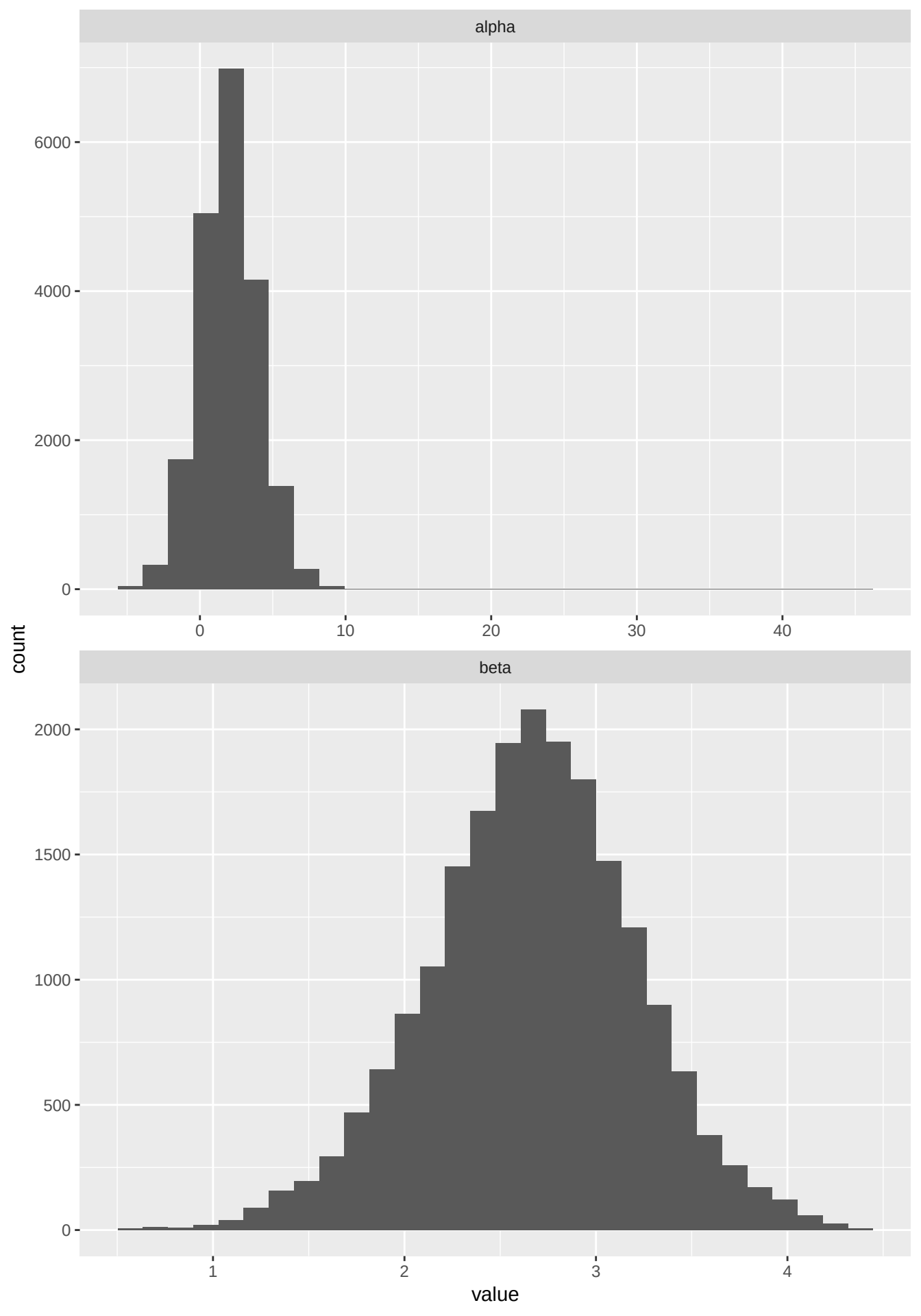
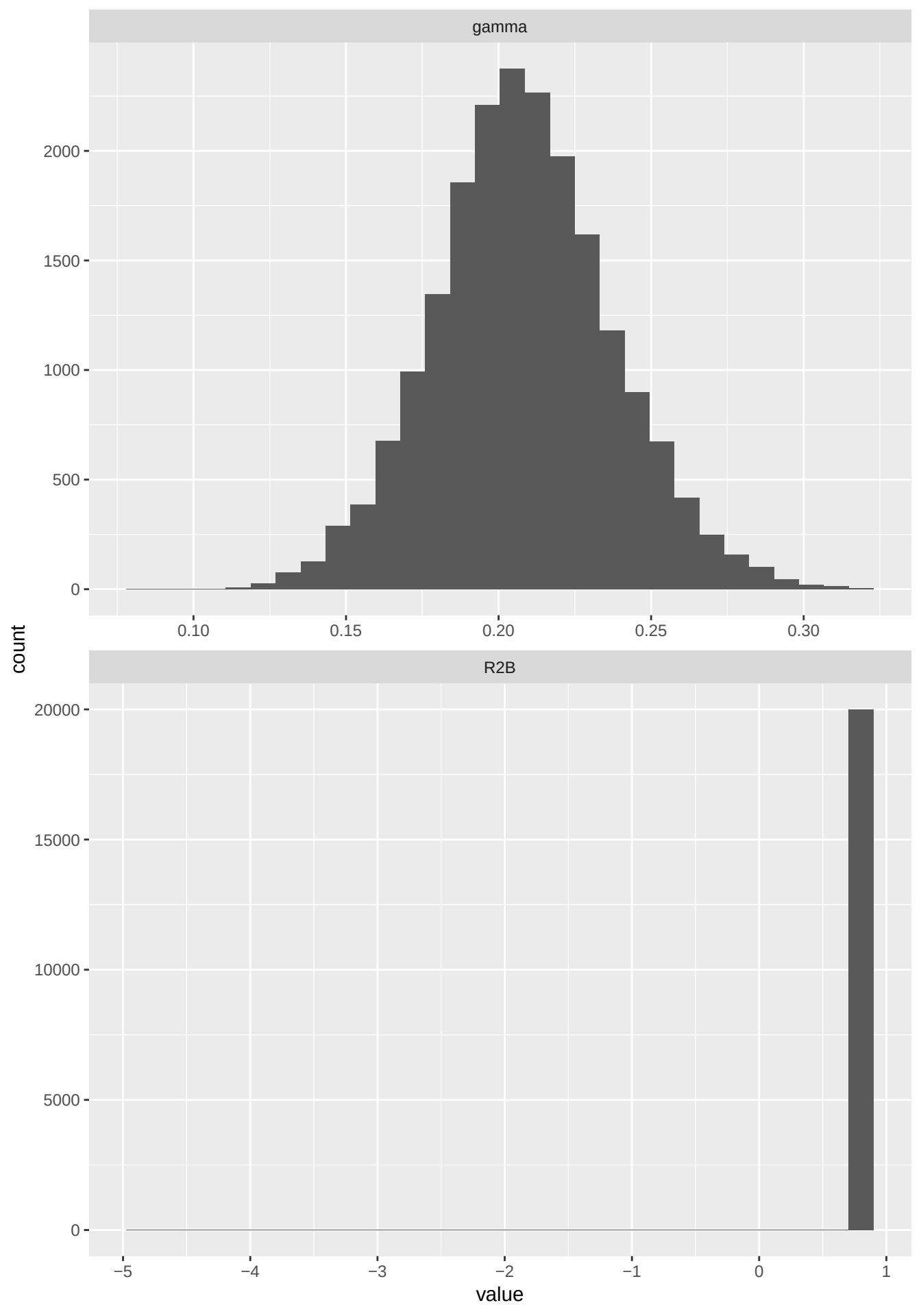
