmasq_ik[757,2] 4.6700847 0.8180475 7.114126
## sigmasq_ik[762,3] 5.1721496 0.7820584 5.551926
## sigmasq_ik[766,2] 5.1721496 0.7820584 5.551926
## sigmasq_ik[766,3] 5.2747501 0.7849615 6.008411
## sigmasq_ik[767,3] 4.6038319 1.0885083 7.112732
## sigmasq_ik[768,2] 5.1721496 0.7820584 5.551926
## sigmasq_ik[769,2] 5.1721496 0.7820584 5.551926
## sigmasq_ik[769,3] 5.0550374 0.7799850 5.963171
## sigmasq_ik[770,2] 5.1721496 0.7820584 5.551926
## sigmasq_ik[770,3] 4.5674842 0.8151660 6.430335
## sigmasq_ik[771,2] 4.4472762 0.9517610 6.511759
## sigmasq_ik[772,2] 5.0550374 0.7799850 5.963171
## sigmasq_ik[773,1] 1.5562343 0.4479309 6.137446

```

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## sigmasq_ik[773,3] 5.2747501 0.7849615 6.008411
## sigmasq_ik[777,2] 5.2747501 0.7849615 6.008411
## sigmasq_ik[778,3] 5.2747501 0.7849615 6.008411
## sigmasq_ik[780,2] 5.2747501 0.7849615 6.008411
## sigmasq_ik[780,3] 4.6038319 1.0885083 7.112732
## sigmasq_ik[784,3] 4.6700847 0.8180475 7.114126
## sigmasq_ik[787,2] 4.6700847 0.8180475 7.114126
## sigmasq_ik[787,3] 4.6700847 0.8180475 7.114126
## sigmasq_ik[788,2] 5.2747501 0.7849615 6.008411
## sigmasq_ik[790,3] 4.6700847 0.8180475 7.114126
## sigmasq_ik[791,2] 4.6700847 0.8180475 7.114126
## sigmasq_ik[791,3] 5.0550374 0.7799850 5.963171
## sigmasq_ik[792,2] 4.6700847 0.8180475 7.114126
## sigmasq_ik[793,3] 4.6700847 0.8180475 7.114126
## sigmasq_ik[795,3] 4.6700847 0.8180475 7.114126
## sigmasq_ik[796,2] 1.5562343 0.4479309 6.137446
## sigmasq_ik[796,3] 1.5562343 0.4479309 6.137446
## sigmasq_ik[798,1] 1.5562343 0.4479309 6.137446
## sigmasq_ik[800,1] 1.5562343 0.4479309 6.137446
## sigmasq_ik[800,3] 5.0550374 0.7799850 5.963171
## sigmasq_ik[802,2] 4.4503720 0.8130589 7.063171
## sigmasq_ik[802,3] 4.4503720 0.8130589 7.063171
## sigmasq_ik[803,2] 4.4503720 0.8130589 7.063171
## sigmasq_ik[808,2] 5.7216340 0.7863639 5.382462
## sigmasq_ik[808,3] 5.1721496 0.7820584 5.551926
## sigmasq_ik[812,2] 4.5674842 0.8151660 6.430335
## sigmasq_ik[813,1] 1.5562343 0.4479309 6.137446
## sigmasq_ik[813,3] 1.5562343 0.4479309 6.137446
## sigmasq_ik[814,2] 4.6700847 0.8180475 7.114126
## sigmasq_ik[816,3] 4.6700847 0.8180475 7.114126
## sigmasq_ik[817,1] 1.5562343 0.4479309 6.137446
## sigmasq_ik[818,3] 4.6700847 0.8180475 7.114126
## sigmasq_ik[820,2] 4.5674842 0.8151660 6.430335
## sigmasq_ik[820,3] 4.5674842 0.8151660 6.430335
## sigmasq_ik[822,3] 4.6700847 0.8180475 7.114126
## sigmasq_ik[825,2] 4.5674842 0.8151660 6.430335
## sigmasq_ik[826,3] 5.2747501 0.7849615 6.008411
## sigmasq_ik[827,2] 5.7216340 0.7863639 5.382462
## sigmasq_ik[829,1] 1.5562343 0.4479309 6.137446
## sigmasq_ik[829,2] 1.5562343 0.4479309 6.137446
## sigmasq_ik[831,2] 5.2747501 0.7849615 6.008411
## sigmasq_ik[831,3] 5.1721496 0.7820584 5.551926
## sigmasq_ik[833,2] 4.4503720 0.8130589 7.063171
## sigmasq_ik[833,3] 5.1721496 0.7820584 5.551926
## sigmasq_ik[834,3] 5.2747501 0.7849615 6.008411
## sigmasq_ik[836,2] 1.5562343 0.4479309 6.137446
## sigmasq_ik[837,3] 5.0550374 0.7799850 5.963171
## sigmasq_ik[839,2] 5.2747501 0.7849615 6.008411
## sigmasq_ik[840,2] 5.2747501 0.7849615 6.008411
## sigmasq_ik[840,3] 5.1721496 0.7820584 5.551926
## sigmasq_ik[841,1] 1.5562343 0.4479309 6.137446
## sigmasq_ik[841,2] 1.5562343 0.4479309 6.137446
## sigmasq_ik[841,3] 1.5562343 0.4479309 6.137446
## sigmasq_ik[842,3] 5.1721496 0.7820584 5.551926

```

```

## sigmasq_ik[845,2] 5.1169686 0.8194254 6.163233
## sigmasq_ik[845,3] 5.1169686 0.8194254 6.163233
## sigmasq_ik[846,1] 1.5562343 0.4479309 6.137446
## sigmasq_ik[846,2] 1.5562343 0.4479309 6.137446
## sigmasq_ik[849,3] 4.6700847 0.8180475 7.114126
## sigmasq_ik[850,1] 1.5562343 0.4479309 6.137446
## sigmasq_ik[853,2] 4.6700847 0.8180475 7.114126
## sigmasq_ik[857,2] 5.2747501 0.7849615 6.008411
## sigmasq_ik[858,2] 4.6700847 0.8180475 7.114126
## sigmasq_ik[858,3] 4.6700847 0.8180475 7.114126
## sigmasq_ik[860,2] 5.1169686 0.8194254 6.163233
## sigmasq_ik[860,3] 5.2747501 0.7849615 6.008411
## sigmasq_ik[862,2] 4.6700847 0.8180475 7.114126
## sigmasq_ik[862,3] 4.6700847 0.8180475 7.114126
## sigmasq_ik[863,1] 1.5562343 0.4479309 6.137446
## sigmasq_ik[863,2] 5.0550374 0.7799850 5.963171
## sigmasq_ik[863,3] 4.4503720 0.8130589 7.063171
## sigmasq_ik[865,2] 5.2747501 0.7849615 6.008411
## sigmasq_ik[865,3] 4.6700847 0.8180475 7.114126
## sigmasq_ik[866,2] 5.7216340 0.7863639 5.382462
## sigmasq_ik[866,3] 5.0550374 0.7799850 5.963171
## sigmasq_ik[867,2] 5.7216340 0.7863639 5.382462
## sigmasq_ik[867,3] 5.2747501 0.7849615 6.008411
## sigmasq_ik[868,1] 1.5562343 0.4479309 6.137446
## sigmasq_ik[868,2] 1.5562343 0.4479309 6.137446
## sigmasq_ik[868,3] 1.5562343 0.4479309 6.137446
## sigmasq_ik[869,2] 5.2747501 0.7849615 6.008411
## sigmasq_ik[869,3] 4.6700847 0.8180475 7.114126
## sigmasq_ik[870,3] 5.1169686 0.8194254 6.163233
## sigmasq_ik[871,2] 5.1169686 0.8194254 6.163233
## sigmasq_ik[871,3] 5.2747501 0.7849615 6.008411
## sigmasq_ik[872,1] 1.5562343 0.4479309 6.137446
## sigmasq_ik[873,2] 4.6700847 0.8180475 7.114126
## sigmasq_ik[873,3] 5.0550374 0.7799850 5.963171
## sigmasq_ik[874,2] 5.0550374 0.7799850 5.963171
## sigmasq_ik[877,2] 4.6700847 0.8180475 7.114126
## sigmasq_ik[878,2] 4.6700847 0.8180475 7.114126
## sigmasq_ik[878,3] 4.6700847 0.8180475 7.114126
## sigmasq_ik[879,2] 4.6700847 0.8180475 7.114126
## sigmasq_ik[879,3] 5.1721496 0.7820584 5.551926
## sigmasq_ik[880,2] 4.5674842 0.8151660 6.430335
## sigmasq_ik[881,2] 4.4503720 0.8130589 7.063171
## sigmasq_ik[881,3] 5.7216340 0.7863639 5.382462
## sigmasq_ik[882,2] 1.5562343 0.4479309 6.137446
## sigmasq_ik[882,3] 5.7216340 0.7863639 5.382462
## sigmasq_ik[883,3] 4.6038319 1.0885083 7.112732
## sigmasq_ik[884,3] 5.1721496 0.7820584 5.551926
## sigmasq_ik[885,2] 4.6700847 0.8180475 7.114126
## sigmasq_ik[885,3] 4.6700847 0.8180475 7.114126
## sigmasq_ik[890,1] 1.5562343 0.4479309 6.137446
## sigmasq_ik[890,2] 1.5562343 0.4479309 6.137446
## sigmasq_ik[890,3] 1.5562343 0.4479309 6.137446
## sigmasq_ik[897,2] 5.2747501 0.7849615 6.008411
## sigmasq_ik[900,2] 4.5674842 0.8151660 6.430335

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## sigmasq_ik[901,2] 4.6700847 0.8180475 7.114126
## sigmasq_ik[901,3] 4.6700847 0.8180475 7.114126
## sigmasq_ik[902,3] 4.6700847 0.8180475 7.114126
## sigmasq_ik[904,2] 5.0519417 0.9265776 5.839034
## sigmasq_ik[906,2] 5.1169686 0.8194254 6.163233
## sigmasq_ik[908,2] 5.1169686 0.8194254 6.163233
## sigmasq_ik[909,2] 5.0550374 0.7799850 5.963171
## sigmasq_ik[909,3] 5.7216340 0.7863639 5.382462
## sigmasq_ik[910,2] 5.1169686 0.8194254 6.163233
## sigmasq_ik[912,3] 4.6700847 0.8180475 7.114126
## sigmasq_ik[913,3] 1.5562343 0.4479309 6.137446
## sigmasq_ik[914,2] 4.6700847 0.8180475 7.114126
## sigmasq_ik[915,2] 5.0550374 0.7799850 5.963171
## sigmasq_ik[915,3] 5.1721496 0.7820584 5.551926
## sigmasq_ik[916,2] 4.4503720 0.8130589 7.063171
## sigmasq_ik[916,3] 5.1721496 0.7820584 5.551926
## sigmasq_ik[917,1] 1.5562343 0.4479309 6.137446
## sigmasq_ik[917,2] 1.5562343 0.4479309 6.137446
## sigmasq_ik[918,2] 4.4503720 0.8130589 7.063171
## sigmasq_ik[918,3] 5.7216340 0.7863639 5.382462
## sigmasq_ik[919,1] 1.5562343 0.4479309 6.137446
## sigmasq_ik[919,2] 5.7216340 0.7863639 5.382462
## sigmasq_ik[920,2] 5.1169686 0.8194254 6.163233
## sigmasq_ik[921,2] 5.1721496 0.7820584 5.551926
## sigmasq_ik[921,3] 5.0550374 0.7799850 5.963171
## sigmasq_ik[922,2] 5.1169686 0.8194254 6.163233
## sigmasq_ik[923,3] 5.1169686 0.8194254 6.163233
## sigmasq_ik[924,2] 4.6700847 0.8180475 7.114126
## sigmasq_ik[924,3] 4.6700847 0.8180475 7.114126
## sigmasq_ik[925,2] 4.4503720 0.8130589 7.063171
## sigmasq_ik[929,2] 4.6038319 1.0885083 7.112732
## sigmasq_ik[929,3] 5.0550374 0.7799850 5.963171
## sigmasq_ik[930,2] 4.4472762 0.9517610 6.511759
## sigmasq_ik[930,3] 5.0550374 0.7799850 5.963171
## sigmasq_ik[931,1] 1.5562343 0.4479309 6.137446
## sigmasq_ik[932,1] 1.5562343 0.4479309 6.137446
## sigmasq_ik[932,2] 1.5562343 0.4479309 6.137446
## sigmasq_ik[933,2] 5.7216340 0.7863639 5.382462
## sigmasq_ik[933,3] 5.0550374 0.7799850 5.963171
## sigmasq_ik[934,2] 5.0550374 0.7799850 5.963171
## sigmasq_ik[935,3] 5.0519417 0.9265776 5.839034
## sigmasq_ik[936,2] 5.7216340 0.7863639 5.382462
## sigmasq_ik[937,2] 5.1721496 0.7820584 5.551926
## sigmasq_ik[937,3] 5.2747501 0.7849615 6.008411
## sigmasq_ik[938,1] 1.5562343 0.4479309 6.137446
## sigmasq_ik[938,2] 5.7216340 0.7863639 5.382462
## sigmasq_ik[939,2] 5.7216340 0.7863639 5.382462
## sigmasq_ik[939,3] 5.0550374 0.7799850 5.963171
## sigmasq_ik[940,2] 5.0550374 0.7799850 5.963171
## sigmasq_ik[941,2] 5.7216340 0.7863639 5.382462
## sigmasq_ik[942,2] 5.0550374 0.7799850 5.963171
## sigmasq_ik[942,3] 5.2747501 0.7849615 6.008411
## sigmasq_ik[943,2] 5.0550374 0.7799850 5.963171
## sigmasq_ik[943,3] 5.2747501 0.7849615 6.008411

```

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## sigmasq_ik[944,2] 5.7216340 0.7863639 5.382462
## sigmasq_ik[945,2] 5.1169686 0.8194254 6.163233
## sigmasq_ik[945,3] 5.0550374 0.7799850 5.963171
## sigmasq_ik[946,2] 4.4503720 0.8130589 7.063171
## sigmasq_ik[946,3] 4.4503720 0.8130589 7.063171
## sigmasq_ik[948,2] 5.7216340 0.7863639 5.382462
## sigmasq_ik[948,3] 5.0550374 0.7799850 5.963171
## sigmasq_ik[949,2] 4.4503720 0.8130589 7.063171
## sigmasq_ik[949,3] 5.1721496 0.7820584 5.551926
## sigmasq_ik[950,3] 5.0550374 0.7799850 5.963171
## sigmasq_ik[951,2] 4.4503720 0.8130589 7.063171
## sigmasq_ik[951,3] 4.4503720 0.8130589 7.063171
## sigmasq_ik[952,2] 4.4503720 0.8130589 7.063171
## sigmasq_ik[952,3] 4.4503720 0.8130589 7.063171
## sigmasq_ik[953,2] 4.4503720 0.8130589 7.063171
## sigmasq_ik[953,3] 4.4503720 0.8130589 7.063171
## sigmasq_ik[955,2] 5.7216340 0.7863639 5.382462
## sigmasq_ik[957,3] 4.6700847 0.8180475 7.114126
## sigmasq_ik[958,2] 4.4503720 0.8130589 7.063171
## sigmasq_ik[960,3] 4.6700847 0.8180475 7.114126
## sigmasq_ik[964,3] 4.6038319 1.0885083 7.112732
## sigmasq_ik[965,1] 1.5562343 0.4479309 6.137446
## sigmasq_ik[965,2] 5.7216340 0.7863639 5.382462
## sigmasq_ik[966,3] 5.0550374 0.7799850 5.963171
## sigmasq_ik[969,2] 4.4503720 0.8130589 7.063171
## sigmasq_ik[969,3] 5.1721496 0.7820584 5.551926
## sigmasq_ik[970,2] 5.2747501 0.7849615 6.008411
## sigmasq_ik[970,3] 4.6700847 0.8180475 7.114126
## sigmasq_ik[973,1] 1.5562343 0.4479309 6.137446
## sigmasq_ik[973,2] 5.1721496 0.7820584 5.551926
## sigmasq_ik[973,3] 5.2747501 0.7849615 6.008411
## sigmasq_ik[974,2] 4.4503720 0.8130589 7.063171
## sigmasq_ik[974,3] 4.4503720 0.8130589 7.063171
## sigmasq_ik[975,2] 4.4503720 0.8130589 7.063171
## sigmasq_ik[975,3] 4.4503720 0.8130589 7.063171
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## sigmasq_ik[976,3] 5.0550374 0.7799850 5.963171
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## sigmasq_ik[977,3] 4.4503720 0.8130589 7.063171
## sigmasq_ik[978,2] 4.4503720 0.8130589 7.063171
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## sigmasq_ik[979,2] 5.0550374 0.7799850 5.963171
## sigmasq_ik[980,2] 4.4503720 0.8130589 7.063171
## sigmasq_ik[984,2] 5.0550374 0.7799850 5.963171
## sigmasq_ik[986,2] 4.4503720 0.8130589 7.063171
## sigmasq_ik[988,2] 5.7216340 0.7863639 5.382462
## sigmasq_ik[988,3] 5.1169686 0.8194254 6.163233
## sigmasq_ik[990,3] 4.4503720 0.8130589 7.063171
## sigmasq_ik[992,2] 5.1721496 0.7820584 5.551926
## sigmasq_ik[992,3] 5.2747501 0.7849615 6.008411
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## sigmasq_ik[995,2] 1.5562343 0.4479309 6.137446
## sigmasq_ik[995,3] 5.0550374 0.7799850 5.963171
## sigmasq_ik[997,2] 1.5562343 0.4479309 6.137446

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## sigmasq_ik[999,2] 5.2747501 0.7849615 6.008411
## sigmasq_ik[999,3] 5.0550374 0.7799850 5.963171
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## sigmasq_ik[1000,2] 5.2747501 0.7849615 6.008411
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## sigmasq_ik[1002,2] 1.5562343 0.4479309 6.137446
## sigmasq_ik[1004,1] 1.5562343 0.4479309 6.137446
## sigmasq_ik[1004,2] 1.5562343 0.4479309 6.137446
## sigmasq_ik[1008,3] 4.6038319 1.0885083 7.112732
## sigmasq_ik[1010,2] 5.1169686 0.8194254 6.163233
## sigmasq_ik[1011,3] 5.1169686 0.8194254 6.163233
## sigmasq_ik[1012,2] 5.1169686 0.8194254 6.163233
## sigmasq_ik[1012,3] 5.1169686 0.8194254 6.163233
## sigmasq_ik[1013,3] 5.2747501 0.7849615 6.008411
## sigmasq_ik[1014,2] 5.1169686 0.8194254 6.163233
## sigmasq_ik[1014,3] 5.1169686 0.8194254 6.163233
## sigmasq_ik[1015,2] 5.1169686 0.8194254 6.163233
## sigmasq_ik[1015,3] 5.1169686 0.8194254 6.163233
## sigmasq_ik[1016,3] 5.1169686 0.8194254 6.163233
## sigmasq_ik[1018,2] 4.6700847 0.8180475 7.114126
## sigmasq_ik[1018,3] 4.6700847 0.8180475 7.114126
## sigmasq_ik[1019,2] 4.4503720 0.8130589 7.063171
## sigmasq_ik[1020,3] 5.1169686 0.8194254 6.163233
## sigmasq_ik[1022,2] 4.6700847 0.8180475 7.114126
## sigmasq_ik[1022,3] 5.7216340 0.7863639 5.382462
## sigmasq_ik[1023,3] 5.1169686 0.8194254 6.163233
## sigmasq_ik[1024,2] 5.2747501 0.7849615 6.008411
## sigmasq_ik[1026,2] 4.4503720 0.8130589 7.063171
## sigmasq_ik[1026,3] 4.4503720 0.8130589 7.063171
## sigmasq_ik[1027,2] 4.4503720 0.8130589 7.063171
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## sigmasq_ik[1030,3] 4.6700847 0.8180475 7.114126
## sigmasq_ik[1031,2] 5.1721496 0.7820584 5.551926
## sigmasq_ik[1032,2] 5.1169686 0.8194254 6.163233
## sigmasq_ik[1034,3] 4.4472762 0.9517610 6.511759
## sigmasq_ik[1035,3] 4.4472762 0.9517610 6.511759
## sigmasq_ik[1036,1] 1.5562343 0.4479309 6.137446
## sigmasq_ik[1036,3] 5.1721496 0.7820584 5.551926
## sigmasq_ik[1042,3] 4.6700847 0.8180475 7.114126
## sigmasq_ik[1044,2] 5.2747501 0.7849615 6.008411
## sigmasq_ik[1044,3] 4.6700847 0.8180475 7.114126
## sigmasq_ik[1047,1] 1.5562343 0.4479309 6.137446
## sigmasq_ik[1047,2] 1.5562343 0.4479309 6.137446
## sigmasq_ik[1047,3] 1.5562343 0.4479309 6.137446
## sigmasq_ik[1050,3] 4.6700847 0.8180475 7.114126
## sigmasq_ik[1051,2] 4.5674842 0.8151660 6.430335
## sigmasq_ik[1053,2] 1.5562343 0.4479309 6.137446
## sigmasq_ik[1053,3] 1.5562343 0.4479309 6.137446
## sigmasq_ik[1055,3] 1.5562343 0.4479309 6.137446
## sigmasq_ik[1056,1] 1.5562343 0.4479309 6.137446
## sigmasq_ik[1057,2] 4.5674842 0.8151660 6.430335
## sigmasq_ik[1057,3] 4.5674842 0.8151660 6.430335
## sigmasq_ik[1059,2] 4.5674842 0.8151660 6.430335
## sigmasq_ik[1061,2] 5.2747501 0.7849615 6.008411

