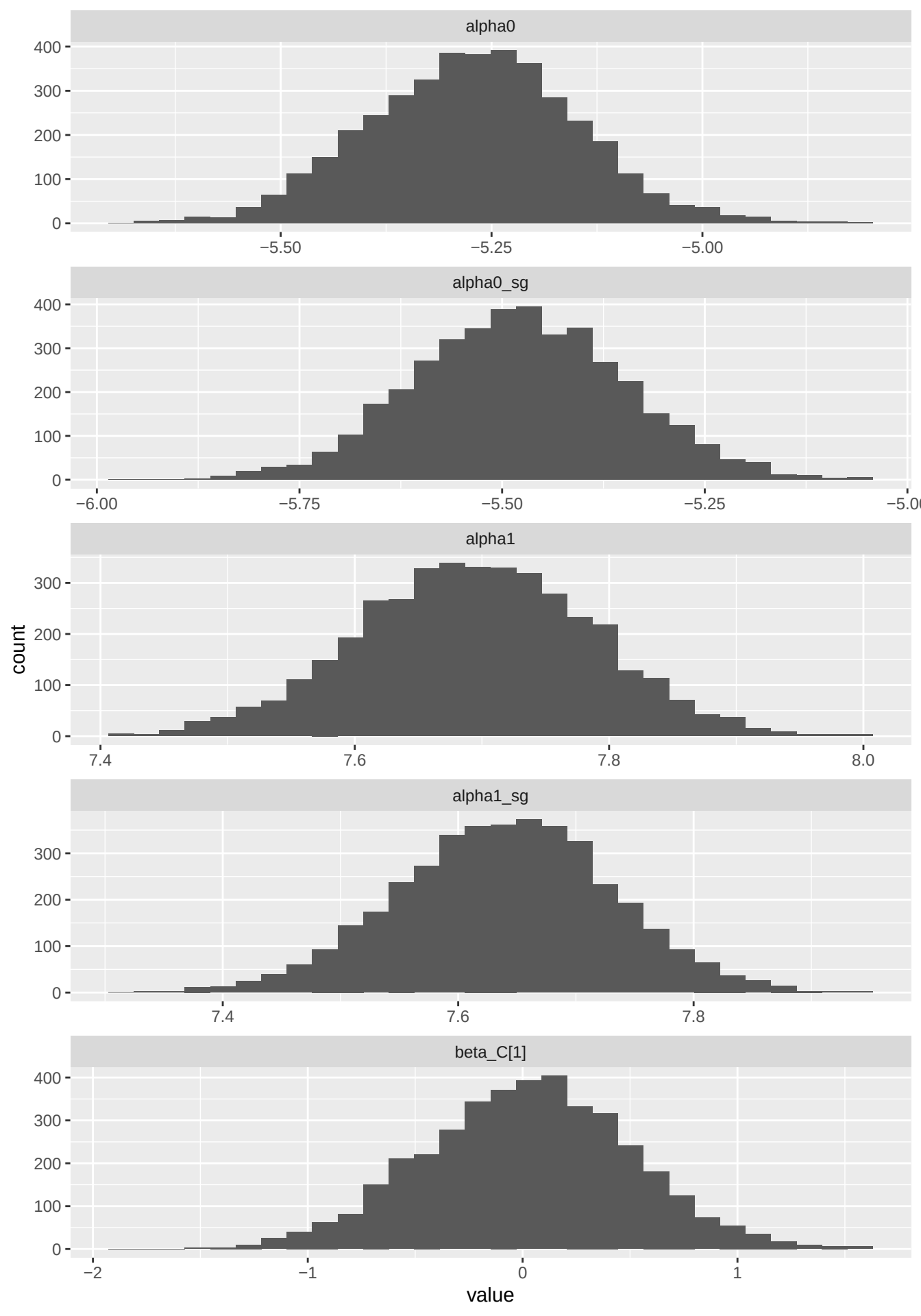
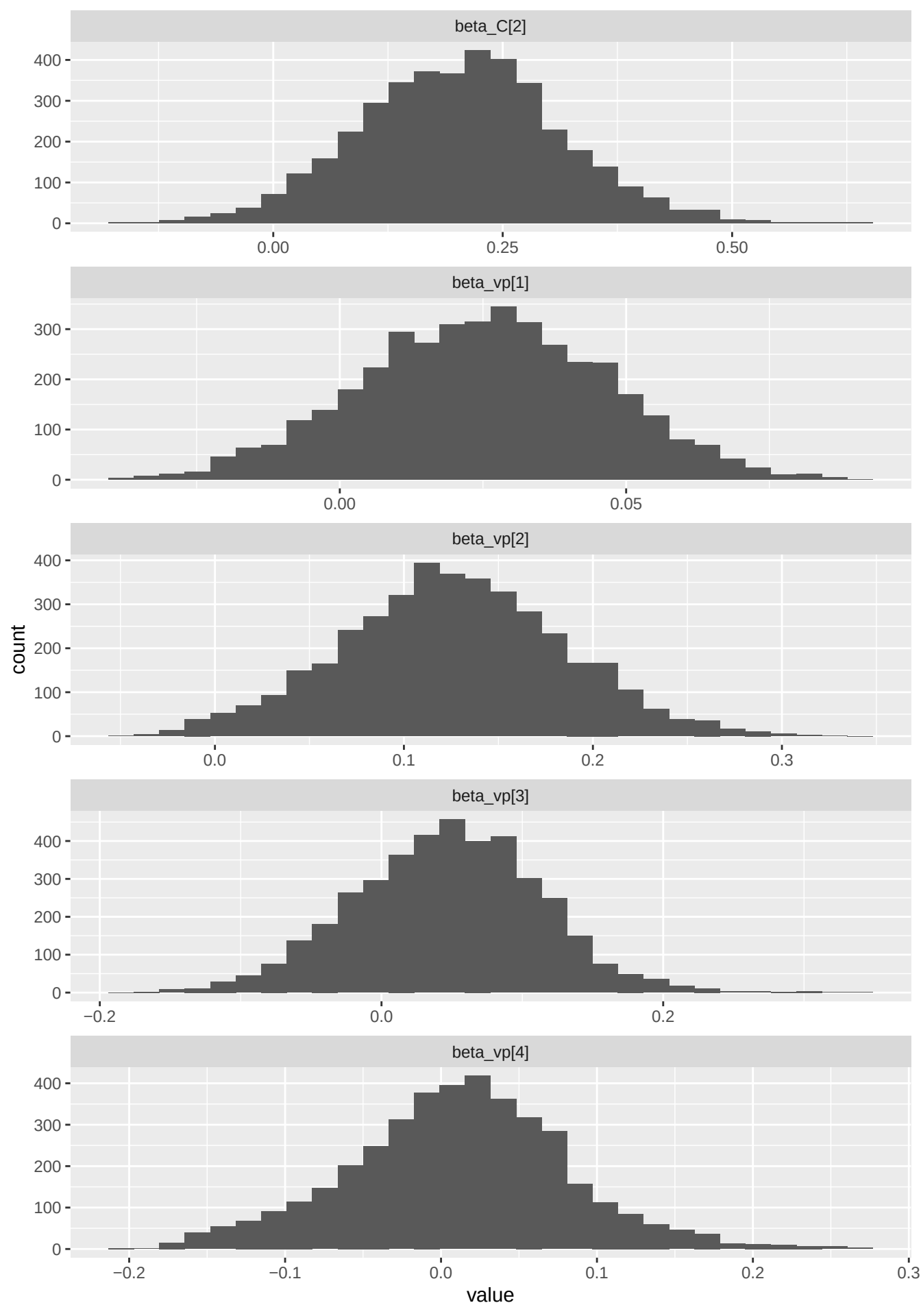
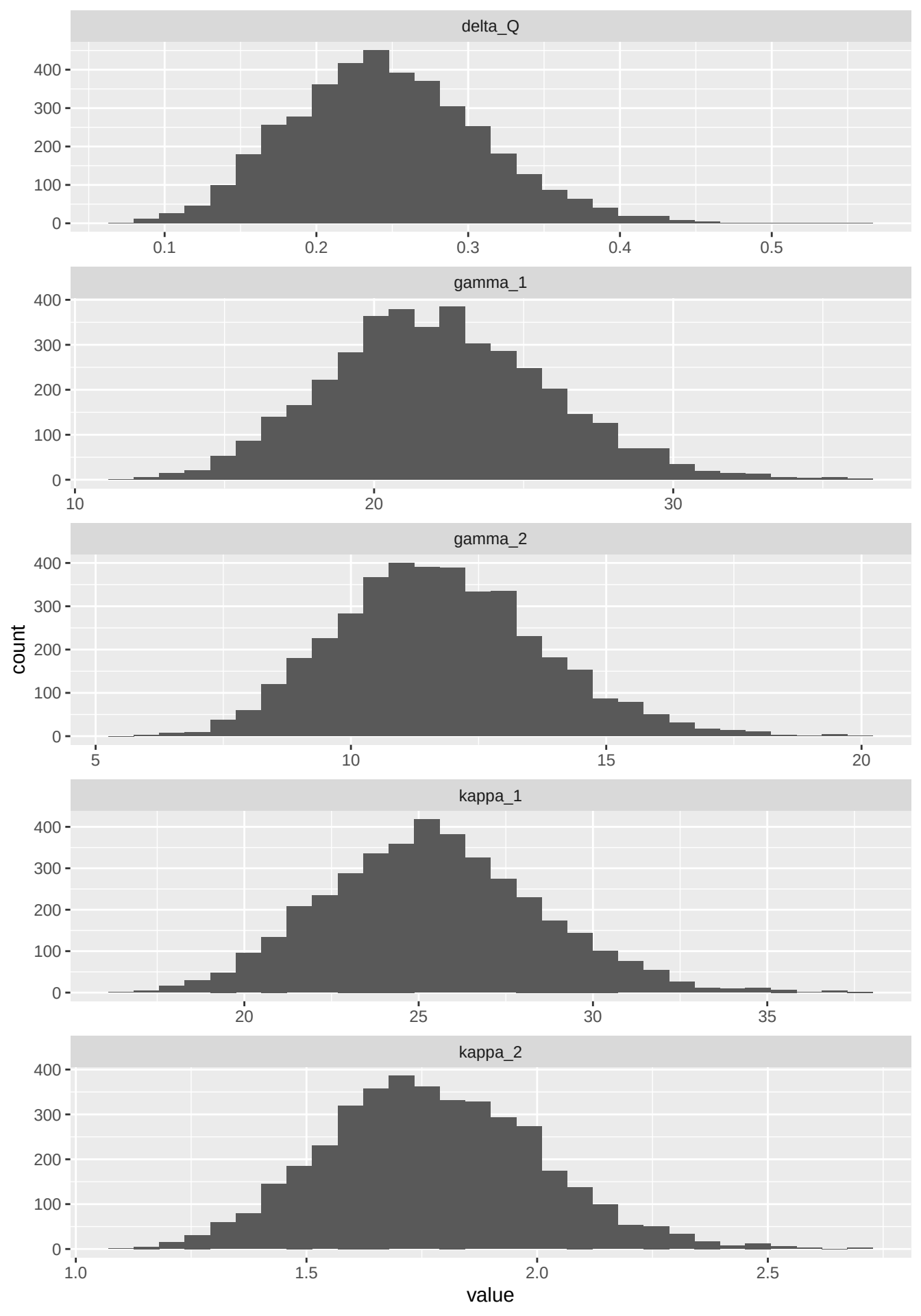
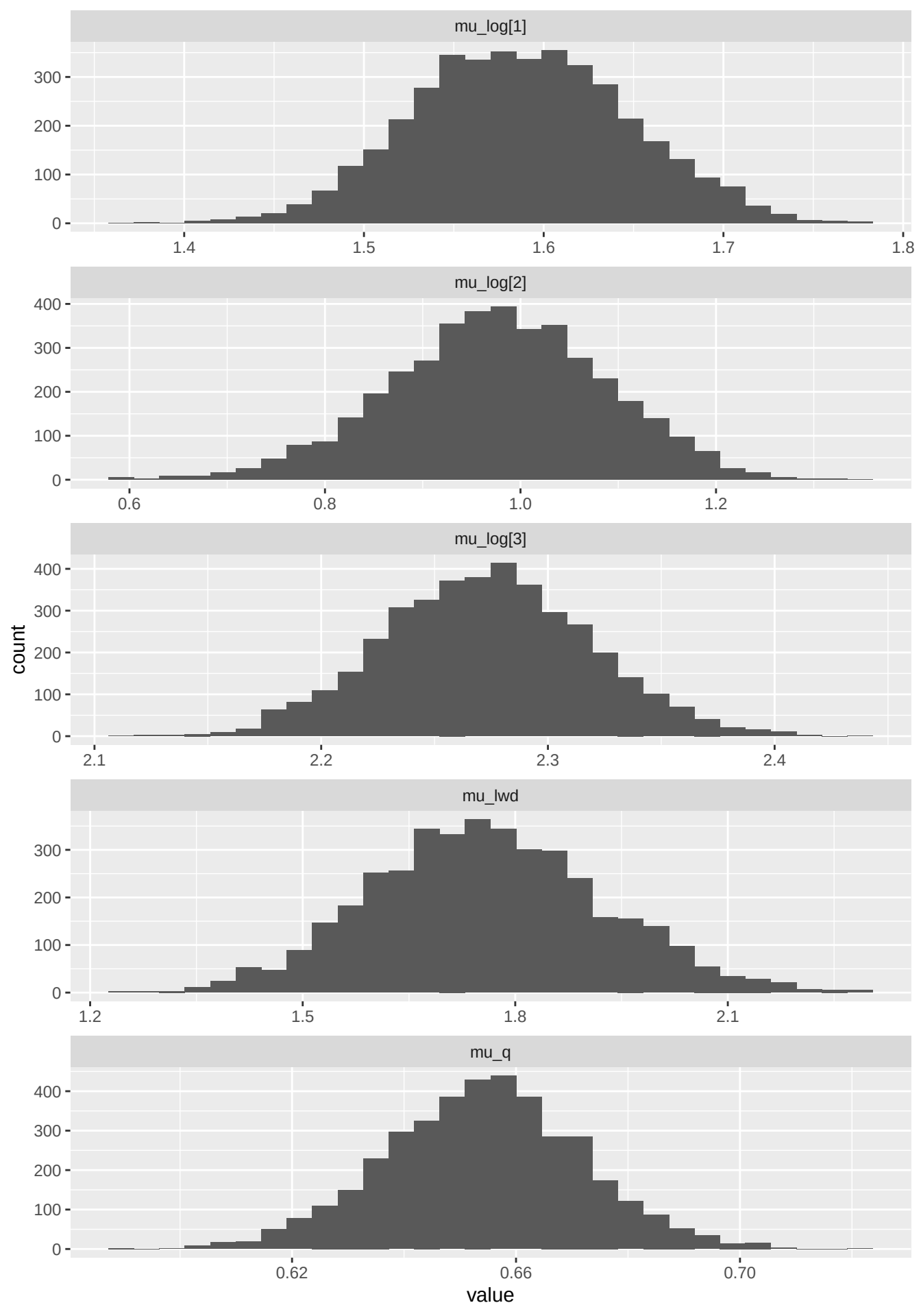
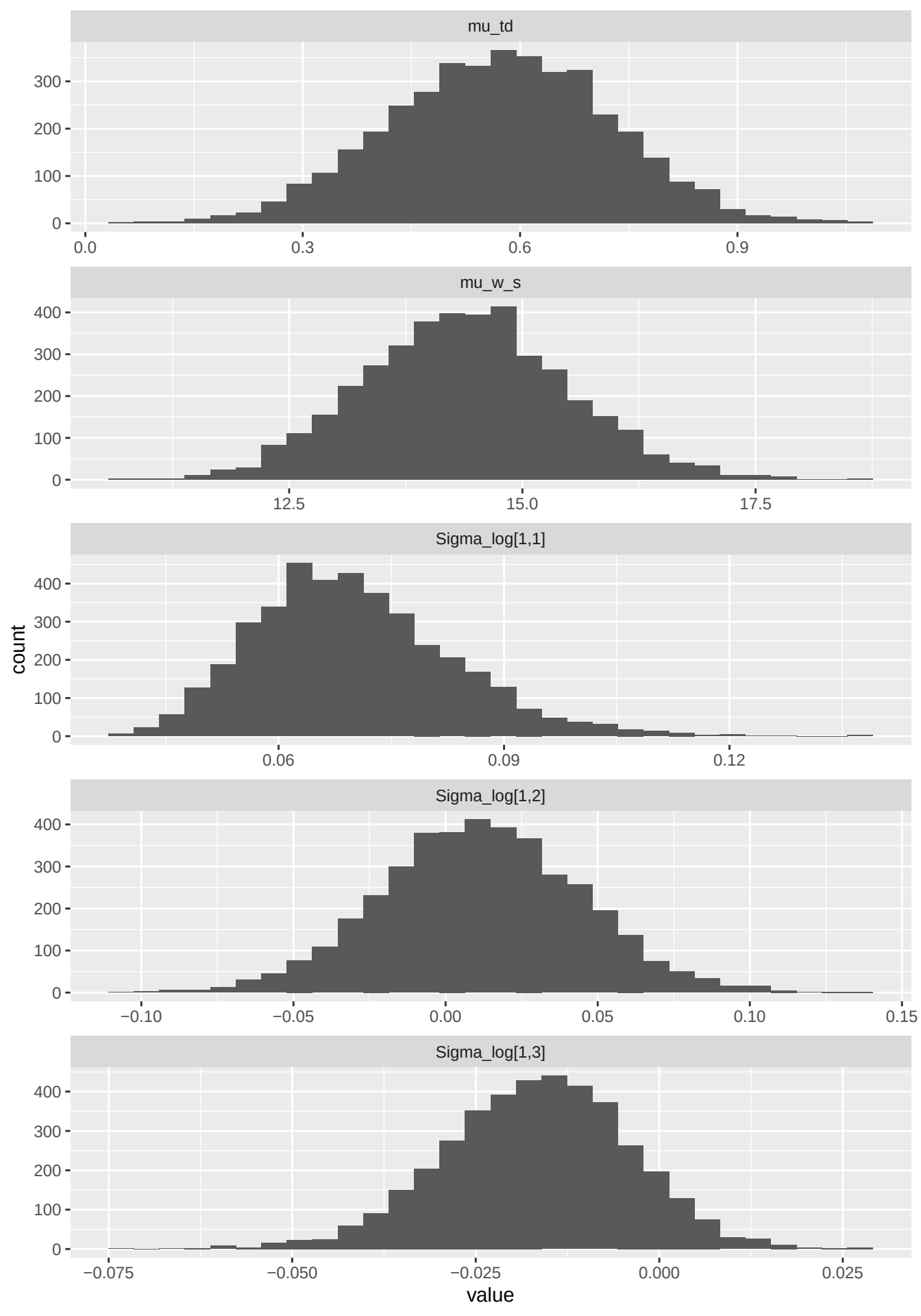
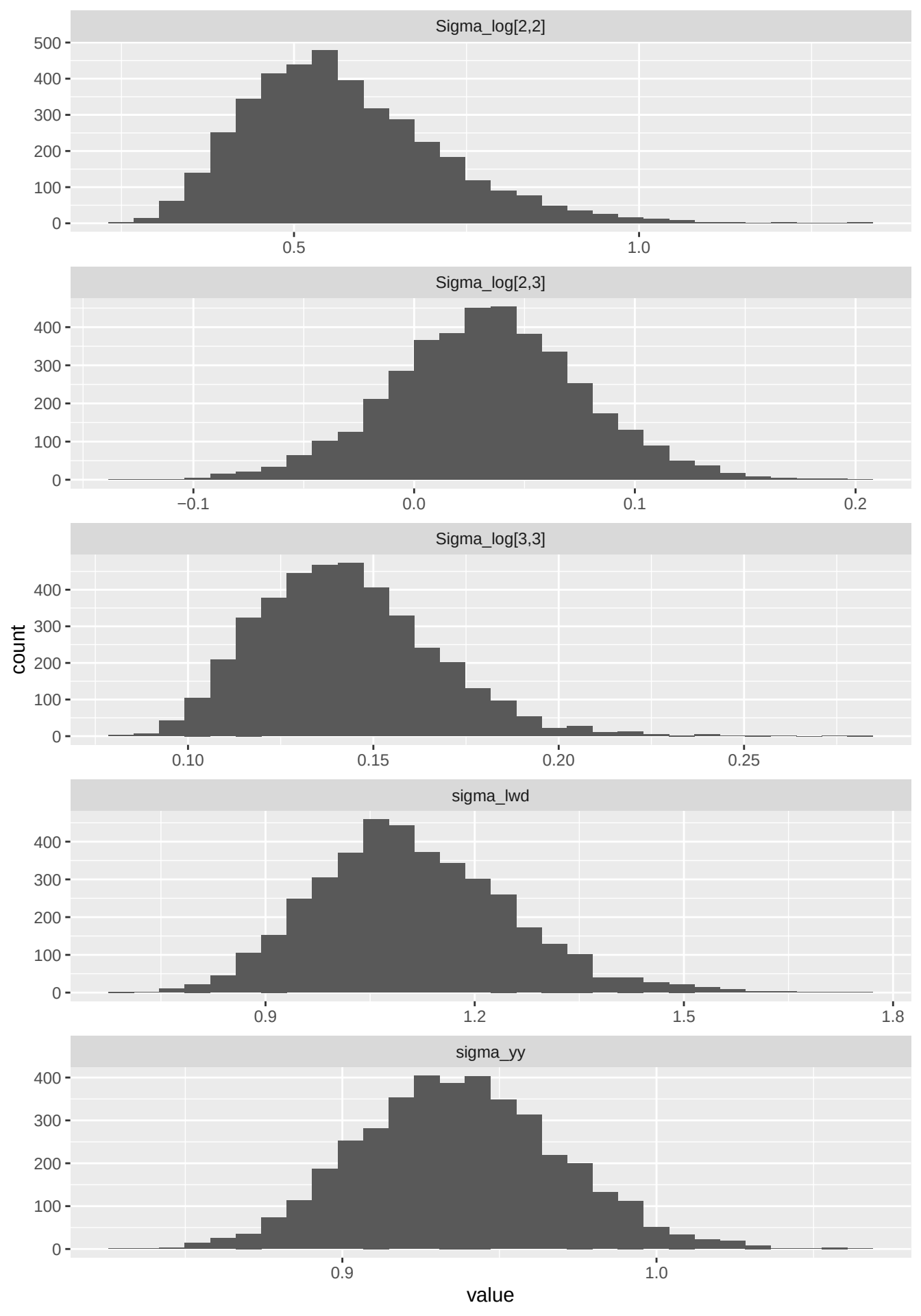