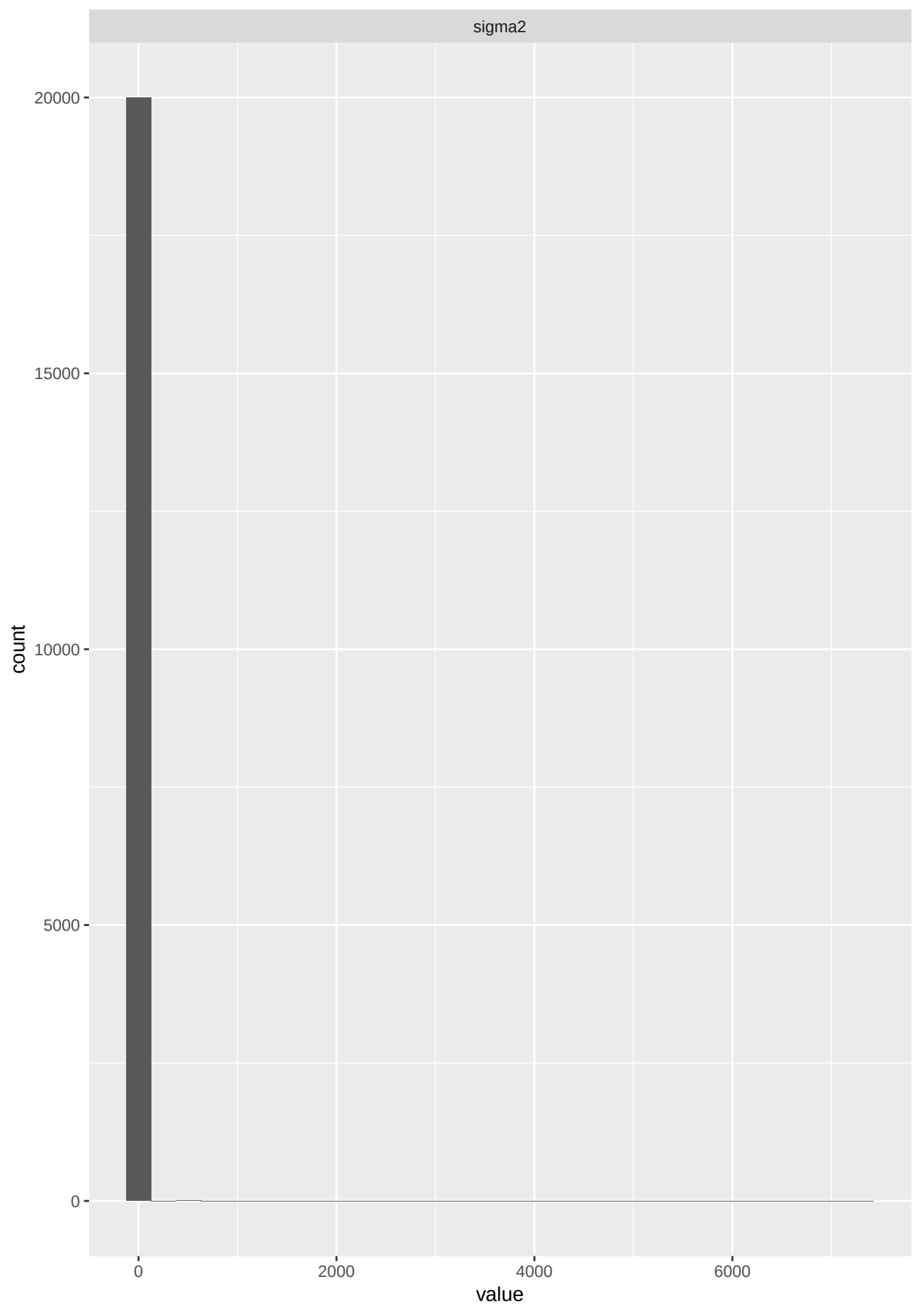
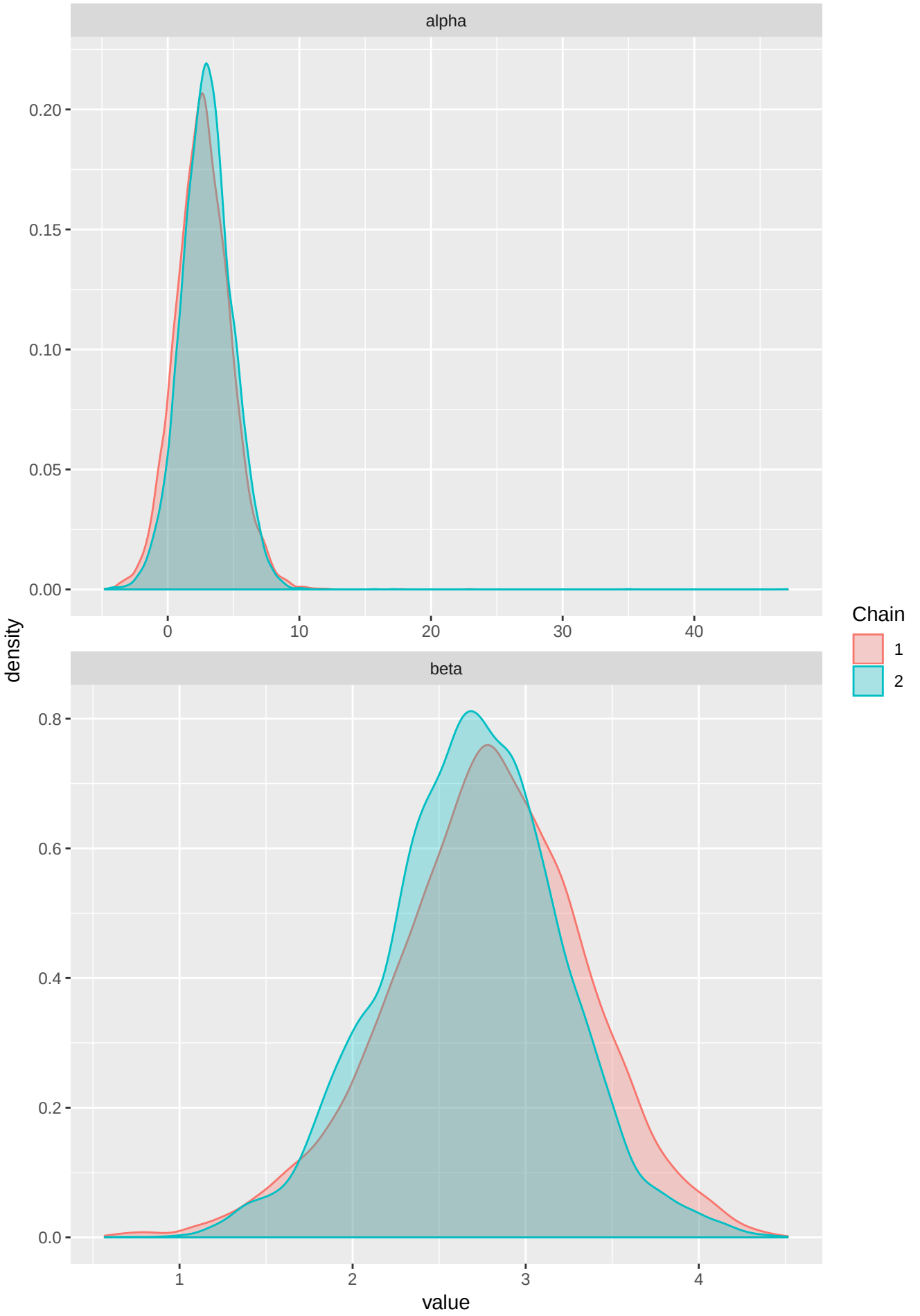