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## sigmasq_ik[1061,3] 4.6700847 0.8180475 7.114126
## sigmasq_ik[1062,3] 5.1721496 0.7820584 5.551926
## sigmasq_ik[1063,2] 4.4503720 0.8130589 7.063171
## sigmasq_ik[1063,3] 5.2747501 0.7849615 6.008411
## sigmasq_ik[1064,1] 1.5562343 0.4479309 6.137446
## sigmasq_ik[1064,2] 5.0519417 0.9265776 5.839034
## sigmasq_ik[1066,2] 4.6700847 0.8180475 7.114126
## sigmasq_ik[1066,3] 5.0519417 0.9265776 5.839034
## sigmasq_ik[1068,2] 4.6700847 0.8180475 7.114126
## sigmasq_ik[1069,2] 4.5674842 0.8151660 6.430335
## sigmasq_ik[1070,2] 5.0550374 0.7799850 5.963171
## sigmasq_ik[1070,3] 4.4503720 0.8130589 7.063171
## sigmasq_ik[1071,3] 4.5674842 0.8151660 6.430335
## sigmasq_ik[1073,2] 4.5674842 0.8151660 6.430335
## sigmasq_ik[1073,3] 4.5674842 0.8151660 6.430335
## sigmasq_ik[1078,3] 4.6700847 0.8180475 7.114126
## sigmasq_ik[1083,3] 5.0550374 0.7799850 5.963171
## sigmasq_ik[1084,1] 1.5562343 0.4479309 6.137446
## sigmasq_ik[1084,3] 1.5562343 0.4479309 6.137446
## sigmasq_ik[1089,2] 5.2747501 0.7849615 6.008411
## sigmasq_ik[1090,3] 5.2747501 0.7849615 6.008411
## sigmasq_ik[1091,2] 4.5674842 0.8151660 6.430335
## sigmasq_ik[1091,3] 5.0550374 0.7799850 5.963171
## sigmasq_ik[1092,3] 4.6700847 0.8180475 7.114126
## sigmasq_ik[1095,2] 5.7216340 0.7863639 5.382462
## sigmasq_ik[1097,2] 5.1721496 0.7820584 5.551926
## sigmasq_ik[1099,3] 4.6700847 0.8180475 7.114126
## sigmasq_ik[1101,3] 4.6700847 0.8180475 7.114126
## sigmasq_ik[1103,2] 5.1721496 0.7820584 5.551926
## sigmasq_ik[1103,3] 4.5674842 0.8151660 6.430335
## sigmasq_ik[1106,2] 5.2747501 0.7849615 6.008411
## sigmasq_ik[1108,2] 5.1721496 0.7820584 5.551926
## sigmasq_ik[1109,3] 5.1169686 0.8194254 6.163233
## sigmasq_ik[1110,3] 5.0550374 0.7799850 5.963171
## sigmasq_ik[1111,3] 4.6038319 1.0885083 7.112732
## sigmasq_ik[1112,3] 5.1721496 0.7820584 5.551926
## sigmasq_ik[1113,2] 4.6038319 1.0885083 7.112732
## sigmasq_ik[1115,2] 4.4503720 0.8130589 7.063171
## sigmasq_ik[1115,3] 4.4503720 0.8130589 7.063171
## sigmasq_ik[1116,3] 4.6700847 0.8180475 7.114126
## sigmasq_ik[1118,3] 5.2747501 0.7849615 6.008411
## sigmasq_ik[1121,3] 4.6700847 0.8180475 7.114126
## sigmasq_ik[1122,1] 1.5562343 0.4479309 6.137446
## sigmasq_ik[1123,1] 1.5562343 0.4479309 6.137446
## sigmasq_ik[1123,2] 5.2747501 0.7849615 6.008411
## sigmasq_ik[1123,3] 4.6700847 0.8180475 7.114126
## sigmasq_ik[1124,2] 1.5562343 0.4479309 6.137446
## sigmasq_ik[1125,2] 4.6700847 0.8180475 7.114126
## sigmasq_ik[1128,1] 1.5562343 0.4479309 6.137446
## sigmasq_ik[1128,2] 1.5562343 0.4479309 6.137446
## sigmasq_ik[1128,3] 1.5562343 0.4479309 6.137446
## sigmasq_ik[1130,2] 5.0550374 0.7799850 5.963171
## sigmasq_ik[1130,3] 4.4503720 0.8130589 7.063171
## sigmasq_ik[1131,3] 4.6700847 0.8180475 7.114126

```



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## sigmasq_ik[1133,2] 4.4503720 0.8130589 7.063171
## sigmasq_ik[1133,3] 5.1721496 0.7820584 5.551926
## sigmasq_ik[1134,3] 5.2747501 0.7849615 6.008411
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## sigmasq_ik[1138,2] 1.5562343 0.4479309 6.137446
## sigmasq_ik[1138,3] 1.5562343 0.4479309 6.137446
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## sigmasq_ik[1141,2] 1.5562343 0.4479309 6.137446
## sigmasq_ik[1141,3] 5.2747501 0.7849615 6.008411
## sigmasq_ik[1142,1] 1.5562343 0.4479309 6.137446
## sigmasq_ik[1142,2] 1.5562343 0.4479309 6.137446
## sigmasq_ik[1142,3] 1.5562343 0.4479309 6.137446
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## sigmasq_ik[1145,2] 4.4503720 0.8130589 7.063171
## sigmasq_ik[1145,3] 5.2747501 0.7849615 6.008411
## sigmasq_ik[1146,1] 1.5562343 0.4479309 6.137446
## sigmasq_ik[1146,3] 5.2747501 0.7849615 6.008411
## sigmasq_ik[1148,1] 1.5562343 0.4479309 6.137446
## sigmasq_ik[1148,2] 1.5562343 0.4479309 6.137446
## sigmasq_ik[1148,3] 1.5562343 0.4479309 6.137446
## sigmasq_ik[1151,1] 1.5562343 0.4479309 6.137446
## sigmasq_ik[1152,1] 1.5562343 0.4479309 6.137446
## sigmasq_ik[1152,2] 1.5562343 0.4479309 6.137446
## sigmasq_ik[1152,3] 1.5562343 0.4479309 6.137446
## sigmasq_ik[1153,1] 1.5562343 0.4479309 6.137446
## sigmasq_ik[1153,2] 1.5562343 0.4479309 6.137446
## sigmasq_ik[1154,2] 4.4503720 0.8130589 7.063171
## sigmasq_ik[1154,3] 4.4503720 0.8130589 7.063171
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## sigmasq_ik[1155,2] 1.5562343 0.4479309 6.137446
## sigmasq_ik[1155,3] 1.5562343 0.4479309 6.137446
## sigmasq_ik[1156,2] 5.0550374 0.7799850 5.963171
## sigmasq_ik[1156,3] 5.2747501 0.7849615 6.008411
## sigmasq_ik[1157,1] 1.5562343 0.4479309 6.137446
## sigmasq_ik[1157,3] 1.5562343 0.4479309 6.137446
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## sigmasq_ik[1158,2] 1.5562343 0.4479309 6.137446
## sigmasq_ik[1158,3] 1.5562343 0.4479309 6.137446
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## sigmasq_ik[1160,3] 1.5562343 0.4479309 6.137446
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## sigmasq_ik[1164,2] 5.0550374 0.7799850 5.963171
## sigmasq_ik[1165,1] 1.5562343 0.4479309 6.137446
## sigmasq_ik[1165,2] 1.5562343 0.4479309 6.137446
## sigmasq_ik[1165,3] 1.5562343 0.4479309 6.137446
## sigmasq_ik[1166,2] 5.1721496 0.7820584 5.551926
## sigmasq_ik[1167,2] 5.0550374 0.7799850 5.963171
## sigmasq_ik[1167,3] 5.1721496 0.7820584 5.551926

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## sigmasq_ik[1168,2] 5.0550374 0.7799850 5.963171
## sigmasq_ik[1168,3] 5.1721496 0.7820584 5.551926
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## sigmasq_ik[1170,3] 5.1721496 0.7820584 5.551926
## sigmasq_ik[1173,2] 4.4503720 0.8130589 7.063171
## sigmasq_ik[1173,3] 5.1721496 0.7820584 5.551926
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## sigmasq_ik[1177,2] 1.5562343 0.4479309 6.137446
## sigmasq_ik[1177,3] 1.5562343 0.4479309 6.137446
## sigmasq_ik[1180,3] 4.4503720 0.8130589 7.063171
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## sigmasq_ik[1181,2] 1.5562343 0.4479309 6.137446
## sigmasq_ik[1181,3] 1.5562343 0.4479309 6.137446
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## sigmasq_ik[1182,3] 5.1721496 0.7820584 5.551926
## sigmasq_ik[1185,3] 4.6700847 0.8180475 7.114126
## sigmasq_ik[1187,1] 1.5562343 0.4479309 6.137446
## sigmasq_ik[1187,2] 5.1721496 0.7820584 5.551926
## sigmasq_ik[1188,3] 5.7216340 0.7863639 5.382462
## sigmasq_ik[1189,3] 4.4472762 0.9517610 6.511759
## sigmasq_ik[1191,2] 4.4503720 0.8130589 7.063171
## sigmasq_ik[1192,1] 1.5562343 0.4479309 6.137446
## sigmasq_ik[1192,2] 5.1721496 0.7820584 5.551926
## sigmasq_ik[1193,1] 1.5562343 0.4479309 6.137446
## sigmasq_ik[1193,2] 1.5562343 0.4479309 6.137446
## sigmasq_ik[1194,2] 4.6700847 0.8180475 7.114126
## sigmasq_ik[1194,3] 4.6700847 0.8180475 7.114126
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## sigmasq_ik[1195,3] 1.5562343 0.4479309 6.137446
## sigmasq_ik[1197,2] 4.4472762 0.9517610 6.511759
## sigmasq_ik[1197,3] 4.4472762 0.9517610 6.511759
## sigmasq_ik[1198,1] 1.5562343 0.4479309 6.137446
## sigmasq_ik[1198,3] 1.5562343 0.4479309 6.137446
## sigmasq_ik[1199,1] 1.5562343 0.4479309 6.137446
## sigmasq_ik[1199,2] 1.5562343 0.4479309 6.137446
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## sigmasq_ik[1200,2] 3.9991665 1.1238138 8.090080
## sigmasq_ik[1201,2] 5.2747501 0.7849615 6.008411
## sigmasq_ik[1201,3] 4.6038319 1.0885083 7.112732
## sigmasq_ik[1202,1] 1.5562343 0.4479309 6.137446
## sigmasq_ik[1202,2] 5.2747501 0.7849615 6.008411
## sigmasq_ik[1202,3] 4.6700847 0.8180475 7.114126
## sigmasq_ik[1203,2] 4.6700847 0.8180475 7.114126
## sigmasq_ik[1204,1] 1.5562343 0.4479309 6.137446
## sigmasq_ik[1204,2] 1.5562343 0.4479309 6.137446
## sigmasq_ik[1204,3] 1.5562343 0.4479309 6.137446
## sigmasq_ik[1205,2] 4.6700847 0.8180475 7.114126
## sigmasq_ik[1205,3] 4.6700847 0.8180475 7.114126
## sigmasq_ik[1206,2] 4.4503720 0.8130589 7.063171
## sigmasq_ik[1210,3] 5.0550374 0.7799850 5.963171
## sigmasq_ik[1211,2] 5.2747501 0.7849615 6.008411
## sigmasq_ik[1211,3] 4.6700847 0.8180475 7.114126

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## sigmasq_ik[1212,2] 4.6700847 0.8180475 7.114126
## sigmasq_ik[1215,2] 5.0519417 0.9265776 5.839034
## sigmasq_ik[1216,2] 5.0550374 0.7799850 5.963171
## sigmasq_ik[1218,3] 4.6700847 0.8180475 7.114126
## sigmasq_ik[1221,2] 4.6700847 0.8180475 7.114126
## sigmasq_ik[1222,3] 4.6700847 0.8180475 7.114126
## sigmasq_ik[1226,2] 5.2747501 0.7849615 6.008411
## sigmasq_ik[1226,3] 4.6700847 0.8180475 7.114126
## sigmasq_ik[1227,1] 1.5562343 0.4479309 6.137446
## sigmasq_ik[1227,3] 5.2747501 0.7849615 6.008411
## sigmasq_ik[1228,2] 5.1721496 0.7820584 5.551926
## sigmasq_ik[1229,2] 3.9991665 1.1238138 8.090080
## sigmasq_ik[1233,2] 4.6700847 0.8180475 7.114126
## sigmasq_ik[1233,3] 4.6700847 0.8180475 7.114126
## sigmasq_ik[1234,2] 4.6700847 0.8180475 7.114126
## sigmasq_ik[1235,2] 5.1721496 0.7820584 5.551926
## sigmasq_ik[1240,3] 4.6700847 0.8180475 7.114126
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## sigmasq_ik[1245,2] 4.6700847 0.8180475 7.114126
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## sigmasq_ik[1251,3] 4.4503720 0.8130589 7.063171
## sigmasq_ik[1252,2] 5.1721496 0.7820584 5.551926
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## sigmasq_ik[1253,3] 4.6700847 0.8180475 7.114126
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## sigmasq_ik[1290,2] 5.2747501 0.7849615 6.008411

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## sigmasq_ik[1362,3] 4.4503720 0.8130589 7.063171
## sigmasq_ik[1363,2] 5.2747501 0.7849615 6.008411

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## sigmasq_ik[1494,3] 5.1169686 0.8194254 6.163233
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## sigmasq_ik[1554,2] 1.5562343 0.4479309 6.137446
## sigmasq_ik[1554,3] 1.5562343 0.4479309 6.137446
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## sigmasq_ik[1589,3] 5.1721496 0.7820584 5.551926
## sigmasq_ik[1590,3] 4.6038319 1.0885083 7.112732
## sigmasq_ik[1593,2] 5.0519417 0.9265776 5.839034
## sigmasq_ik[1593,3] 5.1721496 0.7820584 5.551926
## sigmasq_ik[1595,1] 1.5562343 0.4479309 6.137446
## sigmasq_ik[1596,2] 5.0550374 0.7799850 5.963171
## sigmasq_ik[1596,3] 4.4503720 0.8130589 7.063171
## sigmasq_ik[1597,2] 4.6700847 0.8180475 7.114126
## sigmasq_ik[1597,3] 4.6038319 1.0885083 7.112732
## sigmasq_ik[1599,2] 4.4503720 0.8130589 7.063171
## sigmasq_ik[1599,3] 5.2747501 0.7849615 6.008411
## sigmasq_ik[1604,2] 4.6700847 0.8180475 7.114126
## sigmasq_ik[1604,3] 4.6700847 0.8180475 7.114126
## sigmasq_ik[1605,2] 4.4503720 0.8130589 7.063171
## sigmasq_ik[1606,2] 5.0550374 0.7799850 5.963171
## sigmasq_ik[1606,3] 5.2747501 0.7849615 6.008411
## sigmasq_ik[1607,3] 5.0550374 0.7799850 5.963171
## sigmasq_ik[1608,3] 4.6038319 1.0885083 7.112732
## sigmasq_ik[1609,2] 4.4503720 0.8130589 7.063171
## sigmasq_ik[1609,3] 4.4503720 0.8130589 7.063171
## sigmasq_ik[1611,2] 1.5562343 0.4479309 6.137446
## sigmasq_ik[1616,2] 5.1721496 0.7820584 5.551926

```



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## sigmasq_ik[1616,3] 5.2747501 0.7849615 6.008411
## sigmasq_ik[1617,2] 5.1721496 0.7820584 5.551926
## sigmasq_ik[1617,3] 5.0550374 0.7799850 5.963171
## sigmasq_ik[1618,2] 5.0550374 0.7799850 5.963171
## sigmasq_ik[1621,2] 5.0550374 0.7799850 5.963171
## sigmasq_ik[1624,3] 5.0519417 0.9265776 5.839034
## sigmasq_ik[1625,1] 1.5562343 0.4479309 6.137446
## sigmasq_ik[1625,2] 5.1721496 0.7820584 5.551926
## sigmasq_ik[1625,3] 4.6038319 1.0885083 7.112732
## sigmasq_ik[1626,3] 5.2747501 0.7849615 6.008411
## sigmasq_ik[1627,2] 5.1721496 0.7820584 5.551926
## sigmasq_ik[1627,3] 4.5674842 0.8151660 6.430335
## sigmasq_ik[1628,2] 5.0550374 0.7799850 5.963171
## sigmasq_ik[1630,2] 5.0550374 0.7799850 5.963171
## sigmasq_ik[1631,2] 4.6700847 0.8180475 7.114126
## sigmasq_ik[1633,3] 4.6038319 1.0885083 7.112732
## sigmasq_ik[1634,2] 4.5674842 0.8151660 6.430335
## sigmasq_ik[1634,3] 4.5674842 0.8151660 6.430335
## sigmasq_ik[1635,3] 5.0519417 0.9265776 5.839034
## sigmasq_ik[1637,2] 4.6700847 0.8180475 7.114126
## sigmasq_ik[1637,3] 4.6700847 0.8180475 7.114126
## sigmasq_ik[1638,3] 5.1721496 0.7820584 5.551926
## sigmasq_ik[1643,2] 5.1721496 0.7820584 5.551926
## sigmasq_ik[1643,3] 4.5674842 0.8151660 6.430335
## sigmasq_ik[1647,2] 4.6700847 0.8180475 7.114126
## sigmasq_ik[1648,3] 4.6700847 0.8180475 7.114126
## sigmasq_ik[1654,2] 4.5674842 0.8151660 6.430335
## sigmasq_ik[1654,3] 5.0519417 0.9265776 5.839034
## sigmasq_ik[1656,3] 5.1721496 0.7820584 5.551926
## sigmasq_ik[1657,3] 5.2747501 0.7849615 6.008411
## sigmasq_ik[1660,3] 4.6700847 0.8180475 7.114126
## sigmasq_ik[1661,2] 5.2747501 0.7849615 6.008411
## sigmasq_ik[1661,3] 5.1721496 0.7820584 5.551926
## sigmasq_ik[1663,1] 1.5562343 0.4479309 6.137446
## sigmasq_ik[1663,2] 5.1721496 0.7820584 5.551926
## sigmasq_ik[1663,3] 4.6038319 1.0885083 7.112732
## sigmasq_ik[1665,2] 4.6700847 0.8180475 7.114126
## sigmasq_ik[1665,3] 4.6700847 0.8180475 7.114126
## sigmasq_ik[1668,3] 4.6700847 0.8180475 7.114126
## sigmasq_ik[1669,2] 4.6700847 0.8180475 7.114126
## sigmasq_ik[1672,2] 5.0519417 0.9265776 5.839034
## sigmasq_ik[1672,3] 5.1721496 0.7820584 5.551926
## sigmasq_ik[1673,3] 5.1721496 0.7820584 5.551926
## sigmasq_ik[1676,1] 1.5562343 0.4479309 6.137446
## sigmasq_ik[1676,2] 5.1721496 0.7820584 5.551926
## sigmasq_ik[1677,2] 4.6700847 0.8180475 7.114126
## sigmasq_ik[1677,3] 4.6700847 0.8180475 7.114126
## sigmasq_ik[1679,3] 4.6700847 0.8180475 7.114126
## sigmasq_ik[1680,3] 4.6700847 0.8180475 7.114126
## sigmasq_ik[1682,2] 4.6700847 0.8180475 7.114126
## sigmasq_ik[1685,2] 4.4503720 0.8130589 7.063171
## sigmasq_ik[1692,2] 4.6700847 0.8180475 7.114126
## sigmasq_ik[1692,3] 4.6700847 0.8180475 7.114126
## sigmasq_ik[1695,2] 4.6700847 0.8180475 7.114126

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## sigmasq_ik[1697,2] 5.1721496 0.7820584 5.551926
## sigmasq_ik[1698,2] 5.2747501 0.7849615 6.008411
## sigmasq_ik[1703,2] 4.5674842 0.8151660 6.430335
## sigmasq_ik[1703,3] 4.6038319 1.0885083 7.112732
## sigmasq_ik[1707,2] 4.5674842 0.8151660 6.430335
## sigmasq_ik[1708,2] 1.5562343 0.4479309 6.137446
## sigmasq_ik[1709,3] 1.5562343 0.4479309 6.137446
## sigmasq_ik[1710,1] 1.5562343 0.4479309 6.137446
## sigmasq_ik[1710,2] 5.2747501 0.7849615 6.008411
## sigmasq_ik[1711,3] 4.4472762 0.9517610 6.511759
## sigmasq_ik[1712,1] 1.5562343 0.4479309 6.137446
## sigmasq_ik[1712,3] 1.5562343 0.4479309 6.137446
## sigmasq_ik[1713,1] 1.5562343 0.4479309 6.137446
## sigmasq_ik[1713,2] 1.5562343 0.4479309 6.137446
## sigmasq_ik[1713,3] 1.5562343 0.4479309 6.137446
## sigmasq_ik[1714,1] 1.5562343 0.4479309 6.137446
## sigmasq_ik[1714,2] 5.1721496 0.7820584 5.551926
## sigmasq_ik[1714,3] 1.5562343 0.4479309 6.137446
## sigmasq_ik[1715,1] 1.5562343 0.4479309 6.137446
## sigmasq_ik[1715,3] 1.5562343 0.4479309 6.137446
## sigmasq_ik[1718,2] 5.0550374 0.7799850 5.963171
## sigmasq_ik[1718,3] 4.4503720 0.8130589 7.063171
## sigmasq_ik[1721,2] 5.1169686 0.8194254 6.163233
## sigmasq_ik[1722,1] 1.5562343 0.4479309 6.137446
## sigmasq_ik[1722,2] 1.5562343 0.4479309 6.137446
## sigmasq_ik[1722,3] 1.5562343 0.4479309 6.137446
## sigmasq_ik[1723,1] 1.5562343 0.4479309 6.137446
## sigmasq_ik[1723,3] 1.5562343 0.4479309 6.137446
## sigmasq_ik[1724,2] 1.5562343 0.4479309 6.137446
## sigmasq_ik[1724,3] 1.5562343 0.4479309 6.137446
## sigmasq_ik[1725,2] 5.2747501 0.7849615 6.008411
## sigmasq_ik[1726,2] 5.2747501 0.7849615 6.008411
## sigmasq_ik[1726,3] 5.0550374 0.7799850 5.963171
## sigmasq_ik[1727,2] 5.1169686 0.8194254 6.163233
## sigmasq_ik[1727,3] 5.1169686 0.8194254 6.163233
## sigmasq_ik[1729,2] 5.1169686 0.8194254 6.163233
## sigmasq_ik[1729,3] 5.1721496 0.7820584 5.551926
## sigmasq_ik[1730,2] 5.0550374 0.7799850 5.963171
## sigmasq_ik[1731,2] 5.0519417 0.9265776 5.839034
## sigmasq_ik[1731,3] 4.4472762 0.9517610 6.511759
## sigmasq_ik[1733,2] 5.0550374 0.7799850 5.963171
## sigmasq_ik[1733,3] 5.2747501 0.7849615 6.008411
## sigmasq_ik[1735,2] 5.0550374 0.7799850 5.963171
## sigmasq_ik[1736,2] 4.4503720 0.8130589 7.063171
## sigmasq_ik[1736,3] 5.7216340 0.7863639 5.382462
## sigmasq_ik[1737,3] 5.1169686 0.8194254 6.163233
## sigmasq_ik[1741,3] 4.6700847 0.8180475 7.114126
## sigmasq_ik[1743,1] 1.5562343 0.4479309 6.137446
## sigmasq_ik[1743,2] 1.5562343 0.4479309 6.137446
## sigmasq_ik[1750,2] 4.6700847 0.8180475 7.114126
## sigmasq_ik[1756,2] 5.1721496 0.7820584 5.551926
## sigmasq_ik[1756,3] 5.2747501 0.7849615 6.008411
## sigmasq_ik[1757,2] 4.6700847 0.8180475 7.114126
## sigmasq_ik[1757,3] 4.6700847 0.8180475 7.114126

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## sigmasq_ik[1759,2] 4.6038319 1.0885083 7.112732
## sigmasq_ik[1759,3] 5.1721496 0.7820584 5.551926
## sigmasq_ik[1762,2] 4.4472762 0.9517610 6.511759
## sigmasq_ik[1763,1] 1.5562343 0.4479309 6.137446
## sigmasq_ik[1763,2] 1.5562343 0.4479309 6.137446
## sigmasq_ik[1769,2] 4.6700847 0.8180475 7.114126
## sigmasq_ik[1769,3] 1.5562343 0.4479309 6.137446
## sigmasq_ik[1771,2] 5.1721496 0.7820584 5.551926
## sigmasq_ik[1771,3] 5.2747501 0.7849615 6.008411
## sigmasq_ik[1772,1] 1.5562343 0.4479309 6.137446
## sigmasq_ik[1772,2] 1.5562343 0.4479309 6.137446
## sigmasq_ik[1772,3] 1.5562343 0.4479309 6.137446
## sigmasq_ik[1773,2] 4.6700847 0.8180475 7.114126
## sigmasq_ik[1773,3] 4.6700847 0.8180475 7.114126
## sigmasq_ik[1774,2] 4.6700847 0.8180475 7.114126
## sigmasq_ik[1775,2] 4.6700847 0.8180475 7.114126
## sigmasq_ik[1776,3] 5.2747501 0.7849615 6.008411
## sigmasq_ik[1777,2] 4.6700847 0.8180475 7.114126
## sigmasq_ik[1777,3] 5.0550374 0.7799850 5.963171
## sigmasq_ik[1778,1] 1.5562343 0.4479309 6.137446
## sigmasq_ik[1778,3] 1.5562343 0.4479309 6.137446
## sigmasq_ik[1779,2] 1.5562343 0.4479309 6.137446
## sigmasq_ik[1780,1] 1.5562343 0.4479309 6.137446
## sigmasq_ik[1780,3] 1.5562343 0.4479309 6.137446
## sigmasq_ik[1781,3] 5.2747501 0.7849615 6.008411
## sigmasq_ik[1786,2] 4.6700847 0.8180475 7.114126
## sigmasq_ik[1787,2] 5.1169686 0.8194254 6.163233
## sigmasq_ik[1787,3] 5.1169686 0.8194254 6.163233
## sigmasq_ik[1790,3] 5.1721496 0.7820584 5.551926
## sigmasq_ik[1795,2] 5.2747501 0.7849615 6.008411
## sigmasq_ik[1796,2] 4.6700847 0.8180475 7.114126
## sigmasq_ik[1797,2] 1.5562343 0.4479309 6.137446
## sigmasq_ik[1797,3] 1.5562343 0.4479309 6.137446
## sigmasq_ik[1798,3] 4.6700847 0.8180475 7.114126
## sigmasq_ik[1802,2] 5.1721496 0.7820584 5.551926
## sigmasq_ik[1802,3] 5.2747501 0.7849615 6.008411
## sigmasq_ik[1804,2] 5.2747501 0.7849615 6.008411
## sigmasq_ik[1804,3] 4.6700847 0.8180475 7.114126
## sigmasq_ik[1811,3] 5.7216340 0.7863639 5.382462
## sigmasq_ik[1812,2] 4.6700847 0.8180475 7.114126
## sigmasq_ik[1815,2] 4.4503720 0.8130589 7.063171
## sigmasq_ik[1815,3] 4.4503720 0.8130589 7.063171
## sigmasq_ik[1816,1] 1.5562343 0.4479309 6.137446
## sigmasq_ik[1817,2] 5.2747501 0.7849615 6.008411
## sigmasq_ik[1817,3] 4.6700847 0.8180475 7.114126
## sigmasq_ik[1818,2] 4.6700847 0.8180475 7.114126
## sigmasq_ik[1818,3] 4.6700847 0.8180475 7.114126
## sigmasq_ik[1819,2] 5.0519417 0.9265776 5.839034
## sigmasq_ik[1819,3] 5.0550374 0.7799850 5.963171
## sigmasq_ik[1820,3] 5.1721496 0.7820584 5.551926
## sigmasq_ik[1821,3] 4.4503720 0.8130589 7.063171
## sigmasq_ik[1822,3] 4.4503720 0.8130589 7.063171
## sigmasq_ik[1823,2] 4.4503720 0.8130589 7.063171
## sigmasq_ik[1823,3] 4.4503720 0.8130589 7.063171

```

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## sigmasq_ik[1824,3] 4.6700847 0.8180475 7.114126
## sigmasq_ik[1825,2] 5.2747501 0.7849615 6.008411
## sigmasq_ik[1827,3] 5.1721496 0.7820584 5.551926
## sigmasq_ik[1828,3] 4.6700847 0.8180475 7.114126
## sigmasq_ik[1829,2] 5.0519417 0.9265776 5.839034
## sigmasq_ik[1831,1] 1.5562343 0.4479309 6.137446
## sigmasq_ik[1831,2] 1.5562343 0.4479309 6.137446
## sigmasq_ik[1831,3] 5.7216340 0.7863639 5.382462
## sigmasq_ik[1835,2] 5.2747501 0.7849615 6.008411
## sigmasq_ik[1845,2] 5.2747501 0.7849615 6.008411
## sigmasq_ik[1845,3] 5.0550374 0.7799850 5.963171
## sigmasq_ik[1846,2] 4.6700847 0.8180475 7.114126
## sigmasq_ik[1846,3] 4.6700847 0.8180475 7.114126
## sigmasq_ik[1849,2] 5.2747501 0.7849615 6.008411
## sigmasq_ik[1851,3] 4.6700847 0.8180475 7.114126
## sigmasq_ik[1856,2] 5.1169686 0.8194254 6.163233
## sigmasq_ik[1856,3] 5.1169686 0.8194254 6.163233
## sigmasq_ik[1857,2] 5.2747501 0.7849615 6.008411
## sigmasq_ik[1859,2] 4.6700847 0.8180475 7.114126
## sigmasq_ik[1861,2] 5.2747501 0.7849615 6.008411
## sigmasq_ik[1863,3] 5.2747501 0.7849615 6.008411
## sigmasq_ik[1864,2] 5.1169686 0.8194254 6.163233
## sigmasq_ik[1865,2] 5.0550374 0.7799850 5.963171
## sigmasq_ik[1865,3] 5.7216340 0.7863639 5.382462
## sigmasq_ik[1866,3] 4.6700847 0.8180475 7.114126
## sigmasq_ik[1868,2] 5.1721496 0.7820584 5.551926
## sigmasq_ik[1870,2] 5.1169686 0.8194254 6.163233
## sigmasq_ik[1870,3] 5.1721496 0.7820584 5.551926
## sigmasq_ik[1871,2] 5.1169686 0.8194254 6.163233
## sigmasq_ik[1871,3] 5.1169686 0.8194254 6.163233
## sigmasq_ik[1873,2] 4.6700847 0.8180475 7.114126
## sigmasq_ik[1874,3] 1.5562343 0.4479309 6.137446
## sigmasq_ik[1875,2] 5.1721496 0.7820584 5.551926
## sigmasq_ik[1875,3] 5.2747501 0.7849615 6.008411
## sigmasq_ik[1879,2] 5.1169686 0.8194254 6.163233
## sigmasq_ik[1880,2] 1.5562343 0.4479309 6.137446
## sigmasq_ik[1880,3] 1.5562343 0.4479309 6.137446
## sigmasq_ik[1881,1] 1.5562343 0.4479309 6.137446
## sigmasq_ik[1881,3] 5.0550374 0.7799850 5.963171
## sigmasq_ik[1883,1] 1.5562343 0.4479309 6.137446
## sigmasq_ik[1883,3] 1.5562343 0.4479309 6.137446
## sigmasq_ik[1884,2] 5.1169686 0.8194254 6.163233
## sigmasq_ik[1884,3] 5.1721496 0.7820584 5.551926
## sigmasq_ik[1885,2] 4.6700847 0.8180475 7.114126
## sigmasq_ik[1885,3] 4.6038319 1.0885083 7.112732
## sigmasq_ik[1886,1] 1.5562343 0.4479309 6.137446
## sigmasq_ik[1888,3] 4.6038319 1.0885083 7.112732
## sigmasq_ik[1889,2] 4.5674842 0.8151660 6.430335
## sigmasq_ik[1889,3] 4.5674842 0.8151660 6.430335
## sigmasq_ik[1891,2] 5.1169686 0.8194254 6.163233
## sigmasq_ik[1893,2] 4.6700847 0.8180475 7.114126
## sigmasq_ik[1893,3] 4.6700847 0.8180475 7.114126
## sigmasq_ik[1894,2] 4.6700847 0.8180475 7.114126
## sigmasq_ik[1895,2] 4.6700847 0.8180475 7.114126