alpha0
alpha0_sg
alpha1
alpha1_sg
beta_C[1]
count
value

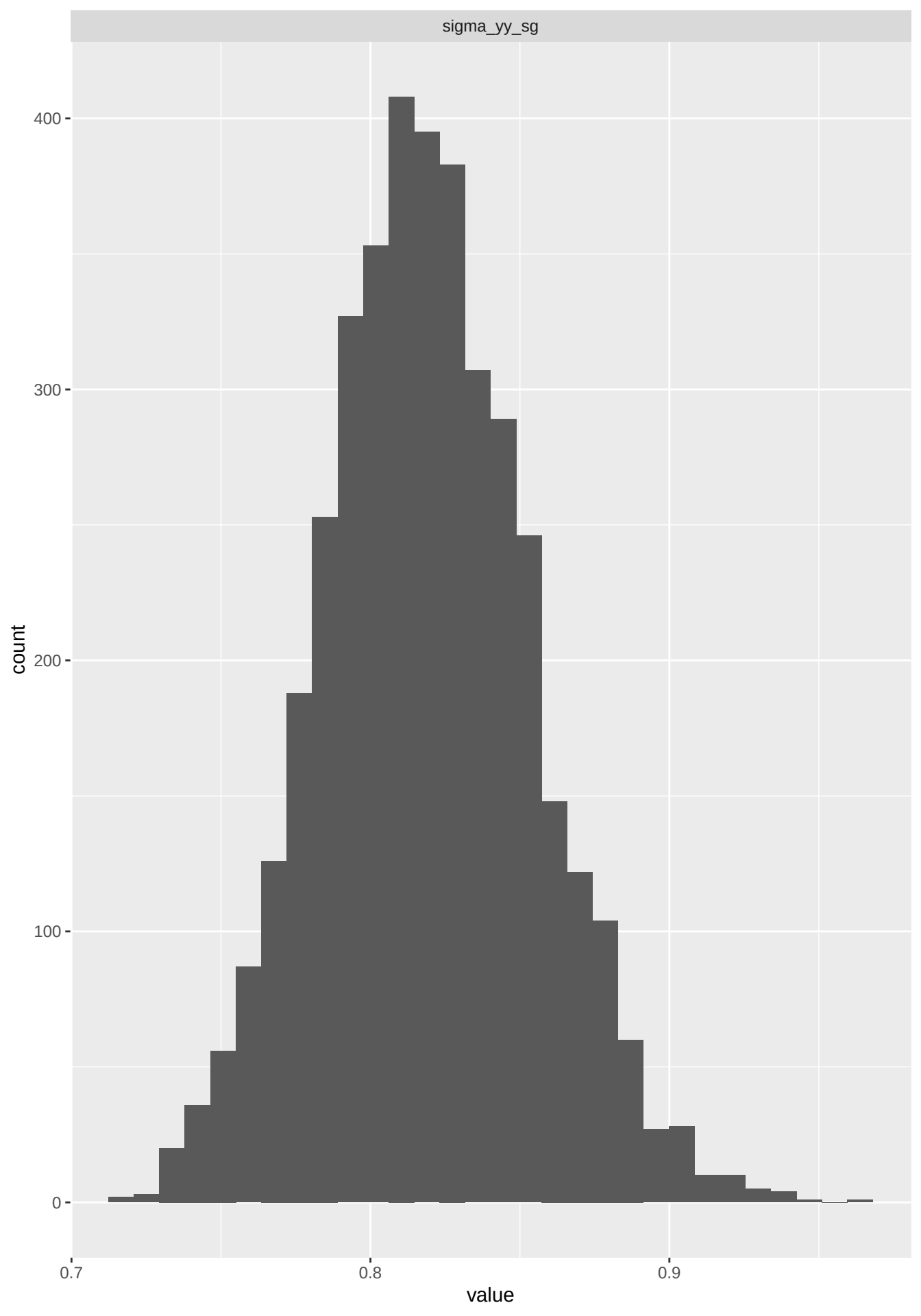

beta_C[2]
beta_vp[1]
beta_vp[2]
beta_vp[3]
beta_vp[4]
count
value

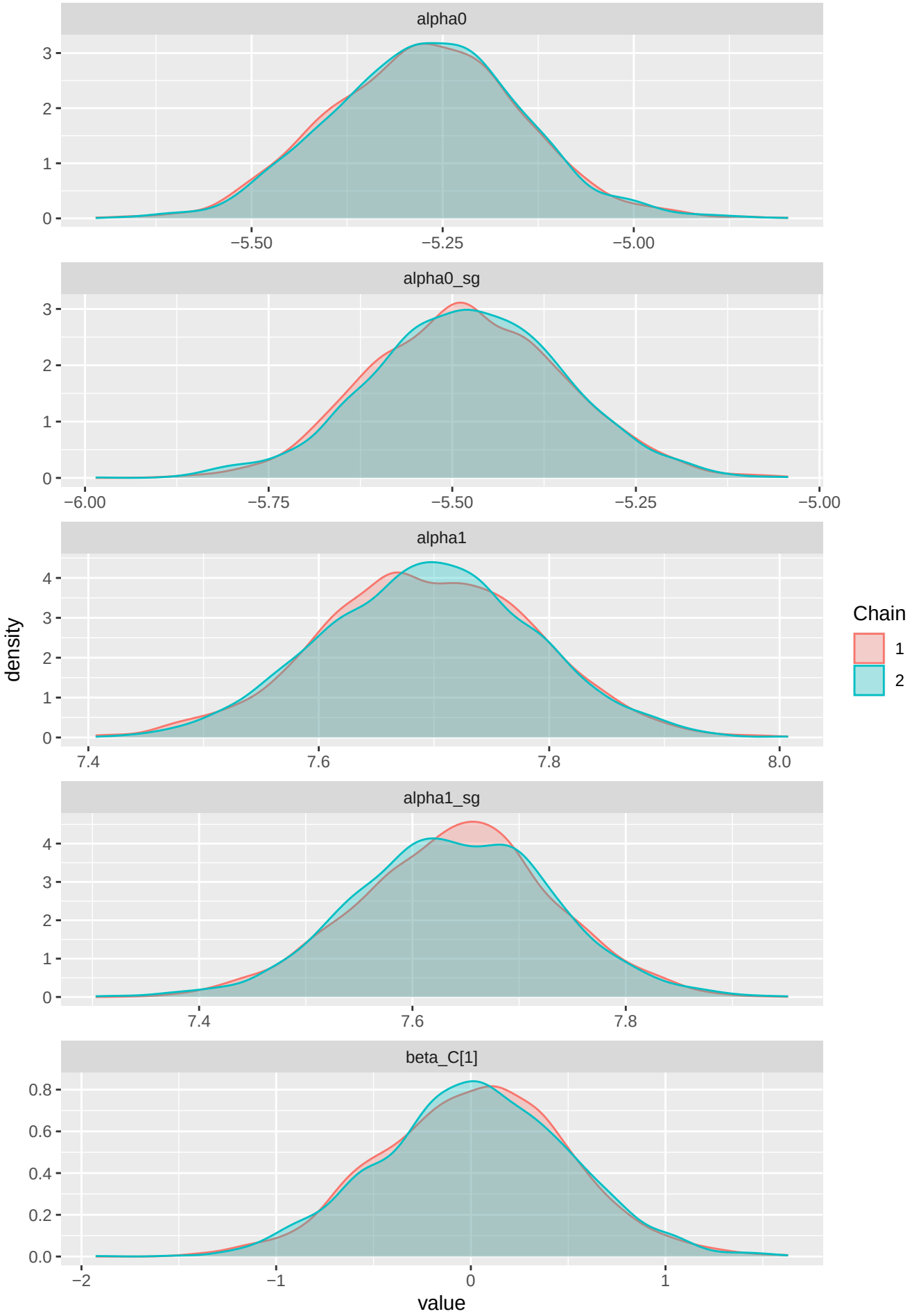

delta_Q
gamma_1
gamma_2
kappa_1
kappa_2
count
value
0
100
200
300
400
0.1
0.2
0.3
0.4
0.5
10
20
30
5
10
15
20
20
25
30
35
1.0
1.5
2.0
2.5