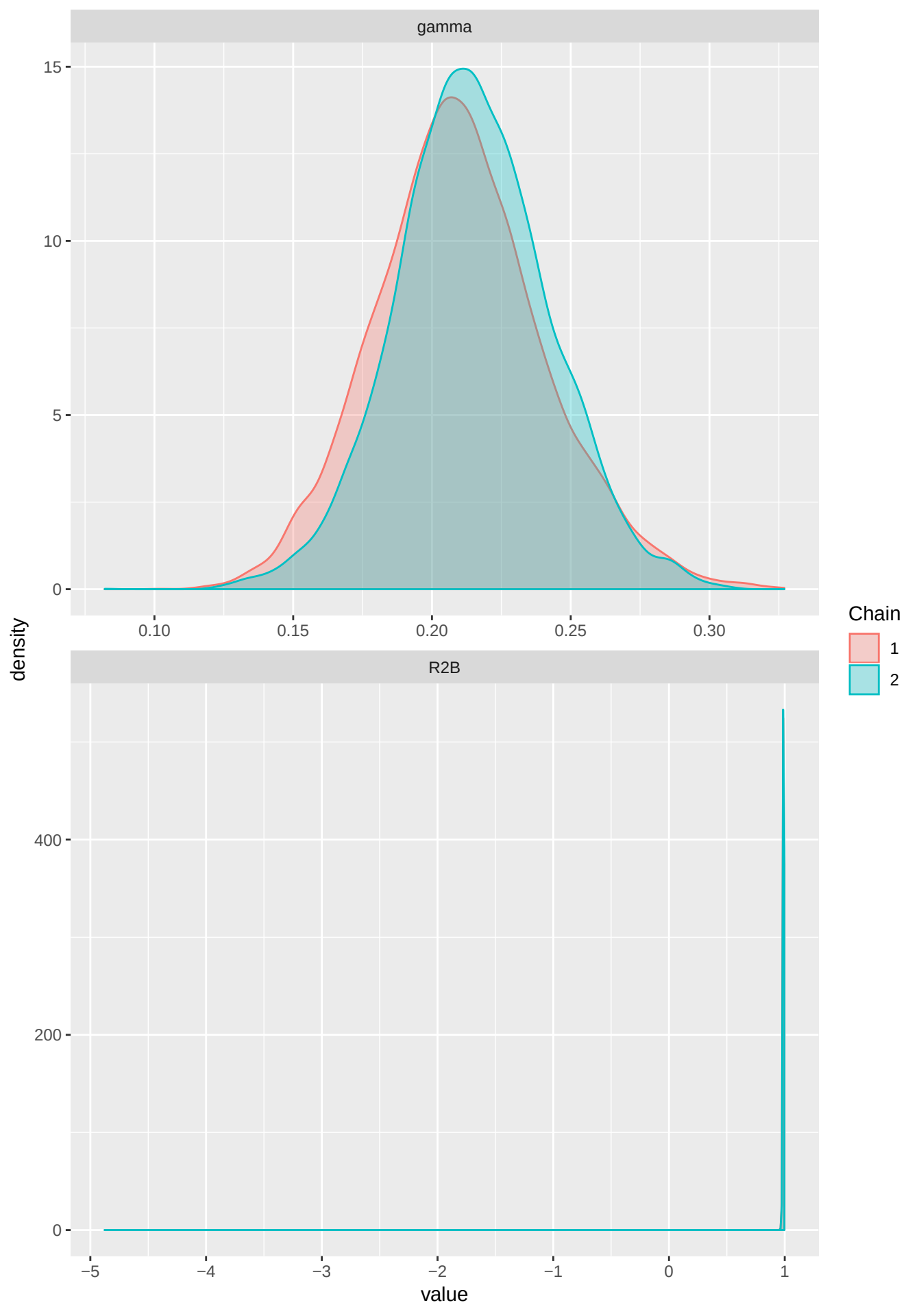
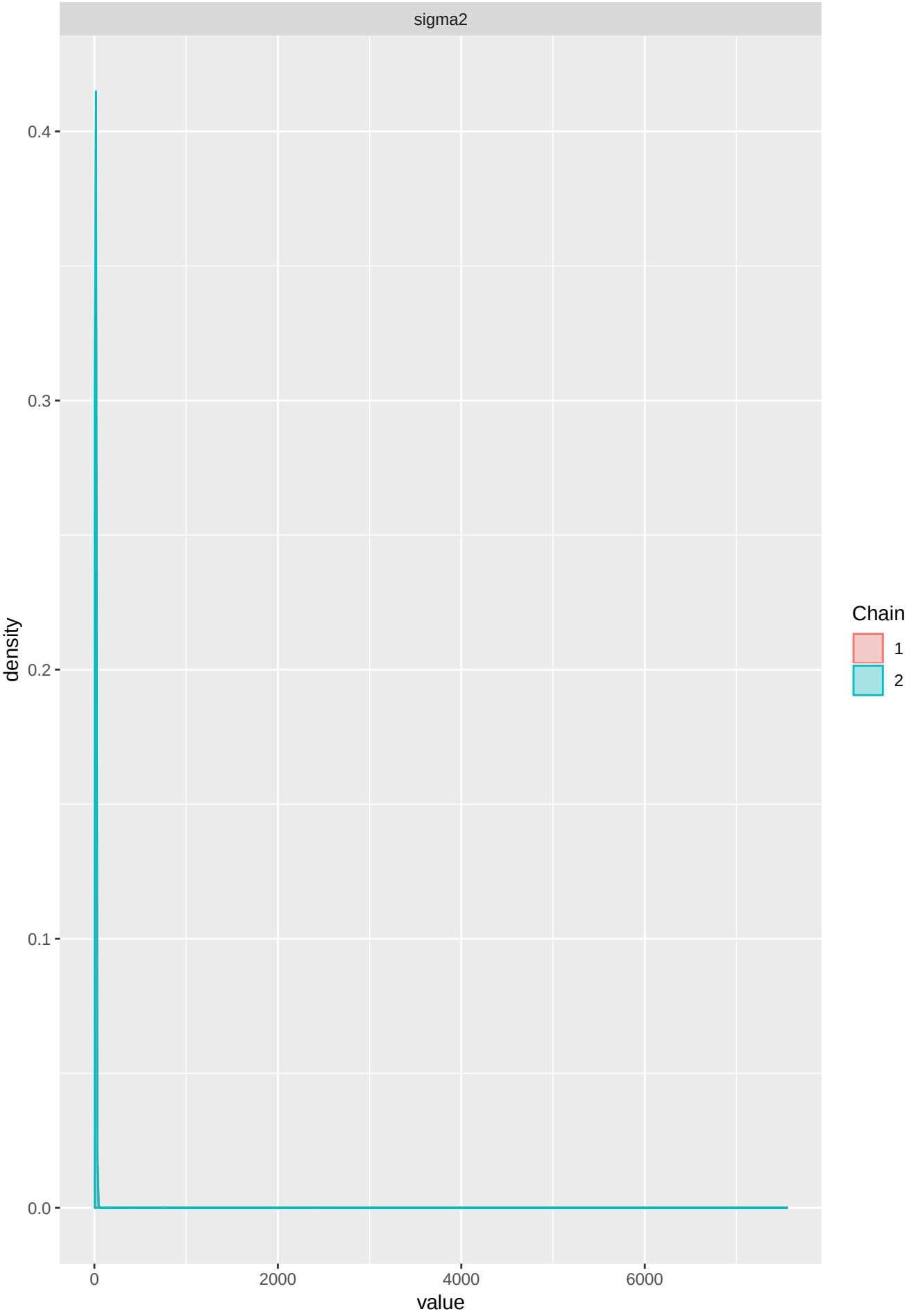