```

```

## sigmasq_ik[1898,2] 5.2747501 0.7849615 6.008411
## sigmasq_ik[1898,3] 4.6700847 0.8180475 7.114126
## sigmasq_ik[1902,2] 5.0550374 0.7799850 5.963171
## sigmasq_ik[1903,2] 5.2747501 0.7849615 6.008411
## sigmasq_ik[1905,2] 4.6700847 0.8180475 7.114126
## sigmasq_ik[1908,2] 5.1169686 0.8194254 6.163233
## sigmasq_ik[1909,3] 4.6700847 0.8180475 7.114126
## sigmasq_ik[1913,2] 5.1721496 0.7820584 5.551926
## sigmasq_ik[1915,2] 4.5674842 0.8151660 6.430335
## sigmasq_ik[1917,2] 5.2747501 0.7849615 6.008411
## sigmasq_ik[1918,2] 5.1721496 0.7820584 5.551926
## sigmasq_ik[1919,2] 5.0550374 0.7799850 5.963171
## sigmasq_ik[1919,3] 1.5562343 0.4479309 6.137446
## sigmasq_ik[1920,2] 5.7216340 0.7863639 5.382462
## sigmasq_ik[1923,2] 5.1721496 0.7820584 5.551926
## sigmasq_ik[1926,2] 4.6700847 0.8180475 7.114126
## sigmasq_ik[1927,2] 4.6700847 0.8180475 7.114126
## sigmasq_ik[1928,2] 5.0519417 0.9265776 5.839034
## sigmasq_ik[1928,3] 4.6038319 1.0885083 7.112732
## sigmasq_ik[1929,2] 4.6700847 0.8180475 7.114126
## sigmasq_ik[1930,2] 1.5562343 0.4479309 6.137446
## sigmasq_ik[1930,3] 1.5562343 0.4479309 6.137446
## sigmasq_ik[1932,1] 1.5562343 0.4479309 6.137446
## sigmasq_ik[1932,2] 5.2747501 0.7849615 6.008411
## sigmasq_ik[1932,3] 4.6700847 0.8180475 7.114126
## sigmasq_ik[1933,1] 1.5562343 0.4479309 6.137446
## sigmasq_ik[1933,2] 5.2747501 0.7849615 6.008411
## sigmasq_ik[1933,3] 1.5562343 0.4479309 6.137446
## sigmasq_ik[1934,2] 1.5562343 0.4479309 6.137446
## sigmasq_ik[1935,1] 1.5562343 0.4479309 6.137446
## sigmasq_ik[1935,2] 1.5562343 0.4479309 6.137446
## sigmasq_ik[1939,2] 4.5674842 0.8151660 6.430335
## sigmasq_ik[1941,3] 4.6700847 0.8180475 7.114126
## sigmasq_ik[1945,3] 5.7216340 0.7863639 5.382462
## sigmasq_ik[1946,2] 5.1721496 0.7820584 5.551926
## sigmasq_ik[1946,3] 5.0519417 0.9265776 5.839034
## sigmasq_ik[1947,2] 5.7216340 0.7863639 5.382462
## sigmasq_ik[1947,3] 5.0550374 0.7799850 5.963171
## sigmasq_ik[1948,1] 1.5562343 0.4479309 6.137446
## sigmasq_ik[1948,2] 1.5562343 0.4479309 6.137446
## sigmasq_ik[1948,3] 5.0519417 0.9265776 5.839034
## sigmasq_ik[1949,2] 4.4503720 0.8130589 7.063171
## sigmasq_ik[1949,3] 4.4503720 0.8130589 7.063171
## sigmasq_ik[1950,2] 5.2747501 0.7849615 6.008411
## sigmasq_ik[1950,3] 5.0519417 0.9265776 5.839034
## sigmasq_ik[1951,1] 1.5562343 0.4479309 6.137446
## sigmasq_ik[1952,2] 4.4503720 0.8130589 7.063171
## sigmasq_ik[1953,2] 5.0519417 0.9265776 5.839034
## sigmasq_ik[1956,1] 1.5562343 0.4479309 6.137446
## sigmasq_ik[1960,2] 4.6700847 0.8180475 7.114126
## sigmasq_ik[1960,3] 4.6700847 0.8180475 7.114126
## sigmasq_ik[1962,2] 5.0519417 0.9265776 5.839034
## sigmasq_ik[1963,1] 1.5562343 0.4479309 6.137446
## sigmasq_ik[1963,3] 1.5562343 0.4479309 6.137446

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## sigmasq_ik[1964,1] 1.5562343 0.4479309 6.137446
## sigmasq_ik[1964,2] 1.5562343 0.4479309 6.137446
## sigmasq_ik[1964,3] 1.5562343 0.4479309 6.137446
## sigmasq_ik[1965,2] 4.4503720 0.8130589 7.063171
## sigmasq_ik[1965,3] 5.2747501 0.7849615 6.008411
## sigmasq_ik[1968,3] 4.5674842 0.8151660 6.430335
## sigmasq_ik[1969,2] 5.0550374 0.7799850 5.963171
## sigmasq_ik[1970,2] 5.1169686 0.8194254 6.163233
## sigmasq_ik[1970,3] 5.0550374 0.7799850 5.963171
## sigmasq_ik[1971,2] 5.1721496 0.7820584 5.551926
## sigmasq_ik[1971,3] 5.0519417 0.9265776 5.839034
## sigmasq_ik[1972,2] 5.2747501 0.7849615 6.008411
## sigma_ik[1,1] 1.2089026 0.2162433 8.165130
## sigma_ik[1,2] 2.3812253 0.1576260 5.222879
## sigma_ik[3,2] 2.1456990 0.1800052 6.974792
## sigma_ik[3,3] 2.1456990 0.1800052 6.974792
## sigma_ik[5,2] 2.2847128 0.1633814 5.862763
## sigma_ik[6,1] 1.0944293 0.2060371 5.668122
## sigma_ik[6,2] 2.3812253 0.1576260 5.222879
## sigma_ik[6,3] 2.2484694 0.1728820 5.972306
## sigma_ik[7,2] 2.1456990 0.1800052 6.974792
## sigma_ik[7,3] 2.1456990 0.1800052 6.974792
## sigma_ik[8,2] 2.1456990 0.1800052 6.974792
## sigma_ik[8,3] 2.1456990 0.1800052 6.974792
## sigma_ik[9,2] 1.0944293 0.2060371 5.668122
## sigma_ik[11,2] 2.3812253 0.1576260 5.222879
## sigma_ik[12,2] 2.2484694 0.1728820 5.972306
## sigma_ik[12,3] 2.2357695 0.1656130 5.804243
## sigma_ik[13,2] 2.2484694 0.1728820 5.972306
## sigma_ik[14,2] 2.2484694 0.1728820 5.972306
## sigma_ik[16,2] 2.2484694 0.1728820 5.972306
## sigma_ik[17,2] 2.2619485 0.1643103 5.386702
## sigma_ik[17,3] 2.2847128 0.1633814 5.862763
## sigma_ik[18,3] 2.2619485 0.1643103 5.386702
## sigma_ik[20,2] 2.2484694 0.1728820 5.972306
## sigma_ik[22,3] 2.2484694 0.1728820 5.972306
## sigma_ik[24,3] 2.0933468 0.1829635 6.900456
## sigma_ik[26,2] 2.2484694 0.1728820 5.972306
## sigma_ik[26,3] 2.2484694 0.1728820 5.972306
## sigma_ik[27,2] 2.2484694 0.1728820 5.972306
## sigma_ik[28,2] 2.3812253 0.1576260 5.222879
## sigma_ik[29,2] 2.1456990 0.1800052 6.974792
## sigma_ik[29,3] 2.1456990 0.1800052 6.974792
## sigma_ik[31,2] 2.2484694 0.1728820 5.972306
## sigma_ik[32,2] 2.2484694 0.1728820 5.972306
## sigma_ik[36,1] 1.2089026 0.2162433 8.165130
## sigma_ik[36,2] 1.2089026 0.2162433 8.165130
## sigma_ik[38,3] 2.2847128 0.1633814 5.862763
## sigma_ik[40,2] 2.1213620 0.1812779 6.234047
## sigma_ik[41,1] 1.0944293 0.2060371 5.668122
## sigma_ik[41,2] 2.2847128 0.1633814 5.862763
## sigma_ik[41,3] 2.2357695 0.1656130 5.804243
## sigma_ik[42,2] 2.2298921 0.1965706 5.660758
## sigma_ik[42,3] 2.0866549 0.2132930 6.268495

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## sigma_ik[45,3] 2.2484694 0.1728820 5.972306
## sigma_ik[46,2] 2.2357695 0.1656130 5.804243
## sigma_ik[46,3] 2.3812253 0.1576260 5.222879
## sigma_ik[54,2] 2.2357695 0.1656130 5.804243
## sigma_ik[54,3] 2.0933468 0.1829635 6.900456
## sigma_ik[55,3] 2.1456990 0.1800052 6.974792
## sigma_ik[56,1] 1.0944293 0.2060371 5.668122
## sigma_ik[56,2] 2.2847128 0.1633814 5.862763
## sigma_ik[56,3] 2.1456990 0.1800052 6.974792
## sigma_ik[60,3] 2.2847128 0.1633814 5.862763
## sigma_ik[61,2] 2.0933468 0.1829635 6.900456
## sigma_ik[61,3] 2.0933468 0.1829635 6.900456
## sigma_ik[62,2] 1.2089026 0.2162433 8.165130
## sigma_ik[62,3] 1.2089026 0.2162433 8.165130
## sigma_ik[64,2] 2.2298921 0.1965706 5.660758
## sigma_ik[64,3] 2.0866549 0.2132930 6.268495
## sigma_ik[65,2] 2.2298921 0.1965706 5.660758
## sigma_ik[65,3] 2.0866549 0.2132930 6.268495
## sigma_ik[68,2] 2.1456990 0.1800052 6.974792
## sigma_ik[69,2] 2.1456990 0.1800052 6.974792
## sigma_ik[69,3] 2.1456990 0.1800052 6.974792
## sigma_ik[70,3] 2.1456990 0.1800052 6.974792
## sigma_ik[71,3] 2.2484694 0.1728820 5.972306
## sigma_ik[73,2] 2.1456990 0.1800052 6.974792
## sigma_ik[73,3] 2.1456990 0.1800052 6.974792
## sigma_ik[76,2] 2.3812253 0.1576260 5.222879
## sigma_ik[76,3] 2.1169047 0.2452962 7.093264
## sigma_ik[77,2] 2.1456990 0.1800052 6.974792
## sigma_ik[78,2] 2.1456990 0.1800052 6.974792
## sigma_ik[78,3] 2.1456990 0.1800052 6.974792
## sigma_ik[79,1] 1.2089026 0.2162433 8.165130
## sigma_ik[79,2] 2.2357695 0.1656130 5.804243
## sigma_ik[79,3] 2.1169047 0.2452962 7.093264
## sigma_ik[80,2] 2.1456990 0.1800052 6.974792
## sigma_ik[80,3] 2.1456990 0.1800052 6.974792
## sigma_ik[81,2] 1.2089026 0.2162433 8.165130
## sigma_ik[82,2] 2.1456990 0.1800052 6.974792
## sigma_ik[83,2] 2.1456990 0.1800052 6.974792
## sigma_ik[84,2] 2.2619485 0.1643103 5.386702
## sigma_ik[86,2] 2.2847128 0.1633814 5.862763
## sigma_ik[86,3] 2.1456990 0.1800052 6.974792
## sigma_ik[87,2] 2.2298921 0.1965706 5.660758
## sigma_ik[87,3] 2.0866549 0.2132930 6.268495
## sigma_ik[89,2] 2.2357695 0.1656130 5.804243
## sigma_ik[89,3] 2.2847128 0.1633814 5.862763
## sigma_ik[90,2] 2.0933468 0.1829635 6.900456
## sigma_ik[91,2] 2.0933468 0.1829635 6.900456
## sigma_ik[91,3] 2.2298921 0.1965706 5.660758
## sigma_ik[92,2] 2.2357695 0.1656130 5.804243
## sigma_ik[92,3] 1.0944293 0.2060371 5.668122
## sigma_ik[94,2] 2.2847128 0.1633814 5.862763
## sigma_ik[94,3] 2.2619485 0.1643103 5.386702
## sigma_ik[95,2] 2.2357695 0.1656130 5.804243
## sigma_ik[95,3] 1.0944293 0.2060371 5.668122

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## sigma_ik[96,3]      2.2619485 0.1643103 5.386702
## sigma_ik[98,2]      2.1456990 0.1800052 6.974792
## sigma_ik[98,3]      1.0944293 0.2060371 5.668122
## sigma_ik[99,3]      2.2619485 0.1643103 5.386702
## sigma_ik[100,1]     1.2089026 0.2162433 8.165130
## sigma_ik[100,3]     0.8621329 0.2140886 6.368274
## sigma_ik[101,1]     1.0944293 0.2060371 5.668122
## sigma_ik[103,2]     2.2484694 0.1728820 5.972306
## sigma_ik[103,3]     2.2484694 0.1728820 5.972306
## sigma_ik[104,2]     2.2484694 0.1728820 5.972306
## sigma_ik[105,3]     2.2847128 0.1633814 5.862763
## sigma_ik[108,1]     1.0944293 0.2060371 5.668122
## sigma_ik[108,2]     1.0944293 0.2060371 5.668122
## sigma_ik[108,3]     2.2619485 0.1643103 5.386702
## sigma_ik[110,2]     2.2484694 0.1728820 5.972306
## sigma_ik[111,3]     2.1456990 0.1800052 6.974792
## sigma_ik[113,2]     2.1456990 0.1800052 6.974792
## sigma_ik[114,2]     2.1456990 0.1800052 6.974792
## sigma_ik[115,1]     1.0944293 0.2060371 5.668122
## sigma_ik[115,2]     2.0866549 0.2132930 6.268495
## sigma_ik[115,3]     2.1169047 0.2452962 7.093264
## sigma_ik[116,1]     1.0944293 0.2060371 5.668122
## sigma_ik[116,2]     1.0944293 0.2060371 5.668122
## sigma_ik[116,3]     1.0944293 0.2060371 5.668122
## sigma_ik[121,2]     2.2847128 0.1633814 5.862763
## sigma_ik[122,3]     2.1456990 0.1800052 6.974792
## sigma_ik[123,2]     2.2357695 0.1656130 5.804243
## sigma_ik[123,3]     2.2619485 0.1643103 5.386702
## sigma_ik[125,1]     1.2089026 0.2162433 8.165130
## sigma_ik[125,3]     2.2298921 0.1965706 5.660758
## sigma_ik[126,1]     1.2089026 0.2162433 8.165130
## sigma_ik[126,2]     2.2847128 0.1633814 5.862763
## sigma_ik[126,3]     2.2357695 0.1656130 5.804243
## sigma_ik[127,3]     2.1213620 0.1812779 6.234047
## sigma_ik[128,3]     2.2619485 0.1643103 5.386702
## sigma_ik[129,3]     2.1456990 0.1800052 6.974792
## sigma_ik[131,1]     1.2089026 0.2162433 8.165130
## sigma_ik[131,3]     2.2847128 0.1633814 5.862763
## sigma_ik[133,2]     2.1456990 0.1800052 6.974792
## sigma_ik[135,2]     2.2298921 0.1965706 5.660758
## sigma_ik[135,3]     1.0944293 0.2060371 5.668122
## sigma_ik[136,1]     1.2089026 0.2162433 8.165130
## sigma_ik[136,2]     1.2089026 0.2162433 8.165130
## sigma_ik[136,3]     0.8621329 0.2140886 6.368274
## sigma_ik[137,1]     1.2089026 0.2162433 8.165130
## sigma_ik[137,2]     1.2089026 0.2162433 8.165130
## sigma_ik[138,1]     1.2089026 0.2162433 8.165130
## sigma_ik[138,2]     1.2089026 0.2162433 8.165130
## sigma_ik[139,1]     1.0944293 0.2060371 5.668122
## sigma_ik[139,3]     2.1456990 0.1800052 6.974792
## sigma_ik[140,1]     1.0944293 0.2060371 5.668122
## sigma_ik[140,2]     2.2357695 0.1656130 5.804243
## sigma_ik[140,3]     2.0933468 0.1829635 6.900456
## sigma_ik[141,1]     1.2089026 0.2162433 8.165130

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## sigma_ik[141,3] 2.2619485 0.1643103 5.386702
## sigma_ik[143,3] 2.2619485 0.1643103 5.386702
## sigma_ik[144,2] 2.2847128 0.1633814 5.862763
## sigma_ik[144,3] 2.2357695 0.1656130 5.804243
## sigma_ik[146,2] 2.3812253 0.1576260 5.222879
## sigma_ik[147,2] 2.1456990 0.1800052 6.974792
## sigma_ik[148,3] 1.2089026 0.2162433 8.165130
## sigma_ik[149,3] 1.2089026 0.2162433 8.165130
## sigma_ik[150,2] 2.1213620 0.1812779 6.234047
## sigma_ik[150,3] 2.1213620 0.1812779 6.234047
## sigma_ik[151,3] 2.2847128 0.1633814 5.862763
## sigma_ik[153,2] 2.2619485 0.1643103 5.386702
## sigma_ik[153,3] 2.2847128 0.1633814 5.862763
## sigma_ik[155,1] 1.2089026 0.2162433 8.165130
## sigma_ik[155,3] 2.2298921 0.1965706 5.660758
## sigma_ik[159,1] 1.2089026 0.2162433 8.165130
## sigma_ik[159,2] 2.2847128 0.1633814 5.862763
## sigma_ik[161,2] 2.1456990 0.1800052 6.974792
## sigma_ik[161,3] 2.1456990 0.1800052 6.974792
## sigma_ik[163,1] 1.0944293 0.2060371 5.668122
## sigma_ik[163,2] 2.0866549 0.2132930 6.268495
## sigma_ik[163,3] 2.2619485 0.1643103 5.386702
## sigma_ik[164,3] 2.1169047 0.2452962 7.093264
## sigma_ik[166,3] 2.1456990 0.1800052 6.974792
## sigma_ik[167,3] 2.1456990 0.1800052 6.974792
## sigma_ik[168,3] 2.2619485 0.1643103 5.386702
## sigma_ik[169,3] 2.2847128 0.1633814 5.862763
## sigma_ik[170,2] 2.0933468 0.1829635 6.900456
## sigma_ik[172,2] 2.0933468 0.1829635 6.900456
## sigma_ik[172,3] 2.0933468 0.1829635 6.900456
## sigma_ik[175,3] 2.1169047 0.2452962 7.093264
## sigma_ik[179,3] 2.1456990 0.1800052 6.974792
## sigma_ik[182,2] 2.1456990 0.1800052 6.974792
## sigma_ik[182,3] 2.1456990 0.1800052 6.974792
## sigma_ik[183,2] 2.1456990 0.1800052 6.974792
## sigma_ik[184,3] 2.1456990 0.1800052 6.974792
## sigma_ik[185,2] 2.1456990 0.1800052 6.974792
## sigma_ik[187,2] 2.2847128 0.1633814 5.862763
## sigma_ik[188,2] 2.2619485 0.1643103 5.386702
## sigma_ik[188,3] 2.3812253 0.1576260 5.222879
## sigma_ik[190,2] 2.3812253 0.1576260 5.222879
## sigma_ik[190,3] 2.2847128 0.1633814 5.862763
## sigma_ik[192,2] 2.1456990 0.1800052 6.974792
## sigma_ik[193,1] 1.0944293 0.2060371 5.668122
## sigma_ik[193,3] 1.0944293 0.2060371 5.668122
## sigma_ik[195,2] 2.3812253 0.1576260 5.222879
## sigma_ik[195,3] 2.2847128 0.1633814 5.862763
## sigma_ik[197,2] 2.1456990 0.1800052 6.974792
## sigma_ik[197,3] 2.1456990 0.1800052 6.974792
## sigma_ik[198,2] 2.2357695 0.1656130 5.804243
## sigma_ik[199,1] 1.0944293 0.2060371 5.668122
## sigma_ik[199,2] 2.1169047 0.2452962 7.093264
## sigma_ik[199,3] 1.9621013 0.2713573 8.165211
## sigma_ik[200,3] 2.3812253 0.1576260 5.222879

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## sigma_ik[201,2] 2.2484694 0.1728820 5.972306
## sigma_ik[201,3] 2.2484694 0.1728820 5.972306
## sigma_ik[202,3] 0.8621329 0.2140886 6.368274
## sigma_ik[203,2] 2.2847128 0.1633814 5.862763
## sigma_ik[203,3] 2.2357695 0.1656130 5.804243
## sigma_ik[204,2] 2.1456990 0.1800052 6.974792
## sigma_ik[206,3] 2.2298921 0.1965706 5.660758
## sigma_ik[210,1] 1.2089026 0.2162433 8.165130
## sigma_ik[210,2] 2.2847128 0.1633814 5.862763
## sigma_ik[210,3] 2.1456990 0.1800052 6.974792
## sigma_ik[211,2] 2.1456990 0.1800052 6.974792
## sigma_ik[211,3] 2.1456990 0.1800052 6.974792
## sigma_ik[212,1] 1.0944293 0.2060371 5.668122
## sigma_ik[212,2] 2.0866549 0.2132930 6.268495
## sigma_ik[212,3] 2.0866549 0.2132930 6.268495
## sigma_ik[213,3] 1.0944293 0.2060371 5.668122
## sigma_ik[215,3] 2.2619485 0.1643103 5.386702
## sigma_ik[218,2] 2.1456990 0.1800052 6.974792
## sigma_ik[220,1] 1.0944293 0.2060371 5.668122
## sigma_ik[220,2] 2.2619485 0.1643103 5.386702
## sigma_ik[221,3] 2.1213620 0.1812779 6.234047
## sigma_ik[222,2] 2.1456990 0.1800052 6.974792
## sigma_ik[222,3] 2.1456990 0.1800052 6.974792
## sigma_ik[223,2] 2.1456990 0.1800052 6.974792
## sigma_ik[223,3] 2.1456990 0.1800052 6.974792
## sigma_ik[224,2] 2.1456990 0.1800052 6.974792
## sigma_ik[225,2] 1.2089026 0.2162433 8.165130
## sigma_ik[225,3] 2.1169047 0.2452962 7.093264
## sigma_ik[227,1] 1.0944293 0.2060371 5.668122
## sigma_ik[227,2] 2.2847128 0.1633814 5.862763
## sigma_ik[227,3] 2.1456990 0.1800052 6.974792
## sigma_ik[228,1] 1.2089026 0.2162433 8.165130
## sigma_ik[228,3] 2.2847128 0.1633814 5.862763
## sigma_ik[233,2] 2.1456990 0.1800052 6.974792
## sigma_ik[234,2] 2.2357695 0.1656130 5.804243
## sigma_ik[234,3] 2.1169047 0.2452962 7.093264
## sigma_ik[235,2] 2.2847128 0.1633814 5.862763
## sigma_ik[235,3] 2.1456990 0.1800052 6.974792
## sigma_ik[237,2] 2.3812253 0.1576260 5.222879
## sigma_ik[238,2] 2.2847128 0.1633814 5.862763
## sigma_ik[238,3] 2.1456990 0.1800052 6.974792
## sigma_ik[241,2] 2.2619485 0.1643103 5.386702
## sigma_ik[243,3] 2.2847128 0.1633814 5.862763
## sigma_ik[246,1] 1.2089026 0.2162433 8.165130
## sigma_ik[246,2] 2.2357695 0.1656130 5.804243
## sigma_ik[246,3] 1.0944293 0.2060371 5.668122
## sigma_ik[247,2] 2.1456990 0.1800052 6.974792
## sigma_ik[247,3] 2.1456990 0.1800052 6.974792
## sigma_ik[248,1] 1.2089026 0.2162433 8.165130
## sigma_ik[249,2] 2.2847128 0.1633814 5.862763
## sigma_ik[250,2] 2.2847128 0.1633814 5.862763
## sigma_ik[250,3] 0.8621329 0.2140886 6.368274
## sigma_ik[251,2] 2.1213620 0.1812779 6.234047
## sigma_ik[251,3] 2.1213620 0.1812779 6.234047