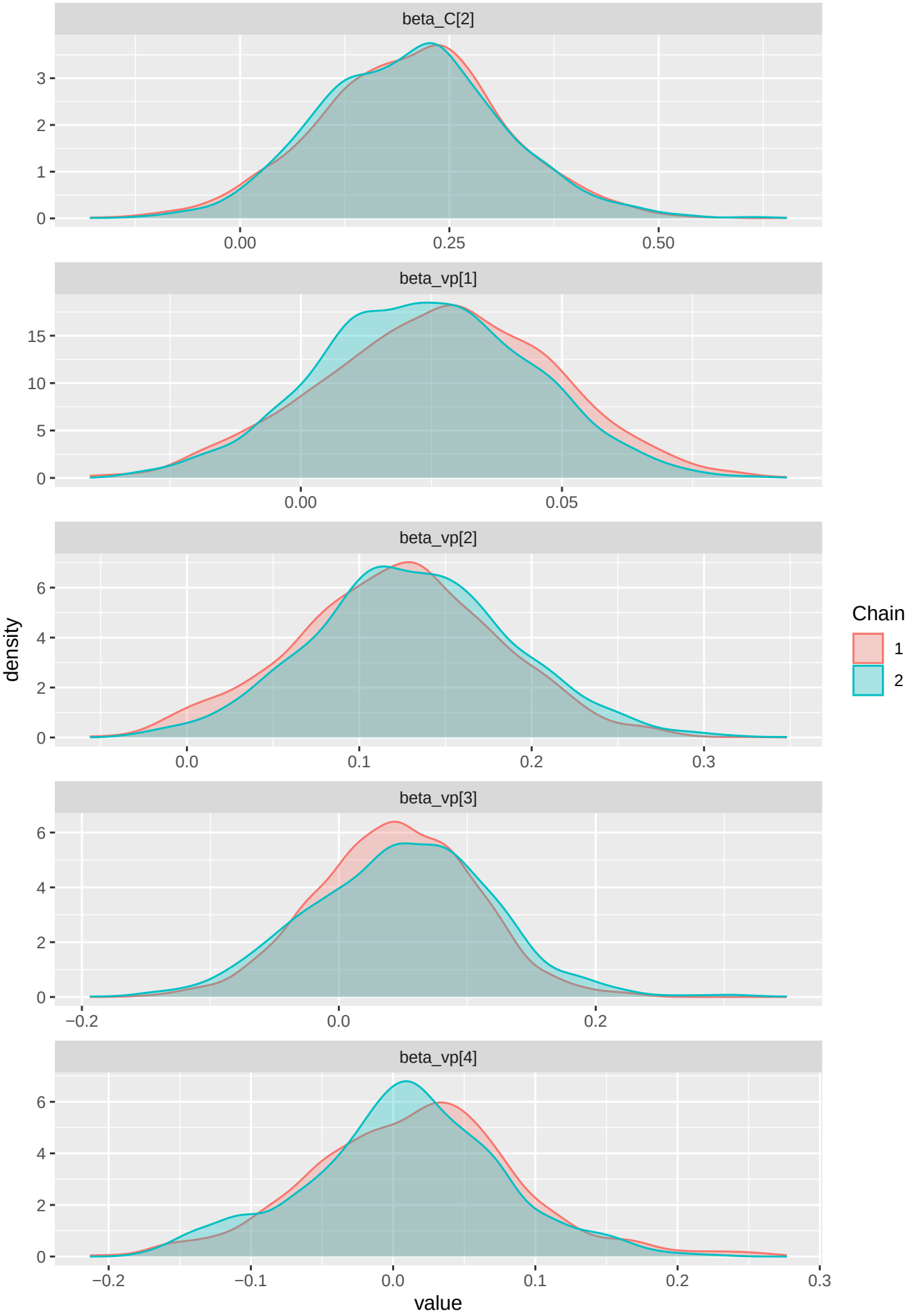

mu_log[1]
mu_log[2]
mu_log[3]
mu_lwd
mu_q
count
value

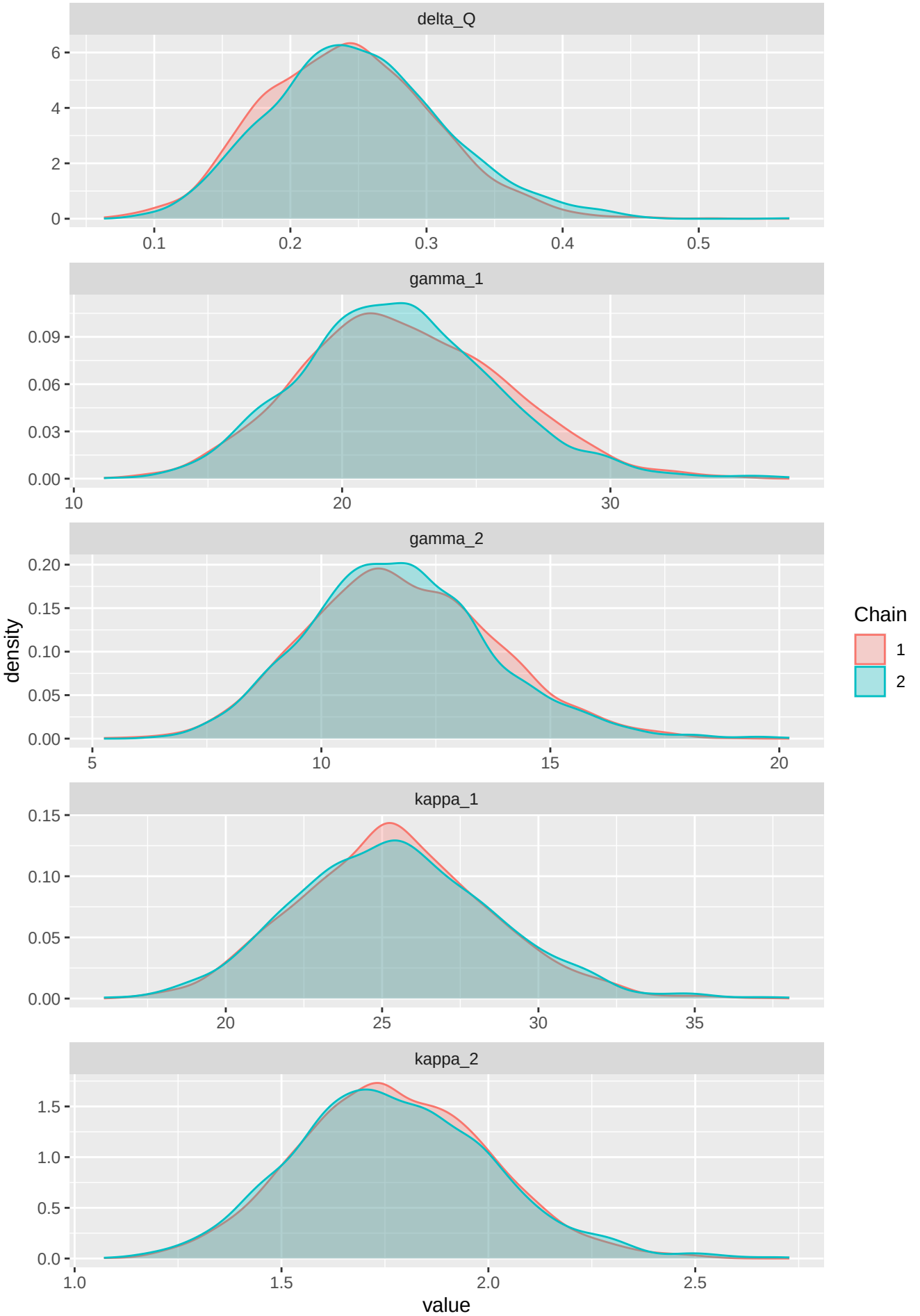

mu_td
mu_w_s
Sigma_log[1,1]
Sigma_log[1,2]
Sigma_log[1,3]
count
value

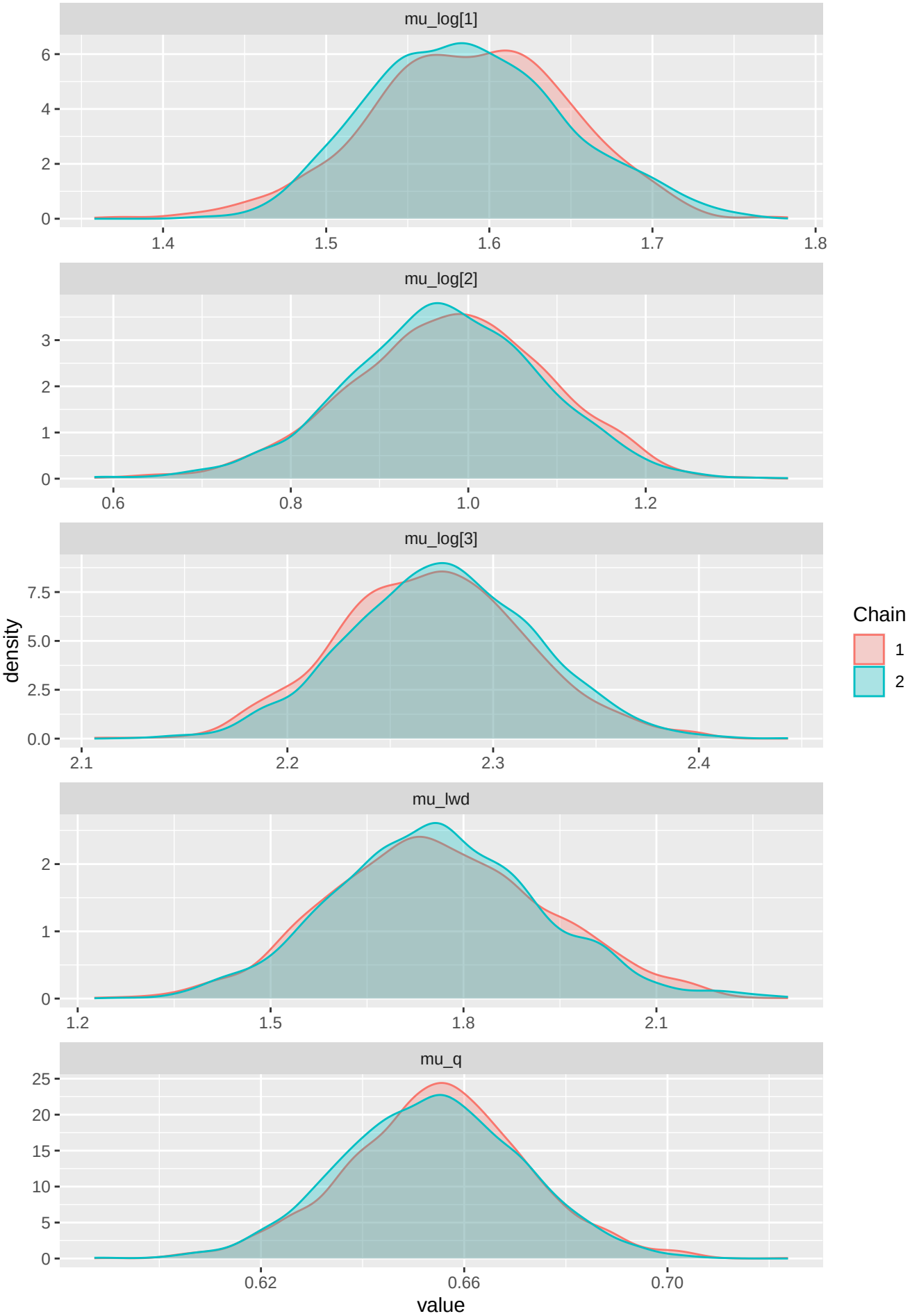

Sigma_log[2,2]
Sigma_log[2,3]
Sigma_log[3,3]
sigma_lwd
sigma_yy
count
value

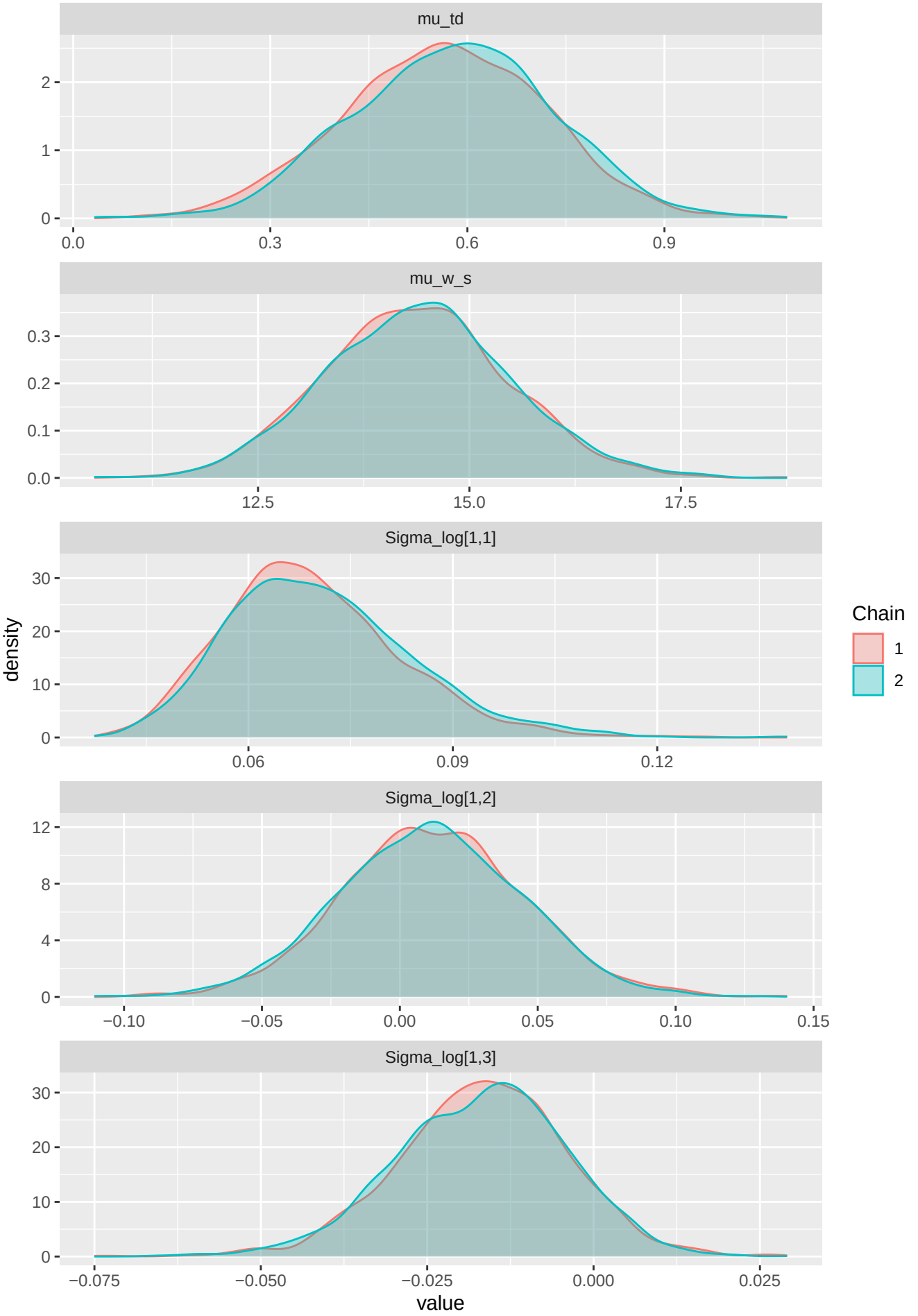

sigma_yy_sg
count
400
300
200
100
0
0.7
0.8
0.9
value

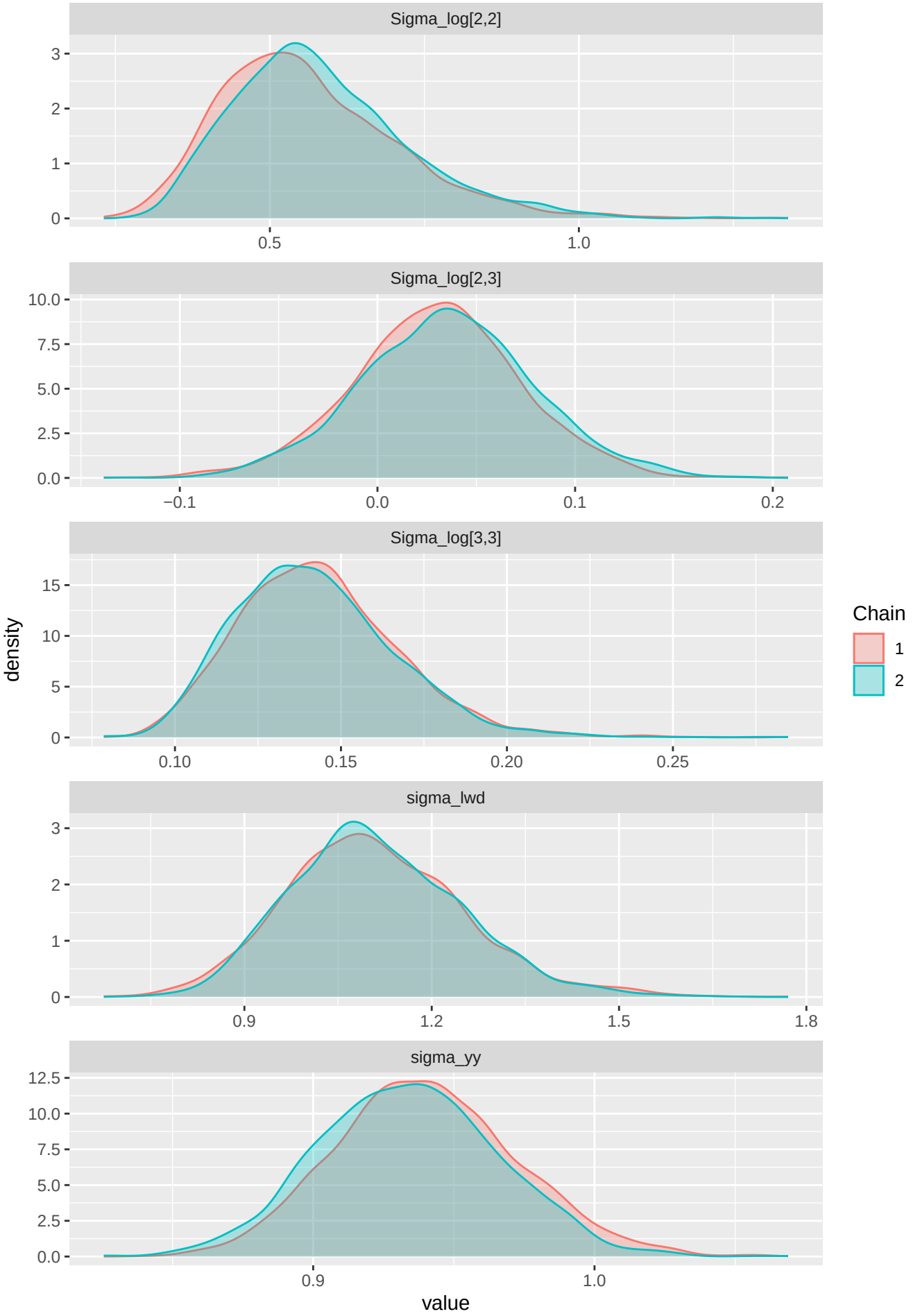

alpha0
alpha0_sg
alpha1
alpha1_sg
beta_C[1]
density
value
Chain
1
2


beta_C[2]
beta_vp[1]
beta_vp[2]
beta_vp[3]
beta_vp[4]
density
value
Chain
1
2

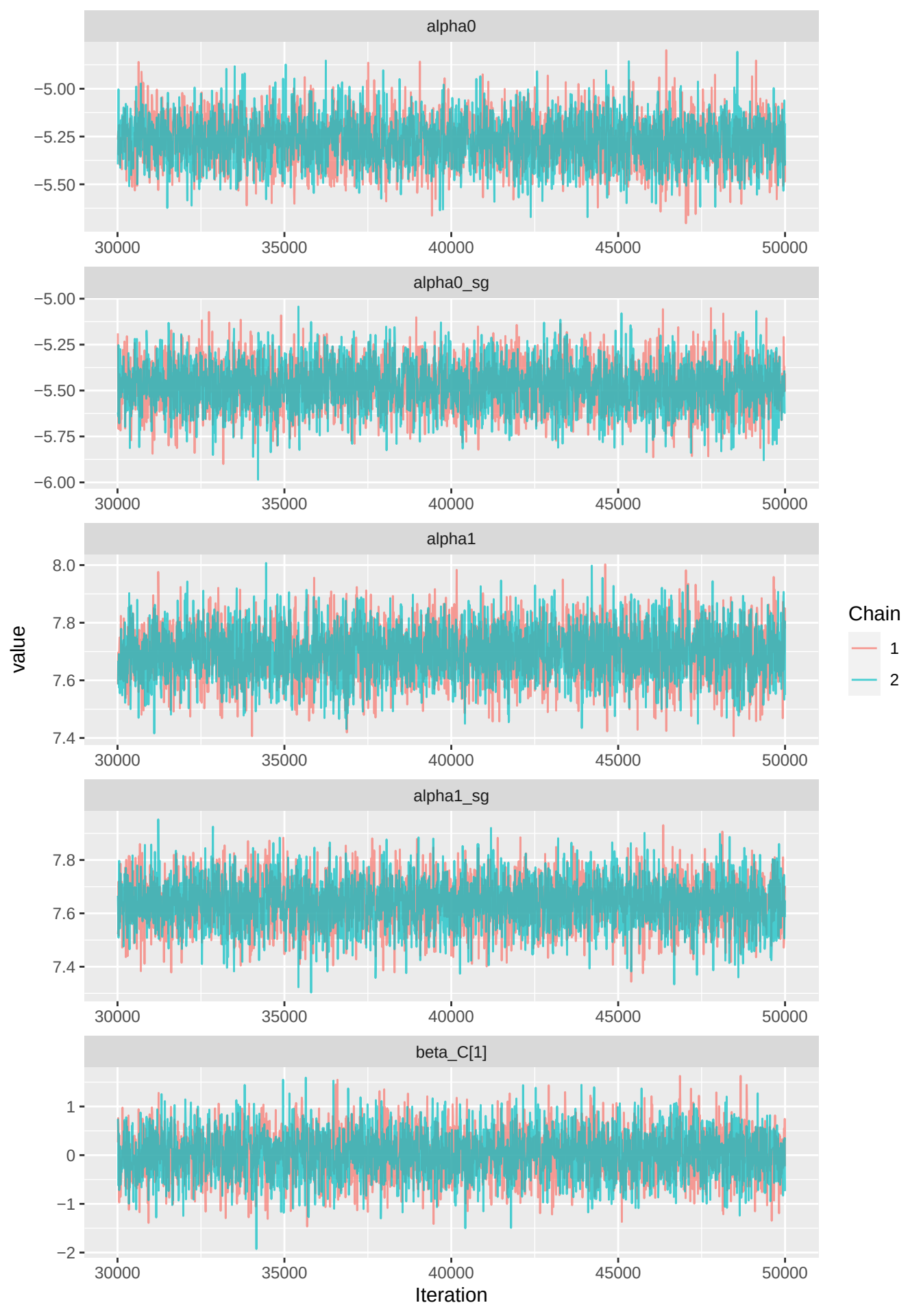

delta_Q
gamma_1
gamma_2
kappa_1
kappa_2
density
value
Chain
1
2


mu_log[1]
mu_log[2]
mu_log[3]
mu_lwd
mu_q
density
value
Chain
1
2

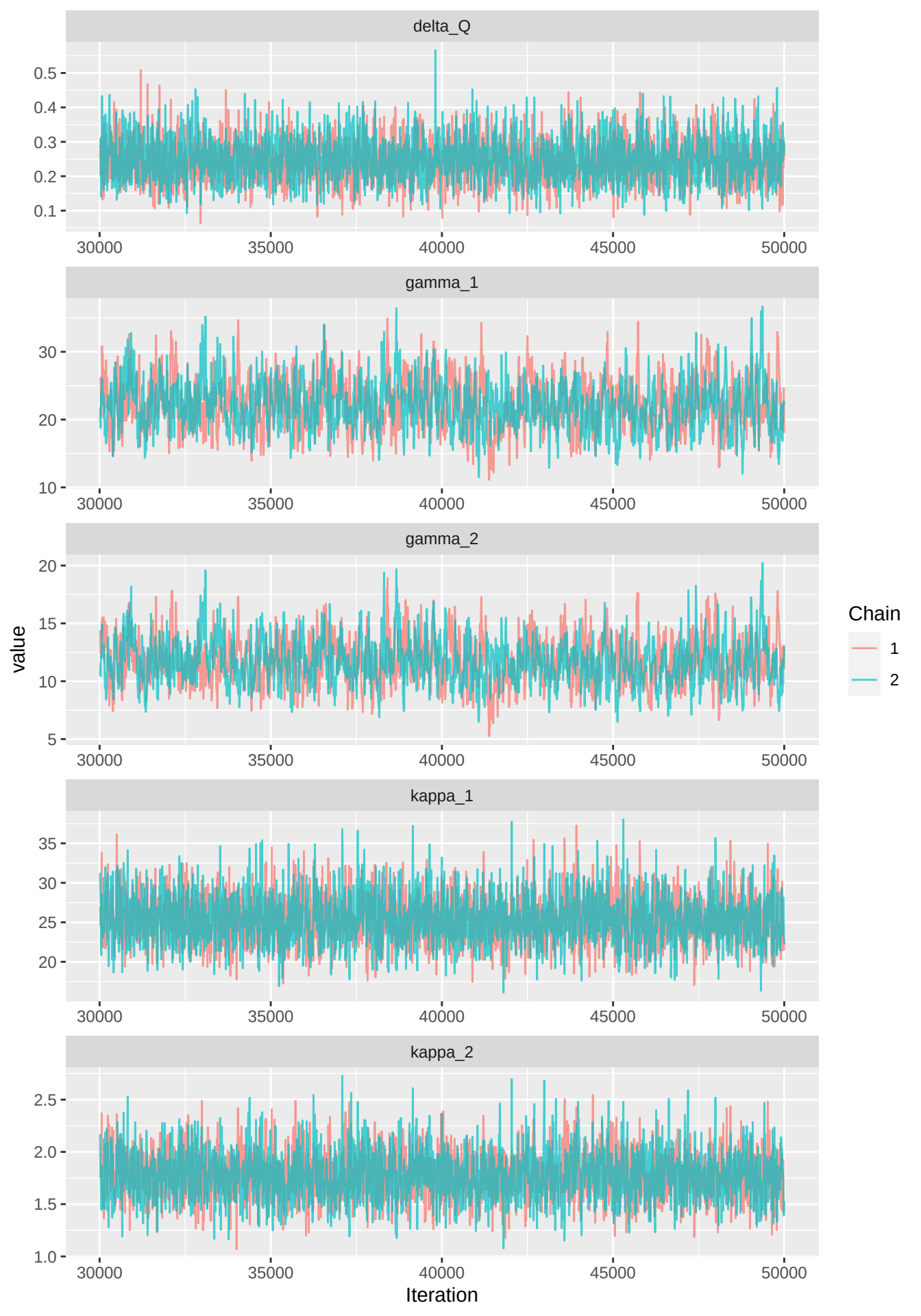

mu_td
mu_w_s
Sigma_log[1,1]
Sigma_log[1,2]
Sigma_log[1,3]
density
value
Chain
1
2

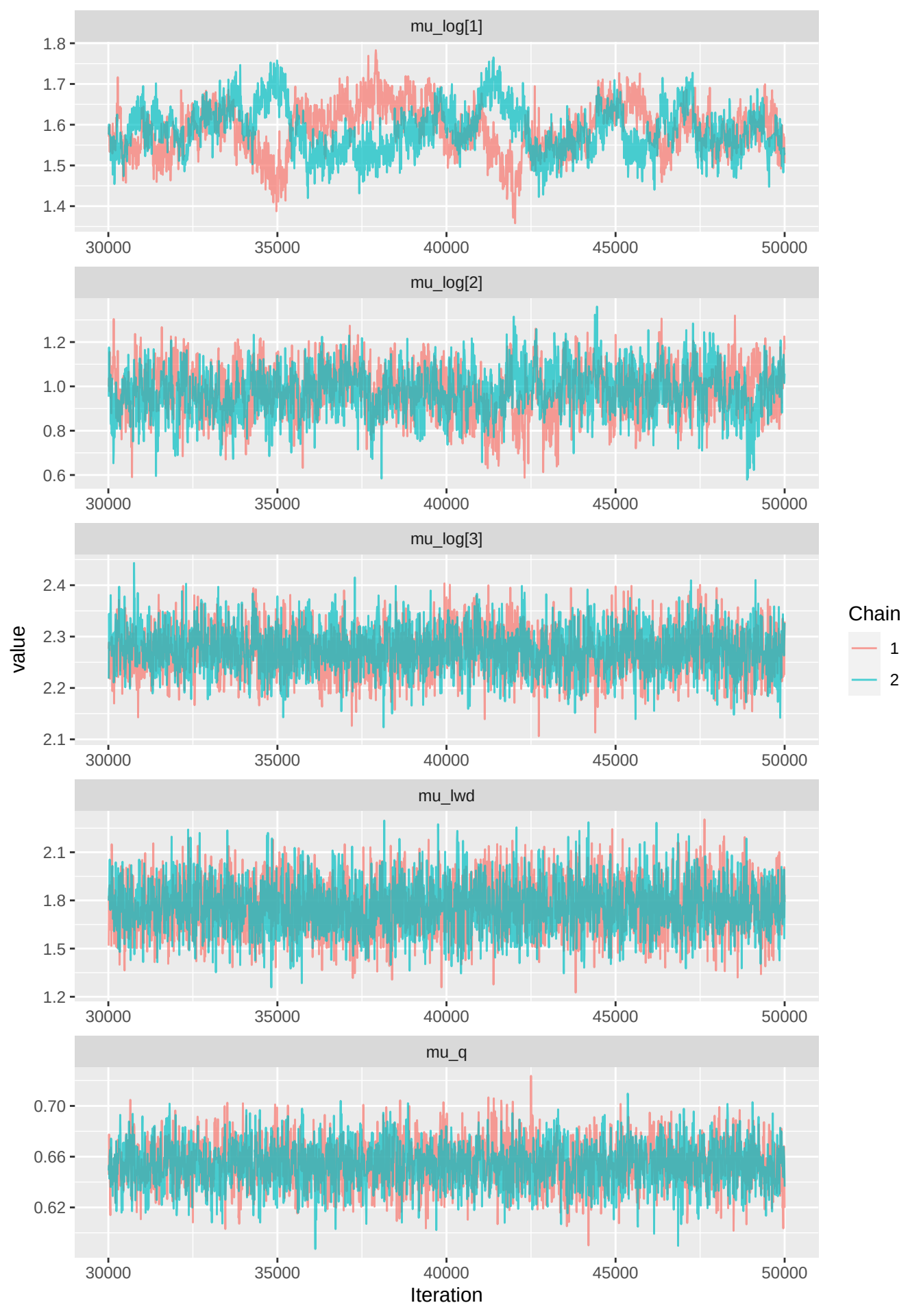

Sigma_log[2,2]
Sigma_log[2,3]
Sigma_log[3,3]
sigma_lwd
sigma_yy
density
value
Chain
1
2

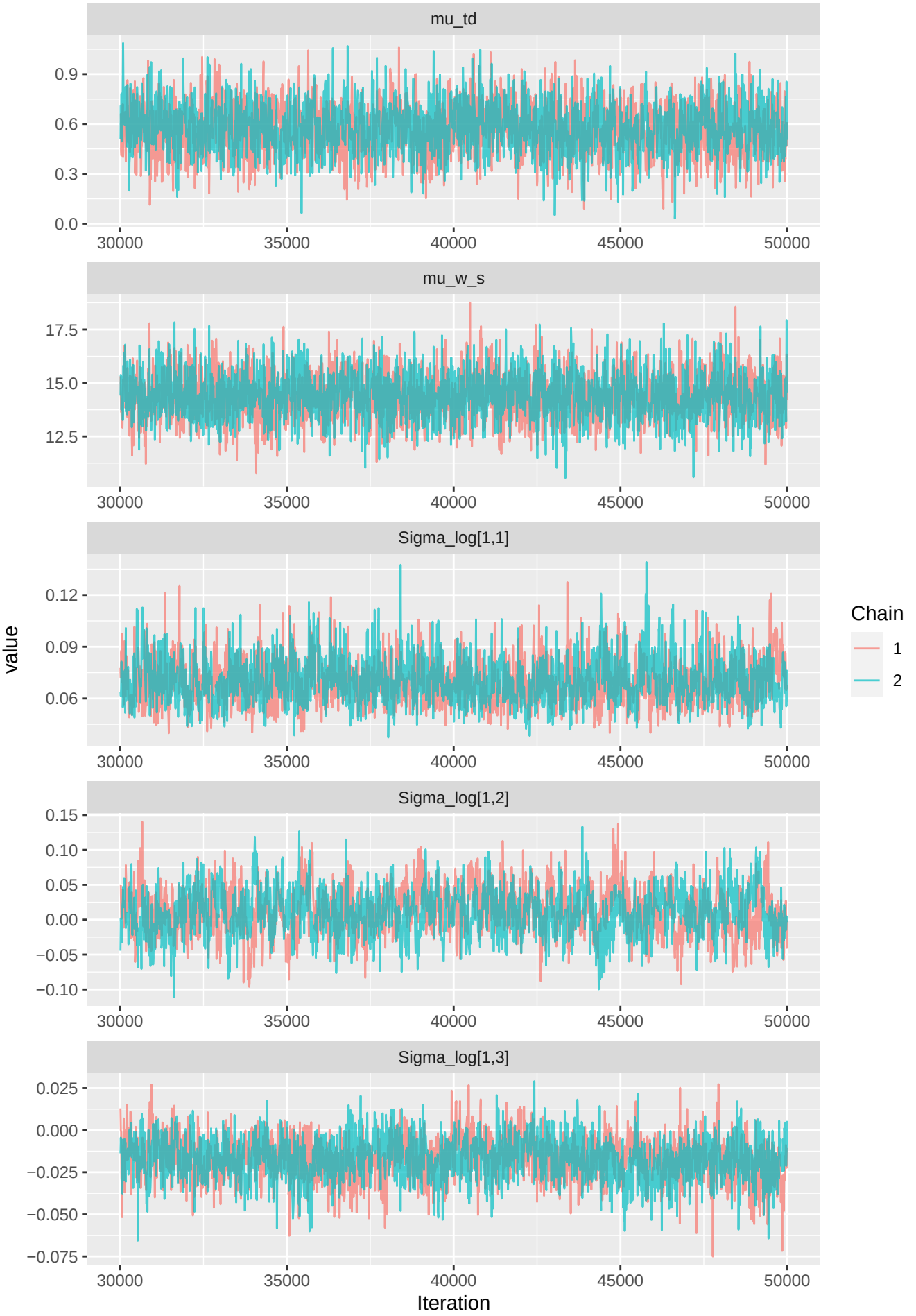
sigma_yy_sg
12.5
10.0
7.5
5.0
2.5
0.0
density
0.7
0.8
0.9
value
Chain
1
2

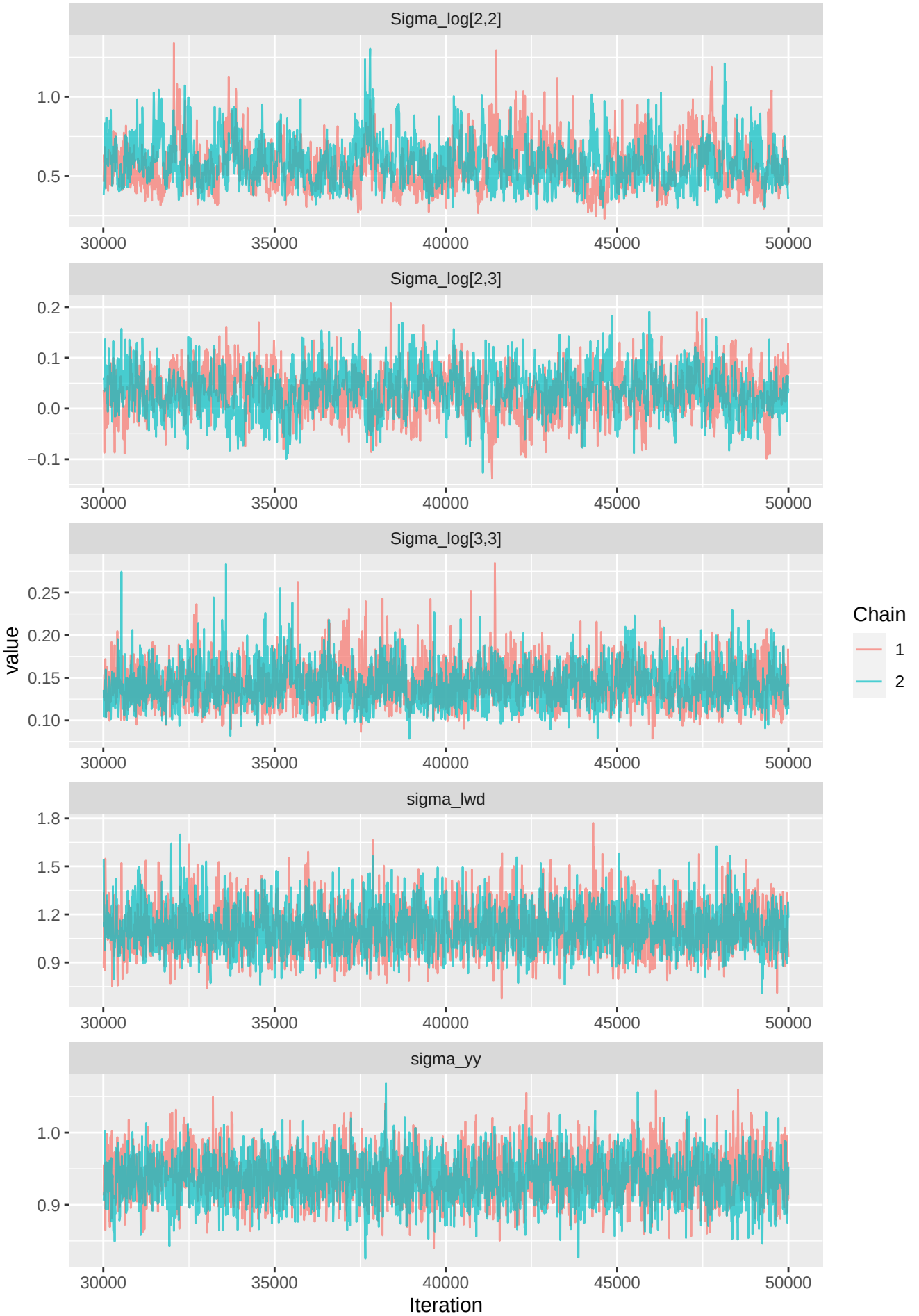

alpha0
−5.00
−5.25
−5.50
30000
35000
40000
45000
50000
alpha0_sg
−5.00
−5.25
−5.50
−5.75
−6.00
alpha1
8.0
7.8
7.6
7.4
alpha1_sg
beta_C[1]
1
0
−1
−2
value
Iteration
Chain
1
2

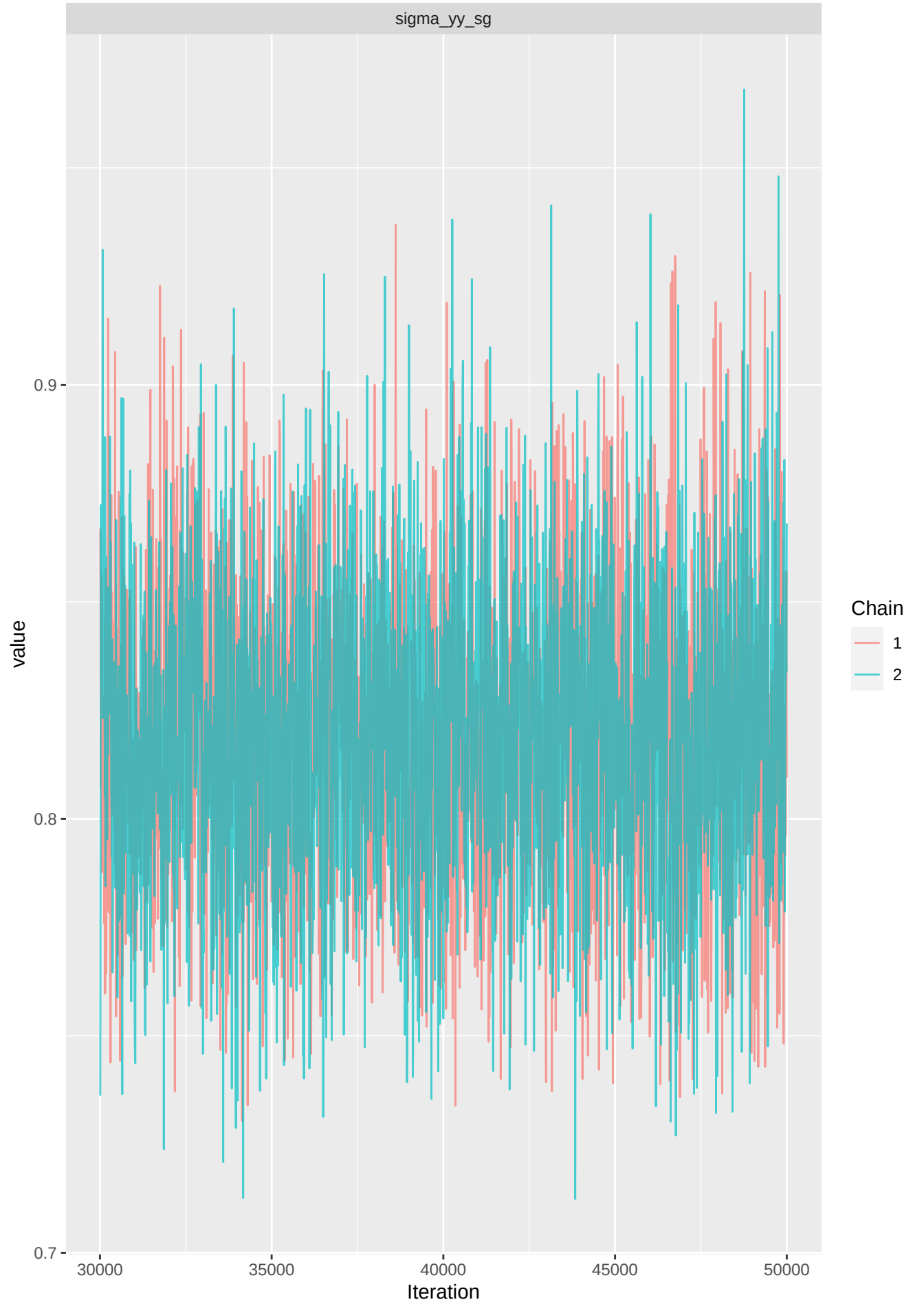
beta_C[2]
beta_vp[1]
beta_vp[2]
beta_vp[3]
beta_vp[4]
value
Iteration
Chain
1
2