alpha
beta
count
value
6000
4000
2000
0
0
10
20
30
40
2000
1500
1000
500
0
1
2
3
4

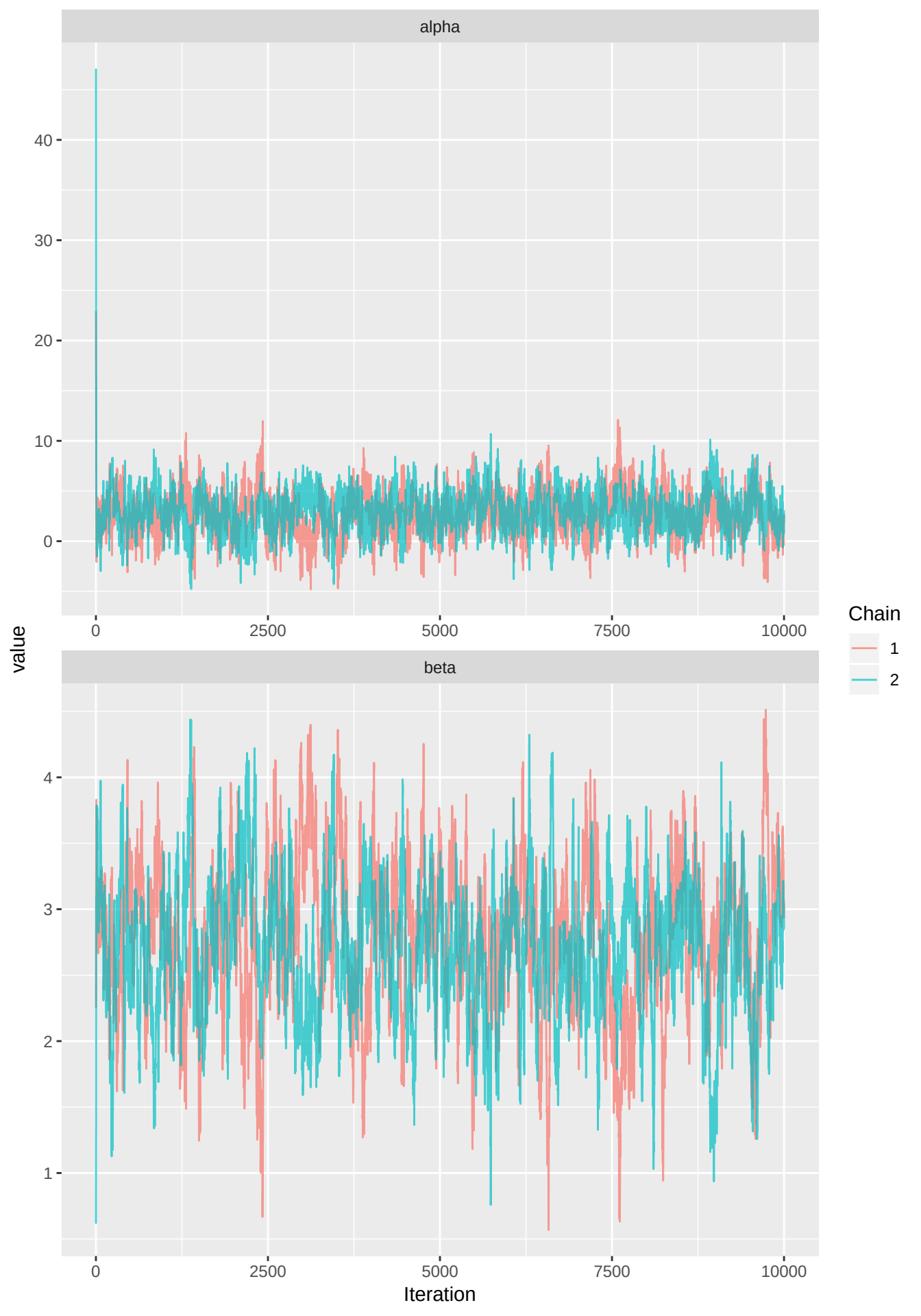

gamma
2000
1500
1000
500
0
0.10
0.15
0.20
0.25
0.30
count
R2B
20000
15000
10000
5000
0
−5
−4
−3
−2
−1
0
1
value

