## Results Processing

## Xi Chen

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```
1. Log-likelyhood Statistics
## $C1
## $C1$S1
             mean
## [1,] -348.4581 6.345191
## $C1$S2
##
             mean
## [1,] -873.6884 9.977966
##
## $C1$S3
            mean
## [1,] -1749.482 13.61222
##
##
## $C2
## $C2$S1
             mean
## [1,] -362.9164 6.757116
##
## $C2$S2
            mean
## [1,] -909.592 10.42782
##
## $C2$S3
             mean
## [1,] -1820.665 14.4916
##
##
## $C3
## $C3$S1
             mean
## [1,] -241.9765 9.559783
## $C3$S2
             mean
## [1,] -606.0251 16.97194
## $C3$S3
##
             mean
## [1,] -1214.406 29.86266
##
##
## $C4
## $C4$S1
##
```

## mean sd ## [1,] -270.5733 13.06003

```
##
## $C4$S2
## mean sd
## [1,] -676.992 24.63688
## $C4$S3
## mean sd
## [1,] -1353.632 39.60702
##
##
## $C5
## $C5$S1
## mean sd
## [1,] -394.0983 14.85125
##
## $C5$S2
##
        mean sd
## [1,] -986.2231 30.16613
##
## $C5$S3
##
        mean sd
## [1,] -1974.776 58.49279
##
##
## $C6
## $C6$S1
## mean sd
## [1,] -411.9308 25.70693
## $C6$S2
## mean sd
## [1,] -1031.78 61.53428
##
## $C6$S3
        mean sd
## [1,] -2068.58 127.5749
##
##
## $C7
## $C7$S1
## mean sd
## [1,] -406.8401 6.121013
## $C7$S2
## mean sd
## [1,] -1026.983 10.07984
##
## $C7$S3
## mean sd
## [1,] -2057.033 15.16123
##
##
## $C8
## $C8$S1
```

```
## mean sd
## [1,] -425.033 7.018127
## $C8$S2
         mean
## [1,] -1066.498 12.4492
## $C8$S3
## mean sd
## [1,] -2136.312 21.52609
##
## $C9
## $C9$S1
         mean sd
## [1,] -510.9084 31.4212
##
## $C9$S2
         mean sd
## [1,] -1287.673 73.75036
##
## $C9$S3
## mean sd
## [1,] -2586.189 144.5632
##
## $C10
## $C10$S1
## mean sd
## [1,] -510.7534 31.23562
##
## $C10$S2
         mean
## [1,] -1287.223 75.7378
##
## $C10$S3
## mean sd
## [1,] -2583.411 143.7011
##
##
## $C11
## $C11$S1
         mean sd
## [1,] -597.2291 24.16035
## $C11$S2
         mean
## [1,] -1497.902 59.10009
##
## $C11$S3
## mean sd
## [1,] -2995.129 119.5011
##
```

##

```
## $C12
## $C12$S1
            mean
## [1,] -598.2759 24.23358
##
## $C12$S2
            mean
## [1,] -1497.707 58.95765
##
## $C12$S3
                        sd
             mean
## [1,] -2995.197 116.3069
  2. Lambda Statistics
## [[1]]
## [[1]]$S1
##
                         sd
             mean
## [1,] 0.4853385 0.2230833 249.8559
## [2,] 0.5146615 0.2230833 249.8558
## [[1]]$S2
             mean
## [1,] 0.4828369 0.2196644 242.6869
## [2,] 0.5171631 0.2196645 242.6870
##
## [[1]]$S3
##
            mean
                         sd
## [1,] 0.4867148 0.2201616 243.1897
## [2,] 0.5132852 0.2201616 243.1897
##
##
## [[2]]
## [[2]]$S1
                         sd
             mean
## [1,] 0.4530368 0.2183585 558.4924
## [2,] 0.5469633 0.2183585 558.4924
##
## [[2]]$S2
##
                         sd
             mean
## [1,] 0.4505753 0.2071585 528.4702
## [2,] 0.5494247 0.2071585 528.4702
##
## [[2]]$S3
##
             mean
## [1,] 0.4395497 0.1896895 466.7949
## [2,] 0.5604502 0.1896894 466.7949
##
##
## [[3]]
## [[3]]$S1
##
                          sd
             mean
## [1,] 0.4987542 0.09246540 42.74846
## [2,] 0.5012458 0.09246542 42.74848
```

##

```
## [[3]]$S2
##
                         sd
            mean
## [1,] 0.496808 0.06768841 22.95497
## [2,] 0.503192 0.06768835 22.95493
## [[3]]$S3
            mean
                          sd
                                  mse
## [1,] 0.4949489 0.06655959 22.27403
## [2,] 0.5050510 0.06655954 22.27400
##
##
## [[4]]
## [[4]]$S1
##
            mean
## [1,] 0.2572246 0.1191514 87.34439
## [2,] 0.7427754 0.1191514 87.34433
##
## [[4]]$S2
##
                          sd
            mean