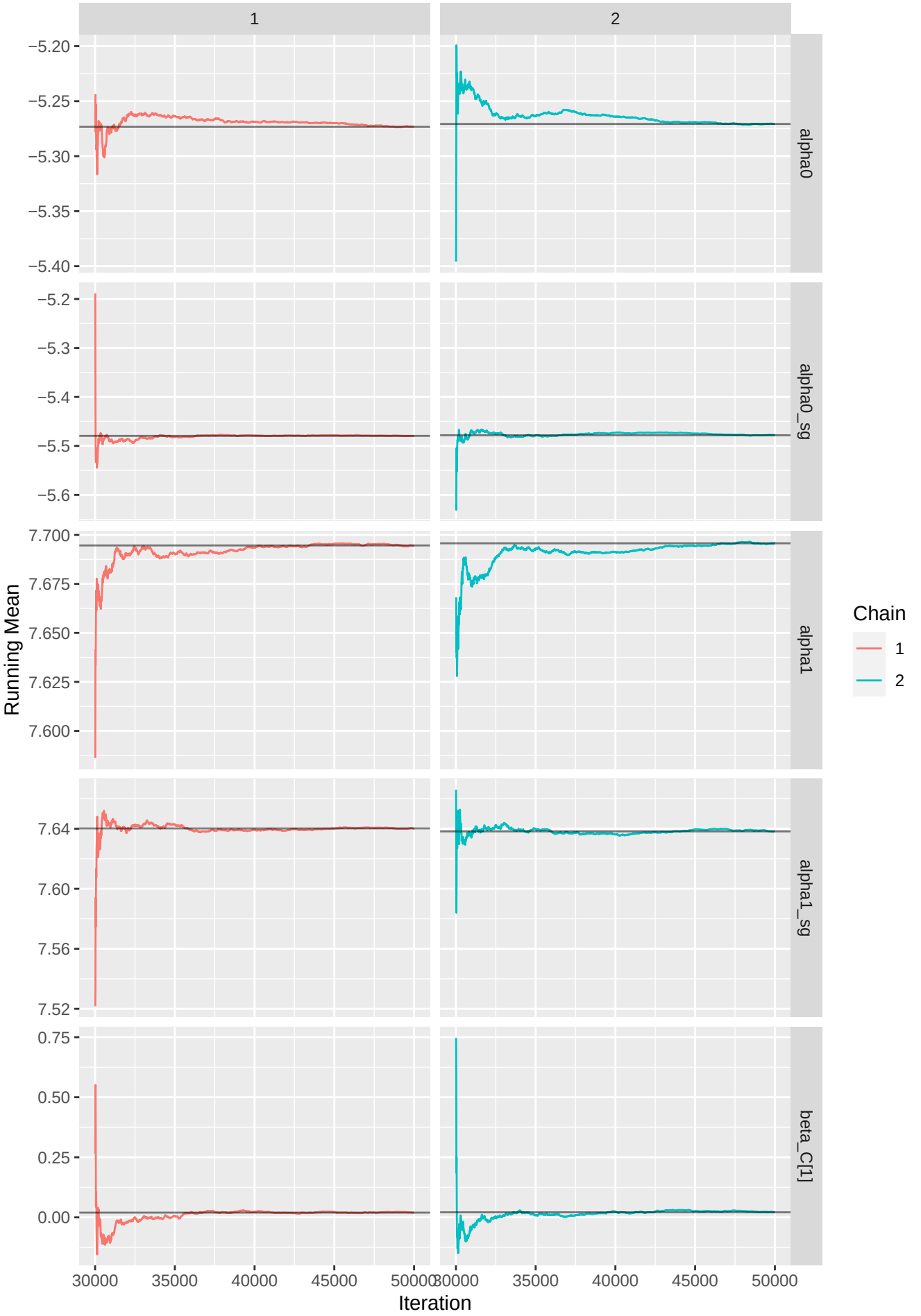

delta_Q
gamma_1
gamma_2
kappa_1
kappa_2
value
Iteration
Chain
1
2

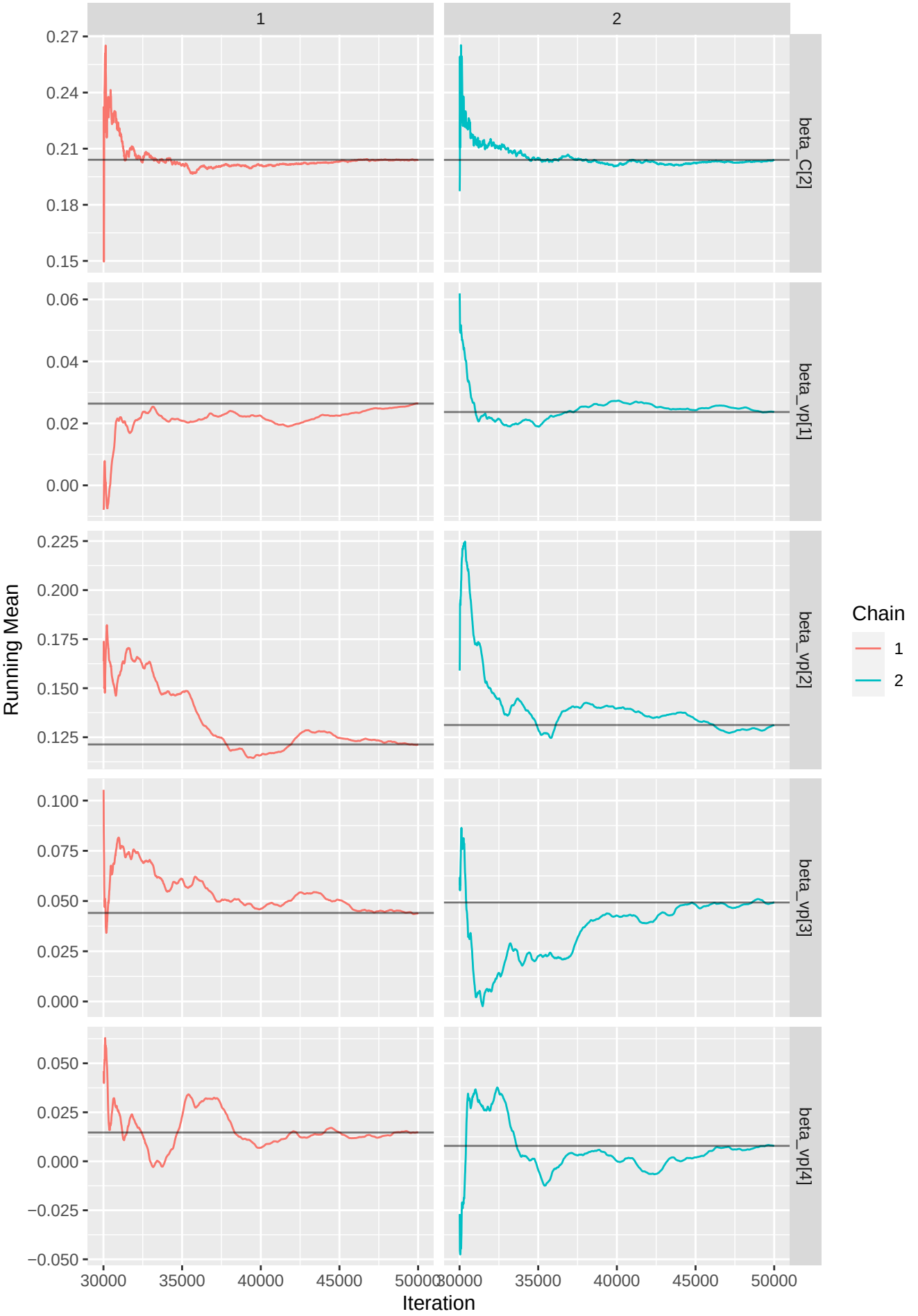

mu_log[1]
1.8
1.7
1.6
1.5
1.4
30000
35000
40000
45000
50000
mu_log[2]
1.2
1.0
0.8
0.6
30000
35000
40000
45000
50000
mu_log[3]
2.4
2.3
2.2
2.1
30000
35000
40000
45000
50000
mu_lwd
2.1
1.8
1.5
1.2
30000
35000
40000
45000
50000
mu_q
0.70
0.66
0.62
30000
35000
40000
45000
50000
value
Iteration
Chain
1
2

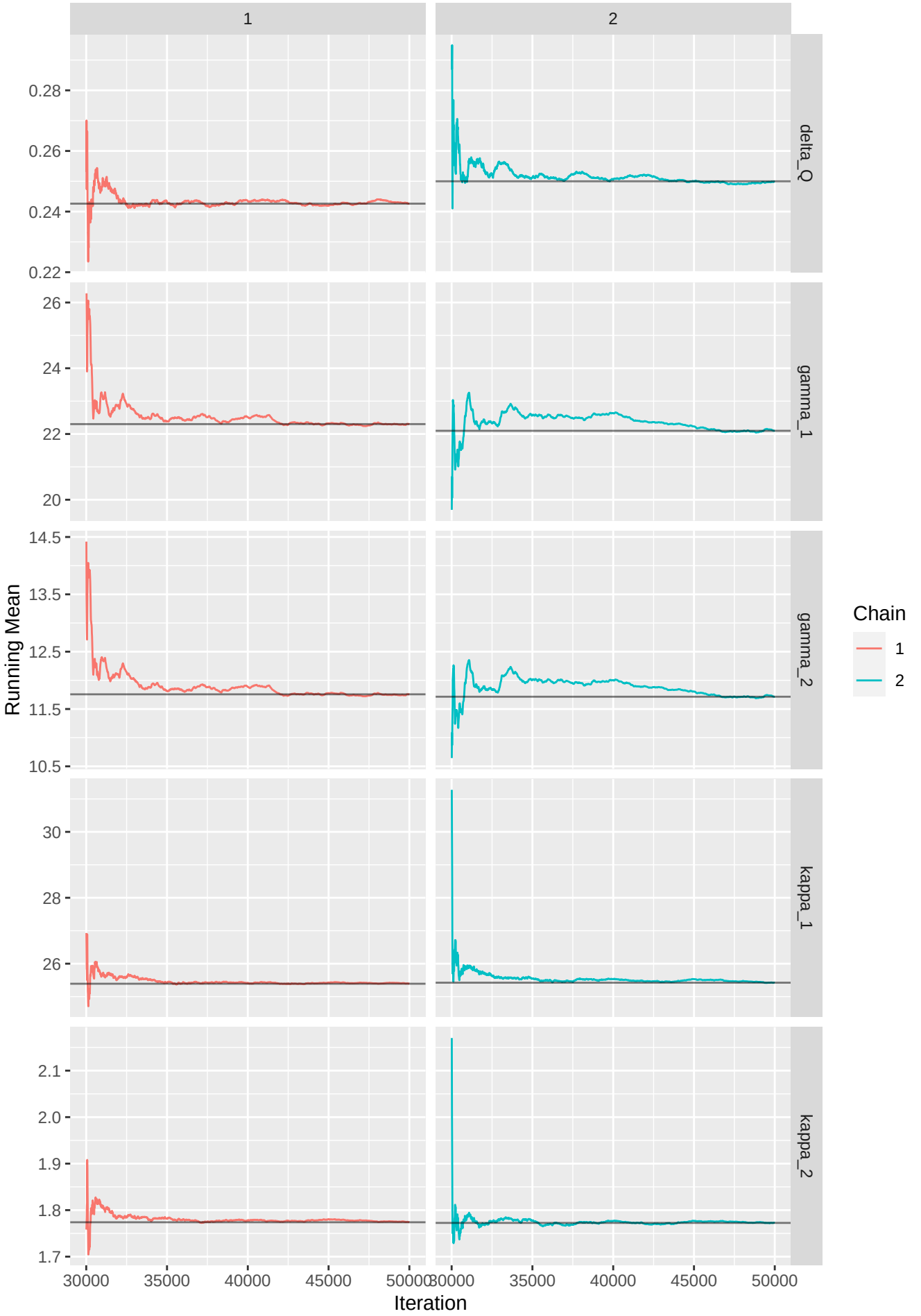

mu_td
0.9
0.6
0.3
0.0
30000
35000
40000
45000
50000
mu_w_s
17.5
15.0
12.5
Sigma_log[1,1]
0.12
0.09
0.06
Sigma_log[1,2]
0.15
0.10
0.05
0.00
−0.05
−0.10
Sigma_log[1,3]
0.025
0.000
−0.025
−0.050
−0.075
value
Iteration
Chain
1
2

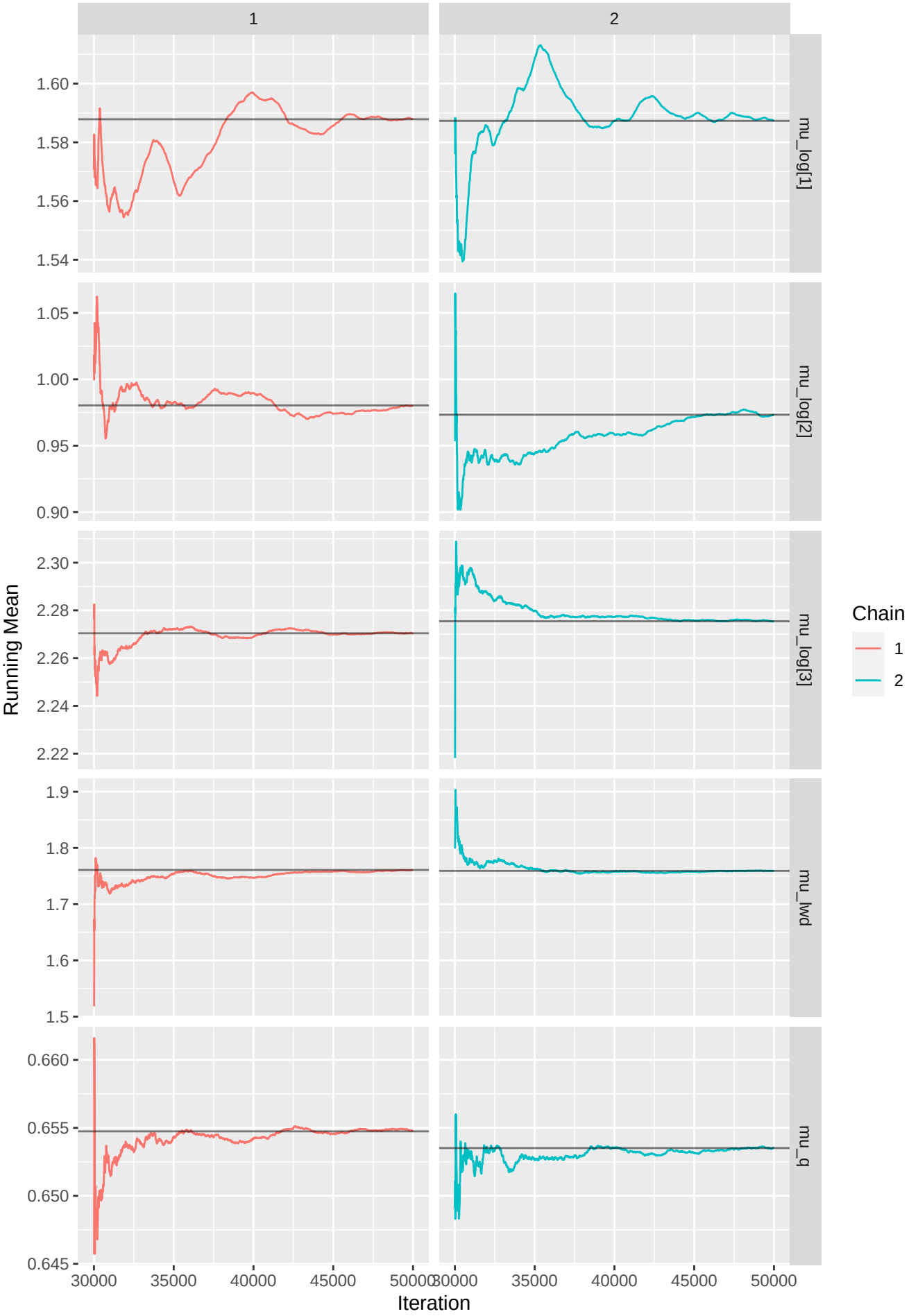

Sigma_log[2,2]
1.0
0.5
30000
35000
40000
45000
50000
Sigma_log[2,3]
0.2
0.1
0.0
−0.1
30000
35000
40000
45000
50000
Sigma_log[3,3]
0.25
0.20
0.15
0.10
30000
35000
40000
45000
50000
sigma_lwd
1.8
1.5
1.2
0.9
30000
35000
40000
45000
50000
sigma_yy
1.0
0.9
30000
35000
40000
45000
50000
value
Iteration
Chain
1
2

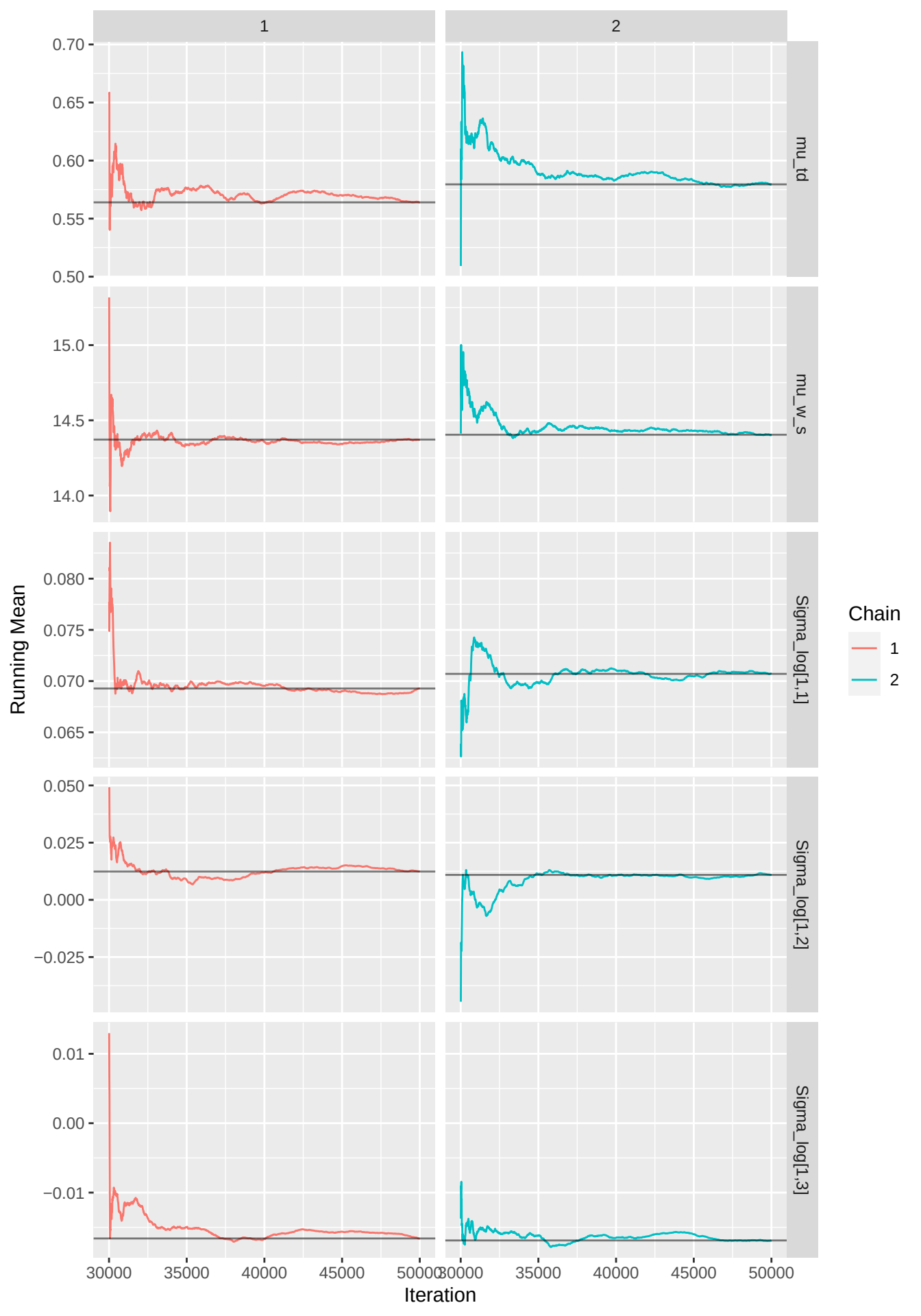

sigma_yy_sg
0.9
0.8
0.7
value
30000
35000
40000
45000
50000
Iteration
Chain
1
2

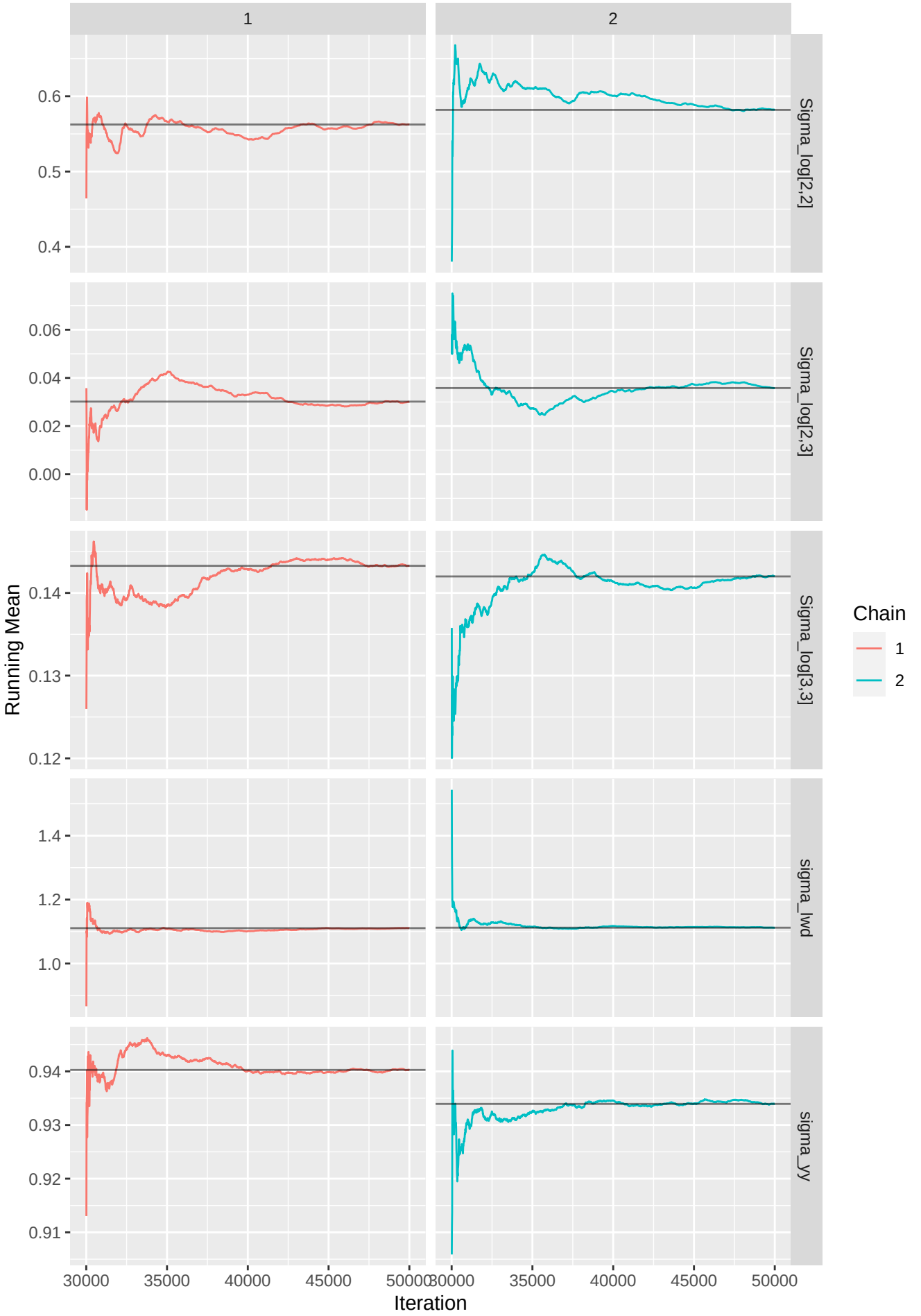

1
2
alpha0
alpha0_sg
alpha1
alpha1_sg
beta_C[1]
Running Mean
Iteration
Chain
1
2
−5.20
−5.25
−5.30
−5.35
−5.40
−5.2
−5.3
−5.4
−5.5
−5.6
7.700
7.675
7.650
7.625
7.600
7.64
7.60
7.56
7.52
0.75
0.50
0.25
0.00
30000
35000
40000
45000
50000