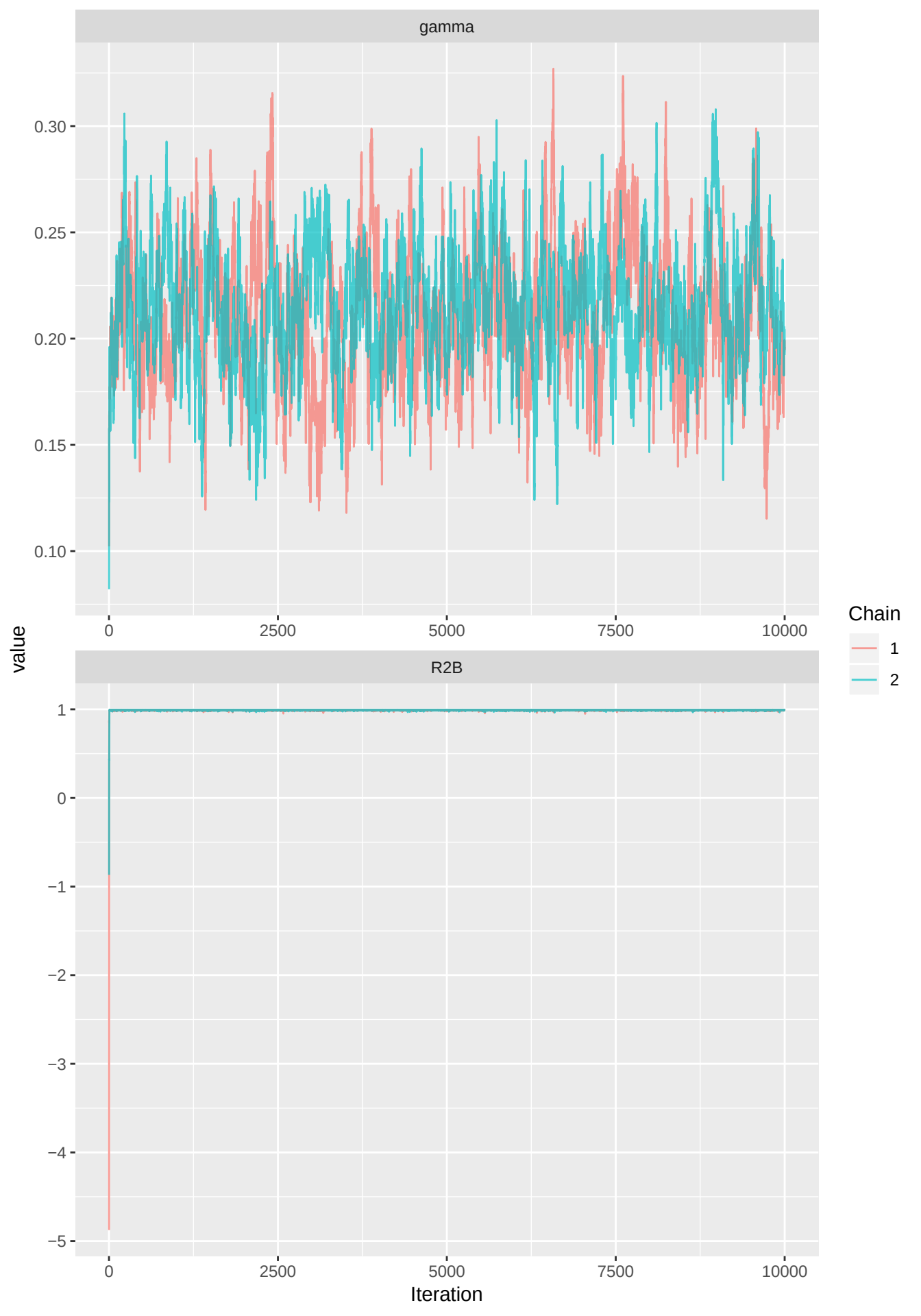

sigma2
20000
15000
10000
5000
0
count
0
2000
4000
6000
value

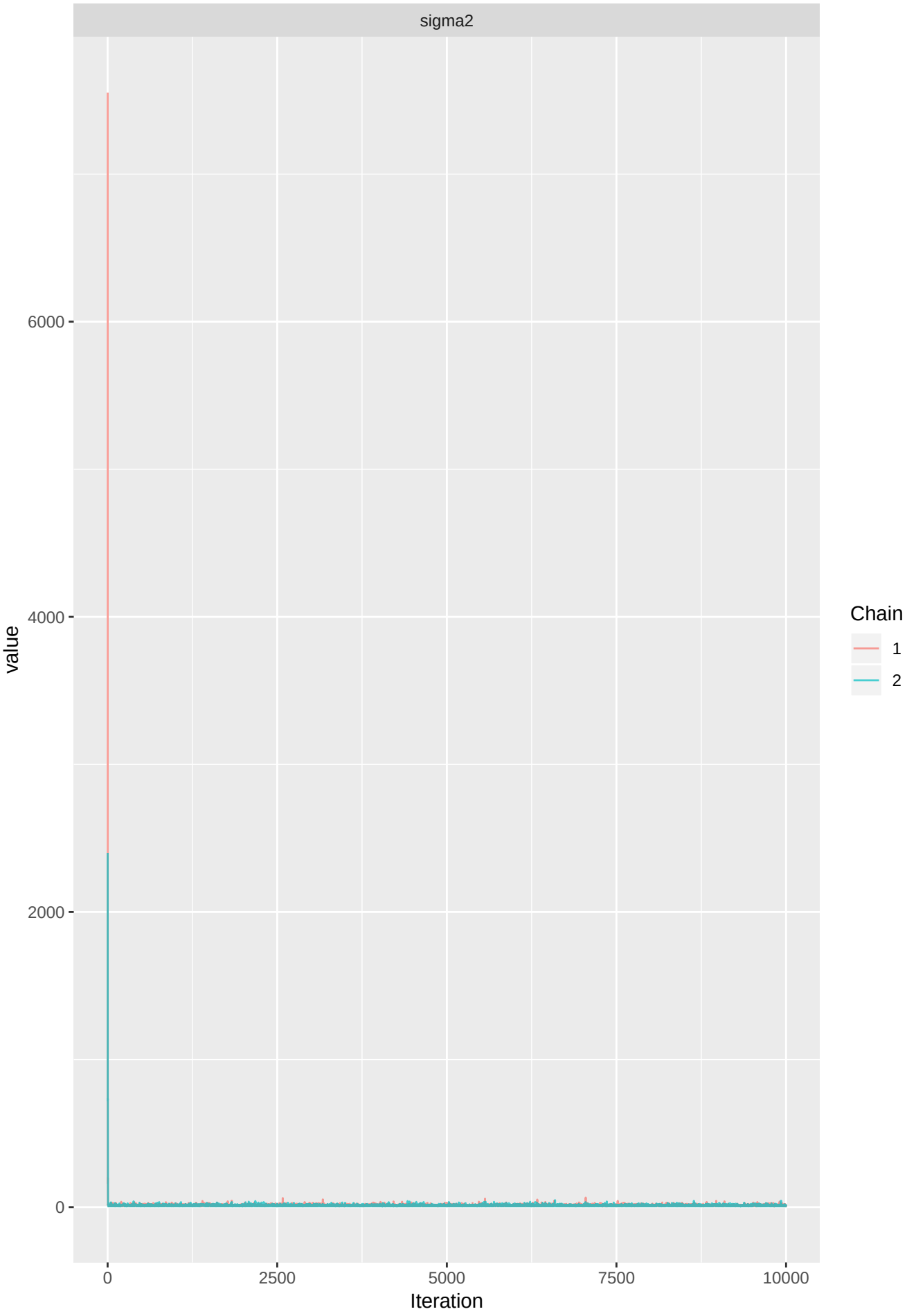

alpha
beta
density
value
Chain
1
2
0.00
0.05
0.10
0.15
0.20
0
10
20
30
40
0.0
0.2
0.4
0.6
0.8
1
2
3
4

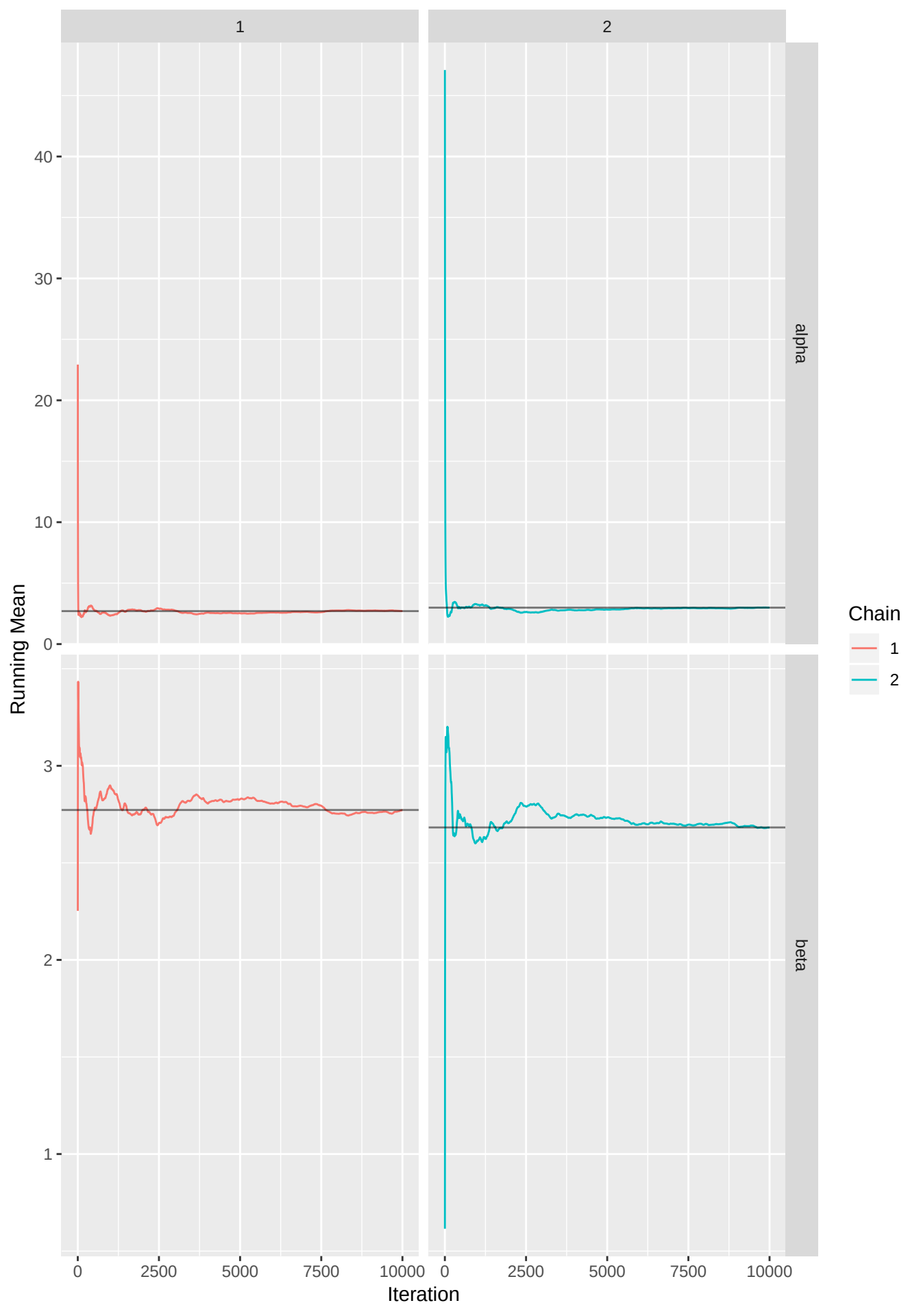

gamma
R2B
density
value
Chain
1
2
15
10
5
0
0.10
0.15
0.20
0.25
0.30
400
200
0
−5
−4
−3
−2
−1
0
1