## [1,] 0.2287622 0.09096488 45.50108
## [2,] 0.7712378 0.09096491 45.50111
## [[4]]$S3
##
                          sd
             mean
                                  mse
## [1,] 0.2148729 0.07579558 29.82513
## [2,] 0.7851271 0.07579553 29.82509
##
##
## [[5]]
## [[5]]$S1
##
             mean
## [1,] 0.5092682 0.09147033 42.25524
## [2,] 0.4907318 0.09147033 42.25524
##
## [[5]]$S2
##
                          sd
            mean
## [1,] 0.5120269 0.07914959 32.04026
## [2,] 0.4879730 0.07914965 32.04031
##
## [[5]]$S3
                          sd
             mean
## [1,] 0.5137117 0.07952848 32.55762
## [2,] 0.4862883 0.07952843 32.55758
##
##
## [[6]]
## [[6]]$S1
             mean
## [1,] 0.2424702 0.1617785 139.8538
## [2,] 0.7575298 0.1617784 139.8536
##
## [[6]]$S2
##
                         sd
             mean
                                 mse
## [1,] 0.2395301 0.1618665 138.7907
```

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## [2,] 0.7604699 0.1618665 138.7907
##
## [[6]]$S3
##
             mean
                                 {\tt mse}
## [1,] 0.2440381 0.1716091 156.9158
## [2,] 0.7559619 0.1716091 156.9157
##
## [[7]]
## [[7]]$S1
             mean
## [1,] 0.3331232 0.1508503 113.7566
## [2,] 0.3104237 0.1553302 123.2375
## [3,] 0.3564531 0.1710608 148.9524
##
## [[7]]$S2
##
                         sd
             mean
## [1,] 0.3376041 0.1496316 112.0169
## [2,] 0.3002609 0.1569733 128.6473
## [3,] 0.3621350 0.1760335 159.0556
##
## [[7]]$S3
##
             mean
                         sd
## [1,] 0.3320467 0.1468214 107.7693
## [2,] 0.3027958 0.1566968 127.4076
## [3,] 0.3651576 0.1749173 158.0136
##
##
## [[8]]
## [[8]]$S1
##
             mean
                         sd
## [1,] 0.3276723 0.1537579 199.6849
## [2,] 0.3182520 0.1635590 135.3967
## [3,] 0.3540757 0.1759587 261.2459
##
## [[8]]$S2
             mean
## [1,] 0.3308249 0.1506550 199.0378
## [2,] 0.3179039 0.1666937 140.5090
## [3,] 0.3512712 0.1777262 268.5028
## [[8]]$S3
             mean
                         sd
## [1,] 0.3310684 0.1458966 192.3025
## [2,] 0.3151329 0.1690997 144.0899
## [3,] 0.3537986 0.1804297 269.6160
##
##
## [[9]]
## [[9]]$S1
##
             mean
                         sd
## [1,] 0.3162484 0.1634963 201.1970
## [2,] 0.3315338 0.1407591 104.0177
## [3,] 0.3522178 0.1650983 245.4579
```

```
##
## [[9]]$S2
             mean
## [1,] 0.3263072 0.1633804 213.2066
## [2,] 0.3298453 0.1497116 116.4990
## [3,] 0.3438476 0.1644423 257.0971
## [[9]]$S3
##
                         sd
             mean
                                 mse
## [1,] 0.3308658 0.1645981 221.0648
## [2,] 0.3305853 0.1513918 119.2517
## [3,] 0.3385489 0.1641272 264.9941
##
## [[10]]
## [[10]]$S1
##
                         sd
             mean
## [1,] 0.3148894 0.1621905 197.5003
## [2,] 0.3324027 0.1438405 108.6794
## [3,] 0.3527079 0.1671910 248.2111
##
## [[10]]$S2
##
             mean
                         sd
## [1,] 0.3273250 0.1659854 218.7865
## [2,] 0.3277134 0.1468241 111.6052
## [3,] 0.3449616 0.1661803 258.2365
##
## [[10]]$S3
##
             mean
## [1,] 0.3292591 0.1632936 216.8370
## [2,] 0.3325114 0.1499825 117.7363
## [3,] 0.3382295 0.1622320 262.4182
##
##
## [[11]]
## [[11]]$S1
             mean
## [1,] 0.3614944 0.1539776 248.9241
## [2,] 0.2592307 0.1397578 105.9523
## [3,] 0.3792750 0.1378998 167.9354
## [[11]]$S2
             mean
                         sd
## [1,] 0.3595917 0.1542779 246.3322
## [2,] 0.2642073 0.1456255 112.4182
## [3,] 0.3762009 0.1432885 179.2685
##
## [[11]]$S3
             mean
## [1,] 0.3608191 0.1575054 253.3287
## [2,] 0.2678263 0.1441891 109.1074
## [3,] 0.3713547 0.1446431 187.3353
##
##
```

```
## [[12]]
## [[12]]$S1
             mean