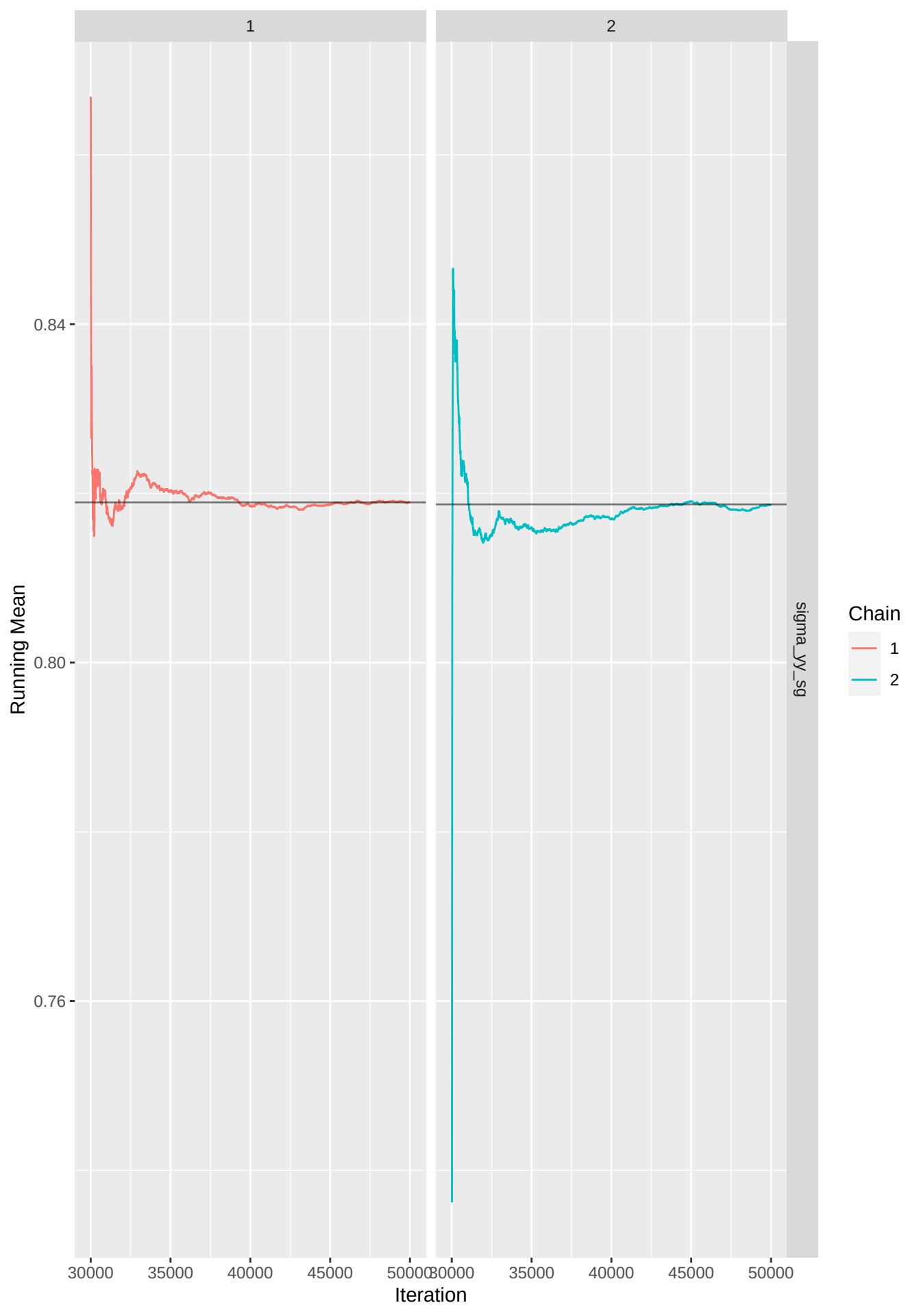

1
2
beta_C[2]
beta_vp[1]
beta_vp[2]
beta_vp[3]
beta_vp[4]
Running Mean
Iteration
Chain
1
2
0.27
0.24
0.21
0.18
0.15
0.06
0.04
0.02
0.00
0.225
0.200
0.175
0.150
0.125
0.100
0.075
0.050
0.025
0.000
−0.025
−0.050
30000
35000
40000
45000
50000

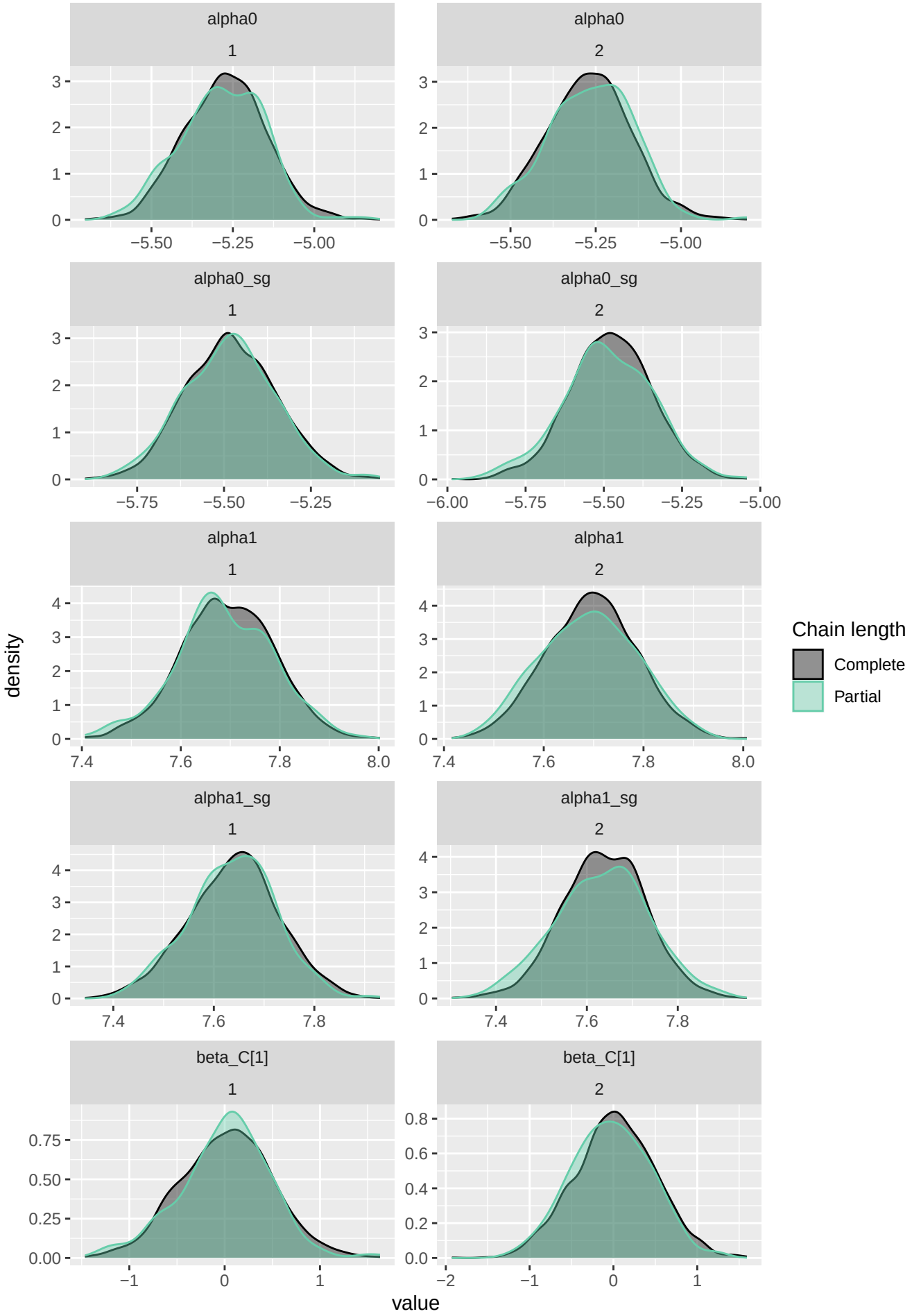

1
2
delta_Q
gamma_1
gamma_2
kappa_1
kappa_2
Running Mean
Iteration
Chain
1
2
0.28
0.26
0.24
0.22
26
24
22
20
14.5
13.5
12.5
11.5
10.5
30
28
26
2.1
2.0
1.9
1.8
1.7
30000
35000
40000
45000
50000

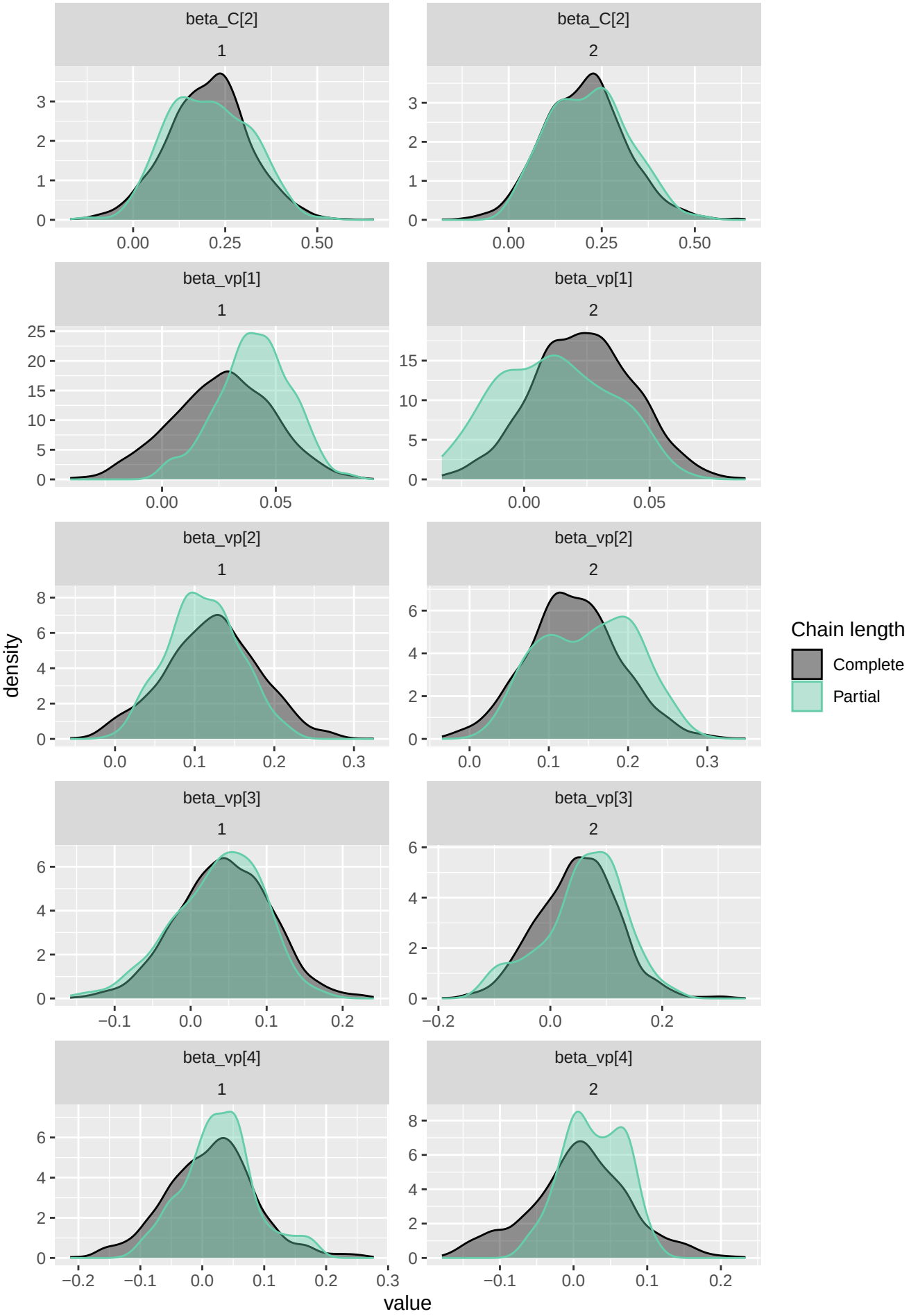

1
2
mu_log[1]
mu_log[2]
mu_log[3]
mu_lwd
mu_q
1.60
1.58
1.56
1.54
1.05
1.00
0.95
0.90
2.30
2.28
2.26
2.24
2.22
1.9
1.8
1.7
1.6
1.5
0.660
0.655
0.650
0.645
30000
35000
40000
45000
50000
Running Mean
Iteration
Chain
1
2

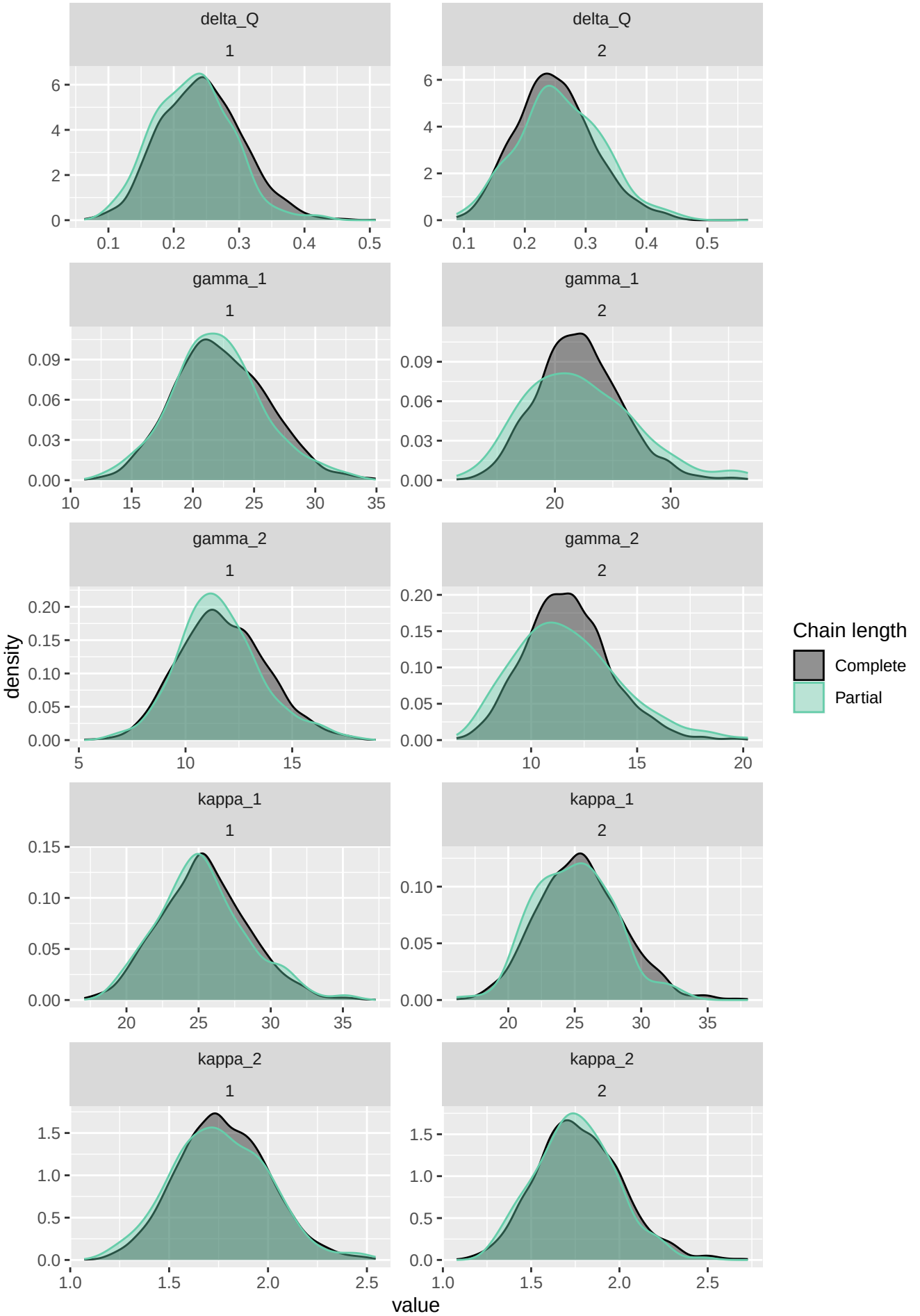

1
2
mu_td
mu_w_s
Sigma_log[1,1]
Sigma_log[1,2]
Sigma_log[1,3]
Running Mean
Iteration
Chain
1
2
0.70
0.65
0.60
0.55
0.50
15.0
14.5
14.0
0.080
0.075
0.070
0.065
0.050
0.025
0.000
−0.025
0.01
0.00
−0.01
30000
35000
40000
45000
50000

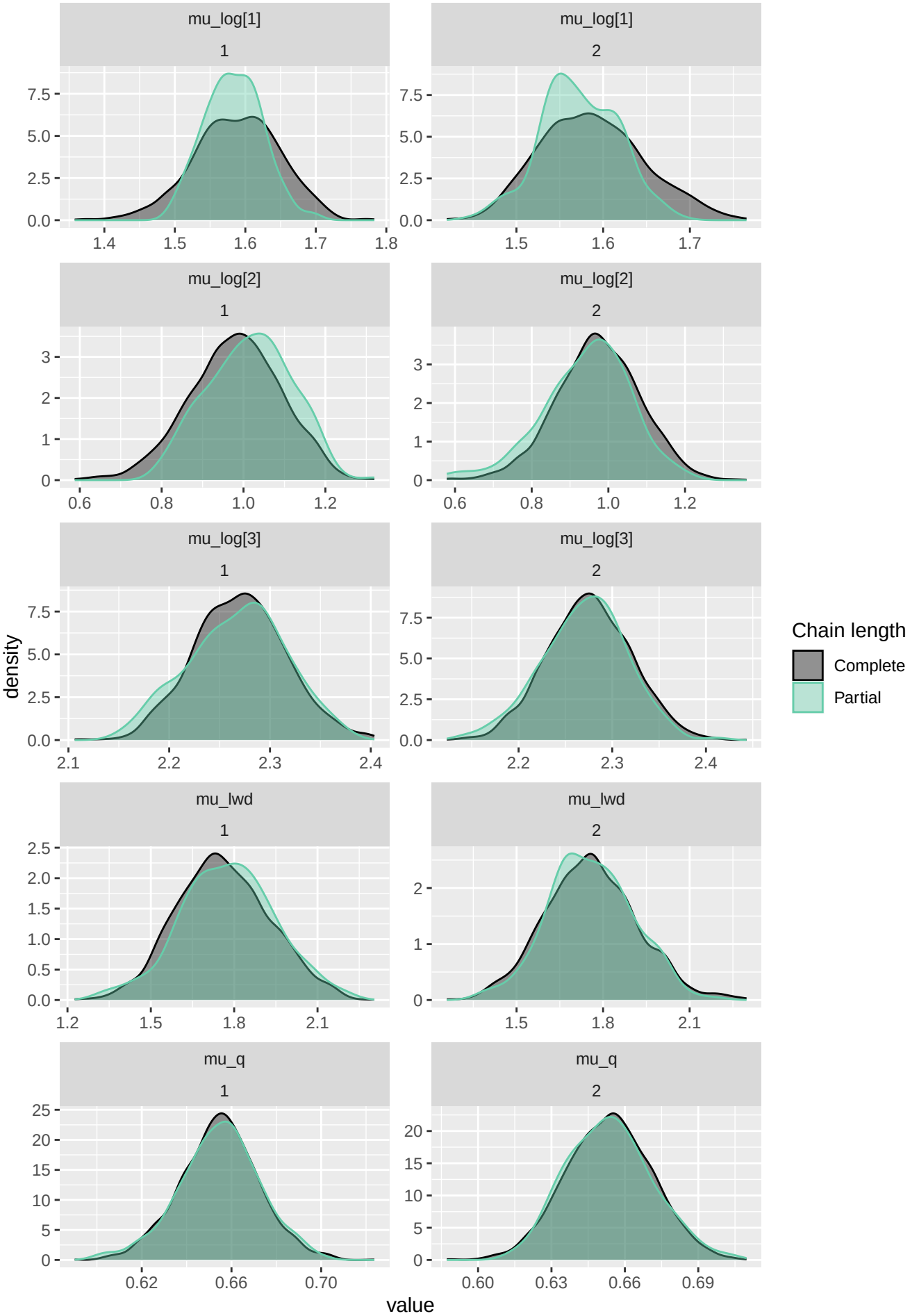

1
2
Sigma_log[2,2]
Sigma_log[2,3]
Sigma_log[3,3]
sigma_lwd
sigma_yy
Running Mean
Iteration
Chain
1
2
0.6
0.5
0.4
0.06
0.04
0.02
0.00
0.14
0.13
0.12
1.4
1.2
1.0
0.94
0.93
0.92
0.91
30000
35000
40000
45000
50000

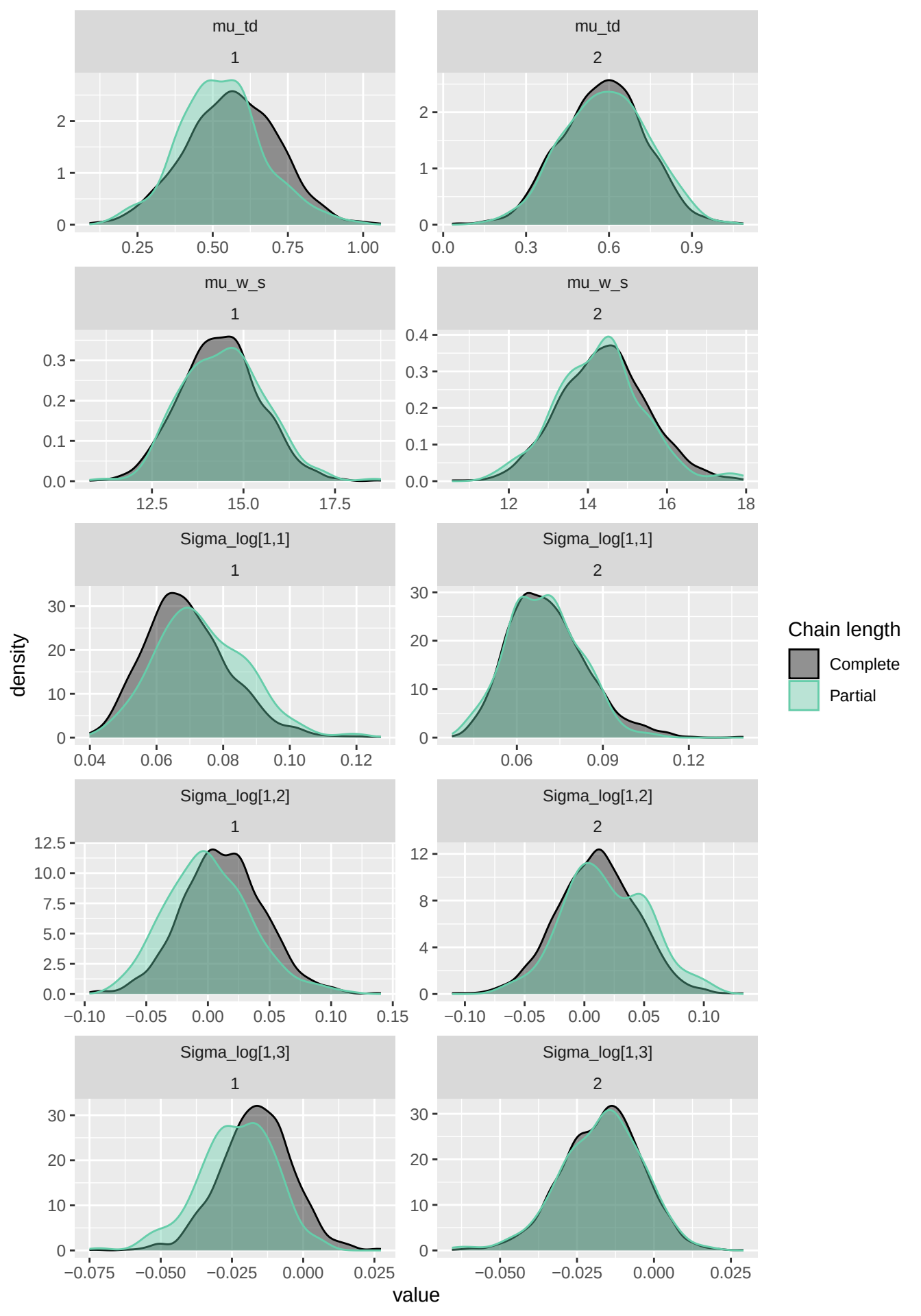

1
2
0.84
0.80
0.76
Running Mean
30000
35000
40000
45000
50000
Iteration
sigma_yy_sg
Chain
1
2