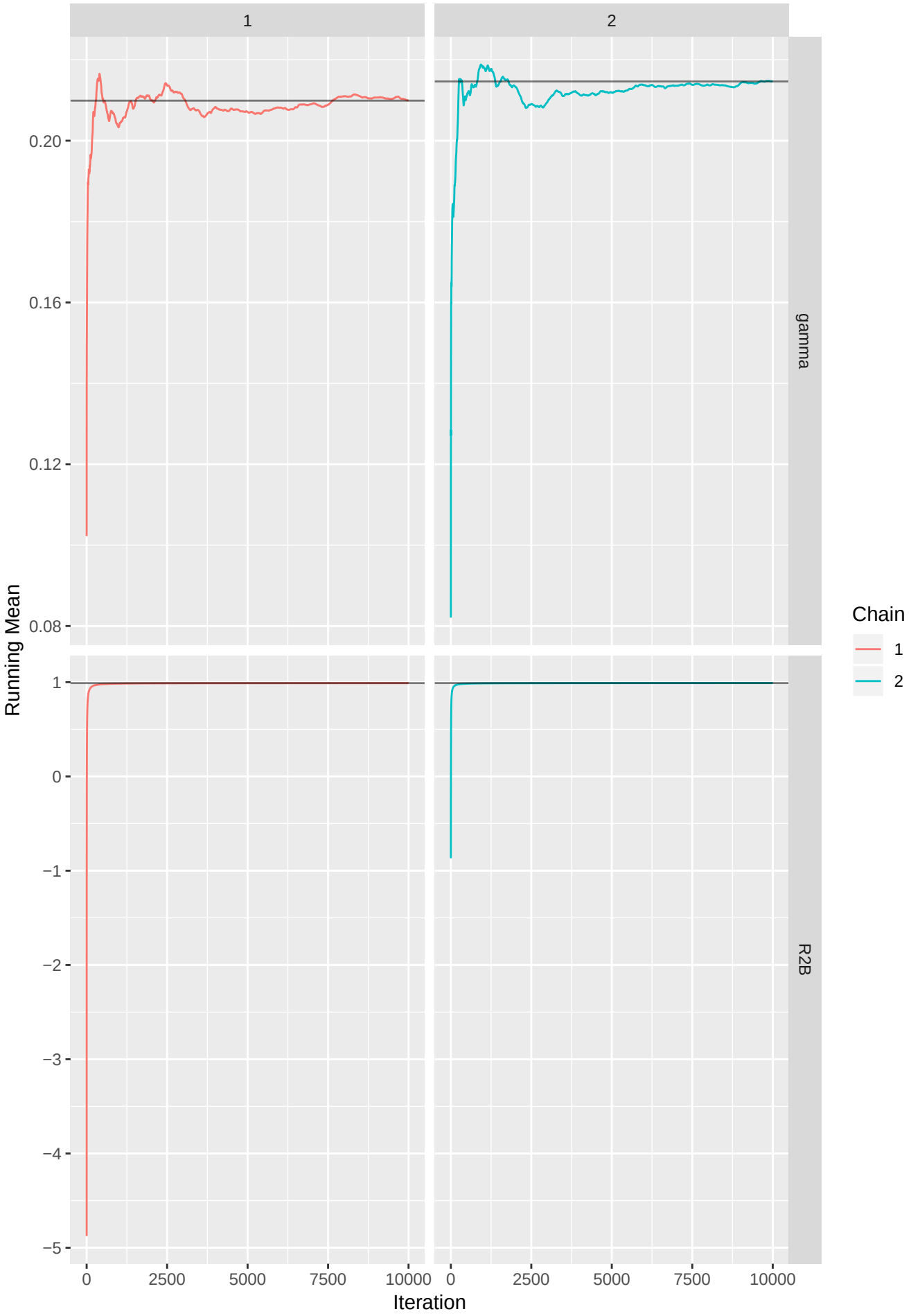

sigma2
density
0.4
0.3
0.2
0.1
0.0
0
2000
4000
6000
value
Chain
1
2

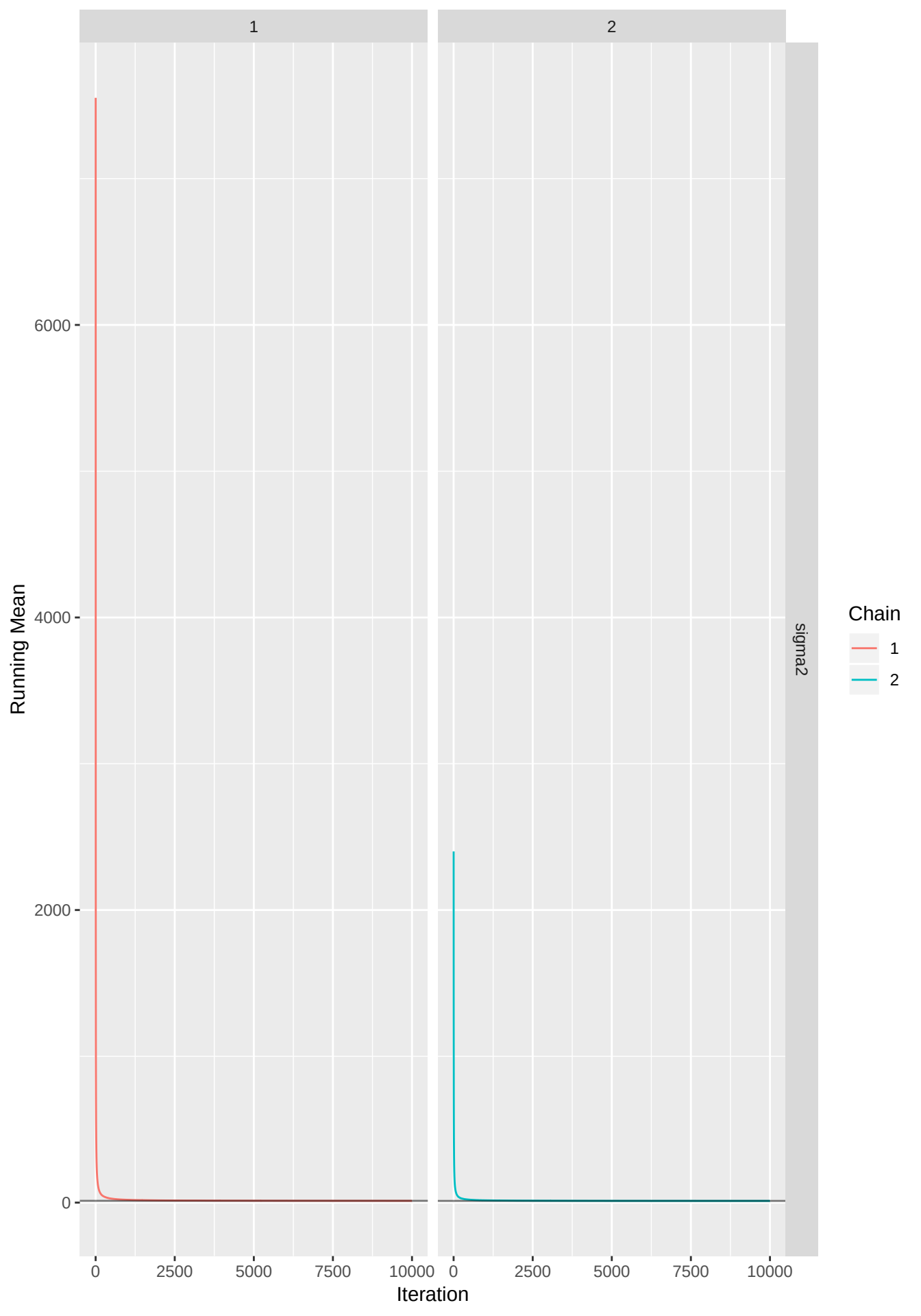

alpha
beta
value
Iteration
Chain
1
2
40
30
20
10
0
4
3
2
1
0
2500
5000
7500
10000