## [1,] 0.3605521 0.1546963 248.5158
## [2,] 0.2618795 0.1422064 108.3590
## [3,] 0.3775685 0.1402718 173.3086
## [[12]]$S2
##
             mean
                         sd
                                 mse
## [1,] 0.3623485 0.1574550 255.7208
## [2,] 0.2640303 0.1449316 111.4739
## [3,] 0.3736211 0.1424567 181.3073
## [[12]]$S3
##
             mean
                         sd
## [1,] 0.3627356 0.1544925 251.7301
## [2,] 0.2628098 0.1443140 111.0273
## [3,] 0.3744546 0.1420817 179.7240
  3. Alpha Statistics
## [[1]]
## [[1]]$S1
##
             mean
                        sd
                                mse
## comp.1 2.43325 0.922138 1.225750
## comp.2 4.47475 2.100036 4.961928
## [[1]]$S2
##
             mean
                          sd
## comp.1 2.43575 0.04956819 0.3822131
## comp.2 5.07630 3.10462303 9.6503276
##
## [[1]]$S3
            mean
                        sd
## comp.1 2.3453 0.3903229 0.3908162
## comp.2 4.3717 0.4944091 1.0339621
##
##
## [[2]]
## [[2]]$S1
##
              mean
                          sd
## comp.1 4.89215 4.036519 33.02255
## comp.2 12.72675 16.532510 392.72922
## [[2]]$S2
                        sd
             mean
## comp.1 4.09625 3.200719 19.03313
## comp.2 5.60180 3.695906 14.38405
##
## [[2]]$S3
             mean
                         sd
## comp.1 2.20595 0.7432399 0.6372364
## comp.2 4.63155 1.5583926 2.7000984
##
##
```

```
## [[3]]
## [[3]]$S1
              mean
## comp.1 0.951755 0.06716807 0.00916671
## comp.2 5.948065 7.15300027 84.00176742
##
## [[3]]$S2
##
              mean
                          sd
## comp.1 1.135710 0.4654035 0.2534349
## comp.2 6.151075 7.4683558 85.4047850
## [[3]]$S3
##
              mean
                          sd
                                     mse
## comp.1 0.991495 0.1087601 0.01197343
## comp.2 4.685300 4.9042098 80.54334586
##
##
## [[4]]
## [[4]]$S1
             mean
                          sd
## comp.1 0.84991 0.02998133 0.0459529
## comp.2 4.98470 5.43453988 79.8406919
##
## [[4]]$S2
##
              mean
                          sd
                                    mse
## comp.1 0.969840 0.1676692 0.0299322
## comp.2 5.756455 6.7465694 81.5315475
## [[4]]$S3
##
                           sd
              mean
                                      mse
## comp.1 1.049450 0.01774838 0.00520561
## comp.2 5.721635 6.76894230 82.42739397
##
##
## [[5]]
## [[5]]$S1
              mean
                           sd
## comp.1 2.31635 0.4480936
                                0.4009425
## comp.2 15.38400 18.8429815 782.3128640
##
## [[5]]$S2
##
              mean
                           sd
## comp.1 2.36480 0.3157939
                                0.3658839
## comp.2 17.63035 22.4162042 808.5026931
## [[5]]$S3
##
                           sd
             mean
## comp.1 2.3964 0.07976164
## comp.2 17.0232 21.44485162 796.6763374
##
##
## [[6]]
## [[6]]$S1
##
             mean
                          sd
                                     mse
```

```
## comp.1 2.3472 0.8075159 0.8931777
## comp.2 13.7936 16.1904825 787.4265270
## [[6]]$S2
##
              mean
                           sd
                                     mse
## comp.1 2.57225 0.7380073
                                1.199595
## comp.2 14.64655 17.6542643 783.129902
## [[6]]$S3
##
              mean
                           sd
## comp.1 2.45145 0.4575688
                                0.6169834
## comp.2 15.78585 19.4456486 782.2173705
##
## [[7]]
## [[7]]$S1
##
                          sd
              mean
## comp.1 3.762525 4.6704049 28.02567
## comp.2 2.053900 0.3023589 17.45043
## comp.3 6.507950 4.1430093 17.68055
##
## [[7]]$S2
##
              mean
                         sd
                                   mse