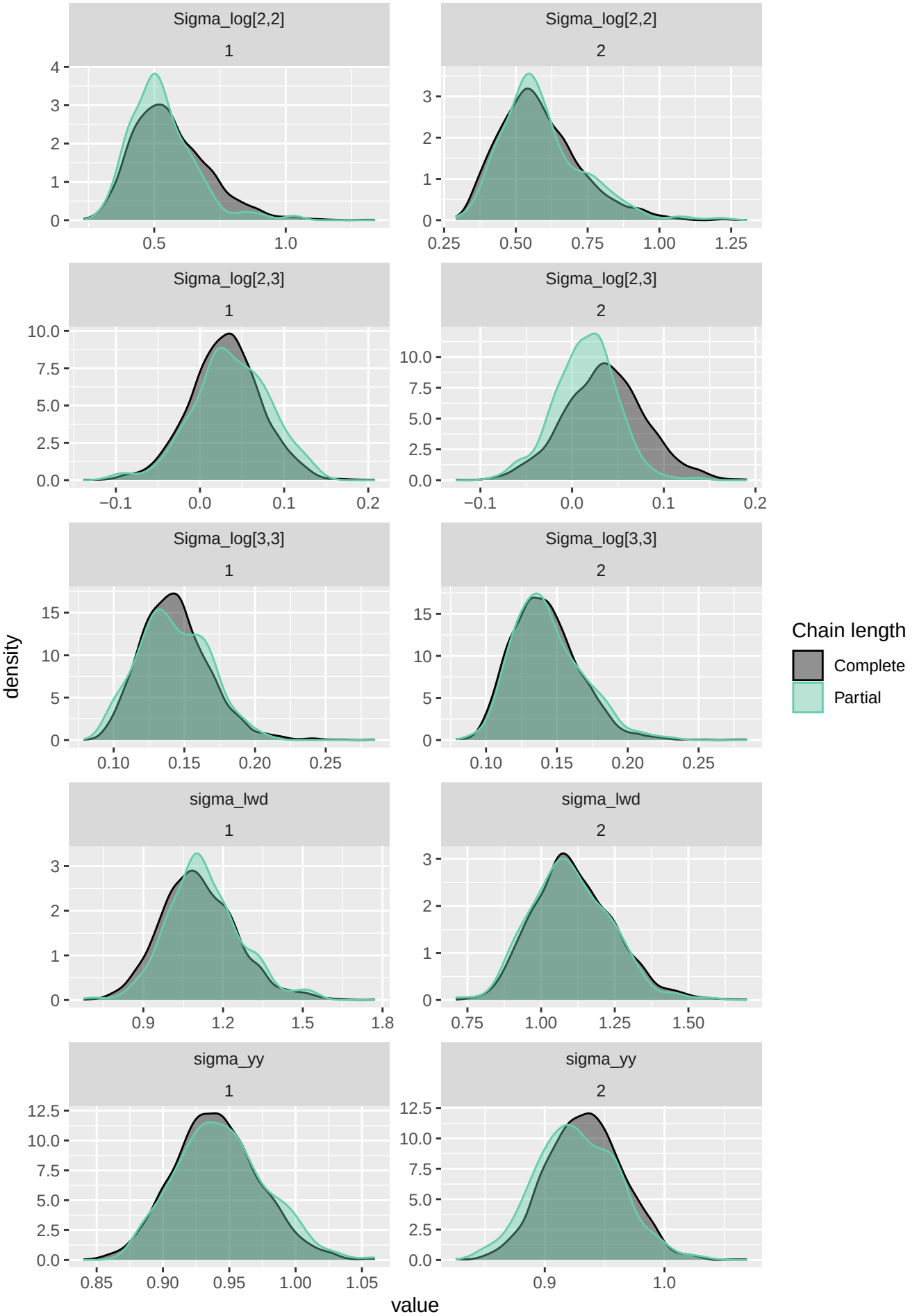

alpha0
1
alpha0
2
alpha0_sg
1
alpha0_sg
2
alpha1
1
alpha1
2
alpha1_sg
1
alpha1_sg
2
beta_C[1]
1
beta_C[1]
2
density
value
Chain length
Complete
Partial

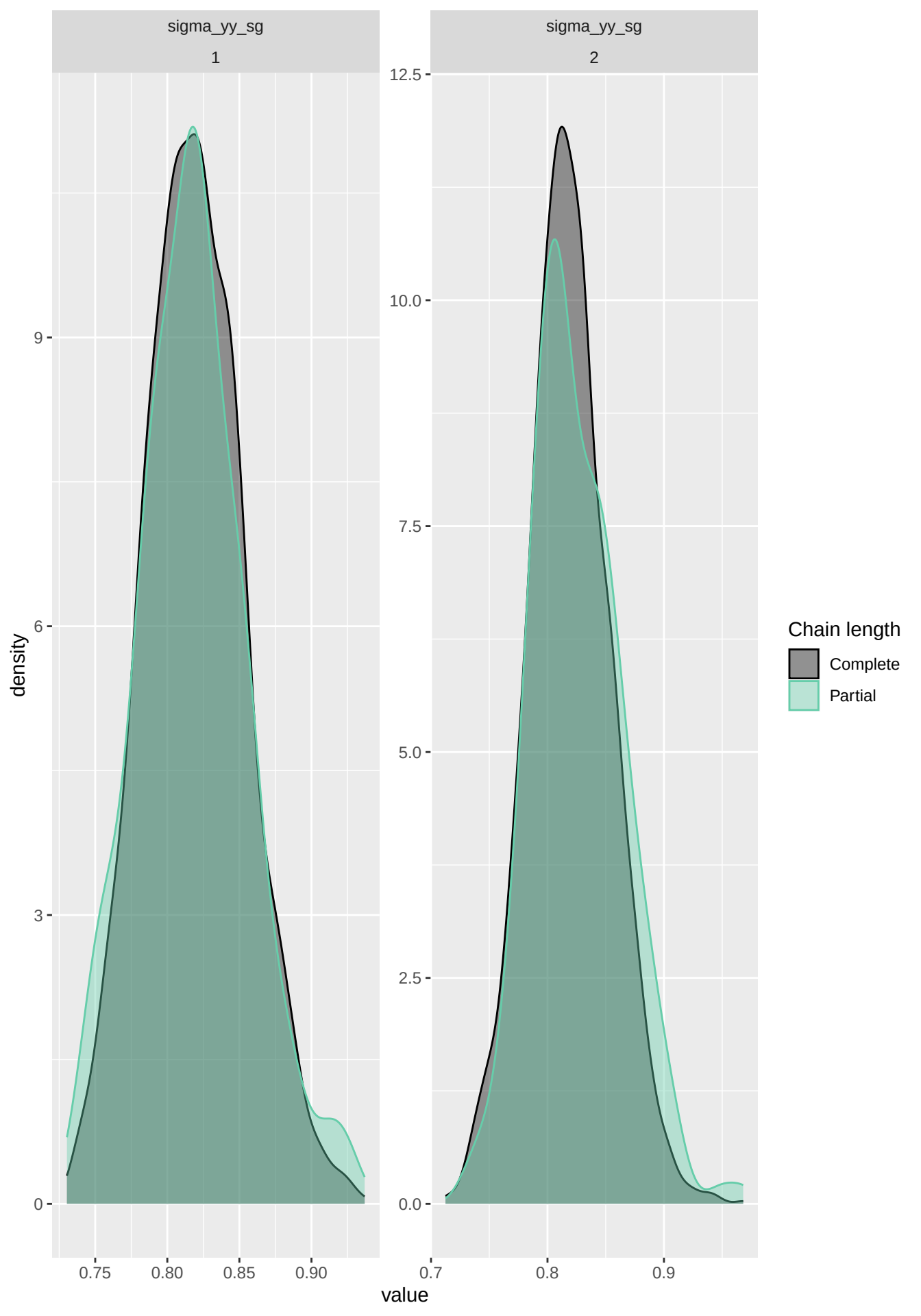

beta_C[2]
1
beta_C[2]
2
beta_vp[1]
1
beta_vp[1]
2
beta_vp[2]
1
beta_vp[2]
2
beta_vp[3]
1
beta_vp[3]
2
beta_vp[4]
1
beta_vp[4]
2
density
value
Chain length
Complete
Partial

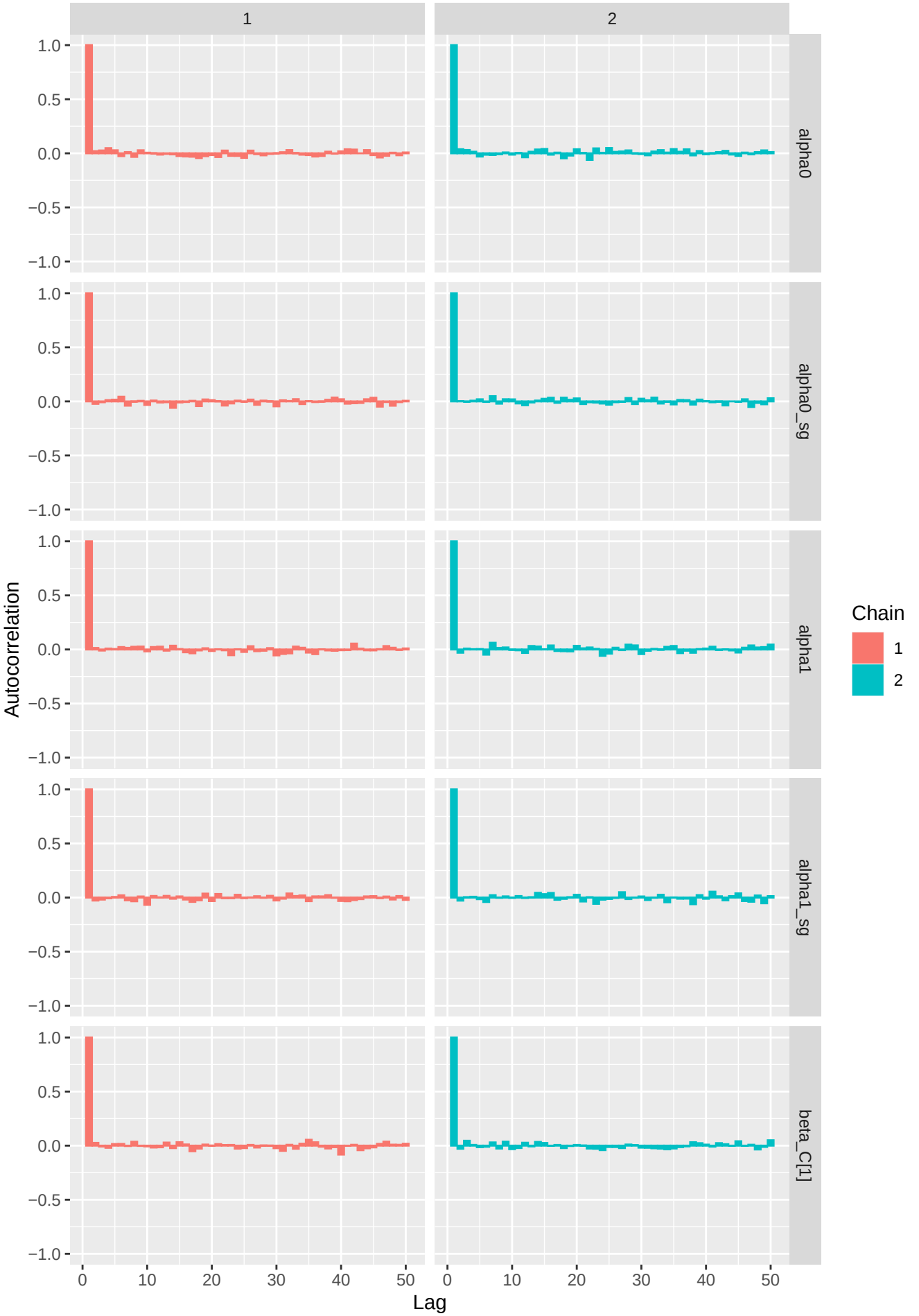

delta_Q
1
delta_Q
2
gamma_1
1
gamma_1
2
gamma_2
1
gamma_2
2
kappa_1
1
kappa_1
2
kappa_2
1
kappa_2
2
density
value
Chain length
Complete
Partial

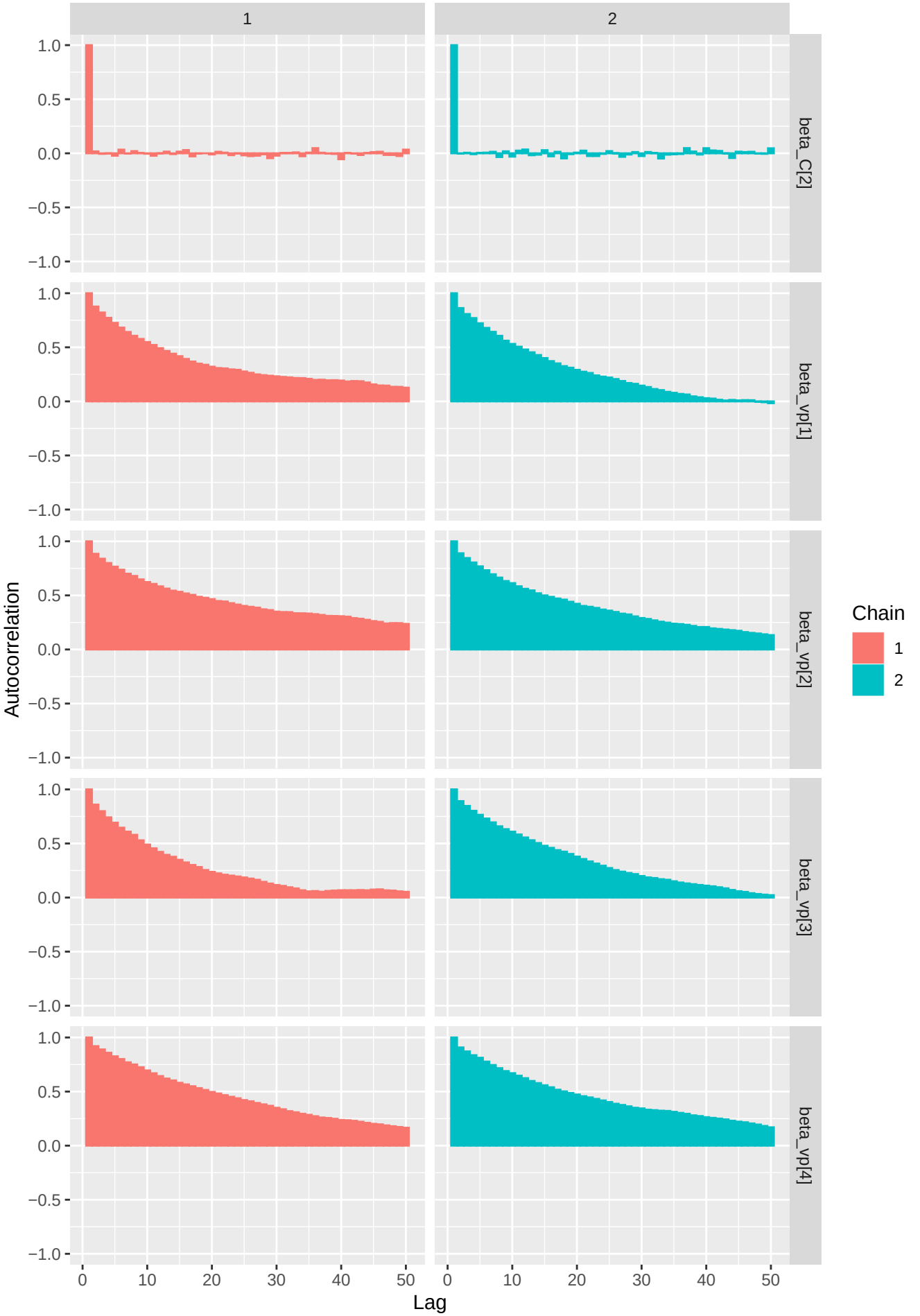

mu_log[1]
1
mu_log[1]
2
mu_log[2]
1
mu_log[2]
2
mu_log[3]
1
mu_log[3]
2
mu_lwd
1
mu_lwd
2
mu_q
1
mu_q
2
density
value
Chain length
Complete
Partial

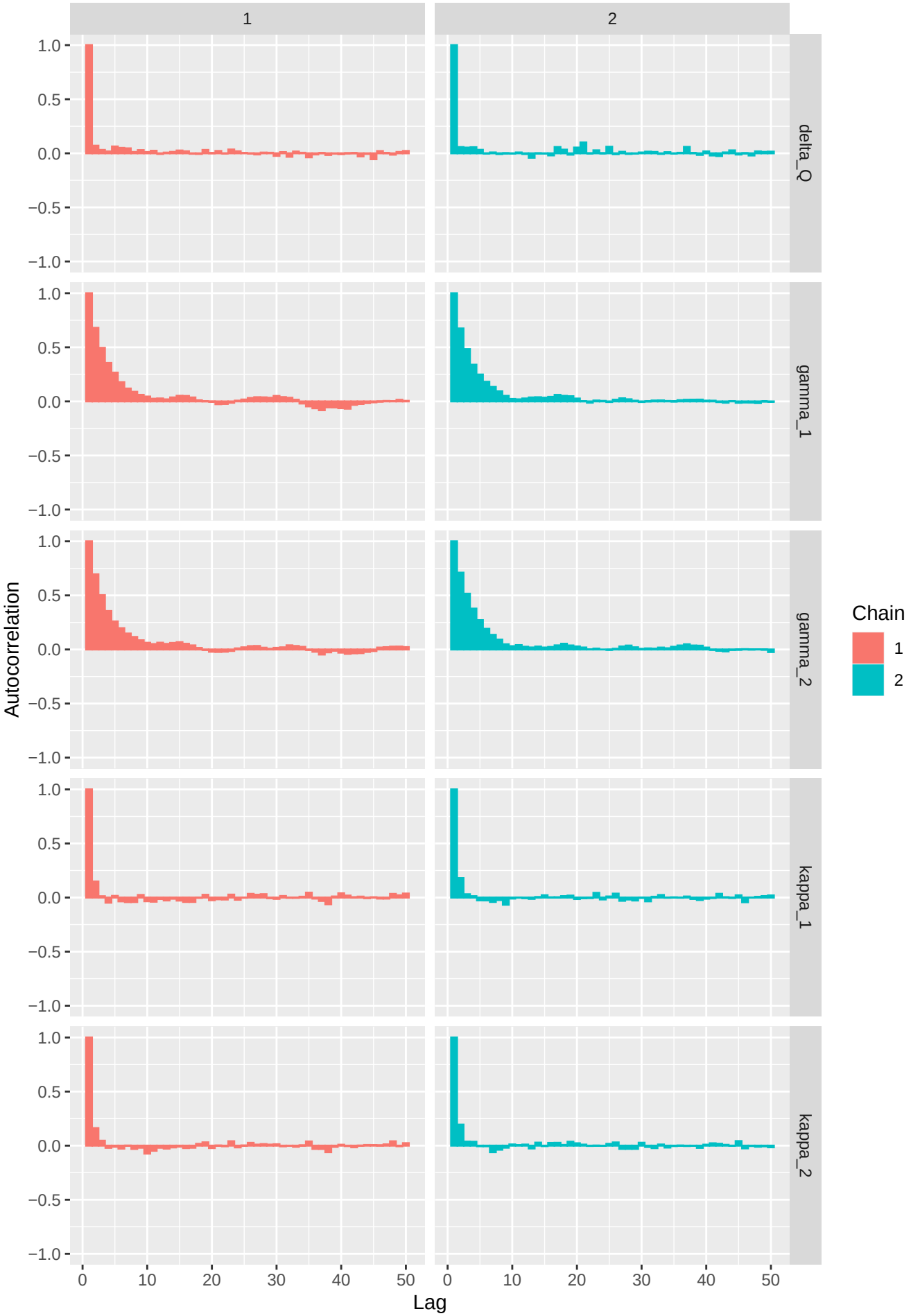

mu_td
1
mu_td
2
mu_w_s
1
mu_w_s
2
Sigma_log[1,1]
1
Sigma_log[1,1]
2
Sigma_log[1,2]
1
Sigma_log[1,2]
2
Sigma_log[1,3]
1
Sigma_log[1,3]
2
density
value
Chain length
Complete
Partial

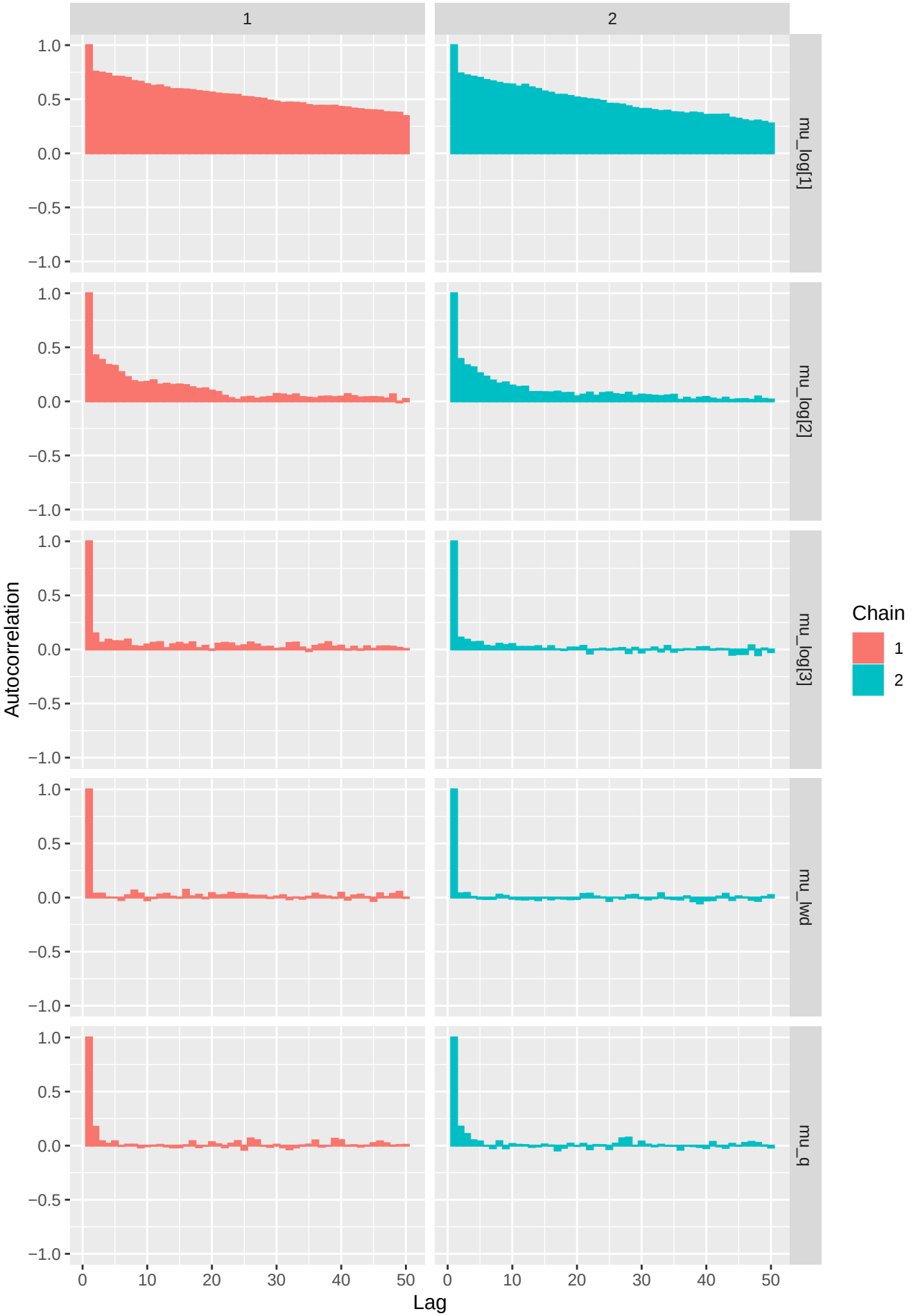

Sigma_log[2,2]
1
Sigma_log[2,2]
2
Sigma_log[2,3]
1
Sigma_log[2,3]
2
Sigma_log[3,3]
1
Sigma_log[3,3]
2
sigma_lwd
1
sigma_lwd
2
sigma_yy
1
sigma_yy
2
density
value
Chain length
Complete
Partial