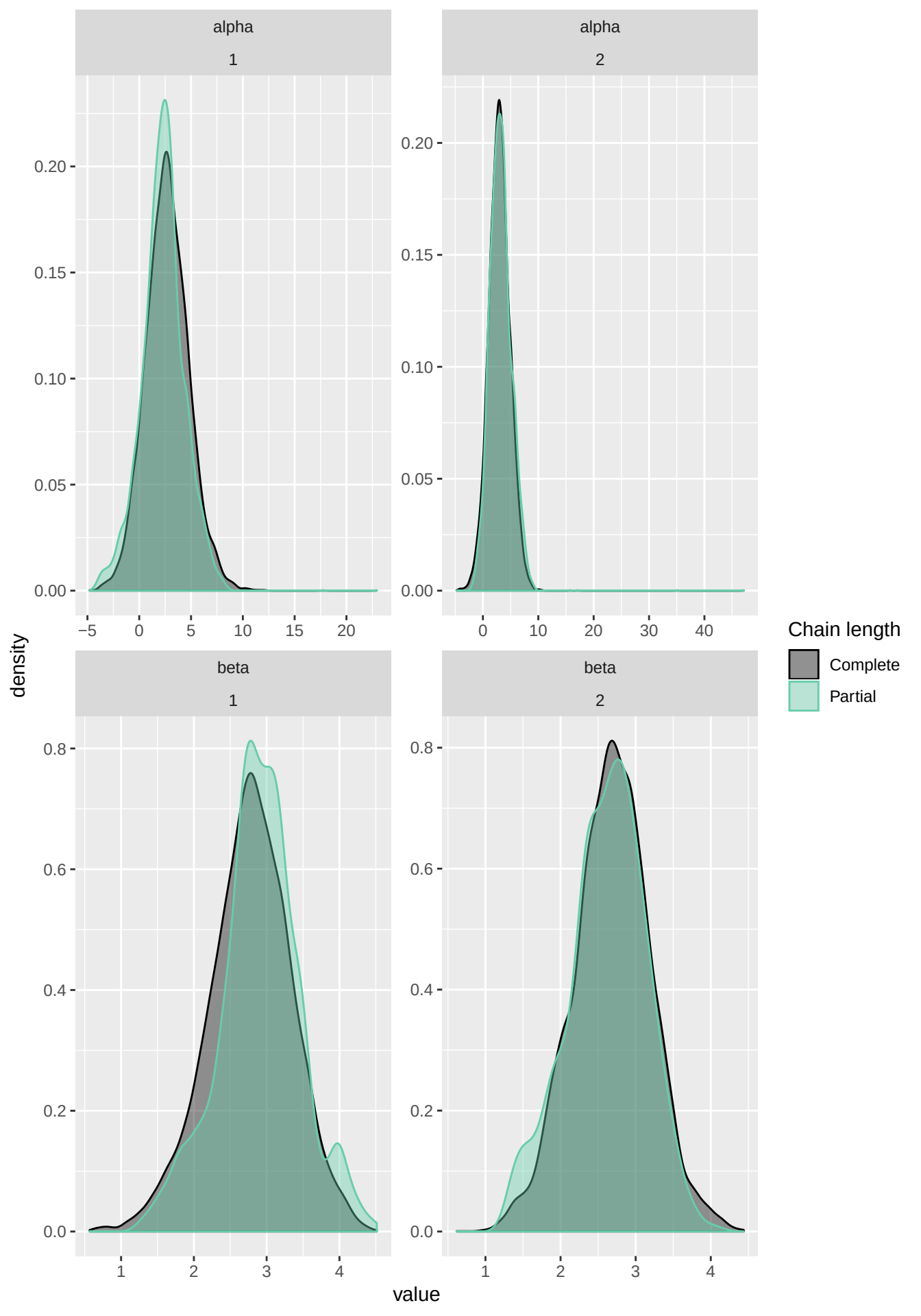

gamma
0.30
0.25
0.20
0.15
0.10
0
2500
5000
7500
10000
value
R2B
1
0
−1
−2
−3
−4
−5
0
2500
5000
7500
10000
Iteration
Chain
1
2