## comp.1 6.35015 7.051057 87.56501
## comp.2 10.56015 12.109699 208.47534
## comp.3 18.67480 23.780284 886.80301
##
## [[7]]$S3
##
            mean
## comp.1 2.2400 0.9499272
                              1.017562
## comp.2 6.5054 5.0764610 30.302915
## comp.3 10.6582 11.2130165 169.129393
##
##
## [[8]]
## [[8]]$S1
             mean
## comp.1 2.71680 0.8599833
                                1.767176
## comp.2 5.69000 2.0037992
                              4.967411
## comp.3 11.41495 12.3489835 211.140761
## [[8]]$S2
                         sd
              mean
## comp.1 6.66705 7.362325 97.76654
## comp.2 9.72945 10.856281 162.59423
## comp.3 16.58615 20.439416 641.90289
##
## [[8]]$S3
                        sd
            mean
## comp.1 4.46860 3.962344 27.88814
## comp.2 7.93685 8.427511 88.27311
## comp.3 8.45270 6.191851 50.37050
##
##
```

```
## [[9]]
## [[9]]$S1
             mean
## comp.1 1.60635 0.7570992
                                 1.30852
## comp.2 10.10695 2.0096682 199.78364
## comp.3 54.90285 75.6422529 5769.82631
## [[9]]$S2
##
                           sd
              mean
                                     mse
## comp.1 17.84143 23.90950
                               1138.932
## comp.2 406.14363 574.22213 627944.873
## comp.3 19.74915 22.31608
                               2328.235
## [[9]]$S3
##
             mean
                           sd
                                       mse
## comp.1 1.53350 0.5632813
                                 0.8865303
## comp.2 12.83255 12.9421047 270.2427532
## comp.3 27.05590 34.0826883 2214.4930896
##
##
## [[10]]
## [[10]]$S1
##
               mean
                            sd
                                         mse
          1.638095
                      1.826888
## comp.1
                                    4.151851
## comp.2 11.776700 7.509898
                                 191.643898
## comp.3 150.112895 211.420833 64743.952297
## [[10]]$S2
##
             mean
                          sd
## comp.1 18.02185 24.10124 1160.3565
## comp.2 18.25290 20.42704
                              423.3688
## comp.3 95.32344 133.55346 21944.9552
##
## [[10]]$S3
             mean
                        sd
## comp.1 17.79724 24.16716 1148.3460
## comp.2 14.73450 15.22189 287.1568
## comp.3 51.15685 70.16359 4925.6059
##
##
## [[11]]
## [[11]]$S1
                         sd
             mean
## comp.1 21.4292 28.82705 1585.986
## comp.2 61.1693 84.24569 7346.843
## comp.3 122.4733 170.06859 35541.955
##
## [[11]]$S2
             mean
                         sd
                                    mse
## comp.1 36.9288 50.89076
                               5029.911
## comp.2 211.8783 297.89228 141149.010
## comp.3 323.7223 456.53313 249734.712
##
## [[11]]$S3
```

```
mean
                           sd
                                     mse
## comp.1 28.07610 39.32631
                                2906.485
## comp.2 65.43955 88.86982
## comp.3 394.89195 557.42366 403078.237
##
## [[12]]
## [[12]]$S1
##
                           sd
                                      mse
               mean
## comp.1 25.00551 34.26567
                                2232.643
## comp.2 48.93000 63.31010
                                4010.458
## comp.3 423.69866 598.20009 476621.421
## [[12]]$S2
##
                            sd
                                        mse
               mean
## comp.1
            2.75456
                      3.579148
                                  13.94902
## comp.2 87.75903 122.868239 17948.09361
## comp.3 162.76685 227.777691 52476.63949
##
## [[12]]$S3
##
                           sd
                                      mse
               mean