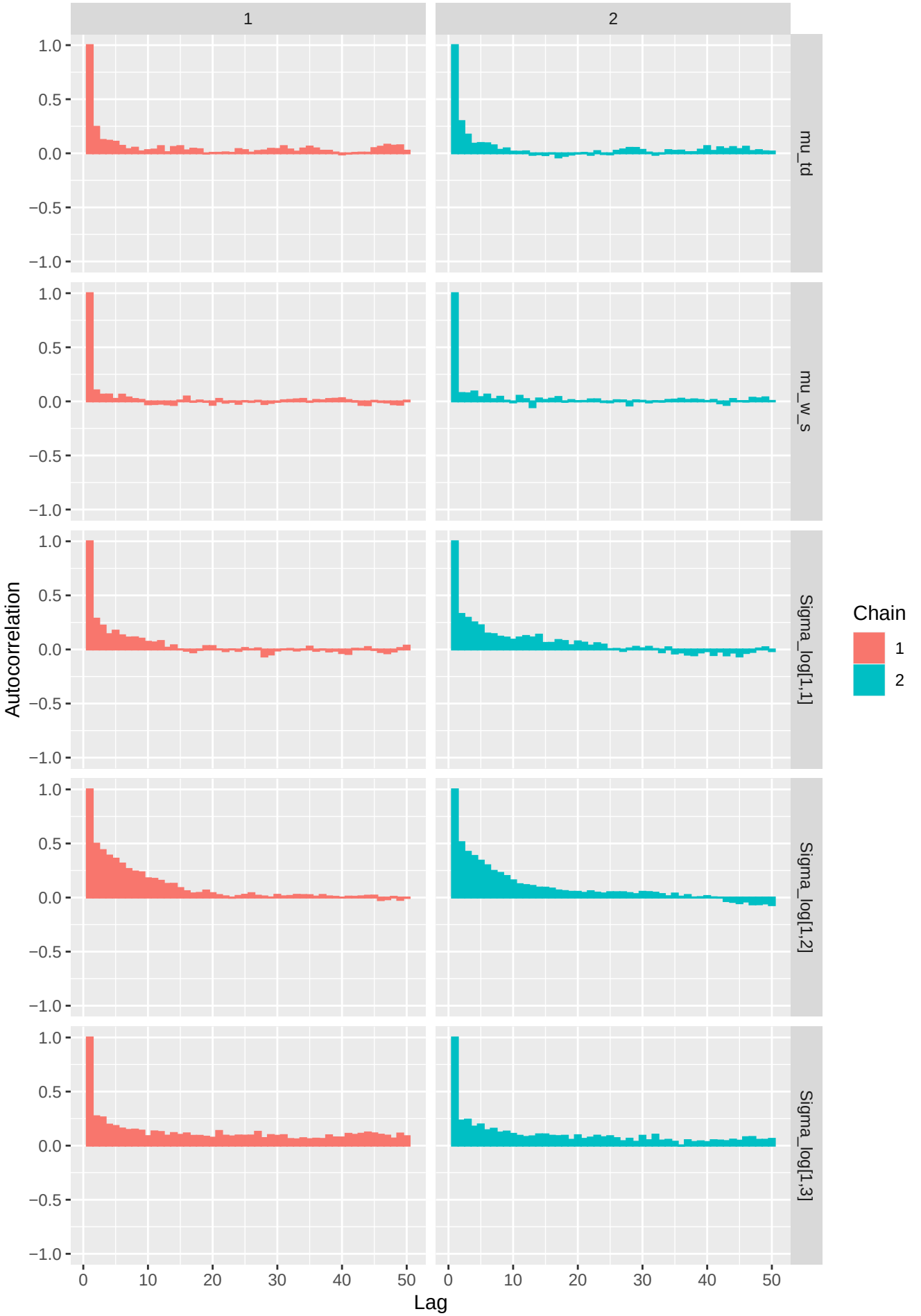

sigma_yy_sg
1
sigma_yy_sg
2
density
value
0
3
6
9
0.0
2.5
5.0
7.5
10.0
12.5
0.75
0.80
0.85
0.90
0.7
0.8
0.9
Chain length
Complete
Partial

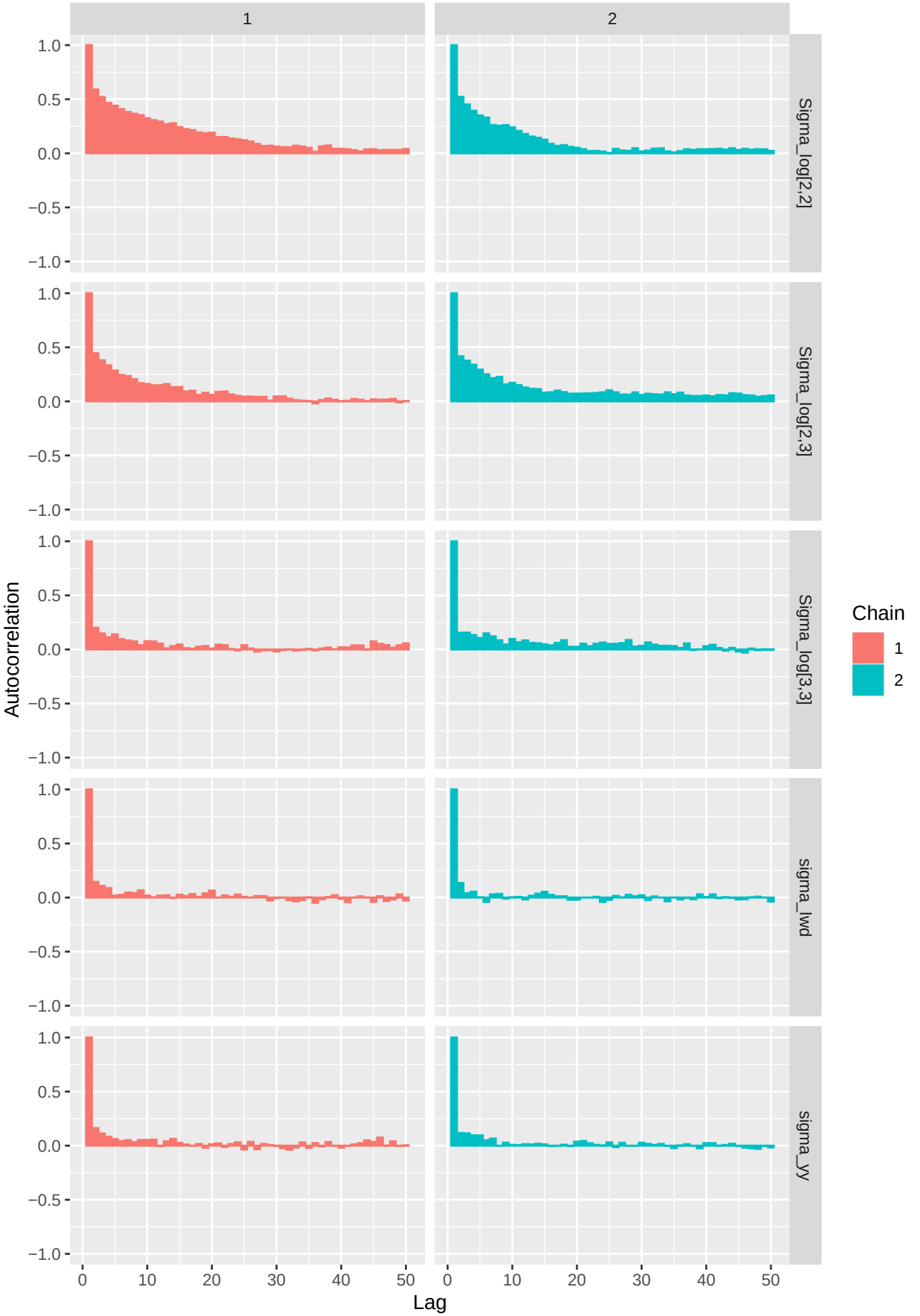

1
2
alpha0
alpha0_sg
alpha1
alpha1_sg
beta_C[1]
Autocorrelation
Lag
Chain
1
2
1.0
0.5
0.0
−0.5
−1.0
0
10
20
30
40
50

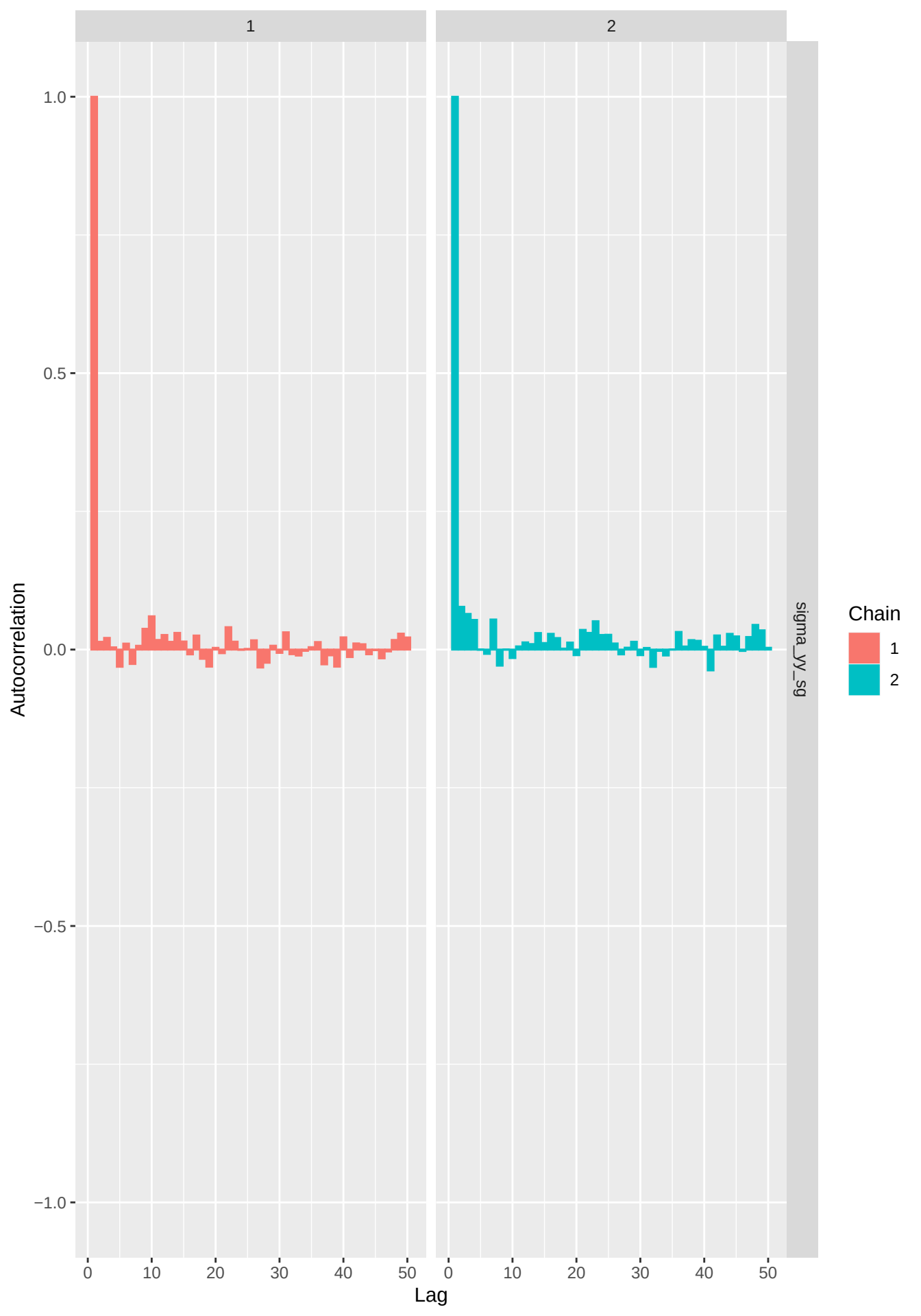

1
2
beta_C[2]
beta_vp[1]
beta_vp[2]
beta_vp[3]
beta_vp[4]
Autocorrelation
Lag
Chain
1
2
1.0
0.5
0.0
−0.5
−1.0
0
10
20
30
40
50

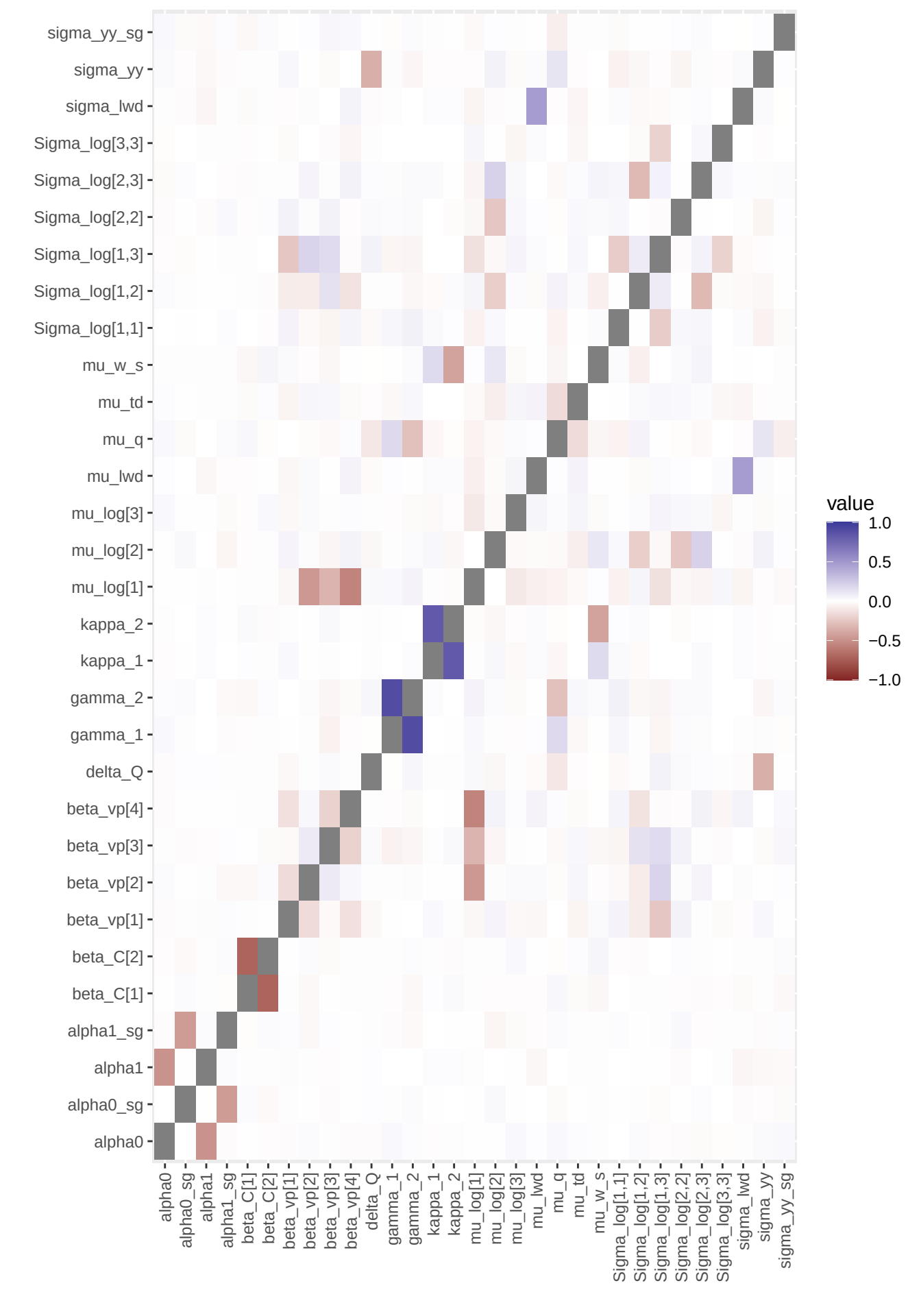

1
2
delta_Q
gamma_1
gamma_2
kappa_1
kappa_2
Autocorrelation
Lag
Chain
1
2
1.0
0.5
0.0
−0.5
−1.0
0
10
20
30
40
50

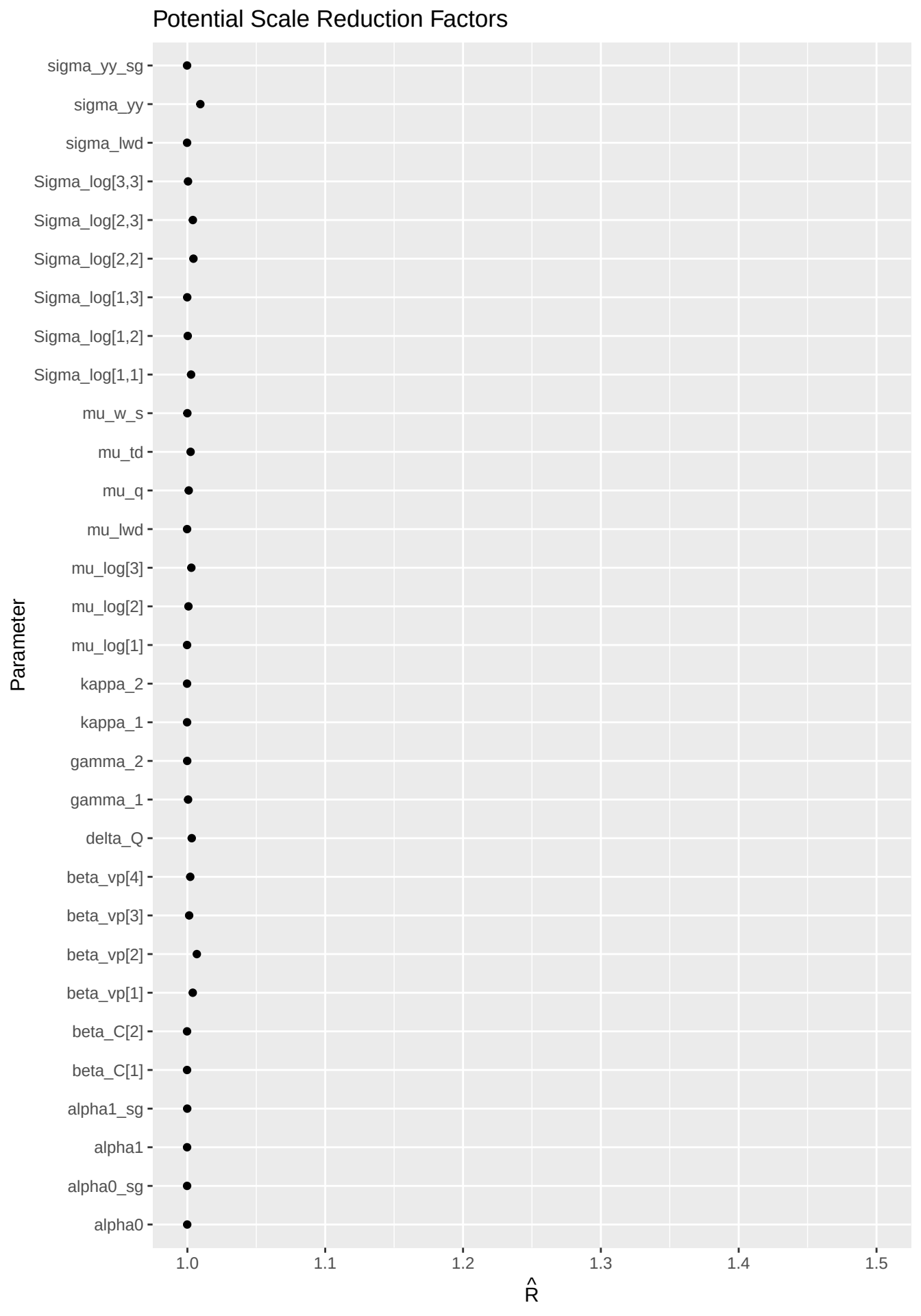

1
2
mu_log[1]
mu_log[2]
mu_log[3]
mu_lwd
mu_b
Autocorrelation
Lag
Chain
1
2
1.0
0.5
0.0
−0.5
−1.0
0
10
20
30
40
50

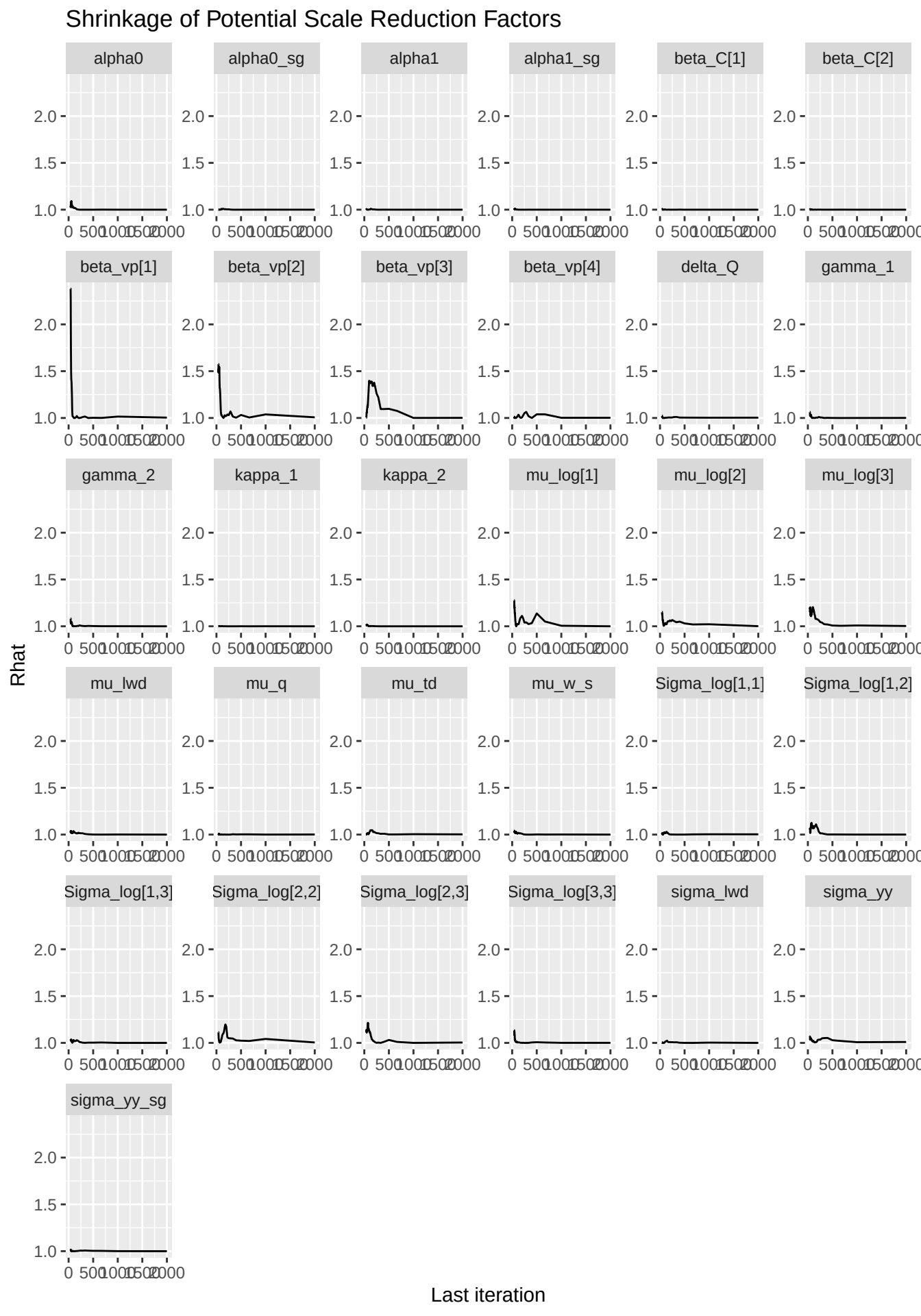

1
2
mu_td
mu_w_s
Sigma_log[1,1]
Sigma_log[1,2]
Sigma_log[1,3]
Autocorrelation
Lag
Chain
1
2
1.0
0.5
0.0
−0.5
−1.0
0
10
20
30
40
50