```

```

## sigma_ik[252,1] 1.0944293 0.2060371 5.668122
## sigma_ik[252,2] 2.0866549 0.2132930 6.268495
## sigma_ik[252,3] 2.0866549 0.2132930 6.268495
## sigma_ik[253,1] 1.2089026 0.2162433 8.165130
## sigma_ik[253,3] 2.3812253 0.1576260 5.222879
## sigma_ik[254,1] 1.0944293 0.2060371 5.668122
## sigma_ik[254,2] 2.2847128 0.1633814 5.862763
## sigma_ik[254,3] 2.2619485 0.1643103 5.386702
## sigma_ik[255,1] 1.0944293 0.2060371 5.668122
## sigma_ik[256,2] 2.1456990 0.1800052 6.974792
## sigma_ik[257,3] 0.8621329 0.2140886 6.368274
## sigma_ik[258,1] 1.0944293 0.2060371 5.668122
## sigma_ik[258,2] 2.0866549 0.2132930 6.268495
## sigma_ik[258,3] 2.0866549 0.2132930 6.268495
## sigma_ik[259,2] 2.2484694 0.1728820 5.972306
## sigma_ik[259,3] 2.2484694 0.1728820 5.972306
## sigma_ik[260,2] 2.2298921 0.1965706 5.660758
## sigma_ik[260,3] 2.0866549 0.2132930 6.268495
## sigma_ik[261,2] 2.2847128 0.1633814 5.862763
## sigma_ik[261,3] 2.1456990 0.1800052 6.974792
## sigma_ik[264,2] 2.2484694 0.1728820 5.972306
## sigma_ik[265,2] 2.2484694 0.1728820 5.972306
## sigma_ik[265,3] 2.2484694 0.1728820 5.972306
## sigma_ik[266,2] 2.2484694 0.1728820 5.972306
## sigma_ik[267,2] 2.1456990 0.1800052 6.974792
## sigma_ik[267,3] 2.2357695 0.1656130 5.804243
## sigma_ik[268,2] 2.1456990 0.1800052 6.974792
## sigma_ik[269,3] 2.2484694 0.1728820 5.972306
## sigma_ik[271,2] 2.2484694 0.1728820 5.972306
## sigma_ik[272,3] 2.2357695 0.1656130 5.804243
## sigma_ik[275,2] 2.2298921 0.1965706 5.660758
## sigma_ik[275,3] 2.2357695 0.1656130 5.804243
## sigma_ik[277,1] 1.0944293 0.2060371 5.668122
## sigma_ik[277,2] 2.3812253 0.1576260 5.222879
## sigma_ik[277,3] 2.2484694 0.1728820 5.972306
## sigma_ik[278,2] 1.2089026 0.2162433 8.165130
## sigma_ik[278,3] 2.2357695 0.1656130 5.804243
## sigma_ik[279,2] 2.2619485 0.1643103 5.386702
## sigma_ik[279,3] 2.1213620 0.1812779 6.234047
## sigma_ik[280,1] 0.8621329 0.2140886 6.368274
## sigma_ik[280,2] 1.2089026 0.2162433 8.165130
## sigma_ik[281,1] 1.2089026 0.2162433 8.165130
## sigma_ik[281,3] 1.2089026 0.2162433 8.165130
## sigma_ik[282,1] 1.0944293 0.2060371 5.668122
## sigma_ik[282,2] 2.0866549 0.2132930 6.268495
## sigma_ik[284,2] 2.2847128 0.1633814 5.862763
## sigma_ik[284,3] 2.1456990 0.1800052 6.974792
## sigma_ik[285,1] 1.2089026 0.2162433 8.165130
## sigma_ik[285,2] 2.2357695 0.1656130 5.804243
## sigma_ik[285,3] 1.2089026 0.2162433 8.165130
## sigma_ik[286,2] 1.0944293 0.2060371 5.668122
## sigma_ik[287,2] 2.2298921 0.1965706 5.660758
## sigma_ik[288,1] 1.2089026 0.2162433 8.165130
## sigma_ik[288,2] 2.2357695 0.1656130 5.804243

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## sigma_ik[288,3] 1.2089026 0.2162433 8.165130
## sigma_ik[292,3] 2.1456990 0.1800052 6.974792
## sigma_ik[293,2] 2.1456990 0.1800052 6.974792
## sigma_ik[293,3] 2.1456990 0.1800052 6.974792
## sigma_ik[296,2] 2.2357695 0.1656130 5.804243
## sigma_ik[297,1] 1.0944293 0.2060371 5.668122
## sigma_ik[297,2] 2.2847128 0.1633814 5.862763
## sigma_ik[298,3] 0.8621329 0.2140886 6.368274
## sigma_ik[299,1] 1.0944293 0.2060371 5.668122
## sigma_ik[300,2] 2.1169047 0.2452962 7.093264
## sigma_ik[300,3] 1.9621013 0.2713573 8.165211
## sigma_ik[301,3] 2.1456990 0.1800052 6.974792
## sigma_ik[302,2] 2.2298921 0.1965706 5.660758
## sigma_ik[302,3] 2.2847128 0.1633814 5.862763
## sigma_ik[303,2] 2.2847128 0.1633814 5.862763
## sigma_ik[303,3] 2.1456990 0.1800052 6.974792
## sigma_ik[304,2] 2.1456990 0.1800052 6.974792
## sigma_ik[305,2] 2.2847128 0.1633814 5.862763
## sigma_ik[305,3] 0.8621329 0.2140886 6.368274
## sigma_ik[306,3] 0.8621329 0.2140886 6.368274
## sigma_ik[307,2] 2.1456990 0.1800052 6.974792
## sigma_ik[310,2] 2.1456990 0.1800052 6.974792
## sigma_ik[311,2] 1.2089026 0.2162433 8.165130
## sigma_ik[311,3] 2.2847128 0.1633814 5.862763
## sigma_ik[312,1] 1.0944293 0.2060371 5.668122
## sigma_ik[312,2] 2.2847128 0.1633814 5.862763
## sigma_ik[312,3] 2.1456990 0.1800052 6.974792
## sigma_ik[313,1] 0.8621329 0.2140886 6.368274
## sigma_ik[313,2] 2.2847128 0.1633814 5.862763
## sigma_ik[315,2] 2.2357695 0.1656130 5.804243
## sigma_ik[317,1] 0.8621329 0.2140886 6.368274
## sigma_ik[317,2] 0.8621329 0.2140886 6.368274
## sigma_ik[317,3] 0.8621329 0.2140886 6.368274
## sigma_ik[322,2] 2.0933468 0.1829635 6.900456
## sigma_ik[323,2] 2.2847128 0.1633814 5.862763
## sigma_ik[323,3] 2.1169047 0.2452962 7.093264
## sigma_ik[324,2] 2.1456990 0.1800052 6.974792
## sigma_ik[324,3] 2.1456990 0.1800052 6.974792
## sigma_ik[325,2] 2.1456990 0.1800052 6.974792
## sigma_ik[325,3] 2.1456990 0.1800052 6.974792
## sigma_ik[326,1] 1.2089026 0.2162433 8.165130
## sigma_ik[326,2] 1.2089026 0.2162433 8.165130
## sigma_ik[326,3] 1.2089026 0.2162433 8.165130
## sigma_ik[327,3] 2.1456990 0.1800052 6.974792
## sigma_ik[328,2] 2.1456990 0.1800052 6.974792
## sigma_ik[328,3] 0.8621329 0.2140886 6.368274
## sigma_ik[329,2] 2.3812253 0.1576260 5.222879
## sigma_ik[330,2] 2.2619485 0.1643103 5.386702
## sigma_ik[331,2] 2.2847128 0.1633814 5.862763
## sigma_ik[332,1] 0.8621329 0.2140886 6.368274
## sigma_ik[332,2] 0.8621329 0.2140886 6.368274
## sigma_ik[334,2] 2.2847128 0.1633814 5.862763
## sigma_ik[335,1] 0.8621329 0.2140886 6.368274
## sigma_ik[335,2] 2.2847128 0.1633814 5.862763

```

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## sigma_ik[340,2] 2.2357695 0.1656130 5.804243
## sigma_ik[340,3] 2.2847128 0.1633814 5.862763
## sigma_ik[345,2] 2.1213620 0.1812779 6.234047
## sigma_ik[345,3] 2.2357695 0.1656130 5.804243
## sigma_ik[346,3] 2.3812253 0.1576260 5.222879
## sigma_ik[347,2] 2.2357695 0.1656130 5.804243
## sigma_ik[348,1] 1.2089026 0.2162433 8.165130
## sigma_ik[348,2] 1.2089026 0.2162433 8.165130
## sigma_ik[348,3] 1.2089026 0.2162433 8.165130
## sigma_ik[349,2] 2.2847128 0.1633814 5.862763
## sigma_ik[349,3] 2.1169047 0.2452962 7.093264
## sigma_ik[350,3] 2.0933468 0.1829635 6.900456
## sigma_ik[357,2] 2.0933468 0.1829635 6.900456
## sigma_ik[357,3] 2.2298921 0.1965706 5.660758
## sigma_ik[358,2] 2.1213620 0.1812779 6.234047
## sigma_ik[358,3] 2.1213620 0.1812779 6.234047
## sigma_ik[359,2] 2.1213620 0.1812779 6.234047
## sigma_ik[359,3] 2.1213620 0.1812779 6.234047
## sigma_ik[361,2] 2.1456990 0.1800052 6.974792
## sigma_ik[361,3] 2.1456990 0.1800052 6.974792
## sigma_ik[362,3] 2.2847128 0.1633814 5.862763
## sigma_ik[364,2] 2.2357695 0.1656130 5.804243
## sigma_ik[365,1] 0.8621329 0.2140886 6.368274
## sigma_ik[365,2] 1.9621013 0.2713573 8.165211
## sigma_ik[365,3] 1.9621013 0.2713573 8.165211
## sigma_ik[366,2] 2.2298921 0.1965706 5.660758
## sigma_ik[366,3] 2.1169047 0.2452962 7.093264
## sigma_ik[367,2] 2.2619485 0.1643103 5.386702
## sigma_ik[367,3] 2.1169047 0.2452962 7.093264
## sigma_ik[368,1] 0.8621329 0.2140886 6.368274
## sigma_ik[368,2] 0.8621329 0.2140886 6.368274
## sigma_ik[368,3] 1.9621013 0.2713573 8.165211
## sigma_ik[369,3] 0.8621329 0.2140886 6.368274
## sigma_ik[370,2] 2.1456990 0.1800052 6.974792
## sigma_ik[371,1] 0.8621329 0.2140886 6.368274
## sigma_ik[371,2] 0.8621329 0.2140886 6.368274
## sigma_ik[371,3] 0.8621329 0.2140886 6.368274
## sigma_ik[372,1] 1.2089026 0.2162433 8.165130
## sigma_ik[372,2] 2.2847128 0.1633814 5.862763
## sigma_ik[374,2] 2.1456990 0.1800052 6.974792
## sigma_ik[374,3] 2.2357695 0.1656130 5.804243
## sigma_ik[375,1] 0.8621329 0.2140886 6.368274
## sigma_ik[375,2] 2.2847128 0.1633814 5.862763
## sigma_ik[375,3] 0.8621329 0.2140886 6.368274
## sigma_ik[378,2] 2.2619485 0.1643103 5.386702
## sigma_ik[378,3] 2.1169047 0.2452962 7.093264
## sigma_ik[379,2] 2.1456990 0.1800052 6.974792
## sigma_ik[380,3] 1.0944293 0.2060371 5.668122
## sigma_ik[381,3] 2.1456990 0.1800052 6.974792
## sigma_ik[382,2] 1.2089026 0.2162433 8.165130
## sigma_ik[382,3] 0.8621329 0.2140886 6.368274
## sigma_ik[383,2] 2.2357695 0.1656130 5.804243
## sigma_ik[383,3] 2.2847128 0.1633814 5.862763
## sigma_ik[386,2] 2.2847128 0.1633814 5.862763

```

```

## sigma_ik[386,3] 2.1169047 0.2452962 7.093264
## sigma_ik[387,1] 1.2089026 0.2162433 8.165130
## sigma_ik[387,3] 1.2089026 0.2162433 8.165130
## sigma_ik[389,2] 2.1213620 0.1812779 6.234047
## sigma_ik[389,3] 2.2847128 0.1633814 5.862763
## sigma_ik[390,3] 0.8621329 0.2140886 6.368274
## sigma_ik[392,2] 2.1456990 0.1800052 6.974792
## sigma_ik[392,3] 2.1456990 0.1800052 6.974792
## sigma_ik[393,1] 1.0944293 0.2060371 5.668122
## sigma_ik[395,1] 0.8621329 0.2140886 6.368274
## sigma_ik[399,3] 2.1169047 0.2452962 7.093264
## sigma_ik[401,1] 1.2089026 0.2162433 8.165130
## sigma_ik[401,2] 2.2619485 0.1643103 5.386702
## sigma_ik[401,3] 2.2847128 0.1633814 5.862763
## sigma_ik[404,2] 2.2847128 0.1633814 5.862763
## sigma_ik[405,2] 2.1456990 0.1800052 6.974792
## sigma_ik[405,3] 0.8621329 0.2140886 6.368274
## sigma_ik[406,3] 2.1456990 0.1800052 6.974792
## sigma_ik[407,2] 2.2847128 0.1633814 5.862763
## sigma_ik[408,1] 1.0944293 0.2060371 5.668122
## sigma_ik[408,2] 1.0944293 0.2060371 5.668122
## sigma_ik[409,1] 1.2089026 0.2162433 8.165130
## sigma_ik[409,2] 2.2357695 0.1656130 5.804243
## sigma_ik[409,3] 2.1169047 0.2452962 7.093264
## sigma_ik[410,2] 2.2357695 0.1656130 5.804243
## sigma_ik[410,3] 2.2619485 0.1643103 5.386702
## sigma_ik[411,2] 2.1456990 0.1800052 6.974792
## sigma_ik[411,3] 2.1456990 0.1800052 6.974792
## sigma_ik[413,3] 2.2619485 0.1643103 5.386702
## sigma_ik[415,3] 2.2847128 0.1633814 5.862763
## sigma_ik[416,2] 2.2484694 0.1728820 5.972306
## sigma_ik[416,3] 2.2484694 0.1728820 5.972306
## sigma_ik[417,2] 2.1456990 0.1800052 6.974792
## sigma_ik[420,2] 2.1169047 0.2452962 7.093264
## sigma_ik[420,3] 1.9621013 0.2713573 8.165211
## sigma_ik[423,3] 2.1169047 0.2452962 7.093264
## sigma_ik[424,3] 2.2298921 0.1965706 5.660758
## sigma_ik[426,2] 0.8621329 0.2140886 6.368274
## sigma_ik[426,3] 0.8621329 0.2140886 6.368274
## sigma_ik[428,2] 2.2619485 0.1643103 5.386702
## sigma_ik[428,3] 2.2298921 0.1965706 5.660758
## sigma_ik[429,3] 2.2357695 0.1656130 5.804243
## sigma_ik[430,2] 2.0933468 0.1829635 6.900456
## sigma_ik[430,3] 2.0933468 0.1829635 6.900456
## sigma_ik[432,2] 2.2847128 0.1633814 5.862763
## sigma_ik[432,3] 1.0944293 0.2060371 5.668122
## sigma_ik[433,2] 2.2619485 0.1643103 5.386702
## sigma_ik[433,3] 2.2357695 0.1656130 5.804243
## sigma_ik[435,3] 2.2847128 0.1633814 5.862763
## sigma_ik[436,3] 0.8621329 0.2140886 6.368274
## sigma_ik[438,3] 2.1456990 0.1800052 6.974792
## sigma_ik[439,2] 2.1456990 0.1800052 6.974792
## sigma_ik[439,3] 2.2298921 0.1965706 5.660758
## sigma_ik[441,2] 1.0944293 0.2060371 5.668122

```

```

## sigma_ik[442,1] 1.0944293 0.2060371 5.668122
## sigma_ik[442,2] 2.0866549 0.2132930 6.268495
## sigma_ik[443,1] 1.0944293 0.2060371 5.668122
## sigma_ik[443,2] 2.2357695 0.1656130 5.804243
## sigma_ik[444,1] 1.0944293 0.2060371 5.668122
## sigma_ik[444,2] 2.0866549 0.2132930 6.268495
## sigma_ik[444,3] 2.2357695 0.1656130 5.804243
## sigma_ik[446,3] 2.1456990 0.1800052 6.974792
## sigma_ik[447,2] 2.2619485 0.1643103 5.386702
## sigma_ik[447,3] 2.2298921 0.1965706 5.660758
## sigma_ik[448,2] 2.2298921 0.1965706 5.660758
## sigma_ik[448,3] 2.1169047 0.2452962 7.093264
## sigma_ik[449,1] 1.2089026 0.2162433 8.165130
## sigma_ik[449,2] 2.2357695 0.1656130 5.804243
## sigma_ik[450,3] 2.0933468 0.1829635 6.900456
## sigma_ik[451,2] 2.0933468 0.1829635 6.900456
## sigma_ik[452,1] 1.0944293 0.2060371 5.668122
## sigma_ik[452,2] 2.2847128 0.1633814 5.862763
## sigma_ik[452,3] 2.2298921 0.1965706 5.660758
## sigma_ik[453,2] 2.2619485 0.1643103 5.386702
## sigma_ik[453,3] 2.1213620 0.1812779 6.234047
## sigma_ik[455,2] 2.2847128 0.1633814 5.862763
## sigma_ik[455,3] 2.1169047 0.2452962 7.093264
## sigma_ik[456,2] 2.2357695 0.1656130 5.804243
## sigma_ik[456,3] 0.8621329 0.2140886 6.368274
## sigma_ik[458,2] 2.1456990 0.1800052 6.974792
## sigma_ik[459,2] 1.0944293 0.2060371 5.668122
## sigma_ik[460,2] 2.0933468 0.1829635 6.900456
## sigma_ik[460,3] 2.2298921 0.1965706 5.660758
## sigma_ik[461,2] 2.2847128 0.1633814 5.862763
## sigma_ik[461,3] 2.2298921 0.1965706 5.660758
## sigma_ik[462,2] 2.2847128 0.1633814 5.862763
## sigma_ik[462,3] 2.1456990 0.1800052 6.974792
## sigma_ik[466,2] 2.3812253 0.1576260 5.222879
## sigma_ik[466,3] 2.2847128 0.1633814 5.862763
## sigma_ik[468,3] 0.8621329 0.2140886 6.368274
## sigma_ik[469,2] 1.2089026 0.2162433 8.165130
## sigma_ik[469,3] 2.2619485 0.1643103 5.386702
## sigma_ik[470,1] 1.2089026 0.2162433 8.165130
## sigma_ik[470,2] 2.2847128 0.1633814 5.862763
## sigma_ik[471,2] 2.2357695 0.1656130 5.804243
## sigma_ik[471,3] 2.1169047 0.2452962 7.093264
## sigma_ik[472,2] 2.0933468 0.1829635 6.900456
## sigma_ik[472,3] 2.0933468 0.1829635 6.900456
## sigma_ik[474,2] 2.2357695 0.1656130 5.804243
## sigma_ik[475,3] 2.3812253 0.1576260 5.222879
## sigma_ik[476,2] 2.1456990 0.1800052 6.974792
## sigma_ik[476,3] 2.1456990 0.1800052 6.974792
## sigma_ik[477,2] 2.2847128 0.1633814 5.862763
## sigma_ik[477,3] 2.1456990 0.1800052 6.974792
## sigma_ik[480,2] 2.2847128 0.1633814 5.862763
## sigma_ik[481,2] 2.0933468 0.1829635 6.900456
## sigma_ik[482,2] 2.0933468 0.1829635 6.900456
## sigma_ik[482,3] 2.0933468 0.1829635 6.900456

```

```

## sigma_ik[484,2] 2.0933468 0.1829635 6.900456
## sigma_ik[484,3] 2.0933468 0.1829635 6.900456
## sigma_ik[485,2] 2.2619485 0.1643103 5.386702
## sigma_ik[486,2] 2.2298921 0.1965706 5.660758
## sigma_ik[486,3] 2.1169047 0.2452962 7.093264
## sigma_ik[487,2] 2.2357695 0.1656130 5.804243
## sigma_ik[488,1] 0.8621329 0.2140886 6.368274
## sigma_ik[488,2] 2.2847128 0.1633814 5.862763
## sigma_ik[489,1] 1.0944293 0.2060371 5.668122
## sigma_ik[489,3] 2.2357695 0.1656130 5.804243
## sigma_ik[491,2] 2.0933468 0.1829635 6.900456
## sigma_ik[491,3] 2.0933468 0.1829635 6.900456
## sigma_ik[492,3] 2.2847128 0.1633814 5.862763
## sigma_ik[493,2] 2.2847128 0.1633814 5.862763
## sigma_ik[493,3] 2.2619485 0.1643103 5.386702
## sigma_ik[497,3] 2.2484694 0.1728820 5.972306
## sigma_ik[498,1] 1.0944293 0.2060371 5.668122
## sigma_ik[498,2] 2.0866549 0.2132930 6.268495
## sigma_ik[498,3] 2.0866549 0.2132930 6.268495
## sigma_ik[499,2] 2.3812253 0.1576260 5.222879
## sigma_ik[500,3] 2.2619485 0.1643103 5.386702
## sigma_ik[501,1] 1.2089026 0.2162433 8.165130
## sigma_ik[501,3] 2.2619485 0.1643103 5.386702
## sigma_ik[502,3] 2.1456990 0.1800052 6.974792
## sigma_ik[507,1] 1.2089026 0.2162433 8.165130
## sigma_ik[507,2] 2.2357695 0.1656130 5.804243
## sigma_ik[507,3] 2.1169047 0.2452962 7.093264
## sigma_ik[509,2] 2.0933468 0.1829635 6.900456
## sigma_ik[509,3] 2.0933468 0.1829635 6.900456
## sigma_ik[510,2] 2.0933468 0.1829635 6.900456
## sigma_ik[511,1] 1.0944293 0.2060371 5.668122
## sigma_ik[511,2] 2.2847128 0.1633814 5.862763
## sigma_ik[511,3] 2.1456990 0.1800052 6.974792
## sigma_ik[512,3] 2.2357695 0.1656130 5.804243
## sigma_ik[513,2] 2.0933468 0.1829635 6.900456
## sigma_ik[515,3] 2.0933468 0.1829635 6.900456
## sigma_ik[516,2] 2.0933468 0.1829635 6.900456
## sigma_ik[517,2] 2.2847128 0.1633814 5.862763
## sigma_ik[517,3] 2.2619485 0.1643103 5.386702
## sigma_ik[518,3] 2.0933468 0.1829635 6.900456
## sigma_ik[519,2] 2.3812253 0.1576260 5.222879
## sigma_ik[520,2] 2.0933468 0.1829635 6.900456
## sigma_ik[520,3] 2.0933468 0.1829635 6.900456
## sigma_ik[522,3] 2.2357695 0.1656130 5.804243
## sigma_ik[523,2] 2.1456990 0.1800052 6.974792
## sigma_ik[523,3] 2.2357695 0.1656130 5.804243
## sigma_ik[524,2] 2.2619485 0.1643103 5.386702
## sigma_ik[525,1] 1.2089026 0.2162433 8.165130
## sigma_ik[527,2] 2.2357695 0.1656130 5.804243
## sigma_ik[527,3] 2.0933468 0.1829635 6.900456
## sigma_ik[528,2] 2.2619485 0.1643103 5.386702
## sigma_ik[530,1] 1.2089026 0.2162433 8.165130
## sigma_ik[530,3] 2.2357695 0.1656130 5.804243
## sigma_ik[531,2] 2.1213620 0.1812779 6.234047

```



```

## sigma_ik[531,3] 2.2847128 0.1633814 5.862763
## sigma_ik[532,3] 2.2619485 0.1643103 5.386702
## sigma_ik[536,3] 2.1169047 0.2452962 7.093264
## sigma_ik[538,1] 1.0944293 0.2060371 5.668122
## sigma_ik[538,2] 2.2847128 0.1633814 5.862763
## sigma_ik[538,3] 1.2089026 0.2162433 8.165130
## sigma_ik[540,2] 2.3812253 0.1576260 5.222879
## sigma_ik[541,1] 1.2089026 0.2162433 8.165130
## sigma_ik[542,2] 2.0933468 0.1829635 6.900456
## sigma_ik[543,1] 1.2089026 0.2162433 8.165130
## sigma_ik[543,3] 1.2089026 0.2162433 8.165130
## sigma_ik[544,2] 2.1169047 0.2452962 7.093264
## sigma_ik[544,3] 2.2847128 0.1633814 5.862763
## sigma_ik[545,2] 2.1456990 0.1800052 6.974792
## sigma_ik[546,1] 1.2089026 0.2162433 8.165130
## sigma_ik[546,2] 2.2619485 0.1643103 5.386702
## sigma_ik[546,3] 2.2357695 0.1656130 5.804243
## sigma_ik[547,2] 2.1456990 0.1800052 6.974792
## sigma_ik[548,3] 2.2847128 0.1633814 5.862763
## sigma_ik[549,2] 2.2484694 0.1728820 5.972306
## sigma_ik[550,2] 2.2357695 0.1656130 5.804243
## sigma_ik[551,1] 1.0944293 0.2060371 5.668122
## sigma_ik[551,2] 2.2619485 0.1643103 5.386702
## sigma_ik[551,3] 2.1213620 0.1812779 6.234047
## sigma_ik[553,2] 2.2619485 0.1643103 5.386702
## sigma_ik[553,3] 2.2847128 0.1633814 5.862763
## sigma_ik[555,2] 2.2847128 0.1633814 5.862763
## sigma_ik[555,3] 2.2619485 0.1643103 5.386702
## sigma_ik[556,2] 1.2089026 0.2162433 8.165130
## sigma_ik[556,3] 1.2089026 0.2162433 8.165130
## sigma_ik[558,2] 1.2089026 0.2162433 8.165130
## sigma_ik[558,3] 2.2298921 0.1965706 5.660758
## sigma_ik[559,3] 2.1213620 0.1812779 6.234047
## sigma_ik[560,2] 2.1456990 0.1800052 6.974792
## sigma_ik[561,2] 1.2089026 0.2162433 8.165130
## sigma_ik[562,2] 2.0933468 0.1829635 6.900456
## sigma_ik[563,1] 1.2089026 0.2162433 8.165130
## sigma_ik[563,3] 1.2089026 0.2162433 8.165130
## sigma_ik[564,1] 1.2089026 0.2162433 8.165130
## sigma_ik[564,2] 1.2089026 0.2162433 8.165130
## sigma_ik[564,3] 2.1169047 0.2452962 7.093264
## sigma_ik[565,2] 2.0933468 0.1829635 6.900456
## sigma_ik[566,1] 1.2089026 0.2162433 8.165130
## sigma_ik[566,2] 1.2089026 0.2162433 8.165130
## sigma_ik[566,3] 2.1169047 0.2452962 7.093264
## sigma_ik[567,2] 1.2089026 0.2162433 8.165130
## sigma_ik[568,3] 2.0933468 0.1829635 6.900456
## sigma_ik[569,2] 2.3812253 0.1576260 5.222879
## sigma_ik[570,2] 2.0933468 0.1829635 6.900456
## sigma_ik[571,2] 1.2089026 0.2162433 8.165130
## sigma_ik[571,3] 2.2357695 0.1656130 5.804243
## sigma_ik[572,2] 2.2619485 0.1643103 5.386702
## sigma_ik[573,2] 2.0933468 0.1829635 6.900456
## sigma_ik[574,3] 2.1169047 0.2452962 7.093264