## comp.1 28.86072 40.37054
                                3072.777
## comp.2 68.48890 93.76391
                                9475.351
## comp.3 236.78425 333.15442 117440.770
  4. Beta Statistics
## [[1]]
## [[1]]$S1
            mean
                       sd
## comp.1 2.2965 0.420870 1.166956
## comp.2 4.7524 1.458054 3.258134
##
## [[1]]$S2
                        sd
                                mse
             mean
## comp.1 4.26865 3.802750 17.67985
## comp.2 6.08675 5.412549 38.00474
##
## [[1]]$S3
##
            mean
                       sd
                                mse
## comp.1 3.0728 1.422840 2.035074
## comp.2 5.2659 2.761818 10.832642
##
##
## [[2]]
## [[2]]$S1
##
             mean
                          sd
## comp.1 2.36120 0.05345727 0.8189886
## comp.2 4.33355 0.19947482 0.2623014
##
## [[2]]$S2
##
             mean
                        sd
                                mse
## comp.1 3.51020 2.304744 5.832452
## comp.2 4.65185 1.262963 2.444893
##
```

```
## [[2]]$S3
##
                        sd
             mean
                                mse
## comp.1 2.99805 1.596718 2.549515
## comp.2 4.76800 1.889814 4.751043
##
## [[3]]
## [[3]]$S1
##
                          sd
                                     mse
              mean
## comp.1 1.013005 0.3169182
                               0.1007754
## comp.2 6.923915 8.7838006 147.3406916
## [[3]]$S2
##
              mean
## comp.1 0.982080 0.4746384 0.2259238
## comp.2 5.699065 6.7273220 89.4192849
##
## [[3]]$S3
##
              mean
                         sd
## comp.1 1.062575 0.225461 0.05866392
## comp.2 5.405750 6.210165 77.38741925
##
## [[4]]
## [[4]]$S1
              mean
## comp.1 3.493535 4.229863 30.32718
## comp.2 7.169940 9.060951 158.23715
##
## [[4]]$S2
##
             mean
                         sd
## comp.1 1.51378 0.9838967 1.495992
## comp.2 5.36455 6.0807648 75.074294
##
## [[4]]$S3
##
             mean
                         sd
## comp.1 0.90324 0.2232478 0.06856455
## comp.2 4.97070 5.4404796 61.13173498
##
##
## [[5]]
## [[5]]$S1
              mean
                           sd
## comp.1 2.31865 0.5690088
                                1.252247
## comp.2 13.61195 15.7954220 519.170121
##
## [[5]]$S2
##
              mean
                           sd
## comp.1 2.52615 0.9883231
                                1.42585
## comp.2 16.18790 20.0975304 806.50374
##
## [[5]]$S3
##
                          sd
                                     mse
              mean
## comp.1 2.53035 1.066671
                                1.578928
```

```
## comp.2 19.66575 25.572163 1278.092976
##
##
## [[6]]
## [[6]]$S1
##
                         sd
             mean
## comp.1 2.4698 1.735099
## comp.2 15.4566 18.956684 721.516046
##
## [[6]]$S2
                           sd
              mean
                                     mse
## comp.1 2.24775 0.3922321
                                1.285606
## comp.2 14.05090 16.6510919 567.707243
##
## [[6]]$S3
##
                           sd
              mean
                                    mse
## comp.1 2.55445 0.9522607
                                1.30383
## comp.2 16.43360 20.5094908 837.29683
##
##
## [[7]]
## [[7]]$S1
##
              mean
                          sd
## comp.1 2.613645 2.4888108 6.492720
## comp.2 3.702200 0.1764939 3.399720
## comp.3 6.266900 1.5042990 3.337787
##
## [[7]]$S2
##
              mean
                           sd
                                  1.626962
## comp.1 3.19590
                   1.245074
## comp.2 71.40706 100.738590 18968.058718
## comp.3 8.80165
                     8.297686
                                 75.343477
##
## [[7]]$S3
           mean
                       sd