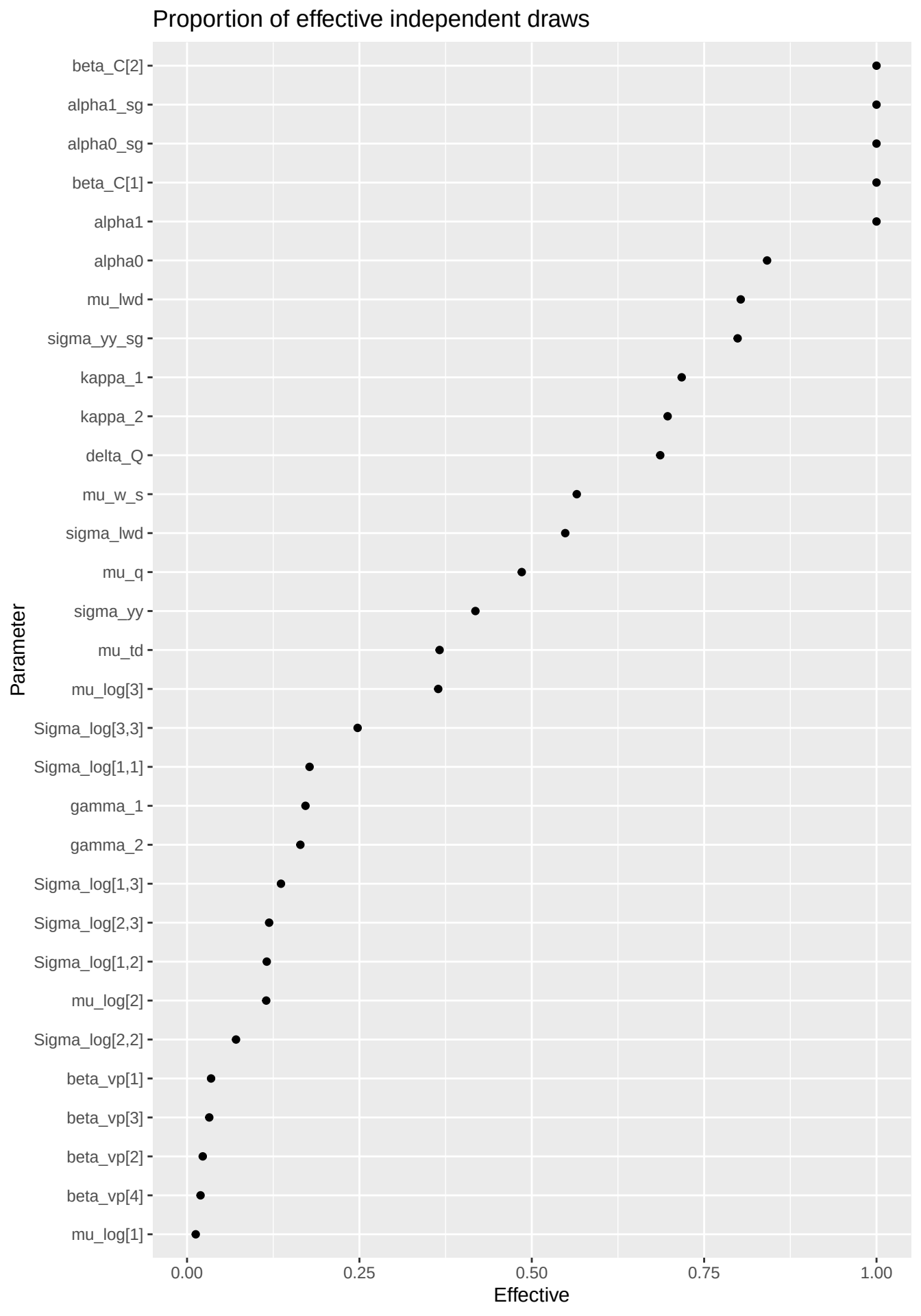

1
2
Sigma_log[2,2]
Sigma_log[2,3]
Sigma_log[3,3]
sigma_lwd
sigma_yy
Autocorrelation
1.0
0.5
0.0
−0.5
−1.0
0
10
20
30
40
50
Lag
Chain
1
2


1
2
1.0
0.5
0.0
−0.5
−1.0
Autocorrelation
0
10
20
30
40
50
Lag
sigma_yy_sg
Chain
1
2

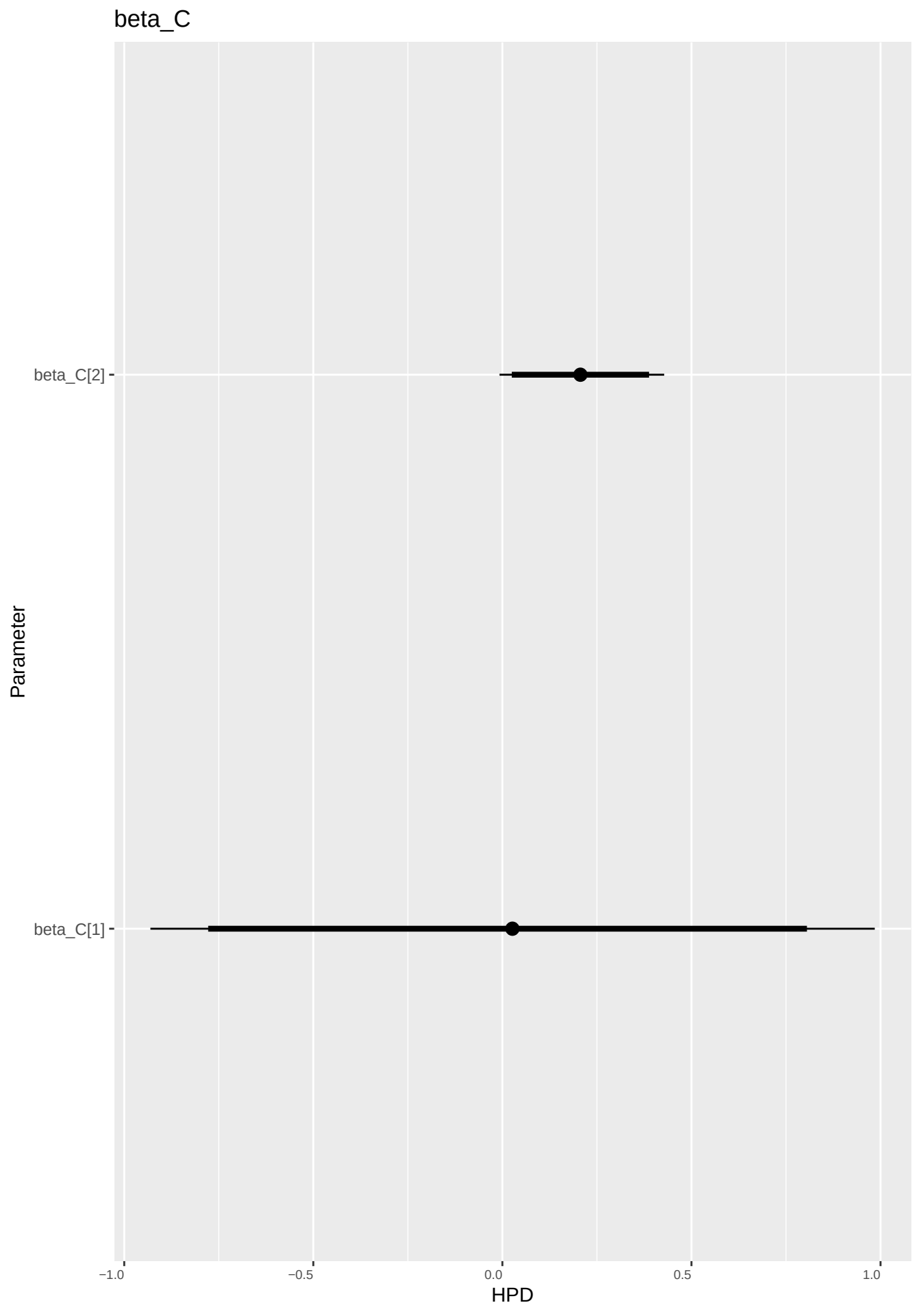

sigma_yy_sg
sigma_yy
sigma_lwd
Sigma_log[3,3]
Sigma_log[2,3]
Sigma_log[2,2]
Sigma_log[1,3]
Sigma_log[1,2]
Sigma_log[1,1]
mu_w_s
mu_td
mu_q
mu_lwd
mu_log[3]
mu_log[2]
mu_log[1]
kappa_2
kappa_1
gamma_2
gamma_1
delta_Q
beta_vp[4]
beta_vp[3]
beta_vp[2]
beta_vp[1]
beta_C[2]
beta_C[1]
alpha1_sg
alpha1
alpha0_sg
alpha0
alpha0
alpha0_sg
alpha1
alpha1_sg
beta_C[1]
beta_C[2]
beta_vp[1]
beta_vp[2]
beta_vp[3]
beta_vp[4]
delta_Q
gamma_1
gamma_2
kappa_1
kappa_2
mu_log[1]
mu_log[2]
mu_log[3]
mu_lwd
mu_q
mu_td
mu_w_s
Sigma_log[1,1]
Sigma_log[1,2]
Sigma_log[1,3]
Sigma_log[2,2]
Sigma_log[2,3]
Sigma_log[3,3]
sigma_lwd
sigma_yy
sigma_yy_sg
value
1.0
0.5
0.0
−0.5
−1.0

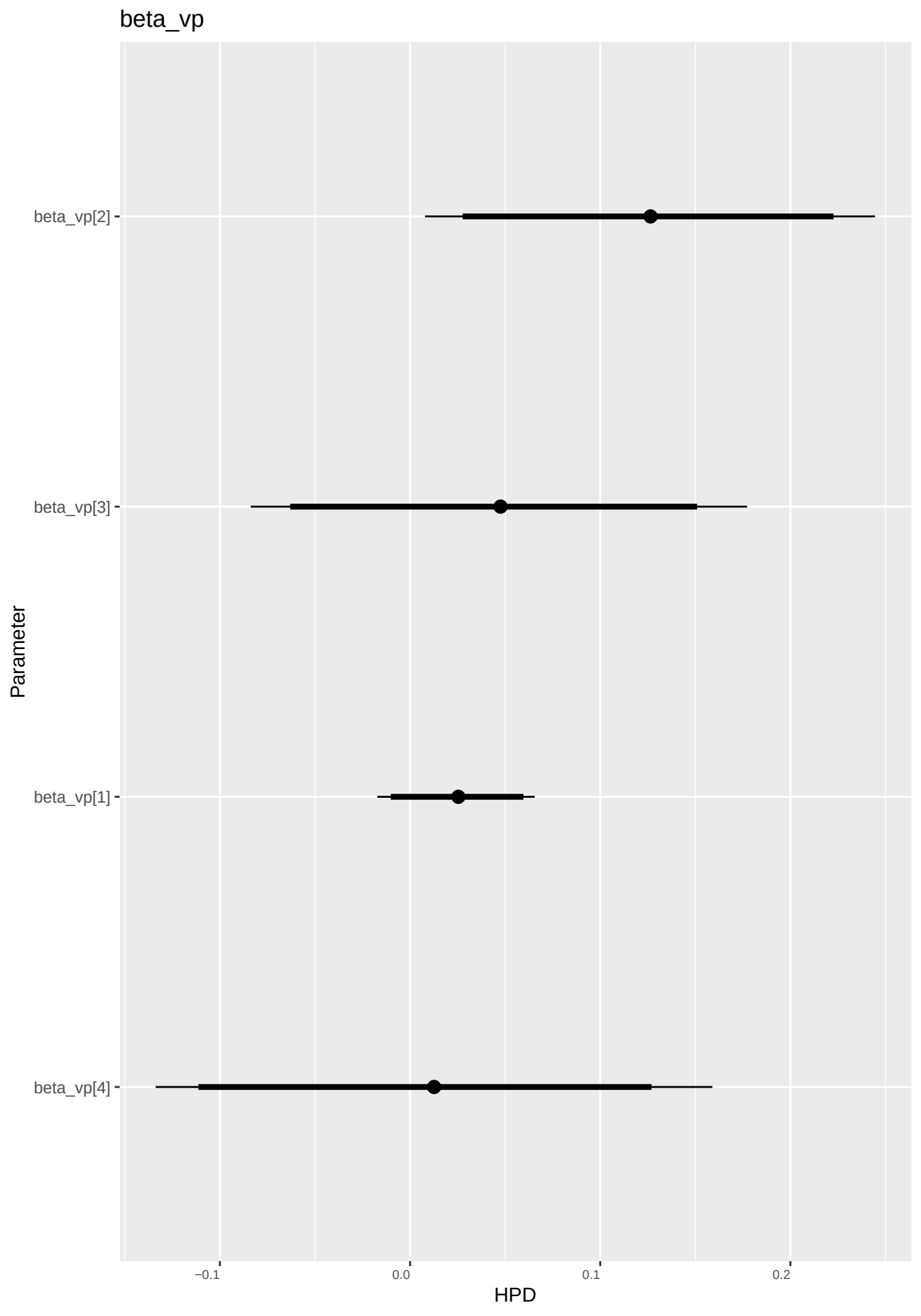

Potential Scale Reduction Factors
sigma_yy_sg
sigma_yy
sigma_lwd
Sigma_log[3,3]
Sigma_log[2,3]
Sigma_log[2,2]
Sigma_log[1,3]
Sigma_log[1,2]
Sigma_log[1,1]
mu_w_s
mu_td
mu_q
mu_lwd
mu_log[3]
mu_log[2]
mu_log[1]
kappa_2
kappa_1
gamma_2
gamma_1
delta_Q
beta_vp[4]
beta_vp[3]
beta_vp[2]
beta_vp[1]
beta_C[2]
beta_C[1]
alpha1_sg
alpha1
alpha0_sg
alpha0
Parameter
1.0
1.1
1.2
1.3
1.4
1.5
R̂

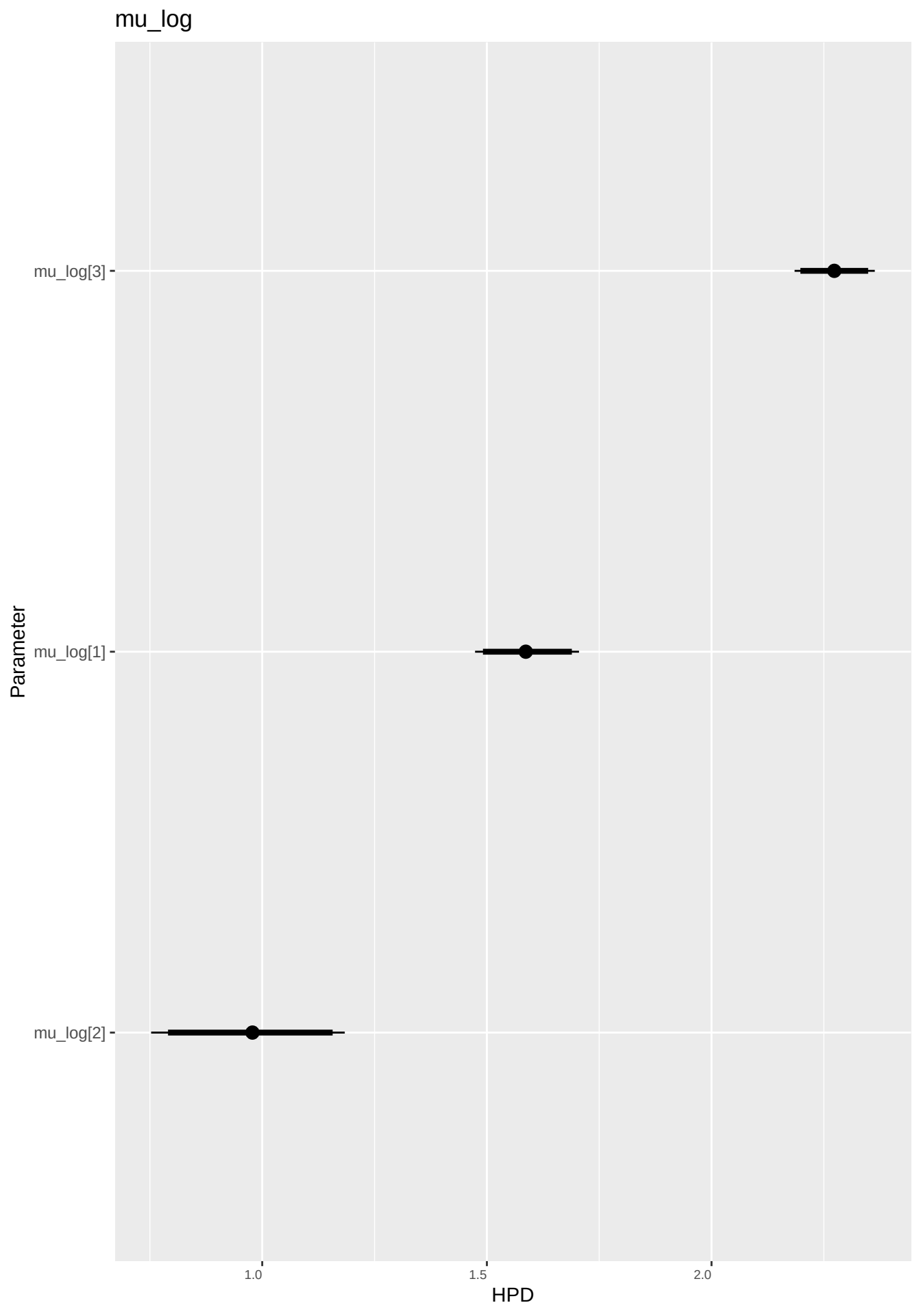

Shrinkage of Potential Scale Reduction Factors
alpha0
alpha0_sg
alpha1
alpha1_sg
beta_C[1]
beta_C[2]
beta_vp[1]
beta_vp[2]
beta_vp[3]
beta_vp[4]
delta_Q
gamma_1
gamma_2
kappa_1
kappa_2
mu_log[1]
mu_log[2]
mu_log[3]
mu_lwd
mu_q
mu_td
mu_w_s
Sigma_log[1,1]
Sigma_log[1,2]
Sigma_log[1,3]
Sigma_log[2,2]
Sigma_log[2,3]
Sigma_log[3,3]
sigma_lwd
sigma_yy
sigma_yy_sg
Rhat
Last iteration

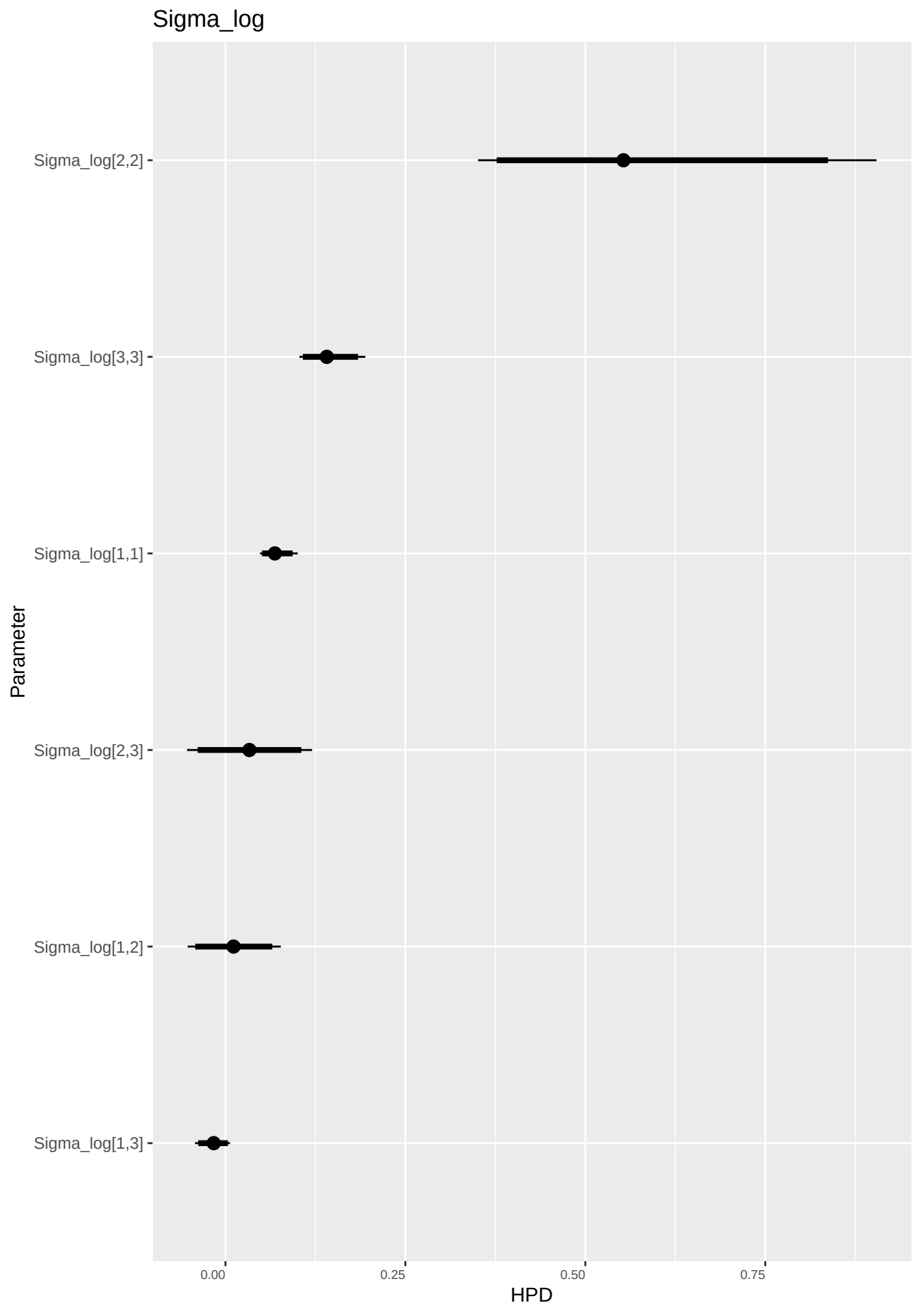

Proportion of effective independent draws
beta_C[2]
alpha1_sg
alpha0_sg
beta_C[1]
alpha1
alpha0
mu_lwd
sigma_yy_sg
kappa_1
kappa_2
delta_Q
mu_w_s
sigma_lwd
mu_q
sigma_yy
mu_td
mu_log[3]
Sigma_log[3,3]
Sigma_log[1,1]
gamma_1
gamma_2
Sigma_log[1,3]
Sigma_log[2,3]
Sigma_log[1,2]
mu_log[2]
Sigma_log[2,2]
beta_vp[1]
beta_vp[3]
beta_vp[2]
beta_vp[4]
mu_log[1]
Parameter
0.00
0.25
0.50
0.75
1.00
Effective

Geweke Diagnostics
sigma_yy_sg
sigma_yy
sigma_lwd
Sigma_log[3,3]
Sigma_log[2,3]
Sigma_log[2,2]
Sigma_log[1,3]
Sigma_log[1,2]
Sigma_log[1,1]
mu_w_s
mu_td
mu_q
mu_lwd
mu_log[3]
mu_log[2]
mu_log[1]
kappa_2
kappa_1
gamma_2
gamma_1
delta_Q
beta_vp[4]
beta_vp[3]
beta_vp[2]
beta_vp[1]
beta_C[2]
beta_C[1]
alpha1_sg
alpha1
alpha0_sg
alpha0
Parameter
−2
0
2
z
Chain
1
2


beta_C
beta_C[2]
beta_C[1]
Parameter
−1.0
−0.5
0.0
0.5
1.0
HPD


beta_vp
beta_vp[2]
beta_vp[3]
beta_vp[1]
beta_vp[4]
Parameter
−0.1
0.0
0.1
0.2
HPD


mu_log
mu_log[3]
mu_log[1]
mu_log[2]
Parameter
1.0
1.5
2.0
HPD


Sigma_log
Sigma_log[2,2]
Sigma_log[3,3]
Sigma_log[1,1]
Sigma_log[2,3]
Sigma_log[1,2]
Sigma_log[1,3]
Parameter
0.00
0.25
0.50
0.75
HPD