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## sigma_ik[576,2] 2.0933468 0.1829635 6.900456
## sigma_ik[576,3] 2.0933468 0.1829635 6.900456
## sigma_ik[580,2] 2.1456990 0.1800052 6.974792
## sigma_ik[581,2] 2.3812253 0.1576260 5.222879
## sigma_ik[581,3] 2.2357695 0.1656130 5.804243
## sigma_ik[583,3] 2.1456990 0.1800052 6.974792
## sigma_ik[584,2] 1.2089026 0.2162433 8.165130
## sigma_ik[585,1] 1.2089026 0.2162433 8.165130
## sigma_ik[585,3] 2.1169047 0.2452962 7.093264
## sigma_ik[586,2] 2.2484694 0.1728820 5.972306
## sigma_ik[586,3] 2.2357695 0.1656130 5.804243
## sigma_ik[587,1] 1.2089026 0.2162433 8.165130
## sigma_ik[587,2] 1.2089026 0.2162433 8.165130
## sigma_ik[587,3] 2.2357695 0.1656130 5.804243
## sigma_ik[588,1] 1.2089026 0.2162433 8.165130
## sigma_ik[588,3] 1.2089026 0.2162433 8.165130
## sigma_ik[589,2] 2.2847128 0.1633814 5.862763
## sigma_ik[590,2] 2.2619485 0.1643103 5.386702
## sigma_ik[590,3] 2.2847128 0.1633814 5.862763
## sigma_ik[591,2] 2.0933468 0.1829635 6.900456
## sigma_ik[591,3] 2.0933468 0.1829635 6.900456
## sigma_ik[592,2] 2.1213620 0.1812779 6.234047
## sigma_ik[594,1] 1.2089026 0.2162433 8.165130
## sigma_ik[594,3] 1.2089026 0.2162433 8.165130
## sigma_ik[595,1] 1.0944293 0.2060371 5.668122
## sigma_ik[595,3] 1.0944293 0.2060371 5.668122
## sigma_ik[596,1] 1.2089026 0.2162433 8.165130
## sigma_ik[596,2] 1.2089026 0.2162433 8.165130
## sigma_ik[596,3] 0.8621329 0.2140886 6.368274
## sigma_ik[597,1] 1.2089026 0.2162433 8.165130
## sigma_ik[597,2] 1.2089026 0.2162433 8.165130
## sigma_ik[597,3] 1.2089026 0.2162433 8.165130
## sigma_ik[598,3] 0.8621329 0.2140886 6.368274
## sigma_ik[599,1] 1.2089026 0.2162433 8.165130
## sigma_ik[599,2] 1.2089026 0.2162433 8.165130
## sigma_ik[599,3] 0.8621329 0.2140886 6.368274
## sigma_ik[600,3] 0.8621329 0.2140886 6.368274
## sigma_ik[601,1] 1.2089026 0.2162433 8.165130
## sigma_ik[601,2] 1.2089026 0.2162433 8.165130
## sigma_ik[601,3] 1.2089026 0.2162433 8.165130
## sigma_ik[604,1] 1.2089026 0.2162433 8.165130
## sigma_ik[604,3] 1.2089026 0.2162433 8.165130
## sigma_ik[605,2] 2.2847128 0.1633814 5.862763
## sigma_ik[605,3] 0.8621329 0.2140886 6.368274
## sigma_ik[606,1] 1.0944293 0.2060371 5.668122
## sigma_ik[606,2] 2.2847128 0.1633814 5.862763
## sigma_ik[608,2] 2.1456990 0.1800052 6.974792
## sigma_ik[608,3] 2.1456990 0.1800052 6.974792
## sigma_ik[609,2] 2.0933468 0.1829635 6.900456
## sigma_ik[609,3] 2.2847128 0.1633814 5.862763
## sigma_ik[610,2] 2.1456990 0.1800052 6.974792
## sigma_ik[612,3] 2.1456990 0.1800052 6.974792
## sigma_ik[613,1] 1.2089026 0.2162433 8.165130
## sigma_ik[613,3] 1.2089026 0.2162433 8.165130

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## sigma_ik[614,1] 1.2089026 0.2162433 8.165130
## sigma_ik[614,2] 1.2089026 0.2162433 8.165130
## sigma_ik[615,2] 2.1456990 0.1800052 6.974792
## sigma_ik[617,1] 1.2089026 0.2162433 8.165130
## sigma_ik[617,2] 2.2357695 0.1656130 5.804243
## sigma_ik[619,1] 1.2089026 0.2162433 8.165130
## sigma_ik[619,2] 2.2847128 0.1633814 5.862763
## sigma_ik[620,1] 1.2089026 0.2162433 8.165130
## sigma_ik[620,3] 2.2357695 0.1656130 5.804243
## sigma_ik[621,2] 2.2357695 0.1656130 5.804243
## sigma_ik[621,3] 1.0944293 0.2060371 5.668122
## sigma_ik[622,1] 1.2089026 0.2162433 8.165130
## sigma_ik[622,2] 2.2357695 0.1656130 5.804243
## sigma_ik[622,3] 2.0933468 0.1829635 6.900456
## sigma_ik[623,1] 1.2089026 0.2162433 8.165130
## sigma_ik[623,2] 2.2357695 0.1656130 5.804243
## sigma_ik[623,3] 2.0933468 0.1829635 6.900456
## sigma_ik[625,3] 2.0933468 0.1829635 6.900456
## sigma_ik[626,1] 1.2089026 0.2162433 8.165130
## sigma_ik[626,2] 2.2357695 0.1656130 5.804243
## sigma_ik[626,3] 2.0933468 0.1829635 6.900456
## sigma_ik[627,1] 1.2089026 0.2162433 8.165130
## sigma_ik[627,3] 2.2619485 0.1643103 5.386702
## sigma_ik[628,1] 1.2089026 0.2162433 8.165130
## sigma_ik[628,2] 1.2089026 0.2162433 8.165130
## sigma_ik[629,2] 2.1456990 0.1800052 6.974792
## sigma_ik[630,3] 2.2619485 0.1643103 5.386702
## sigma_ik[631,3] 2.2357695 0.1656130 5.804243
## sigma_ik[632,1] 1.2089026 0.2162433 8.165130
## sigma_ik[632,2] 2.2357695 0.1656130 5.804243
## sigma_ik[632,3] 2.0933468 0.1829635 6.900456
## sigma_ik[634,1] 1.2089026 0.2162433 8.165130
## sigma_ik[634,2] 1.2089026 0.2162433 8.165130
## sigma_ik[634,3] 1.2089026 0.2162433 8.165130
## sigma_ik[637,1] 1.0944293 0.2060371 5.668122
## sigma_ik[637,2] 1.0944293 0.2060371 5.668122
## sigma_ik[637,3] 2.2847128 0.1633814 5.862763
## sigma_ik[641,3] 2.1456990 0.1800052 6.974792
## sigma_ik[642,3] 2.2357695 0.1656130 5.804243
## sigma_ik[643,3] 2.1169047 0.2452962 7.093264
## sigma_ik[645,2] 2.2847128 0.1633814 5.862763
## sigma_ik[645,3] 2.2619485 0.1643103 5.386702
## sigma_ik[646,2] 1.2089026 0.2162433 8.165130
## sigma_ik[646,3] 1.2089026 0.2162433 8.165130
## sigma_ik[648,2] 2.2357695 0.1656130 5.804243
## sigma_ik[653,1] 1.0944293 0.2060371 5.668122
## sigma_ik[653,2] 2.2847128 0.1633814 5.862763
## sigma_ik[653,3] 2.1456990 0.1800052 6.974792
## sigma_ik[654,3] 2.0933468 0.1829635 6.900456
## sigma_ik[656,2] 2.1456990 0.1800052 6.974792
## sigma_ik[657,1] 1.0944293 0.2060371 5.668122
## sigma_ik[657,2] 2.2357695 0.1656130 5.804243
## sigma_ik[658,1] 1.2089026 0.2162433 8.165130
## sigma_ik[659,1] 1.2089026 0.2162433 8.165130

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```

## sigma_ik[659,3] 2.2619485 0.1643103 5.386702
## sigma_ik[660,3] 2.2619485 0.1643103 5.386702
## sigma_ik[661,2] 2.0933468 0.1829635 6.900456
## sigma_ik[661,3] 2.1169047 0.2452962 7.093264
## sigma_ik[663,3] 0.8621329 0.2140886 6.368274
## sigma_ik[664,3] 0.8621329 0.2140886 6.368274
## sigma_ik[666,2] 2.2847128 0.1633814 5.862763
## sigma_ik[667,3] 2.2847128 0.1633814 5.862763
## sigma_ik[669,2] 2.2619485 0.1643103 5.386702
## sigma_ik[670,3] 0.8621329 0.2140886 6.368274
## sigma_ik[671,2] 1.0944293 0.2060371 5.668122
## sigma_ik[671,3] 0.8621329 0.2140886 6.368274
## sigma_ik[674,2] 2.2484694 0.1728820 5.972306
## sigma_ik[675,1] 1.0944293 0.2060371 5.668122
## sigma_ik[676,2] 2.2619485 0.1643103 5.386702
## sigma_ik[676,3] 2.2357695 0.1656130 5.804243
## sigma_ik[677,3] 2.2484694 0.1728820 5.972306
## sigma_ik[679,2] 2.2847128 0.1633814 5.862763
## sigma_ik[679,3] 2.1169047 0.2452962 7.093264
## sigma_ik[681,3] 0.8621329 0.2140886 6.368274
## sigma_ik[682,3] 0.8621329 0.2140886 6.368274
## sigma_ik[685,2] 2.2847128 0.1633814 5.862763
## sigma_ik[687,2] 2.0933468 0.1829635 6.900456
## sigma_ik[688,2] 1.2089026 0.2162433 8.165130
## sigma_ik[690,3] 2.2484694 0.1728820 5.972306
## sigma_ik[692,3] 2.1456990 0.1800052 6.974792
## sigma_ik[696,1] 1.2089026 0.2162433 8.165130
## sigma_ik[696,2] 2.2357695 0.1656130 5.804243
## sigma_ik[696,3] 2.0933468 0.1829635 6.900456
## sigma_ik[697,1] 1.2089026 0.2162433 8.165130
## sigma_ik[697,3] 2.2298921 0.1965706 5.660758
## sigma_ik[700,2] 2.1456990 0.1800052 6.974792
## sigma_ik[700,3] 2.1456990 0.1800052 6.974792
## sigma_ik[702,3] 2.0933468 0.1829635 6.900456
## sigma_ik[704,2] 2.0933468 0.1829635 6.900456
## sigma_ik[704,3] 2.0933468 0.1829635 6.900456
## sigma_ik[706,3] 2.2357695 0.1656130 5.804243
## sigma_ik[709,3] 2.2357695 0.1656130 5.804243
## sigma_ik[710,2] 2.3812253 0.1576260 5.222879
## sigma_ik[710,3] 2.2357695 0.1656130 5.804243
## sigma_ik[713,2] 2.0933468 0.1829635 6.900456
## sigma_ik[713,3] 2.0933468 0.1829635 6.900456
## sigma_ik[716,2] 2.0933468 0.1829635 6.900456
## sigma_ik[716,3] 2.0933468 0.1829635 6.900456
## sigma_ik[717,2] 2.0933468 0.1829635 6.900456
## sigma_ik[719,3] 1.0944293 0.2060371 5.668122
## sigma_ik[720,2] 2.2357695 0.1656130 5.804243
## sigma_ik[720,3] 2.2847128 0.1633814 5.862763
## sigma_ik[721,1] 1.0944293 0.2060371 5.668122
## sigma_ik[721,2] 2.2847128 0.1633814 5.862763
## sigma_ik[721,3] 1.0944293 0.2060371 5.668122
## sigma_ik[722,2] 2.0933468 0.1829635 6.900456
## sigma_ik[722,3] 2.0933468 0.1829635 6.900456
## sigma_ik[724,2] 2.0933468 0.1829635 6.900456

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## sigma_ik[725,1] 1.0944293 0.2060371 5.668122
## sigma_ik[725,2] 2.0866549 0.2132930 6.268495
## sigma_ik[725,3] 2.2619485 0.1643103 5.386702
## sigma_ik[726,2] 2.2847128 0.1633814 5.862763
## sigma_ik[726,3] 2.1456990 0.1800052 6.974792
## sigma_ik[727,1] 1.2089026 0.2162433 8.165130
## sigma_ik[727,2] 1.2089026 0.2162433 8.165130
## sigma_ik[727,3] 2.2847128 0.1633814 5.862763
## sigma_ik[728,2] 2.2847128 0.1633814 5.862763
## sigma_ik[729,2] 2.0933468 0.1829635 6.900456
## sigma_ik[729,3] 2.0933468 0.1829635 6.900456
## sigma_ik[730,2] 1.0944293 0.2060371 5.668122
## sigma_ik[730,3] 2.2357695 0.1656130 5.804243
## sigma_ik[731,2] 2.2298921 0.1965706 5.660758
## sigma_ik[732,2] 2.2484694 0.1728820 5.972306
## sigma_ik[732,3] 2.2847128 0.1633814 5.862763
## sigma_ik[735,1] 1.0944293 0.2060371 5.668122
## sigma_ik[735,2] 2.2847128 0.1633814 5.862763
## sigma_ik[736,3] 2.1456990 0.1800052 6.974792
## sigma_ik[737,2] 2.0933468 0.1829635 6.900456
## sigma_ik[739,2] 2.0933468 0.1829635 6.900456
## sigma_ik[739,3] 2.0933468 0.1829635 6.900456
## sigma_ik[740,2] 2.0933468 0.1829635 6.900456
## sigma_ik[740,3] 2.0933468 0.1829635 6.900456
## sigma_ik[744,3] 2.2847128 0.1633814 5.862763
## sigma_ik[745,1] 0.8621329 0.2140886 6.368274
## sigma_ik[745,2] 0.8621329 0.2140886 6.368274
## sigma_ik[745,3] 0.8621329 0.2140886 6.368274
## sigma_ik[747,2] 2.0933468 0.1829635 6.900456
## sigma_ik[748,2] 2.0933468 0.1829635 6.900456
## sigma_ik[750,2] 2.0933468 0.1829635 6.900456
## sigma_ik[750,3] 2.0933468 0.1829635 6.900456
## sigma_ik[751,3] 2.1169047 0.2452962 7.093264
## sigma_ik[756,2] 2.1456990 0.1800052 6.974792
## sigma_ik[756,3] 2.2298921 0.1965706 5.660758
## sigma_ik[757,2] 2.1456990 0.1800052 6.974792
## sigma_ik[759,1] 1.0944293 0.2060371 5.668122
## sigma_ik[762,3] 2.2619485 0.1643103 5.386702
## sigma_ik[766,2] 2.2619485 0.1643103 5.386702
## sigma_ik[766,3] 2.2847128 0.1633814 5.862763
## sigma_ik[767,3] 2.1169047 0.2452962 7.093264
## sigma_ik[768,2] 2.2619485 0.1643103 5.386702
## sigma_ik[769,2] 2.2619485 0.1643103 5.386702
## sigma_ik[769,3] 2.2357695 0.1656130 5.804243
## sigma_ik[770,2] 2.2619485 0.1643103 5.386702
## sigma_ik[770,3] 2.1213620 0.1812779 6.234047
## sigma_ik[771,1] 1.0944293 0.2060371 5.668122
## sigma_ik[771,2] 2.0866549 0.2132930 6.268495
## sigma_ik[771,3] 0.8621329 0.2140886 6.368274
## sigma_ik[772,2] 2.2357695 0.1656130 5.804243
## sigma_ik[772,3] 0.8621329 0.2140886 6.368274
## sigma_ik[773,1] 1.2089026 0.2162433 8.165130
## sigma_ik[773,3] 2.2847128 0.1633814 5.862763
## sigma_ik[777,2] 2.2847128 0.1633814 5.862763

```

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## sigma_ik[778,3] 2.2847128 0.1633814 5.862763
## sigma_ik[779,3] 1.0944293 0.2060371 5.668122
## sigma_ik[780,2] 2.2847128 0.1633814 5.862763
## sigma_ik[780,3] 2.1169047 0.2452962 7.093264
## sigma_ik[782,1] 1.0944293 0.2060371 5.668122
## sigma_ik[784,1] 1.0944293 0.2060371 5.668122
## sigma_ik[784,3] 2.1456990 0.1800052 6.974792
## sigma_ik[787,2] 2.1456990 0.1800052 6.974792
## sigma_ik[787,3] 2.1456990 0.1800052 6.974792
## sigma_ik[788,2] 2.2847128 0.1633814 5.862763
## sigma_ik[790,3] 2.1456990 0.1800052 6.974792
## sigma_ik[791,2] 2.1456990 0.1800052 6.974792
## sigma_ik[791,3] 2.2357695 0.1656130 5.804243
## sigma_ik[792,2] 2.1456990 0.1800052 6.974792
## sigma_ik[792,3] 1.0944293 0.2060371 5.668122
## sigma_ik[793,1] 1.0944293 0.2060371 5.668122
## sigma_ik[793,3] 2.1456990 0.1800052 6.974792
## sigma_ik[795,3] 2.1456990 0.1800052 6.974792
## sigma_ik[796,2] 1.2089026 0.2162433 8.165130
## sigma_ik[796,3] 1.2089026 0.2162433 8.165130
## sigma_ik[798,1] 1.2089026 0.2162433 8.165130
## sigma_ik[799,3] 0.8621329 0.2140886 6.368274
## sigma_ik[800,1] 1.2089026 0.2162433 8.165130
## sigma_ik[800,3] 2.2357695 0.1656130 5.804243
## sigma_ik[802,2] 2.0933468 0.1829635 6.900456
## sigma_ik[802,3] 2.0933468 0.1829635 6.900456
## sigma_ik[803,2] 2.0933468 0.1829635 6.900456
## sigma_ik[808,2] 2.3812253 0.1576260 5.222879
## sigma_ik[808,3] 2.2619485 0.1643103 5.386702
## sigma_ik[812,2] 2.1213620 0.1812779 6.234047
## sigma_ik[813,1] 1.2089026 0.2162433 8.165130
## sigma_ik[813,3] 1.2089026 0.2162433 8.165130
## sigma_ik[814,2] 2.1456990 0.1800052 6.974792
## sigma_ik[815,1] 1.0944293 0.2060371 5.668122
## sigma_ik[816,3] 2.1456990 0.1800052 6.974792
## sigma_ik[817,1] 1.2089026 0.2162433 8.165130
## sigma_ik[818,3] 2.1456990 0.1800052 6.974792
## sigma_ik[820,2] 2.1213620 0.1812779 6.234047
## sigma_ik[820,3] 2.1213620 0.1812779 6.234047
## sigma_ik[822,3] 2.1456990 0.1800052 6.974792
## sigma_ik[825,2] 2.1213620 0.1812779 6.234047
## sigma_ik[826,3] 2.2847128 0.1633814 5.862763
## sigma_ik[827,2] 2.3812253 0.1576260 5.222879
## sigma_ik[829,1] 1.2089026 0.2162433 8.165130
## sigma_ik[829,2] 1.2089026 0.2162433 8.165130
## sigma_ik[831,2] 2.2847128 0.1633814 5.862763
## sigma_ik[831,3] 2.2619485 0.1643103 5.386702
## sigma_ik[833,2] 2.0933468 0.1829635 6.900456
## sigma_ik[833,3] 2.2619485 0.1643103 5.386702
## sigma_ik[834,3] 2.2847128 0.1633814 5.862763
## sigma_ik[836,2] 1.2089026 0.2162433 8.165130
## sigma_ik[837,3] 2.2357695 0.1656130 5.804243
## sigma_ik[838,1] 1.0944293 0.2060371 5.668122
## sigma_ik[838,2] 1.0944293 0.2060371 5.668122

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## sigma_ik[838,3] 1.0944293 0.2060371 5.668122
## sigma_ik[839,2] 2.2847128 0.1633814 5.862763
## sigma_ik[840,2] 2.2847128 0.1633814 5.862763
## sigma_ik[840,3] 2.2619485 0.1643103 5.386702
## sigma_ik[841,1] 1.2089026 0.2162433 8.165130
## sigma_ik[841,2] 1.2089026 0.2162433 8.165130
## sigma_ik[841,3] 1.2089026 0.2162433 8.165130
## sigma_ik[842,3] 2.2619485 0.1643103 5.386702
## sigma_ik[843,2] 1.0944293 0.2060371 5.668122
## sigma_ik[843,3] 1.0944293 0.2060371 5.668122
## sigma_ik[844,2] 1.0944293 0.2060371 5.668122
## sigma_ik[845,2] 2.2484694 0.1728820 5.972306
## sigma_ik[845,3] 2.2484694 0.1728820 5.972306
## sigma_ik[846,1] 1.2089026 0.2162433 8.165130
## sigma_ik[846,2] 1.2089026 0.2162433 8.165130
## sigma_ik[849,3] 2.1456990 0.1800052 6.974792
## sigma_ik[850,1] 1.2089026 0.2162433 8.165130
## sigma_ik[853,2] 2.1456990 0.1800052 6.974792
## sigma_ik[856,1] 1.0944293 0.2060371 5.668122
## sigma_ik[856,2] 1.0944293 0.2060371 5.668122
## sigma_ik[856,3] 1.0944293 0.2060371 5.668122
## sigma_ik[857,2] 2.2847128 0.1633814 5.862763
## sigma_ik[858,2] 2.1456990 0.1800052 6.974792
## sigma_ik[858,3] 2.1456990 0.1800052 6.974792
## sigma_ik[860,2] 2.2484694 0.1728820 5.972306
## sigma_ik[860,3] 2.2847128 0.1633814 5.862763
## sigma_ik[862,2] 2.1456990 0.1800052 6.974792
## sigma_ik[862,3] 2.1456990 0.1800052 6.974792
## sigma_ik[863,1] 1.2089026 0.2162433 8.165130
## sigma_ik[863,2] 2.2357695 0.1656130 5.804243
## sigma_ik[863,3] 2.0933468 0.1829635 6.900456
## sigma_ik[865,1] 1.0944293 0.2060371 5.668122
## sigma_ik[865,2] 2.2847128 0.1633814 5.862763
## sigma_ik[865,3] 2.1456990 0.1800052 6.974792
## sigma_ik[866,2] 2.3812253 0.1576260 5.222879
## sigma_ik[866,3] 2.2357695 0.1656130 5.804243
## sigma_ik[867,2] 2.3812253 0.1576260 5.222879
## sigma_ik[867,3] 2.2847128 0.1633814 5.862763
## sigma_ik[868,1] 1.2089026 0.2162433 8.165130
## sigma_ik[868,2] 1.2089026 0.2162433 8.165130
## sigma_ik[868,3] 1.2089026 0.2162433 8.165130
## sigma_ik[869,2] 2.2847128 0.1633814 5.862763
## sigma_ik[869,3] 2.1456990 0.1800052 6.974792
## sigma_ik[870,3] 2.2484694 0.1728820 5.972306
## sigma_ik[871,2] 2.2484694 0.1728820 5.972306
## sigma_ik[871,3] 2.2847128 0.1633814 5.862763
## sigma_ik[872,1] 1.2089026 0.2162433 8.165130
## sigma_ik[872,3] 0.8621329 0.2140886 6.368274
## sigma_ik[873,2] 2.1456990 0.1800052 6.974792
## sigma_ik[873,3] 2.2357695 0.1656130 5.804243
## sigma_ik[874,2] 2.2357695 0.1656130 5.804243
## sigma_ik[877,2] 2.1456990 0.1800052 6.974792
## sigma_ik[878,2] 2.1456990 0.1800052 6.974792
## sigma_ik[878,3] 2.1456990 0.1800052 6.974792

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## sigma_ik[879,2] 2.1456990 0.1800052 6.974792
## sigma_ik[879,3] 2.2619485 0.1643103 5.386702
## sigma_ik[880,2] 2.1213620 0.1812779 6.234047
## sigma_ik[881,2] 2.0933468 0.1829635 6.900456
## sigma_ik[881,3] 2.3812253 0.1576260 5.222879
## sigma_ik[882,2] 1.2089026 0.2162433 8.165130
## sigma_ik[882,3] 2.3812253 0.1576260 5.222879
## sigma_ik[883,3] 2.1169047 0.2452962 7.093264
## sigma_ik[884,3] 2.2619485 0.1643103 5.386702
## sigma_ik[885,2] 2.1456990 0.1800052 6.974792
## sigma_ik[885,3] 2.1456990 0.1800052 6.974792
## sigma_ik[890,1] 1.2089026 0.2162433 8.165130
## sigma_ik[890,2] 1.2089026 0.2162433 8.165130
## sigma_ik[890,3] 1.2089026 0.2162433 8.165130
## sigma_ik[896,1] 1.0944293 0.2060371 5.668122
## sigma_ik[897,2] 2.2847128 0.1633814 5.862763
## sigma_ik[900,2] 2.1213620 0.1812779 6.234047
## sigma_ik[901,2] 2.1456990 0.1800052 6.974792
## sigma_ik[901,3] 2.1456990 0.1800052 6.974792
## sigma_ik[902,3] 2.1456990 0.1800052 6.974792
## sigma_ik[904,2] 2.2298921 0.1965706 5.660758
## sigma_ik[906,2] 2.2484694 0.1728820 5.972306
## sigma_ik[908,2] 2.2484694 0.1728820 5.972306
## sigma_ik[909,2] 2.2357695 0.1656130 5.804243
## sigma_ik[909,3] 2.3812253 0.1576260 5.222879
## sigma_ik[910,2] 2.2484694 0.1728820 5.972306
## sigma_ik[912,3] 2.1456990 0.1800052 6.974792
## sigma_ik[913,3] 1.2089026 0.2162433 8.165130
## sigma_ik[914,2] 2.1456990 0.1800052 6.974792
## sigma_ik[915,2] 2.2357695 0.1656130 5.804243
## sigma_ik[915,3] 2.2619485 0.1643103 5.386702
## sigma_ik[916,2] 2.0933468 0.1829635 6.900456
## sigma_ik[916,3] 2.2619485 0.1643103 5.386702
## sigma_ik[917,1] 1.2089026 0.2162433 8.165130
## sigma_ik[917,2] 1.2089026 0.2162433 8.165130
## sigma_ik[918,2] 2.0933468 0.1829635 6.900456
## sigma_ik[918,3] 2.3812253 0.1576260 5.222879
## sigma_ik[919,1] 1.2089026 0.2162433 8.165130
## sigma_ik[919,2] 2.3812253 0.1576260 5.222879
## sigma_ik[920,2] 2.2484694 0.1728820 5.972306
## sigma_ik[921,2] 2.2619485 0.1643103 5.386702
## sigma_ik[921,3] 2.2357695 0.1656130 5.804243
## sigma_ik[922,2] 2.2484694 0.1728820 5.972306
## sigma_ik[923,3] 2.2484694 0.1728820 5.972306
## sigma_ik[924,2] 2.1456990 0.1800052 6.974792
## sigma_ik[924,3] 2.1456990 0.1800052 6.974792
## sigma_ik[925,2] 2.0933468 0.1829635 6.900456
## sigma_ik[929,1] 1.0944293 0.2060371 5.668122
## sigma_ik[929,2] 2.1169047 0.2452962 7.093264
## sigma_ik[929,3] 2.2357695 0.1656130 5.804243
## sigma_ik[930,1] 1.0944293 0.2060371 5.668122
## sigma_ik[930,2] 2.0866549 0.2132930 6.268495
## sigma_ik[930,3] 2.2357695 0.1656130 5.804243
## sigma_ik[931,1] 1.2089026 0.2162433 8.165130