## comp.1 2.3008 0.2043539 1.019522
## comp.2 4.7560 1.4279314 2.158060
## comp.3 6.9446 2.4728938 6.121342
##
##
## [[8]]
## [[8]]$S1
                        sd
              mean
## comp.1 3.06520 1.621113
                               2.636509
## comp.2 10.38805 12.915942 224.883717
## comp.3 6.98155 2.861449
                               8.188571
##
## [[8]]$S2
              mean
                            sd
## comp.1
           4.0010
                     1.635114 4.677599e+00
## comp.2 734.0104 1038.018015 2.140394e+06
          9.9731 10.087444 1.194352e+02
## comp.3
##
## [[8]]$S3
```

```
mean
                        sd
## comp.1 2.4775 0.9926365 1.531340
## comp.2 5.0207 1.9661811 3.866725
## comp.3 7.0515 3.4277708 11.754917
##
## [[9]]
## [[9]]$S1
##
                           sd
              mean
                                       mse
## comp.1 1.74545 0.3430175
                                 0.2472524
## comp.2 28.75600 38.7579369 2727.8967440
## comp.3 21.53450 25.2797745 1326.1223810
## [[9]]$S2
##
                           sd
                                       mse
              mean
## comp.1 1.48495 0.5770698
                                 0.8635626
## comp.2 10.09140 5.6138622 105.7257562
## comp.3 41.13610 55.3634911 5973.8403952
##
## [[9]]$S3
##
              mean
                           sd
                                       mse
## comp.1 1.59600 0.7298756
                                 0.8591504
## comp.2 12.25175 11.8175221 275.8365843
## comp.3 23.53590 28.4088635 1650.5099008
##
## [[10]]
## [[10]]$S1
                mean
## comp.1
            18.11665
                       23.13986
                                   1054.946
## comp.2 1262.27611 1785.05414 6352935.835
## comp.3
            45.18535
                       61.31273
                                   7318.459
##
## [[10]]$S2
             mean
                        sd
                                  mse
## comp.1 16.0166 20.98325
                             833.2270
## comp.2 17.5449 19.12031
## comp.3 69.4224 96.41769 18120.2407
##
## [[10]]$S3
              mean
                           sd
## comp.1 14.62108 20.336285
                                732.14755
## comp.2 10.42880
                    3.005487
                                 91.69189
## comp.3 86.10272 120.416445 28312.24277
##
## [[11]]
## [[11]]$S1
                           sd
               {\tt mean}
## comp.1 4.111776 5.675132
                                51.57342
## comp.2 22.319050 29.981257 1724.60335
## comp.3 39.948100 47.892201 5023.98709
##
## [[11]]$S2
```

```
sd
             mean
## comp.1 26.87123 37.303800 2730.2146
## comp.2 77.84479 109.156378 23419.9777
## comp.3 22.63650 1.689278
                              774.0379
## [[11]]$S3
                         sd
              mean
## comp.1 106.8324 150.1295
                               44939.87
## comp.2 2076.4632 2936.3836 17229144.15
## comp.3 317.2655 447.4069 397698.60
##
##
## [[12]]
## [[12]]$S1
              mean
                     sd
## comp.1 20.92695 27.55461
                              1553.423
## comp.2 23.95450 14.36487
                              1170.350
## comp.3 305.27893 430.37498 367967.730
## [[12]]$S2
                         sd
##
              mean
                                     mse
## comp.1 1.997165 2.450457
## comp.2 6.407660 8.779919 115.941904
## comp.3 66.229650 89.605066 16025.045182
##
## [[12]]$S3
##
                          sd
               mean
                                     {\tt mse}
## comp.1 79.06895 110.9748
                                24504.93
## comp.2 1781.62089 2519.3919 12681436.66
## comp.3 180.75975 253.4274
                               127422.52
```