```



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## sigma_ik[932,1] 1.2089026 0.2162433 8.165130
## sigma_ik[932,2] 1.2089026 0.2162433 8.165130
## sigma_ik[933,2] 2.3812253 0.1576260 5.222879
## sigma_ik[933,3] 2.2357695 0.1656130 5.804243
## sigma_ik[934,1] 1.0944293 0.2060371 5.668122
## sigma_ik[934,2] 2.2357695 0.1656130 5.804243
## sigma_ik[935,3] 2.2298921 0.1965706 5.660758
## sigma_ik[936,2] 2.3812253 0.1576260 5.222879
## sigma_ik[937,2] 2.2619485 0.1643103 5.386702
## sigma_ik[937,3] 2.2847128 0.1633814 5.862763
## sigma_ik[938,1] 1.2089026 0.2162433 8.165130
## sigma_ik[938,2] 2.3812253 0.1576260 5.222879
## sigma_ik[939,2] 2.3812253 0.1576260 5.222879
## sigma_ik[939,3] 2.2357695 0.1656130 5.804243
## sigma_ik[940,2] 2.2357695 0.1656130 5.804243
## sigma_ik[941,2] 2.3812253 0.1576260 5.222879
## sigma_ik[942,2] 2.2357695 0.1656130 5.804243
## sigma_ik[942,3] 2.2847128 0.1633814 5.862763
## sigma_ik[943,2] 2.2357695 0.1656130 5.804243
## sigma_ik[943,3] 2.2847128 0.1633814 5.862763
## sigma_ik[944,2] 2.3812253 0.1576260 5.222879
## sigma_ik[945,2] 2.2484694 0.1728820 5.972306
## sigma_ik[945,3] 2.2357695 0.1656130 5.804243
## sigma_ik[946,2] 2.0933468 0.1829635 6.900456
## sigma_ik[946,3] 2.0933468 0.1829635 6.900456
## sigma_ik[948,2] 2.3812253 0.1576260 5.222879
## sigma_ik[948,3] 2.2357695 0.1656130 5.804243
## sigma_ik[949,2] 2.0933468 0.1829635 6.900456
## sigma_ik[949,3] 2.2619485 0.1643103 5.386702
## sigma_ik[950,3] 2.2357695 0.1656130 5.804243
## sigma_ik[951,2] 2.0933468 0.1829635 6.900456
## sigma_ik[951,3] 2.0933468 0.1829635 6.900456
## sigma_ik[952,2] 2.0933468 0.1829635 6.900456
## sigma_ik[952,3] 2.0933468 0.1829635 6.900456
## sigma_ik[953,2] 2.0933468 0.1829635 6.900456
## sigma_ik[953,3] 2.0933468 0.1829635 6.900456
## sigma_ik[955,2] 2.3812253 0.1576260 5.222879
## sigma_ik[957,3] 2.1456990 0.1800052 6.974792
## sigma_ik[958,2] 2.0933468 0.1829635 6.900456
## sigma_ik[960,3] 2.1456990 0.1800052 6.974792
## sigma_ik[964,3] 2.1169047 0.2452962 7.093264
## sigma_ik[965,1] 1.2089026 0.2162433 8.165130
## sigma_ik[965,2] 2.3812253 0.1576260 5.222879
## sigma_ik[966,3] 2.2357695 0.1656130 5.804243
## sigma_ik[969,2] 2.0933468 0.1829635 6.900456
## sigma_ik[969,3] 2.2619485 0.1643103 5.386702
## sigma_ik[970,2] 2.2847128 0.1633814 5.862763
## sigma_ik[970,3] 2.1456990 0.1800052 6.974792
## sigma_ik[973,1] 1.2089026 0.2162433 8.165130
## sigma_ik[973,2] 2.2619485 0.1643103 5.386702
## sigma_ik[973,3] 2.2847128 0.1633814 5.862763
## sigma_ik[974,2] 2.0933468 0.1829635 6.900456
## sigma_ik[974,3] 2.0933468 0.1829635 6.900456
## sigma_ik[975,2] 2.0933468 0.1829635 6.900456

```

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## sigma_ik[975,3] 2.0933468 0.1829635 6.900456
## sigma_ik[976,2] 2.2847128 0.1633814 5.862763
## sigma_ik[976,3] 2.2357695 0.1656130 5.804243
## sigma_ik[977,2] 2.0933468 0.1829635 6.900456
## sigma_ik[977,3] 2.0933468 0.1829635 6.900456
## sigma_ik[978,2] 2.0933468 0.1829635 6.900456
## sigma_ik[978,3] 2.2619485 0.1643103 5.386702
## sigma_ik[979,2] 2.2357695 0.1656130 5.804243
## sigma_ik[980,2] 2.0933468 0.1829635 6.900456
## sigma_ik[984,2] 2.2357695 0.1656130 5.804243
## sigma_ik[986,2] 2.0933468 0.1829635 6.900456
## sigma_ik[988,2] 2.3812253 0.1576260 5.222879
## sigma_ik[988,3] 2.2484694 0.1728820 5.972306
## sigma_ik[990,3] 2.0933468 0.1829635 6.900456
## sigma_ik[992,2] 2.2619485 0.1643103 5.386702
## sigma_ik[992,3] 2.2847128 0.1633814 5.862763
## sigma_ik[994,1] 1.2089026 0.2162433 8.165130
## sigma_ik[995,2] 1.2089026 0.2162433 8.165130
## sigma_ik[995,3] 2.2357695 0.1656130 5.804243
## sigma_ik[997,2] 1.2089026 0.2162433 8.165130
## sigma_ik[999,2] 2.2847128 0.1633814 5.862763
## sigma_ik[999,3] 2.2357695 0.1656130 5.804243
## sigma_ik[1000,1] 1.2089026 0.2162433 8.165130
## sigma_ik[1000,2] 2.2847128 0.1633814 5.862763
## sigma_ik[1002,1] 1.2089026 0.2162433 8.165130
## sigma_ik[1002,2] 1.2089026 0.2162433 8.165130
## sigma_ik[1004,1] 1.2089026 0.2162433 8.165130
## sigma_ik[1004,2] 1.2089026 0.2162433 8.165130
## sigma_ik[1008,3] 2.1169047 0.2452962 7.093264
## sigma_ik[1010,2] 2.2484694 0.1728820 5.972306
## sigma_ik[1011,3] 2.2484694 0.1728820 5.972306
## sigma_ik[1012,2] 2.2484694 0.1728820 5.972306
## sigma_ik[1012,3] 2.2484694 0.1728820 5.972306
## sigma_ik[1013,3] 2.2847128 0.1633814 5.862763
## sigma_ik[1014,2] 2.2484694 0.1728820 5.972306
## sigma_ik[1014,3] 2.2484694 0.1728820 5.972306
## sigma_ik[1015,2] 2.2484694 0.1728820 5.972306
## sigma_ik[1015,3] 2.2484694 0.1728820 5.972306
## sigma_ik[1016,3] 2.2484694 0.1728820 5.972306
## sigma_ik[1018,2] 2.1456990 0.1800052 6.974792
## sigma_ik[1018,3] 2.1456990 0.1800052 6.974792
## sigma_ik[1019,2] 2.0933468 0.1829635 6.900456
## sigma_ik[1020,3] 2.2484694 0.1728820 5.972306
## sigma_ik[1022,2] 2.1456990 0.1800052 6.974792
## sigma_ik[1022,3] 2.3812253 0.1576260 5.222879
## sigma_ik[1023,3] 2.2484694 0.1728820 5.972306
## sigma_ik[1024,2] 2.2847128 0.1633814 5.862763
## sigma_ik[1026,2] 2.0933468 0.1829635 6.900456
## sigma_ik[1026,3] 2.0933468 0.1829635 6.900456
## sigma_ik[1027,2] 2.0933468 0.1829635 6.900456
## sigma_ik[1028,3] 2.2484694 0.1728820 5.972306
## sigma_ik[1030,3] 2.1456990 0.1800052 6.974792
## sigma_ik[1031,2] 2.2619485 0.1643103 5.386702
## sigma_ik[1032,2] 2.2484694 0.1728820 5.972306

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```

## sigma_ik[1034,1] 1.0944293 0.2060371 5.668122
## sigma_ik[1034,2] 1.0944293 0.2060371 5.668122
## sigma_ik[1034,3] 2.0866549 0.2132930 6.268495
## sigma_ik[1035,1] 1.0944293 0.2060371 5.668122
## sigma_ik[1035,2] 1.0944293 0.2060371 5.668122
## sigma_ik[1035,3] 2.0866549 0.2132930 6.268495
## sigma_ik[1036,1] 1.2089026 0.2162433 8.165130
## sigma_ik[1036,3] 2.2619485 0.1643103 5.386702
## sigma_ik[1042,3] 2.1456990 0.1800052 6.974792
## sigma_ik[1044,2] 2.2847128 0.1633814 5.862763
## sigma_ik[1044,3] 2.1456990 0.1800052 6.974792
## sigma_ik[1045,1] 0.8621329 0.2140886 6.368274
## sigma_ik[1045,2] 0.8621329 0.2140886 6.368274
## sigma_ik[1047,1] 1.2089026 0.2162433 8.165130
## sigma_ik[1047,2] 1.2089026 0.2162433 8.165130
## sigma_ik[1047,3] 1.2089026 0.2162433 8.165130
## sigma_ik[1048,1] 0.8621329 0.2140886 6.368274
## sigma_ik[1048,2] 0.8621329 0.2140886 6.368274
## sigma_ik[1049,1] 0.8621329 0.2140886 6.368274
## sigma_ik[1049,2] 0.8621329 0.2140886 6.368274
## sigma_ik[1049,3] 0.8621329 0.2140886 6.368274
## sigma_ik[1050,3] 2.1456990 0.1800052 6.974792
## sigma_ik[1051,2] 2.1213620 0.1812779 6.234047
## sigma_ik[1053,2] 1.2089026 0.2162433 8.165130
## sigma_ik[1053,3] 1.2089026 0.2162433 8.165130
## sigma_ik[1055,3] 1.2089026 0.2162433 8.165130
## sigma_ik[1056,1] 1.2089026 0.2162433 8.165130
## sigma_ik[1057,2] 2.1213620 0.1812779 6.234047
## sigma_ik[1057,3] 2.1213620 0.1812779 6.234047
## sigma_ik[1059,2] 2.1213620 0.1812779 6.234047
## sigma_ik[1061,2] 2.2847128 0.1633814 5.862763
## sigma_ik[1061,3] 2.1456990 0.1800052 6.974792
## sigma_ik[1062,3] 2.2619485 0.1643103 5.386702
## sigma_ik[1063,2] 2.0933468 0.1829635 6.900456
## sigma_ik[1063,3] 2.2847128 0.1633814 5.862763
## sigma_ik[1064,1] 1.2089026 0.2162433 8.165130
## sigma_ik[1064,2] 2.2298921 0.1965706 5.660758
## sigma_ik[1066,2] 2.1456990 0.1800052 6.974792
## sigma_ik[1066,3] 2.2298921 0.1965706 5.660758
## sigma_ik[1068,2] 2.1456990 0.1800052 6.974792
## sigma_ik[1069,2] 2.1213620 0.1812779 6.234047
## sigma_ik[1069,3] 0.8621329 0.2140886 6.368274
## sigma_ik[1070,2] 2.2357695 0.1656130 5.804243
## sigma_ik[1070,3] 2.0933468 0.1829635 6.900456
## sigma_ik[1071,3] 2.1213620 0.1812779 6.234047
## sigma_ik[1073,2] 2.1213620 0.1812779 6.234047
## sigma_ik[1073,3] 2.1213620 0.1812779 6.234047
## sigma_ik[1075,1] 0.8621329 0.2140886 6.368274
## sigma_ik[1075,2] 0.8621329 0.2140886 6.368274
## sigma_ik[1078,3] 2.1456990 0.1800052 6.974792
## sigma_ik[1080,3] 0.8621329 0.2140886 6.368274
## sigma_ik[1083,3] 2.2357695 0.1656130 5.804243
## sigma_ik[1084,1] 1.2089026 0.2162433 8.165130
## sigma_ik[1084,3] 1.2089026 0.2162433 8.165130

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## sigma_ik[1089,2] 2.2847128 0.1633814 5.862763
## sigma_ik[1090,1] 0.8621329 0.2140886 6.368274
## sigma_ik[1090,3] 2.2847128 0.1633814 5.862763
## sigma_ik[1091,2] 2.1213620 0.1812779 6.234047
## sigma_ik[1091,3] 2.2357695 0.1656130 5.804243
## sigma_ik[1092,3] 2.1456990 0.1800052 6.974792
## sigma_ik[1095,1] 1.0944293 0.2060371 5.668122
## sigma_ik[1095,2] 2.3812253 0.1576260 5.222879
## sigma_ik[1097,2] 2.2619485 0.1643103 5.386702
## sigma_ik[1099,3] 2.1456990 0.1800052 6.974792
## sigma_ik[1101,3] 2.1456990 0.1800052 6.974792
## sigma_ik[1103,1] 0.8621329 0.2140886 6.368274
## sigma_ik[1103,2] 2.2619485 0.1643103 5.386702
## sigma_ik[1103,3] 2.1213620 0.1812779 6.234047
## sigma_ik[1106,2] 2.2847128 0.1633814 5.862763
## sigma_ik[1108,2] 2.2619485 0.1643103 5.386702
## sigma_ik[1109,3] 2.2484694 0.1728820 5.972306
## sigma_ik[1110,3] 2.2357695 0.1656130 5.804243
## sigma_ik[1111,3] 2.1169047 0.2452962 7.093264
## sigma_ik[1112,3] 2.2619485 0.1643103 5.386702
## sigma_ik[1113,2] 2.1169047 0.2452962 7.093264
## sigma_ik[1113,3] 0.8621329 0.2140886 6.368274
## sigma_ik[1115,2] 2.0933468 0.1829635 6.900456
## sigma_ik[1115,3] 2.0933468 0.1829635 6.900456
## sigma_ik[1116,3] 2.1456990 0.1800052 6.974792
## sigma_ik[1118,3] 2.2847128 0.1633814 5.862763
## sigma_ik[1119,1] 1.0944293 0.2060371 5.668122
## sigma_ik[1119,3] 1.0944293 0.2060371 5.668122
## sigma_ik[1121,3] 2.1456990 0.1800052 6.974792
## sigma_ik[1122,1] 1.2089026 0.2162433 8.165130
## sigma_ik[1123,1] 1.2089026 0.2162433 8.165130
## sigma_ik[1123,2] 2.2847128 0.1633814 5.862763
## sigma_ik[1123,3] 2.1456990 0.1800052 6.974792
## sigma_ik[1124,1] 1.0944293 0.2060371 5.668122
## sigma_ik[1124,2] 1.2089026 0.2162433 8.165130
## sigma_ik[1125,2] 2.1456990 0.1800052 6.974792
## sigma_ik[1126,3] 0.8621329 0.2140886 6.368274
## sigma_ik[1128,1] 1.2089026 0.2162433 8.165130
## sigma_ik[1128,2] 1.2089026 0.2162433 8.165130
## sigma_ik[1128,3] 1.2089026 0.2162433 8.165130
## sigma_ik[1130,2] 2.2357695 0.1656130 5.804243
## sigma_ik[1130,3] 2.0933468 0.1829635 6.900456
## sigma_ik[1131,3] 2.1456990 0.1800052 6.974792
## sigma_ik[1133,2] 2.0933468 0.1829635 6.900456
## sigma_ik[1133,3] 2.2619485 0.1643103 5.386702
## sigma_ik[1134,3] 2.2847128 0.1633814 5.862763
## sigma_ik[1135,2] 0.8621329 0.2140886 6.368274
## sigma_ik[1138,1] 1.2089026 0.2162433 8.165130
## sigma_ik[1138,2] 1.2089026 0.2162433 8.165130
## sigma_ik[1138,3] 1.2089026 0.2162433 8.165130
## sigma_ik[1139,1] 1.2089026 0.2162433 8.165130
## sigma_ik[1139,3] 2.2847128 0.1633814 5.862763
## sigma_ik[1140,3] 2.1456990 0.1800052 6.974792
## sigma_ik[1141,1] 1.2089026 0.2162433 8.165130

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## sigma_ik[1141,2] 1.2089026 0.2162433 8.165130
## sigma_ik[1141,3] 2.2847128 0.1633814 5.862763
## sigma_ik[1142,1] 1.2089026 0.2162433 8.165130
## sigma_ik[1142,2] 1.2089026 0.2162433 8.165130
## sigma_ik[1142,3] 1.2089026 0.2162433 8.165130
## sigma_ik[1143,1] 1.2089026 0.2162433 8.165130
## sigma_ik[1144,3] 2.2847128 0.1633814 5.862763
## sigma_ik[1145,2] 2.0933468 0.1829635 6.900456
## sigma_ik[1145,3] 2.2847128 0.1633814 5.862763
## sigma_ik[1146,1] 1.2089026 0.2162433 8.165130
## sigma_ik[1146,3] 2.2847128 0.1633814 5.862763
## sigma_ik[1148,1] 1.2089026 0.2162433 8.165130
## sigma_ik[1148,2] 1.2089026 0.2162433 8.165130
## sigma_ik[1148,3] 1.2089026 0.2162433 8.165130
## sigma_ik[1151,1] 1.2089026 0.2162433 8.165130
## sigma_ik[1152,1] 1.2089026 0.2162433 8.165130
## sigma_ik[1152,2] 1.2089026 0.2162433 8.165130
## sigma_ik[1152,3] 1.2089026 0.2162433 8.165130
## sigma_ik[1153,1] 1.2089026 0.2162433 8.165130
## sigma_ik[1153,2] 1.2089026 0.2162433 8.165130
## sigma_ik[1154,2] 2.0933468 0.1829635 6.900456
## sigma_ik[1154,3] 2.0933468 0.1829635 6.900456
## sigma_ik[1155,1] 1.2089026 0.2162433 8.165130
## sigma_ik[1155,2] 1.2089026 0.2162433 8.165130
## sigma_ik[1155,3] 1.2089026 0.2162433 8.165130
## sigma_ik[1156,2] 2.2357695 0.1656130 5.804243
## sigma_ik[1156,3] 2.2847128 0.1633814 5.862763
## sigma_ik[1157,1] 1.2089026 0.2162433 8.165130
## sigma_ik[1157,3] 1.2089026 0.2162433 8.165130
## sigma_ik[1158,1] 1.2089026 0.2162433 8.165130
## sigma_ik[1158,2] 1.2089026 0.2162433 8.165130
## sigma_ik[1158,3] 1.2089026 0.2162433 8.165130
## sigma_ik[1159,3] 2.1169047 0.2452962 7.093264
## sigma_ik[1160,1] 1.2089026 0.2162433 8.165130
## sigma_ik[1160,3] 1.2089026 0.2162433 8.165130
## sigma_ik[1161,2] 2.1456990 0.1800052 6.974792
## sigma_ik[1163,2] 2.2847128 0.1633814 5.862763
## sigma_ik[1164,2] 2.2357695 0.1656130 5.804243
## sigma_ik[1165,1] 1.2089026 0.2162433 8.165130
## sigma_ik[1165,2] 1.2089026 0.2162433 8.165130
## sigma_ik[1165,3] 1.2089026 0.2162433 8.165130
## sigma_ik[1166,1] 0.8621329 0.2140886 6.368274
## sigma_ik[1166,2] 2.2619485 0.1643103 5.386702
## sigma_ik[1167,2] 2.2357695 0.1656130 5.804243
## sigma_ik[1167,3] 2.2619485 0.1643103 5.386702
## sigma_ik[1168,2] 2.2357695 0.1656130 5.804243
## sigma_ik[1168,3] 2.2619485 0.1643103 5.386702
## sigma_ik[1169,3] 1.2089026 0.2162433 8.165130
## sigma_ik[1170,2] 2.1456990 0.1800052 6.974792
## sigma_ik[1170,3] 2.2619485 0.1643103 5.386702
## sigma_ik[1172,1] 0.8621329 0.2140886 6.368274
## sigma_ik[1172,2] 0.8621329 0.2140886 6.368274
## sigma_ik[1172,3] 0.8621329 0.2140886 6.368274
## sigma_ik[1173,2] 2.0933468 0.1829635 6.900456

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## sigma_ik[1173,3] 2.2619485 0.1643103 5.386702
## sigma_ik[1175,2] 1.2089026 0.2162433 8.165130
## sigma_ik[1175,3] 0.8621329 0.2140886 6.368274
## sigma_ik[1177,1] 1.2089026 0.2162433 8.165130
## sigma_ik[1177,2] 1.2089026 0.2162433 8.165130
## sigma_ik[1177,3] 1.2089026 0.2162433 8.165130
## sigma_ik[1180,3] 2.0933468 0.1829635 6.900456
## sigma_ik[1181,1] 1.2089026 0.2162433 8.165130
## sigma_ik[1181,2] 1.2089026 0.2162433 8.165130
## sigma_ik[1181,3] 1.2089026 0.2162433 8.165130
## sigma_ik[1182,1] 1.0944293 0.2060371 5.668122
## sigma_ik[1182,2] 2.2357695 0.1656130 5.804243
## sigma_ik[1182,3] 2.2619485 0.1643103 5.386702
## sigma_ik[1185,3] 2.1456990 0.1800052 6.974792
## sigma_ik[1187,1] 1.2089026 0.2162433 8.165130
## sigma_ik[1187,2] 2.2619485 0.1643103 5.386702
## sigma_ik[1187,3] 0.8621329 0.2140886 6.368274
## sigma_ik[1188,3] 2.3812253 0.1576260 5.222879
## sigma_ik[1189,1] 1.0944293 0.2060371 5.668122
## sigma_ik[1189,2] 1.0944293 0.2060371 5.668122
## sigma_ik[1189,3] 2.0866549 0.2132930 6.268495
## sigma_ik[1190,1] 1.0944293 0.2060371 5.668122
## sigma_ik[1190,2] 1.0944293 0.2060371 5.668122
## sigma_ik[1190,3] 0.8621329 0.2140886 6.368274
## sigma_ik[1191,2] 2.0933468 0.1829635 6.900456
## sigma_ik[1192,1] 1.2089026 0.2162433 8.165130
## sigma_ik[1192,2] 2.2619485 0.1643103 5.386702
## sigma_ik[1193,1] 1.2089026 0.2162433 8.165130
## sigma_ik[1193,2] 1.2089026 0.2162433 8.165130
## sigma_ik[1194,2] 2.1456990 0.1800052 6.974792
## sigma_ik[1194,3] 2.1456990 0.1800052 6.974792
## sigma_ik[1195,1] 1.2089026 0.2162433 8.165130
## sigma_ik[1195,3] 1.2089026 0.2162433 8.165130
## sigma_ik[1197,1] 1.0944293 0.2060371 5.668122
## sigma_ik[1197,2] 2.0866549 0.2132930 6.268495
## sigma_ik[1197,3] 2.0866549 0.2132930 6.268495
## sigma_ik[1198,1] 1.2089026 0.2162433 8.165130
## sigma_ik[1198,3] 1.2089026 0.2162433 8.165130
## sigma_ik[1199,1] 1.2089026 0.2162433 8.165130
## sigma_ik[1199,2] 1.2089026 0.2162433 8.165130
## sigma_ik[1199,3] 2.1169047 0.2452962 7.093264
## sigma_ik[1200,1] 0.8621329 0.2140886 6.368274
## sigma_ik[1200,2] 1.9621013 0.2713573 8.165211
## sigma_ik[1201,2] 2.2847128 0.1633814 5.862763
## sigma_ik[1201,3] 2.1169047 0.2452962 7.093264
## sigma_ik[1202,1] 1.2089026 0.2162433 8.165130
## sigma_ik[1202,2] 2.2847128 0.1633814 5.862763
## sigma_ik[1202,3] 2.1456990 0.1800052 6.974792
## sigma_ik[1203,2] 2.1456990 0.1800052 6.974792
## sigma_ik[1204,1] 1.2089026 0.2162433 8.165130
## sigma_ik[1204,2] 1.2089026 0.2162433 8.165130
## sigma_ik[1204,3] 1.2089026 0.2162433 8.165130
## sigma_ik[1205,2] 2.1456990 0.1800052 6.974792
## sigma_ik[1205,3] 2.1456990 0.1800052 6.974792

```

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## sigma_ik[1206,2] 2.0933468 0.1829635 6.900456
## sigma_ik[1210,2] 1.0944293 0.2060371 5.668122
## sigma_ik[1210,3] 2.2357695 0.1656130 5.804243
## sigma_ik[1211,2] 2.2847128 0.1633814 5.862763
## sigma_ik[1211,3] 2.1456990 0.1800052 6.974792
## sigma_ik[1212,2] 2.1456990 0.1800052 6.974792
## sigma_ik[1215,2] 2.2298921 0.1965706 5.660758
## sigma_ik[1216,2] 2.2357695 0.1656130 5.804243
## sigma_ik[1218,3] 2.1456990 0.1800052 6.974792
## sigma_ik[1221,2] 2.1456990 0.1800052 6.974792
## sigma_ik[1222,3] 2.1456990 0.1800052 6.974792
## sigma_ik[1226,2] 2.2847128 0.1633814 5.862763
## sigma_ik[1226,3] 2.1456990 0.1800052 6.974792
## sigma_ik[1227,1] 1.2089026 0.2162433 8.165130
## sigma_ik[1227,3] 2.2847128 0.1633814 5.862763
## sigma_ik[1228,2] 2.2619485 0.1643103 5.386702
## sigma_ik[1229,1] 0.8621329 0.2140886 6.368274
## sigma_ik[1229,2] 1.9621013 0.2713573 8.165211
## sigma_ik[1233,2] 2.1456990 0.1800052 6.974792
## sigma_ik[1233,3] 2.1456990 0.1800052 6.974792
## sigma_ik[1234,2] 2.1456990 0.1800052 6.974792
## sigma_ik[1235,2] 2.2619485 0.1643103 5.386702
## sigma_ik[1240,3] 2.1456990 0.1800052 6.974792
## sigma_ik[1241,3] 2.1213620 0.1812779 6.234047
## sigma_ik[1242,3] 0.8621329 0.2140886 6.368274
## sigma_ik[1243,1] 1.0944293 0.2060371 5.668122
## sigma_ik[1245,2] 2.1456990 0.1800052 6.974792
## sigma_ik[1250,3] 2.1456990 0.1800052 6.974792
## sigma_ik[1251,2] 2.2357695 0.1656130 5.804243
## sigma_ik[1251,3] 2.0933468 0.1829635 6.900456
## sigma_ik[1252,2] 2.2619485 0.1643103 5.386702
## sigma_ik[1252,3] 2.1213620 0.1812779 6.234047
## sigma_ik[1253,2] 2.1456990 0.1800052 6.974792
## sigma_ik[1253,3] 2.1456990 0.1800052 6.974792
## sigma_ik[1254,1] 0.8621329 0.2140886 6.368274
## sigma_ik[1254,2] 0.8621329 0.2140886 6.368274
## sigma_ik[1254,3] 2.2847128 0.1633814 5.862763
## sigma_ik[1256,3] 2.2619485 0.1643103 5.386702
## sigma_ik[1259,2] 2.1456990 0.1800052 6.974792
## sigma_ik[1259,3] 2.1456990 0.1800052 6.974792
## sigma_ik[1261,2] 2.1456990 0.1800052 6.974792
## sigma_ik[1262,1] 1.2089026 0.2162433 8.165130
## sigma_ik[1262,2] 1.0944293 0.2060371 5.668122
## sigma_ik[1263,1] 1.2089026 0.2162433 8.165130
## sigma_ik[1263,2] 2.2847128 0.1633814 5.862763
## sigma_ik[1264,1] 1.2089026 0.2162433 8.165130
## sigma_ik[1264,2] 1.2089026 0.2162433 8.165130
## sigma_ik[1264,3] 2.2847128 0.1633814 5.862763
## sigma_ik[1265,2] 2.1456990 0.1800052 6.974792
## sigma_ik[1266,2] 1.0944293 0.2060371 5.668122
## sigma_ik[1266,3] 1.0944293 0.2060371 5.668122
## sigma_ik[1269,2] 2.2619485 0.1643103 5.386702
## sigma_ik[1269,3] 2.2357695 0.1656130 5.804243
## sigma_ik[1270,2] 2.3812253 0.1576260 5.222879

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## sigma_ik[1271,3] 2.1213620 0.1812779 6.234047
## sigma_ik[1274,2] 2.2847128 0.1633814 5.862763
## sigma_ik[1274,3] 2.1456990 0.1800052 6.974792
## sigma_ik[1275,3] 2.1456990 0.1800052 6.974792
## sigma_ik[1277,1] 1.2089026 0.2162433 8.165130
## sigma_ik[1277,2] 2.2619485 0.1643103 5.386702
## sigma_ik[1277,3] 2.1213620 0.1812779 6.234047
## sigma_ik[1278,3] 1.2089026 0.2162433 8.165130
## sigma_ik[1279,1] 1.0944293 0.2060371 5.668122
## sigma_ik[1280,2] 2.1213620 0.1812779 6.234047
## sigma_ik[1280,3] 2.1169047 0.2452962 7.093264
## sigma_ik[1281,2] 2.2357695 0.1656130 5.804243
## sigma_ik[1289,3] 2.1456990 0.1800052 6.974792
## sigma_ik[1290,2] 2.2847128 0.1633814 5.862763
## sigma_ik[1290,3] 2.1456990 0.1800052 6.974792
## sigma_ik[1291,1] 0.8621329 0.2140886 6.368274
## sigma_ik[1294,2] 2.0933468 0.1829635 6.900456
## sigma_ik[1296,3] 2.0933468 0.1829635 6.900456
## sigma_ik[1297,2] 2.2847128 0.1633814 5.862763
## sigma_ik[1297,3] 2.2357695 0.1656130 5.804243
## sigma_ik[1300,2] 2.1213620 0.1812779 6.234047
## sigma_ik[1303,2] 2.2484694 0.1728820 5.972306
## sigma_ik[1303,3] 2.2484694 0.1728820 5.972306
## sigma_ik[1308,1] 0.8621329 0.2140886 6.368274
## sigma_ik[1310,2] 2.1213620 0.1812779 6.234047
## sigma_ik[1311,3] 2.2357695 0.1656130 5.804243
## sigma_ik[1313,1] 1.2089026 0.2162433 8.165130
## sigma_ik[1314,2] 2.2357695 0.1656130 5.804243
## sigma_ik[1315,3] 2.3812253 0.1576260 5.222879
## sigma_ik[1317,2] 2.2357695 0.1656130 5.804243
## sigma_ik[1318,3] 2.2847128 0.1633814 5.862763
## sigma_ik[1319,2] 2.2847128 0.1633814 5.862763
## sigma_ik[1319,3] 2.1169047 0.2452962 7.093264
## sigma_ik[1320,1] 1.2089026 0.2162433 8.165130
## sigma_ik[1320,2] 1.2089026 0.2162433 8.165130
## sigma_ik[1320,3] 1.2089026 0.2162433 8.165130
## sigma_ik[1321,2] 2.2357695 0.1656130 5.804243
## sigma_ik[1322,3] 1.2089026 0.2162433 8.165130
## sigma_ik[1324,2] 2.0933468 0.1829635 6.900456
## sigma_ik[1324,3] 2.3812253 0.1576260 5.222879
## sigma_ik[1327,2] 2.2357695 0.1656130 5.804243
## sigma_ik[1328,2] 2.1213620 0.1812779 6.234047
## sigma_ik[1331,1] 1.2089026 0.2162433 8.165130
## sigma_ik[1331,2] 2.2619485 0.1643103 5.386702
## sigma_ik[1331,3] 2.3812253 0.1576260 5.222879
## sigma_ik[1336,2] 2.2847128 0.1633814 5.862763
## sigma_ik[1336,3] 2.1456990 0.1800052 6.974792
## sigma_ik[1339,2] 2.2357695 0.1656130 5.804243
## sigma_ik[1341,3] 0.8621329 0.2140886 6.368274
## sigma_ik[1342,2] 2.2847128 0.1633814 5.862763
## sigma_ik[1343,1] 1.2089026 0.2162433 8.165130
## sigma_ik[1343,2] 2.2619485 0.1643103 5.386702
## sigma_ik[1343,3] 2.2357695 0.1656130 5.804243
## sigma_ik[1344,3] 2.1169047 0.2452962 7.093264

```



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## sigma_ik[1347,3] 2.2619485 0.1643103 5.386702
## sigma_ik[1349,1] 1.2089026 0.2162433 8.165130
## sigma_ik[1350,2] 2.2357695 0.1656130 5.804243
## sigma_ik[1352,2] 2.2484694 0.1728820 5.972306
## sigma_ik[1353,2] 2.3812253 0.1576260 5.222879
## sigma_ik[1353,3] 2.2357695 0.1656130 5.804243
## sigma_ik[1354,2] 2.2484694 0.1728820 5.972306
## sigma_ik[1354,3] 2.2484694 0.1728820 5.972306
## sigma_ik[1355,3] 2.1169047 0.2452962 7.093264
## sigma_ik[1357,1] 1.2089026 0.2162433 8.165130
## sigma_ik[1358,1] 1.2089026 0.2162433 8.165130
## sigma_ik[1358,3] 2.1456990 0.1800052 6.974792
## sigma_ik[1360,3] 2.1213620 0.1812779 6.234047
## sigma_ik[1361,2] 1.2089026 0.2162433 8.165130
## sigma_ik[1362,2] 2.0933468 0.1829635 6.900456
## sigma_ik[1362,3] 2.0933468 0.1829635 6.900456
## sigma_ik[1363,2] 2.2847128 0.1633814 5.862763
## sigma_ik[1363,3] 2.1456990 0.1800052 6.974792
## sigma_ik[1364,2] 2.0933468 0.1829635 6.900456
## sigma_ik[1365,2] 2.2357695 0.1656130 5.804243
## sigma_ik[1366,2] 1.0944293 0.2060371 5.668122
## sigma_ik[1368,3] 1.2089026 0.2162433 8.165130
## sigma_ik[1370,3] 2.2484694 0.1728820 5.972306
## sigma_ik[1372,2] 2.2847128 0.1633814 5.862763
## sigma_ik[1372,3] 2.2357695 0.1656130 5.804243
## sigma_ik[1374,3] 2.2484694 0.1728820 5.972306
## sigma_ik[1377,2] 2.0933468 0.1829635 6.900456
## sigma_ik[1377,3] 2.2847128 0.1633814 5.862763
## sigma_ik[1378,1] 1.2089026 0.2162433 8.165130
## sigma_ik[1378,3] 2.2484694 0.1728820 5.972306
## sigma_ik[1379,3] 2.2484694 0.1728820 5.972306
## sigma_ik[1382,3] 1.2089026 0.2162433 8.165130
## sigma_ik[1384,2] 2.2619485 0.1643103 5.386702
## sigma_ik[1384,3] 2.1213620 0.1812779 6.234047
## sigma_ik[1385,2] 2.2298921 0.1965706 5.660758
## sigma_ik[1386,2] 1.0944293 0.2060371 5.668122
## sigma_ik[1387,2] 2.2484694 0.1728820 5.972306
## sigma_ik[1387,3] 2.2357695 0.1656130 5.804243
## sigma_ik[1388,2] 2.2619485 0.1643103 5.386702
## sigma_ik[1388,3] 2.2847128 0.1633814 5.862763
## sigma_ik[1389,3] 2.2357695 0.1656130 5.804243
## sigma_ik[1391,3] 1.2089026 0.2162433 8.165130
## sigma_ik[1392,2] 2.2357695 0.1656130 5.804243
## sigma_ik[1393,2] 2.2619485 0.1643103 5.386702
## sigma_ik[1393,3] 2.2357695 0.1656130 5.804243
## sigma_ik[1394,2] 2.1456990 0.1800052 6.974792
## sigma_ik[1394,3] 2.2619485 0.1643103 5.386702
## sigma_ik[1396,2] 2.0933468 0.1829635 6.900456
## sigma_ik[1398,2] 2.0933468 0.1829635 6.900456
## sigma_ik[1398,3] 2.2847128 0.1633814 5.862763
## sigma_ik[1399,1] 1.2089026 0.2162433 8.165130
## sigma_ik[1399,3] 1.2089026 0.2162433 8.165130
## sigma_ik[1401,1] 1.2089026 0.2162433 8.165130
## sigma_ik[1401,2] 2.2847128 0.1633814 5.862763

```

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## sigma_ik[1401,3] 1.2089026 0.2162433 8.165130
## sigma_ik[1402,3] 2.2847128 0.1633814 5.862763
## sigma_ik[1403,1] 1.0944293 0.2060371 5.668122
## sigma_ik[1403,2] 2.3812253 0.1576260 5.222879
## sigma_ik[1405,2] 2.2298921 0.1965706 5.660758
## sigma_ik[1406,2] 2.2484694 0.1728820 5.972306
## sigma_ik[1407,2] 2.0933468 0.1829635 6.900456
## sigma_ik[1407,3] 2.3812253 0.1576260 5.222879
## sigma_ik[1408,2] 1.2089026 0.2162433 8.165130
## sigma_ik[1409,1] 1.2089026 0.2162433 8.165130
## sigma_ik[1410,3] 2.3812253 0.1576260 5.222879
## sigma_ik[1411,3] 2.2619485 0.1643103 5.386702
## sigma_ik[1412,1] 1.2089026 0.2162433 8.165130
## sigma_ik[1413,1] 1.2089026 0.2162433 8.165130
## sigma_ik[1413,2] 2.2847128 0.1633814 5.862763
## sigma_ik[1414,2] 2.1213620 0.1812779 6.234047
## sigma_ik[1415,1] 1.2089026 0.2162433 8.165130
## sigma_ik[1417,3] 2.1456990 0.1800052 6.974792
## sigma_ik[1418,1] 0.8621329 0.2140886 6.368274
## sigma_ik[1420,3] 2.2619485 0.1643103 5.386702
## sigma_ik[1421,2] 2.1456990 0.1800052 6.974792
## sigma_ik[1425,1] 1.0944293 0.2060371 5.668122
## sigma_ik[1430,1] 0.8621329 0.2140886 6.368274
## sigma_ik[1430,2] 0.8621329 0.2140886 6.368274
## sigma_ik[1432,3] 2.1456990 0.1800052 6.974792
## sigma_ik[1433,1] 0.8621329 0.2140886 6.368274
## sigma_ik[1433,2] 0.8621329 0.2140886 6.368274
## sigma_ik[1433,3] 1.9621013 0.2713573 8.165211
## sigma_ik[1436,2] 1.2089026 0.2162433 8.165130
## sigma_ik[1436,3] 1.2089026 0.2162433 8.165130
## sigma_ik[1438,1] 1.0944293 0.2060371 5.668122
## sigma_ik[1438,2] 1.0944293 0.2060371 5.668122
## sigma_ik[1439,2] 2.1213620 0.1812779 6.234047
## sigma_ik[1440,3] 2.2484694 0.1728820 5.972306
## sigma_ik[1444,2] 2.2357695 0.1656130 5.804243
## sigma_ik[1445,1] 1.2089026 0.2162433 8.165130
## sigma_ik[1445,3] 1.2089026 0.2162433 8.165130
## sigma_ik[1446,2] 2.0933468 0.1829635 6.900456
## sigma_ik[1447,2] 2.0933468 0.1829635 6.900456
## sigma_ik[1447,3] 2.0933468 0.1829635 6.900456
## sigma_ik[1450,2] 2.0933468 0.1829635 6.900456
## sigma_ik[1450,3] 2.2847128 0.1633814 5.862763
## sigma_ik[1451,1] 1.2089026 0.2162433 8.165130
## sigma_ik[1451,2] 2.2357695 0.1656130 5.804243
## sigma_ik[1451,3] 2.2298921 0.1965706 5.660758
## sigma_ik[1454,3] 2.2847128 0.1633814 5.862763
## sigma_ik[1455,2] 2.2619485 0.1643103 5.386702
## sigma_ik[1457,2] 1.2089026 0.2162433 8.165130
## sigma_ik[1457,3] 1.2089026 0.2162433 8.165130
## sigma_ik[1458,2] 2.0933468 0.1829635 6.900456
## sigma_ik[1459,1] 1.2089026 0.2162433 8.165130
## sigma_ik[1459,2] 1.2089026 0.2162433 8.165130
## sigma_ik[1459,3] 1.2089026 0.2162433 8.165130
## sigma_ik[1460,1] 1.2089026 0.2162433 8.165130

```

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## sigma_ik[1460,3] 1.2089026 0.2162433 8.165130
## sigma_ik[1462,1] 1.2089026 0.2162433 8.165130
## sigma_ik[1462,3] 2.1213620 0.1812779 6.234047
## sigma_ik[1464,2] 2.2847128 0.1633814 5.862763
## sigma_ik[1465,2] 2.2847128 0.1633814 5.862763
## sigma_ik[1466,2] 2.2847128 0.1633814 5.862763
## sigma_ik[1466,3] 2.2357695 0.1656130 5.804243
## sigma_ik[1467,1] 1.2089026 0.2162433 8.165130
## sigma_ik[1467,2] 1.2089026 0.2162433 8.165130
## sigma_ik[1467,3] 1.2089026 0.2162433 8.165130
## sigma_ik[1468,3] 2.0933468 0.1829635 6.900456
## sigma_ik[1471,2] 2.0933468 0.1829635 6.900456
## sigma_ik[1471,3] 2.0933468 0.1829635 6.900456
## sigma_ik[1472,1] 1.2089026 0.2162433 8.165130
## sigma_ik[1472,2] 2.2357695 0.1656130 5.804243
## sigma_ik[1475,2] 2.2357695 0.1656130 5.804243
## sigma_ik[1476,2] 2.0933468 0.1829635 6.900456
## sigma_ik[1478,2] 2.0933468 0.1829635 6.900456
## sigma_ik[1480,2] 2.2357695 0.1656130 5.804243
## sigma_ik[1481,3] 2.2619485 0.1643103 5.386702
## sigma_ik[1483,2] 2.2357695 0.1656130 5.804243
## sigma_ik[1484,2] 2.2847128 0.1633814 5.862763
## sigma_ik[1485,2] 2.2619485 0.1643103 5.386702
## sigma_ik[1485,3] 2.2357695 0.1656130 5.804243
## sigma_ik[1488,3] 2.3812253 0.1576260 5.222879
## sigma_ik[1492,2] 2.2847128 0.1633814 5.862763
## sigma_ik[1492,3] 2.2357695 0.1656130 5.804243
## sigma_ik[1494,2] 2.2484694 0.1728820 5.972306
## sigma_ik[1494,3] 2.2484694 0.1728820 5.972306
## sigma_ik[1495,3] 2.0933468 0.1829635 6.900456
## sigma_ik[1496,2] 2.0933468 0.1829635 6.900456
## sigma_ik[1499,1] 1.2089026 0.2162433 8.165130
## sigma_ik[1499,2] 2.3812253 0.1576260 5.222879
## sigma_ik[1499,3] 2.2357695 0.1656130 5.804243
## sigma_ik[1500,1] 1.2089026 0.2162433 8.165130
## sigma_ik[1500,2] 1.2089026 0.2162433 8.165130
## sigma_ik[1500,3] 1.2089026 0.2162433 8.165130
## sigma_ik[1501,2] 2.2484694 0.1728820 5.972306
## sigma_ik[1501,3] 2.2484694 0.1728820 5.972306
## sigma_ik[1503,2] 1.2089026 0.2162433 8.165130
## sigma_ik[1503,3] 1.2089026 0.2162433 8.165130
## sigma_ik[1504,1] 1.2089026 0.2162433 8.165130
## sigma_ik[1504,2] 1.2089026 0.2162433 8.165130
## sigma_ik[1505,3] 2.1456990 0.1800052 6.974792
## sigma_ik[1506,2] 2.3812253 0.1576260 5.222879
## sigma_ik[1506,3] 2.2357695 0.1656130 5.804243
## sigma_ik[1507,2] 1.2089026 0.2162433 8.165130
## sigma_ik[1512,3] 2.2847128 0.1633814 5.862763
## sigma_ik[1517,2] 2.1456990 0.1800052 6.974792
## sigma_ik[1522,1] 1.2089026 0.2162433 8.165130
## sigma_ik[1523,2] 2.1456990 0.1800052 6.974792
## sigma_ik[1523,3] 2.2619485 0.1643103 5.386702
## sigma_ik[1524,2] 2.1456990 0.1800052 6.974792
## sigma_ik[1524,3] 0.8621329 0.2140886 6.368274

```

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## sigma_ik[1525,1] 1.2089026 0.2162433 8.165130
## sigma_ik[1526,2] 2.1213620 0.1812779 6.234047
## sigma_ik[1526,3] 0.8621329 0.2140886 6.368274
## sigma_ik[1527,2] 2.2357695 0.1656130 5.804243
## sigma_ik[1527,3] 2.0933468 0.1829635 6.900456
## sigma_ik[1528,1] 1.2089026 0.2162433 8.165130
## sigma_ik[1528,2] 2.2298921 0.1965706 5.660758
## sigma_ik[1528,3] 1.0944293 0.2060371 5.668122
## sigma_ik[1530,3] 2.2484694 0.1728820 5.972306
## sigma_ik[1531,1] 1.2089026 0.2162433 8.165130
## sigma_ik[1531,2] 1.2089026 0.2162433 8.165130
## sigma_ik[1532,1] 1.2089026 0.2162433 8.165130
## sigma_ik[1532,2] 1.2089026 0.2162433 8.165130
## sigma_ik[1532,3] 2.2847128 0.1633814 5.862763
## sigma_ik[1533,2] 2.2619485 0.1643103 5.386702
## sigma_ik[1533,3] 2.2847128 0.1633814 5.862763
## sigma_ik[1534,2] 2.0933468 0.1829635 6.900456
## sigma_ik[1534,3] 1.0944293 0.2060371 5.668122
## sigma_ik[1535,2] 1.0944293 0.2060371 5.668122
## sigma_ik[1536,1] 1.0944293 0.2060371 5.668122
## sigma_ik[1536,2] 2.2847128 0.1633814 5.862763
## sigma_ik[1537,1] 1.2089026 0.2162433 8.165130
## sigma_ik[1537,2] 2.2847128 0.1633814 5.862763
## sigma_ik[1537,3] 1.2089026 0.2162433 8.165130
## sigma_ik[1538,3] 2.0933468 0.1829635 6.900456
## sigma_ik[1541,2] 2.2847128 0.1633814 5.862763
## sigma_ik[1541,3] 2.1456990 0.1800052 6.974792
## sigma_ik[1543,1] 1.0944293 0.2060371 5.668122
## sigma_ik[1543,2] 1.0944293 0.2060371 5.668122
## sigma_ik[1543,3] 0.8621329 0.2140886 6.368274
## sigma_ik[1544,1] 1.0944293 0.2060371 5.668122
## sigma_ik[1544,3] 1.0944293 0.2060371 5.668122
## sigma_ik[1545,3] 2.2619485 0.1643103 5.386702
## sigma_ik[1546,1] 1.0944293 0.2060371 5.668122
## sigma_ik[1546,2] 2.2847128 0.1633814 5.862763
## sigma_ik[1546,3] 1.0944293 0.2060371 5.668122
## sigma_ik[1547,1] 1.2089026 0.2162433 8.165130
## sigma_ik[1550,1] 1.0944293 0.2060371 5.668122
## sigma_ik[1550,2] 1.0944293 0.2060371 5.668122
## sigma_ik[1550,3] 2.0866549 0.2132930 6.268495
## sigma_ik[1553,2] 2.2484694 0.1728820 5.972306
## sigma_ik[1553,3] 2.2484694 0.1728820 5.972306
## sigma_ik[1554,1] 1.2089026 0.2162433 8.165130
## sigma_ik[1554,2] 1.2089026 0.2162433 8.165130
## sigma_ik[1554,3] 1.2089026 0.2162433 8.165130
## sigma_ik[1555,3] 2.1456990 0.1800052 6.974792
## sigma_ik[1560,1] 1.2089026 0.2162433 8.165130
## sigma_ik[1561,2] 2.2619485 0.1643103 5.386702
## sigma_ik[1561,3] 2.3812253 0.1576260 5.222879
## sigma_ik[1562,3] 2.1213620 0.1812779 6.234047
## sigma_ik[1563,1] 1.2089026 0.2162433 8.165130
## sigma_ik[1563,2] 1.2089026 0.2162433 8.165130
## sigma_ik[1563,3] 1.2089026 0.2162433 8.165130
## sigma_ik[1564,3] 2.2847128 0.1633814 5.862763

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## sigma_ik[1565,1] 1.2089026 0.2162433 8.165130
## sigma_ik[1565,2] 1.2089026 0.2162433 8.165130
## sigma_ik[1565,3] 1.2089026 0.2162433 8.165130
## sigma_ik[1566,1] 1.2089026 0.2162433 8.165130
## sigma_ik[1566,2] 1.2089026 0.2162433 8.165130
## sigma_ik[1566,3] 1.2089026 0.2162433 8.165130
## sigma_ik[1567,3] 2.2847128 0.1633814 5.862763
## sigma_ik[1568,2] 2.2847128 0.1633814 5.862763
## sigma_ik[1570,2] 2.2357695 0.1656130 5.804243
## sigma_ik[1571,2] 2.1456990 0.1800052 6.974792
## sigma_ik[1571,3] 2.1456990 0.1800052 6.974792
## sigma_ik[1572,2] 2.1456990 0.1800052 6.974792
## sigma_ik[1572,3] 2.1169047 0.2452962 7.093264
## sigma_ik[1574,2] 2.2619485 0.1643103 5.386702
## sigma_ik[1574,3] 2.1213620 0.1812779 6.234047
## sigma_ik[1575,3] 2.0933468 0.1829635 6.900456
## sigma_ik[1577,1] 1.0944293 0.2060371 5.668122
## sigma_ik[1577,2] 1.0944293 0.2060371 5.668122
## sigma_ik[1579,2] 2.3812253 0.1576260 5.222879
## sigma_ik[1579,3] 2.2847128 0.1633814 5.862763
## sigma_ik[1581,2] 2.2847128 0.1633814 5.862763
## sigma_ik[1582,2] 2.1456990 0.1800052 6.974792
## sigma_ik[1586,1] 1.0944293 0.2060371 5.668122
## sigma_ik[1587,1] 1.0944293 0.2060371 5.668122
## sigma_ik[1589,2] 2.3812253 0.1576260 5.222879
## sigma_ik[1589,3] 2.2619485 0.1643103 5.386702
## sigma_ik[1590,1] 1.0944293 0.2060371 5.668122
## sigma_ik[1590,2] 1.0944293 0.2060371 5.668122
## sigma_ik[1590,3] 2.1169047 0.2452962 7.093264
## sigma_ik[1593,2] 2.2298921 0.1965706 5.660758
## sigma_ik[1593,3] 2.2619485 0.1643103 5.386702
## sigma_ik[1595,1] 1.2089026 0.2162433 8.165130
## sigma_ik[1596,2] 2.2357695 0.1656130 5.804243
## sigma_ik[1596,3] 2.0933468 0.1829635 6.900456
## sigma_ik[1597,2] 2.1456990 0.1800052 6.974792
## sigma_ik[1597,3] 2.1169047 0.2452962 7.093264
## sigma_ik[1599,2] 2.0933468 0.1829635 6.900456
## sigma_ik[1599,3] 2.2847128 0.1633814 5.862763
## sigma_ik[1603,1] 0.8621329 0.2140886 6.368274
## sigma_ik[1603,2] 0.8621329 0.2140886 6.368274
## sigma_ik[1604,2] 2.1456990 0.1800052 6.974792
## sigma_ik[1604,3] 2.1456990 0.1800052 6.974792
## sigma_ik[1605,2] 2.0933468 0.1829635 6.900456
## sigma_ik[1606,2] 2.2357695 0.1656130 5.804243
## sigma_ik[1606,3] 2.2847128 0.1633814 5.862763
## sigma_ik[1607,3] 2.2357695 0.1656130 5.804243
## sigma_ik[1608,1] 1.0944293 0.2060371 5.668122
## sigma_ik[1608,3] 2.1169047 0.2452962 7.093264
## sigma_ik[1609,2] 2.0933468 0.1829635 6.900456
## sigma_ik[1609,3] 2.0933468 0.1829635 6.900456
## sigma_ik[1611,2] 1.2089026 0.2162433 8.165130
## sigma_ik[1616,2] 2.2619485 0.1643103 5.386702
## sigma_ik[1616,3] 2.2847128 0.1633814 5.862763
## sigma_ik[1617,2] 2.2619485 0.1643103 5.386702

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## sigma_ik[1617,3] 2.2357695 0.1656130 5.804243
## sigma_ik[1618,2] 2.2357695 0.1656130 5.804243
## sigma_ik[1621,2] 2.2357695 0.1656130 5.804243
## sigma_ik[1624,3] 2.2298921 0.1965706 5.660758
## sigma_ik[1625,1] 1.2089026 0.2162433 8.165130
## sigma_ik[1625,2] 2.2619485 0.1643103 5.386702
## sigma_ik[1625,3] 2.1169047 0.2452962 7.093264
## sigma_ik[1626,3] 2.2847128 0.1633814 5.862763
## sigma_ik[1627,2] 2.2619485 0.1643103 5.386702
## sigma_ik[1627,3] 2.1213620 0.1812779 6.234047
## sigma_ik[1628,2] 2.2357695 0.1656130 5.804243
## sigma_ik[1630,2] 2.2357695 0.1656130 5.804243
## sigma_ik[1631,2] 2.1456990 0.1800052 6.974792
## sigma_ik[1633,3] 2.1169047 0.2452962 7.093264
## sigma_ik[1634,2] 2.1213620 0.1812779 6.234047
## sigma_ik[1634,3] 2.1213620 0.1812779 6.234047
## sigma_ik[1635,3] 2.2298921 0.1965706 5.660758
## sigma_ik[1637,2] 2.1456990 0.1800052 6.974792
## sigma_ik[1637,3] 2.1456990 0.1800052 6.974792
## sigma_ik[1638,3] 2.2619485 0.1643103 5.386702
## sigma_ik[1643,2] 2.2619485 0.1643103 5.386702
## sigma_ik[1643,3] 2.1213620 0.1812779 6.234047
## sigma_ik[1644,1] 1.0944293 0.2060371 5.668122
## sigma_ik[1644,2] 1.0944293 0.2060371 5.668122
## sigma_ik[1647,2] 2.1456990 0.1800052 6.974792
## sigma_ik[1648,3] 2.1456990 0.1800052 6.974792
## sigma_ik[1649,3] 0.8621329 0.2140886 6.368274
## sigma_ik[1650,1] 1.0944293 0.2060371 5.668122
## sigma_ik[1650,3] 0.8621329 0.2140886 6.368274
## sigma_ik[1651,3] 0.8621329 0.2140886 6.368274
## sigma_ik[1654,2] 2.1213620 0.1812779 6.234047
## sigma_ik[1654,3] 2.2298921 0.1965706 5.660758
## sigma_ik[1656,3] 2.2619485 0.1643103 5.386702
## sigma_ik[1657,3] 2.2847128 0.1633814 5.862763
## sigma_ik[1660,3] 2.1456990 0.1800052 6.974792
## sigma_ik[1661,1] 1.0944293 0.2060371 5.668122
## sigma_ik[1661,2] 2.2847128 0.1633814 5.862763
## sigma_ik[1661,3] 2.2619485 0.1643103 5.386702
## sigma_ik[1663,1] 1.2089026 0.2162433 8.165130
## sigma_ik[1663,2] 2.2619485 0.1643103 5.386702
## sigma_ik[1663,3] 2.1169047 0.2452962 7.093264
## sigma_ik[1665,2] 2.1456990 0.1800052 6.974792
## sigma_ik[1665,3] 2.1456990 0.1800052 6.974792
## sigma_ik[1668,3] 2.1456990 0.1800052 6.974792
## sigma_ik[1669,2] 2.1456990 0.1800052 6.974792
## sigma_ik[1672,2] 2.2298921 0.1965706 5.660758
## sigma_ik[1672,3] 2.2619485 0.1643103 5.386702
## sigma_ik[1673,3] 2.2619485 0.1643103 5.386702
## sigma_ik[1676,1] 1.2089026 0.2162433 8.165130
## sigma_ik[1676,2] 2.2619485 0.1643103 5.386702
## sigma_ik[1676,3] 0.8621329 0.2140886 6.368274
## sigma_ik[1677,2] 2.1456990 0.1800052 6.974792
## sigma_ik[1677,3] 2.1456990 0.1800052 6.974792
## sigma_ik[1679,3] 2.1456990 0.1800052 6.974792

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## sigma_ik[1680,3] 2.1456990 0.1800052 6.974792
## sigma_ik[1682,2] 2.1456990 0.1800052 6.974792
## sigma_ik[1685,2] 2.0933468 0.1829635 6.900456
## sigma_ik[1686,3] 0.8621329 0.2140886 6.368274
## sigma_ik[1687,1] 1.0944293 0.2060371 5.668122
## sigma_ik[1692,2] 2.1456990 0.1800052 6.974792
## sigma_ik[1692,3] 2.1456990 0.1800052 6.974792
## sigma_ik[1695,2] 2.1456990 0.1800052 6.974792
## sigma_ik[1697,2] 2.2619485 0.1643103 5.386702
## sigma_ik[1698,2] 2.2847128 0.1633814 5.862763
## sigma_ik[1703,2] 2.1213620 0.1812779 6.234047
## sigma_ik[1703,3] 2.1169047 0.2452962 7.093264
## sigma_ik[1707,2] 2.1213620 0.1812779 6.234047
## sigma_ik[1708,2] 1.2089026 0.2162433 8.165130
## sigma_ik[1709,3] 1.2089026 0.2162433 8.165130
## sigma_ik[1710,1] 1.2089026 0.2162433 8.165130
## sigma_ik[1710,2] 2.2847128 0.1633814 5.862763
## sigma_ik[1711,1] 1.0944293 0.2060371 5.668122
## sigma_ik[1711,2] 1.0944293 0.2060371 5.668122
## sigma_ik[1711,3] 2.0866549 0.2132930 6.268495
## sigma_ik[1712,1] 1.2089026 0.2162433 8.165130
## sigma_ik[1712,3] 1.2089026 0.2162433 8.165130
## sigma_ik[1713,1] 1.2089026 0.2162433 8.165130
## sigma_ik[1713,2] 1.2089026 0.2162433 8.165130
## sigma_ik[1713,3] 1.2089026 0.2162433 8.165130
## sigma_ik[1714,1] 1.2089026 0.2162433 8.165130
## sigma_ik[1714,2] 2.2619485 0.1643103 5.386702
## sigma_ik[1714,3] 1.2089026 0.2162433 8.165130
## sigma_ik[1715,1] 1.2089026 0.2162433 8.165130
## sigma_ik[1715,3] 1.2089026 0.2162433 8.165130
## sigma_ik[1718,2] 2.2357695 0.1656130 5.804243
## sigma_ik[1718,3] 2.0933468 0.1829635 6.900456
## sigma_ik[1719,3] 1.0944293 0.2060371 5.668122
## sigma_ik[1721,2] 2.2484694 0.1728820 5.972306
## sigma_ik[1721,3] 1.0944293 0.2060371 5.668122
## sigma_ik[1722,1] 1.2089026 0.2162433 8.165130
## sigma_ik[1722,2] 1.2089026 0.2162433 8.165130
## sigma_ik[1722,3] 1.2089026 0.2162433 8.165130
## sigma_ik[1723,1] 1.2089026 0.2162433 8.165130
## sigma_ik[1723,3] 1.2089026 0.2162433 8.165130
## sigma_ik[1724,2] 1.2089026 0.2162433 8.165130
## sigma_ik[1724,3] 1.2089026 0.2162433 8.165130
## sigma_ik[1725,2] 2.2847128 0.1633814 5.862763
## sigma_ik[1726,2] 2.2847128 0.1633814 5.862763
## sigma_ik[1726,3] 2.2357695 0.1656130 5.804243
## sigma_ik[1727,2] 2.2484694 0.1728820 5.972306
## sigma_ik[1727,3] 2.2484694 0.1728820 5.972306
## sigma_ik[1728,1] 1.0944293 0.2060371 5.668122
## sigma_ik[1728,3] 0.8621329 0.2140886 6.368274
## sigma_ik[1729,2] 2.2484694 0.1728820 5.972306
## sigma_ik[1729,3] 2.2619485 0.1643103 5.386702
## sigma_ik[1730,2] 2.2357695 0.1656130 5.804243
## sigma_ik[1731,2] 2.2298921 0.1965706 5.660758
## sigma_ik[1731,3] 2.0866549 0.2132930 6.268495

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## sigma_ik[1733,2] 2.2357695 0.1656130 5.804243
## sigma_ik[1733,3] 2.2847128 0.1633814 5.862763
## sigma_ik[1735,2] 2.2357695 0.1656130 5.804243
## sigma_ik[1736,2] 2.0933468 0.1829635 6.900456
## sigma_ik[1736,3] 2.3812253 0.1576260 5.222879
## sigma_ik[1737,3] 2.2484694 0.1728820 5.972306
## sigma_ik[1740,1] 1.0944293 0.2060371 5.668122
## sigma_ik[1741,3] 2.1456990 0.1800052 6.974792
## sigma_ik[1743,1] 1.2089026 0.2162433 8.165130
## sigma_ik[1743,2] 1.2089026 0.2162433 8.165130
## sigma_ik[1746,2] 0.8621329 0.2140886 6.368274
## sigma_ik[1750,2] 2.1456990 0.1800052 6.974792
## sigma_ik[1756,2] 2.2619485 0.1643103 5.386702
## sigma_ik[1756,3] 2.2847128 0.1633814 5.862763
## sigma_ik[1757,2] 2.1456990 0.1800052 6.974792
## sigma_ik[1757,3] 2.1456990 0.1800052 6.974792
## sigma_ik[1759,2] 2.1169047 0.2452962 7.093264
## sigma_ik[1759,3] 2.2619485 0.1643103 5.386702
## sigma_ik[1762,1] 1.0944293 0.2060371 5.668122
## sigma_ik[1762,2] 2.0866549 0.2132930 6.268495
## sigma_ik[1762,3] 1.0944293 0.2060371 5.668122
## sigma_ik[1763,1] 1.2089026 0.2162433 8.165130
## sigma_ik[1763,2] 1.2089026 0.2162433 8.165130
## sigma_ik[1764,2] 1.0944293 0.2060371 5.668122
## sigma_ik[1769,2] 2.1456990 0.1800052 6.974792
## sigma_ik[1769,3] 1.2089026 0.2162433 8.165130
## sigma_ik[1771,2] 2.2619485 0.1643103 5.386702
## sigma_ik[1771,3] 2.2847128 0.1633814 5.862763
## sigma_ik[1772,1] 1.2089026 0.2162433 8.165130
## sigma_ik[1772,2] 1.2089026 0.2162433 8.165130
## sigma_ik[1772,3] 1.2089026 0.2162433 8.165130
## sigma_ik[1773,2] 2.1456990 0.1800052 6.974792
## sigma_ik[1773,3] 2.1456990 0.1800052 6.974792
## sigma_ik[1774,2] 2.1456990 0.1800052 6.974792
## sigma_ik[1775,2] 2.1456990 0.1800052 6.974792
## sigma_ik[1776,1] 1.0944293 0.2060371 5.668122
## sigma_ik[1776,3] 2.2847128 0.1633814 5.862763
## sigma_ik[1777,2] 2.1456990 0.1800052 6.974792
## sigma_ik[1777,3] 2.2357695 0.1656130 5.804243
## sigma_ik[1778,1] 1.2089026 0.2162433 8.165130
## sigma_ik[1778,3] 1.2089026 0.2162433 8.165130
## sigma_ik[1779,2] 1.2089026 0.2162433 8.165130
## sigma_ik[1780,1] 1.2089026 0.2162433 8.165130
## sigma_ik[1780,3] 1.2089026 0.2162433 8.165130
## sigma_ik[1781,2] 0.8621329 0.2140886 6.368274
## sigma_ik[1781,3] 2.2847128 0.1633814 5.862763
## sigma_ik[1782,1] 0.8621329 0.2140886 6.368274
## sigma_ik[1782,3] 0.8621329 0.2140886 6.368274
## sigma_ik[1786,2] 2.1456990 0.1800052 6.974792
## sigma_ik[1787,2] 2.2484694 0.1728820 5.972306
## sigma_ik[1787,3] 2.2484694 0.1728820 5.972306
## sigma_ik[1790,3] 2.2619485 0.1643103 5.386702
## sigma_ik[1795,2] 2.2847128 0.1633814 5.862763
## sigma_ik[1796,2] 2.1456990 0.1800052 6.974792

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## sigma_ik[1797,2] 1.2089026 0.2162433 8.165130
## sigma_ik[1797,3] 1.2089026 0.2162433 8.165130
## sigma_ik[1798,3] 2.1456990 0.1800052 6.974792
## sigma_ik[1802,2] 2.2619485 0.1643103 5.386702
## sigma_ik[1802,3] 2.2847128 0.1633814 5.862763
## sigma_ik[1804,2] 2.2847128 0.1633814 5.862763
## sigma_ik[1804,3] 2.1456990 0.1800052 6.974792
## sigma_ik[1811,3] 2.3812253 0.1576260 5.222879
## sigma_ik[1812,2] 2.1456990 0.1800052 6.974792
## sigma_ik[1815,2] 2.0933468 0.1829635 6.900456
## sigma_ik[1815,3] 2.0933468 0.1829635 6.900456
## sigma_ik[1816,1] 1.2089026 0.2162433 8.165130
## sigma_ik[1817,2] 2.2847128 0.1633814 5.862763
## sigma_ik[1817,3] 2.1456990 0.1800052 6.974792
## sigma_ik[1818,2] 2.1456990 0.1800052 6.974792
## sigma_ik[1818,3] 2.1456990 0.1800052 6.974792
## sigma_ik[1819,2] 2.2298921 0.1965706 5.660758
## sigma_ik[1819,3] 2.2357695 0.1656130 5.804243
## sigma_ik[1820,3] 2.2619485 0.1643103 5.386702
## sigma_ik[1821,3] 2.0933468 0.1829635 6.900456
## sigma_ik[1822,3] 2.0933468 0.1829635 6.900456
## sigma_ik[1823,2] 2.0933468 0.1829635 6.900456
## sigma_ik[1823,3] 2.0933468 0.1829635 6.900456
## sigma_ik[1824,3] 2.1456990 0.1800052 6.974792
## sigma_ik[1825,2] 2.2847128 0.1633814 5.862763
## sigma_ik[1827,3] 2.2619485 0.1643103 5.386702
## sigma_ik[1828,3] 2.1456990 0.1800052 6.974792
## sigma_ik[1829,2] 2.2298921 0.1965706 5.660758
## sigma_ik[1829,3] 0.8621329 0.2140886 6.368274
## sigma_ik[1830,3] 0.8621329 0.2140886 6.368274
## sigma_ik[1831,1] 1.2089026 0.2162433 8.165130
## sigma_ik[1831,2] 1.2089026 0.2162433 8.165130
## sigma_ik[1831,3] 2.3812253 0.1576260 5.222879
## sigma_ik[1835,1] 1.0944293 0.2060371 5.668122
## sigma_ik[1835,2] 2.2847128 0.1633814 5.862763
## sigma_ik[1845,2] 2.2847128 0.1633814 5.862763
## sigma_ik[1845,3] 2.2357695 0.1656130 5.804243
## sigma_ik[1846,2] 2.1456990 0.1800052 6.974792
## sigma_ik[1846,3] 2.1456990 0.1800052 6.974792
## sigma_ik[1849,1] 1.0944293 0.2060371 5.668122
## sigma_ik[1849,2] 2.2847128 0.1633814 5.862763
## sigma_ik[1849,3] 1.0944293 0.2060371 5.668122
## sigma_ik[1850,1] 1.0944293 0.2060371 5.668122
## sigma_ik[1850,3] 1.0944293 0.2060371 5.668122
## sigma_ik[1851,3] 2.1456990 0.1800052 6.974792
## sigma_ik[1856,2] 2.2484694 0.1728820 5.972306
## sigma_ik[1856,3] 2.2484694 0.1728820 5.972306
## sigma_ik[1857,2] 2.2847128 0.1633814 5.862763
## sigma_ik[1859,2] 2.1456990 0.1800052 6.974792
## sigma_ik[1861,2] 2.2847128 0.1633814 5.862763
## sigma_ik[1863,3] 2.2847128 0.1633814 5.862763
## sigma_ik[1864,2] 2.2484694 0.1728820 5.972306
## sigma_ik[1865,2] 2.2357695 0.1656130 5.804243
## sigma_ik[1865,3] 2.3812253 0.1576260 5.222879

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## sigma_ik[1866,3] 2.1456990 0.1800052 6.974792
## sigma_ik[1868,2] 2.2619485 0.1643103 5.386702
## sigma_ik[1868,3] 1.0944293 0.2060371 5.668122
## sigma_ik[1870,2] 2.2484694 0.1728820 5.972306
## sigma_ik[1870,3] 2.2619485 0.1643103 5.386702
## sigma_ik[1871,2] 2.2484694 0.1728820 5.972306
## sigma_ik[1871,3] 2.2484694 0.1728820 5.972306
## sigma_ik[1873,2] 2.1456990 0.1800052 6.974792
## sigma_ik[1874,3] 1.2089026 0.2162433 8.165130
## sigma_ik[1875,2] 2.2619485 0.1643103 5.386702
## sigma_ik[1875,3] 2.2847128 0.1633814 5.862763
## sigma_ik[1876,1] 1.0944293 0.2060371 5.668122
## sigma_ik[1876,3] 0.8621329 0.2140886 6.368274
## sigma_ik[1879,2] 2.2484694 0.1728820 5.972306
## sigma_ik[1880,2] 1.2089026 0.2162433 8.165130
## sigma_ik[1880,3] 1.2089026 0.2162433 8.165130
## sigma_ik[1881,1] 1.2089026 0.2162433 8.165130
## sigma_ik[1881,3] 2.2357695 0.1656130 5.804243
## sigma_ik[1883,1] 1.2089026 0.2162433 8.165130
## sigma_ik[1883,3] 1.2089026 0.2162433 8.165130
## sigma_ik[1884,2] 2.2484694 0.1728820 5.972306
## sigma_ik[1884,3] 2.2619485 0.1643103 5.386702
## sigma_ik[1885,2] 2.1456990 0.1800052 6.974792
## sigma_ik[1885,3] 2.1169047 0.2452962 7.093264
## sigma_ik[1886,1] 1.2089026 0.2162433 8.165130
## sigma_ik[1888,3] 2.1169047 0.2452962 7.093264
## sigma_ik[1889,2] 2.1213620 0.1812779 6.234047
## sigma_ik[1889,3] 2.1213620 0.1812779 6.234047
## sigma_ik[1891,2] 2.2484694 0.1728820 5.972306
## sigma_ik[1893,2] 2.1456990 0.1800052 6.974792
## sigma_ik[1893,3] 2.1456990 0.1800052 6.974792
## sigma_ik[1894,2] 2.1456990 0.1800052 6.974792
## sigma_ik[1895,2] 2.1456990 0.1800052 6.974792
## sigma_ik[1898,2] 2.2847128 0.1633814 5.862763
## sigma_ik[1898,3] 2.1456990 0.1800052 6.974792
## sigma_ik[1902,2] 2.2357695 0.1656130 5.804243
## sigma_ik[1903,2] 2.2847128 0.1633814 5.862763
## sigma_ik[1905,2] 2.1456990 0.1800052 6.974792
## sigma_ik[1907,3] 0.8621329 0.2140886 6.368274
## sigma_ik[1908,2] 2.2484694 0.1728820 5.972306
## sigma_ik[1909,3] 2.1456990 0.1800052 6.974792
## sigma_ik[1911,1] 1.0944293 0.2060371 5.668122
## sigma_ik[1911,2] 1.0944293 0.2060371 5.668122
## sigma_ik[1911,3] 1.0944293 0.2060371 5.668122
## sigma_ik[1913,2] 2.2619485 0.1643103 5.386702
## sigma_ik[1915,2] 2.1213620 0.1812779 6.234047
## sigma_ik[1915,3] 1.0944293 0.2060371 5.668122
## sigma_ik[1916,1] 0.8621329 0.2140886 6.368274
## sigma_ik[1916,2] 0.8621329 0.2140886 6.368274
## sigma_ik[1916,3] 0.8621329 0.2140886 6.368274
## sigma_ik[1917,2] 2.2847128 0.1633814 5.862763
## sigma_ik[1917,3] 1.0944293 0.2060371 5.668122
## sigma_ik[1918,1] 1.0944293 0.2060371 5.668122
## sigma_ik[1918,2] 2.2619485 0.1643103 5.386702

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## sigma_ik[1919,2] 2.2357695 0.1656130 5.804243
## sigma_ik[1919,3] 1.2089026 0.2162433 8.165130
## sigma_ik[1920,2] 2.3812253 0.1576260 5.222879
## sigma_ik[1923,2] 2.2619485 0.1643103 5.386702
## sigma_ik[1926,2] 2.1456990 0.1800052 6.974792
## sigma_ik[1927,2] 2.1456990 0.1800052 6.974792
## sigma_ik[1928,2] 2.2298921 0.1965706 5.660758
## sigma_ik[1928,3] 2.1169047 0.2452962 7.093264
## sigma_ik[1929,2] 2.1456990 0.1800052 6.974792
## sigma_ik[1930,2] 1.2089026 0.2162433 8.165130
## sigma_ik[1930,3] 1.2089026 0.2162433 8.165130
## sigma_ik[1931,1] 1.0944293 0.2060371 5.668122
## sigma_ik[1931,2] 1.0944293 0.2060371 5.668122
## sigma_ik[1931,3] 1.0944293 0.2060371 5.668122
## sigma_ik[1932,1] 1.2089026 0.2162433 8.165130
## sigma_ik[1932,2] 2.2847128 0.1633814 5.862763
## sigma_ik[1932,3] 2.1456990 0.1800052 6.974792
## sigma_ik[1933,1] 1.2089026 0.2162433 8.165130
## sigma_ik[1933,2] 2.2847128 0.1633814 5.862763
## sigma_ik[1933,3] 1.2089026 0.2162433 8.165130
## sigma_ik[1934,2] 1.2089026 0.2162433 8.165130
## sigma_ik[1935,1] 1.2089026 0.2162433 8.165130
## sigma_ik[1935,2] 1.2089026 0.2162433 8.165130
## sigma_ik[1939,2] 2.1213620 0.1812779 6.234047
## sigma_ik[1941,3] 2.1456990 0.1800052 6.974792
## sigma_ik[1942,3] 0.8621329 0.2140886 6.368274
## sigma_ik[1945,3] 2.3812253 0.1576260 5.222879
## sigma_ik[1946,2] 2.2619485 0.1643103 5.386702
## sigma_ik[1946,3] 2.2298921 0.1965706 5.660758
## sigma_ik[1947,2] 2.3812253 0.1576260 5.222879
## sigma_ik[1947,3] 2.2357695 0.1656130 5.804243
## sigma_ik[1948,1] 1.2089026 0.2162433 8.165130
## sigma_ik[1948,2] 1.2089026 0.2162433 8.165130
## sigma_ik[1948,3] 2.2298921 0.1965706 5.660758
## sigma_ik[1949,2] 2.0933468 0.1829635 6.900456
## sigma_ik[1949,3] 2.0933468 0.1829635 6.900456
## sigma_ik[1950,2] 2.2847128 0.1633814 5.862763
## sigma_ik[1950,3] 2.2298921 0.1965706 5.660758
## sigma_ik[1951,1] 1.2089026 0.2162433 8.165130
## sigma_ik[1952,2] 2.0933468 0.1829635 6.900456
## sigma_ik[1953,2] 2.2298921 0.1965706 5.660758
## sigma_ik[1956,1] 1.2089026 0.2162433 8.165130
## sigma_ik[1957,1] 0.8621329 0.2140886 6.368274
## sigma_ik[1957,2] 0.8621329 0.2140886 6.368274
## sigma_ik[1957,3] 0.8621329 0.2140886 6.368274
## sigma_ik[1960,2] 2.1456990 0.1800052 6.974792
## sigma_ik[1960,3] 2.1456990 0.1800052 6.974792
## sigma_ik[1962,2] 2.2298921 0.1965706 5.660758
## sigma_ik[1962,3] 1.0944293 0.2060371 5.668122
## sigma_ik[1963,1] 1.2089026 0.2162433 8.165130
## sigma_ik[1963,3] 1.2089026 0.2162433 8.165130
## sigma_ik[1964,1] 1.2089026 0.2162433 8.165130
## sigma_ik[1964,2] 1.2089026 0.2162433 8.165130
## sigma_ik[1964,3] 1.2089026 0.2162433 8.165130

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```
## sigma_ik[1965,2] 2.0933468 0.1829635 6.900456
## sigma_ik[1965,3] 2.2847128 0.1633814 5.862763
## sigma_ik[1968,3] 2.1213620 0.1812779 6.234047
## sigma_ik[1969,2] 2.2357695 0.1656130 5.804243
## sigma_ik[1970,2] 2.2484694 0.1728820 5.972306
## sigma_ik[1970,3] 2.2357695 0.1656130 5.804243
## sigma_ik[1971,2] 2.2619485 0.1643103 5.386702
## sigma_ik[1971,3] 2.2298921 0.1965706 5.660758
## sigma_ik[1972,2] 2.2847128 0.1633814 5.862763
## NA NA NA NA
## NA.1 NA NA NA
```