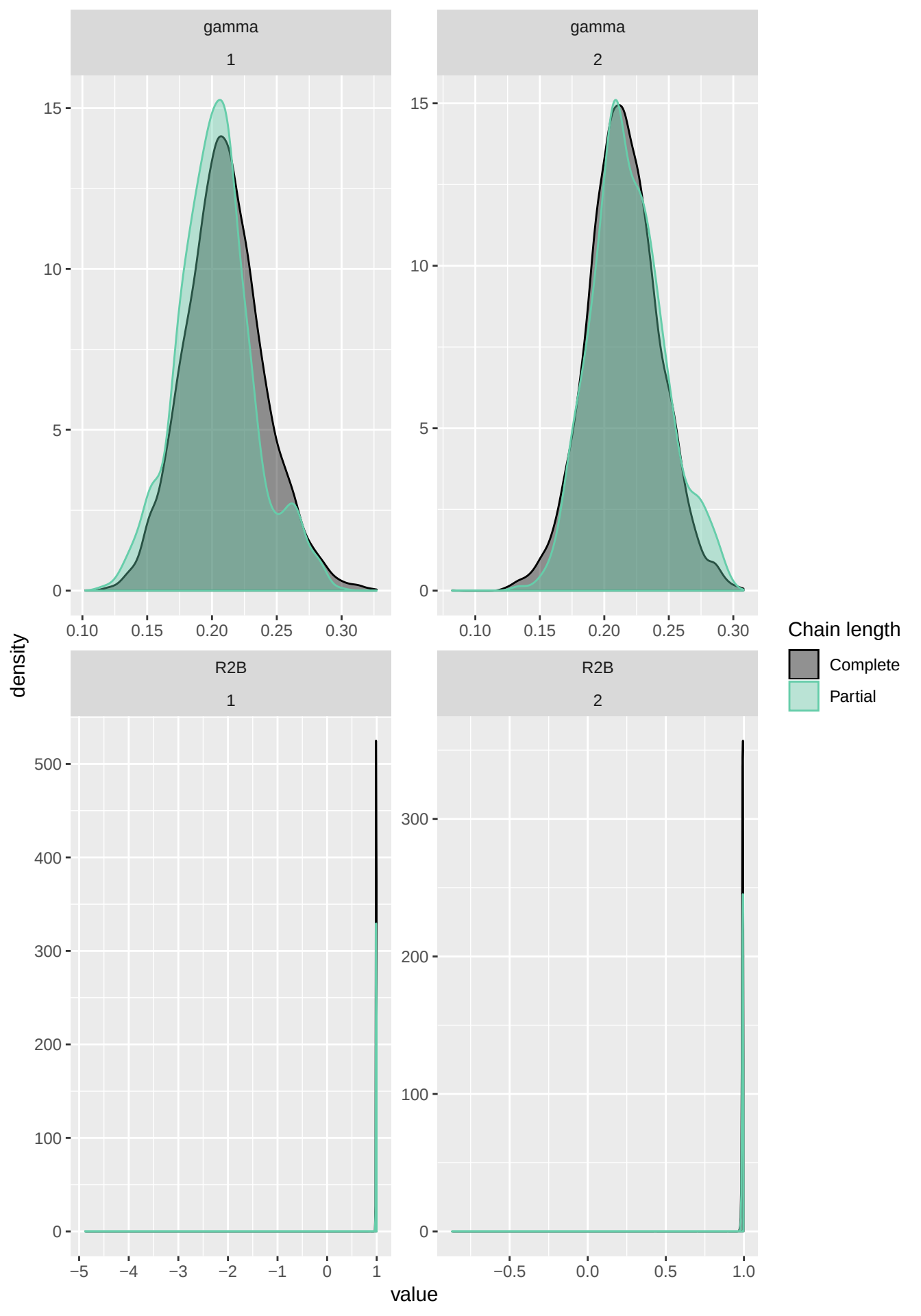

sigma2
value
6000
4000
2000
0
0
2500
5000
7500
10000
Iteration
Chain
1
2

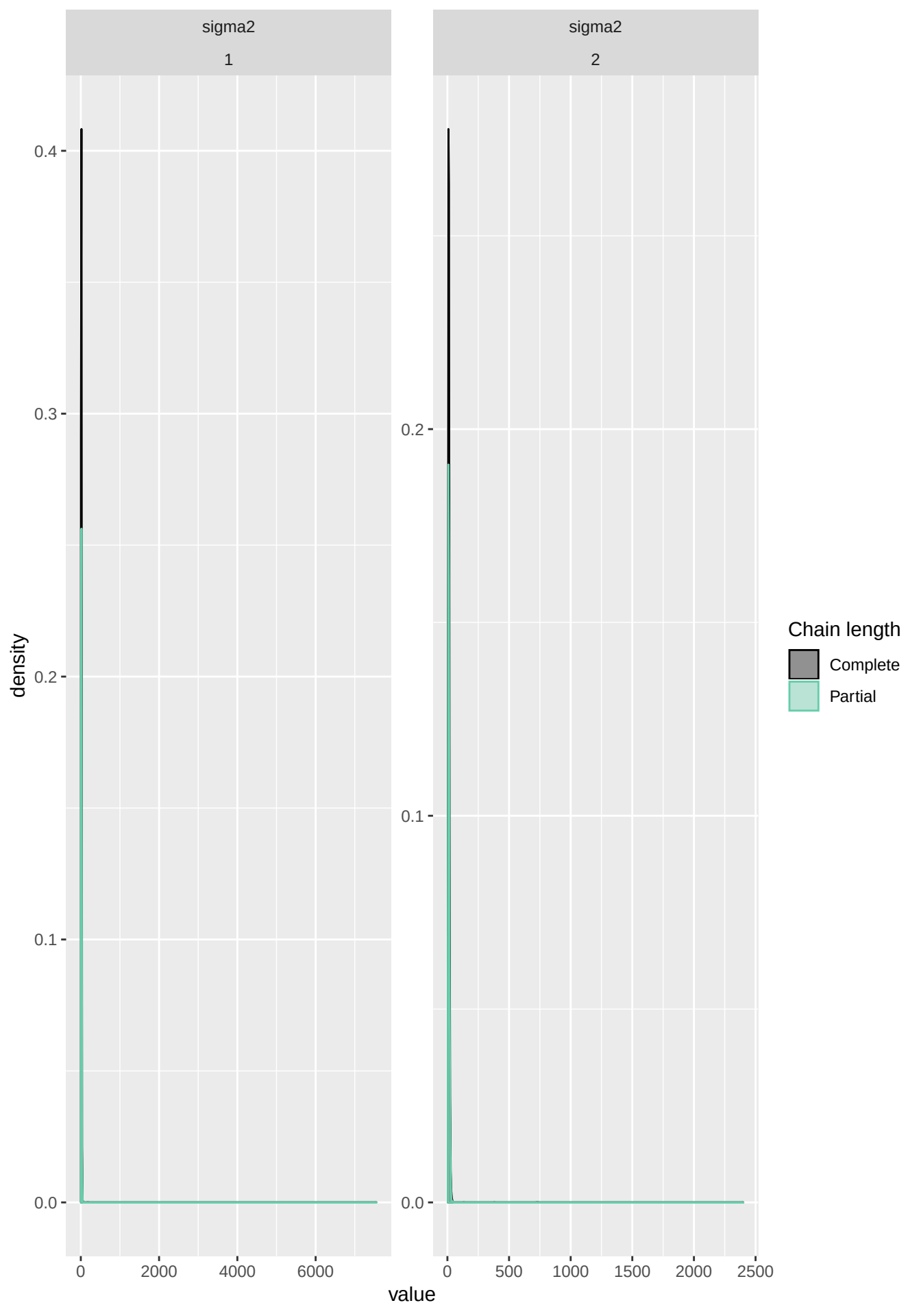

1
2
alpha
beta
Running Mean
Iteration
Chain
1
2
0
10
20
30
40
1
2
3
0
2500
5000
7500
10000

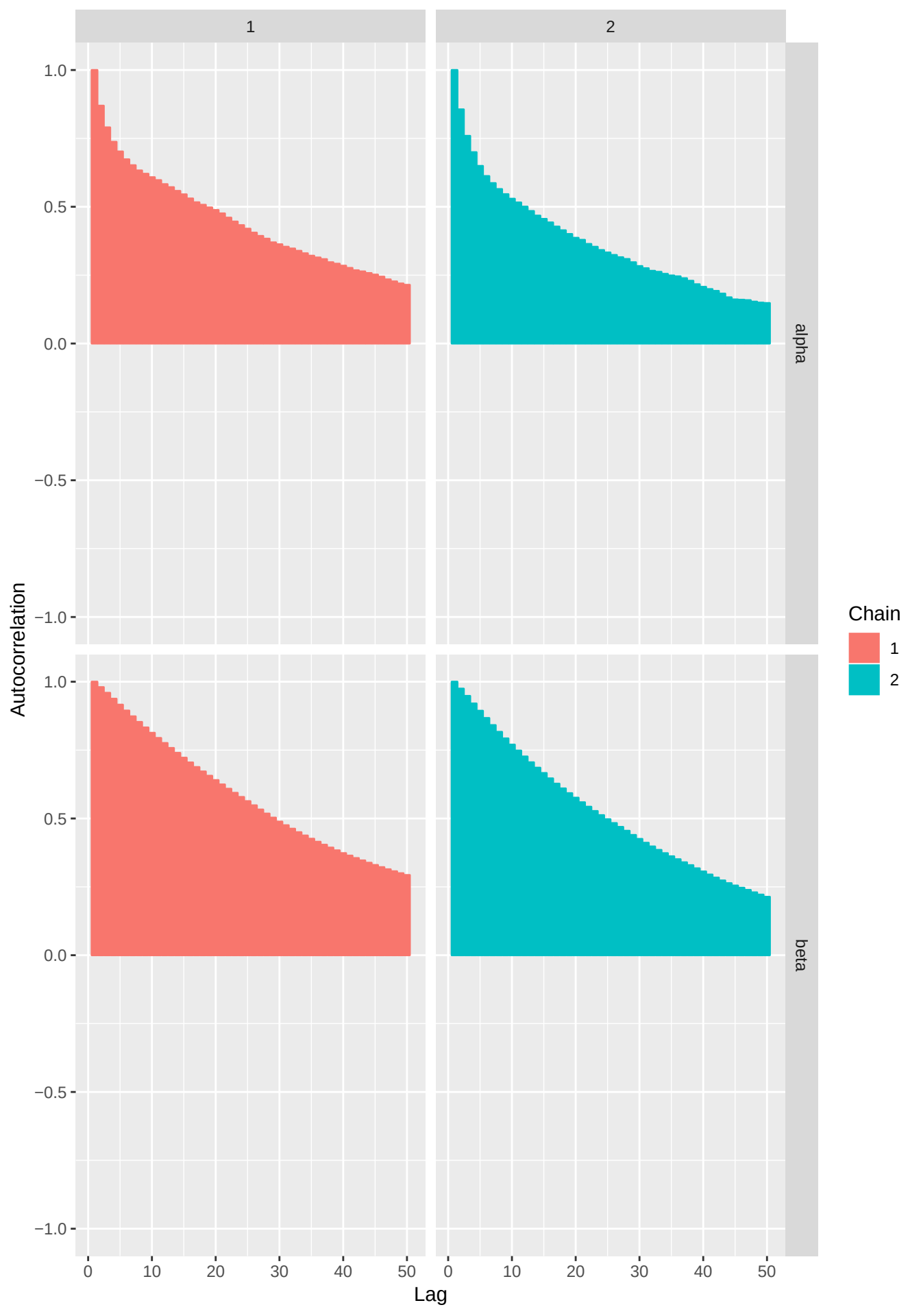

1
2
gamma
R2B
Running Mean
Iteration
0.20
0.16
0.12
0.08
1
0
−1
−2
−3
−4
−5
0
2500
5000
7500
10000
Chain
1
2

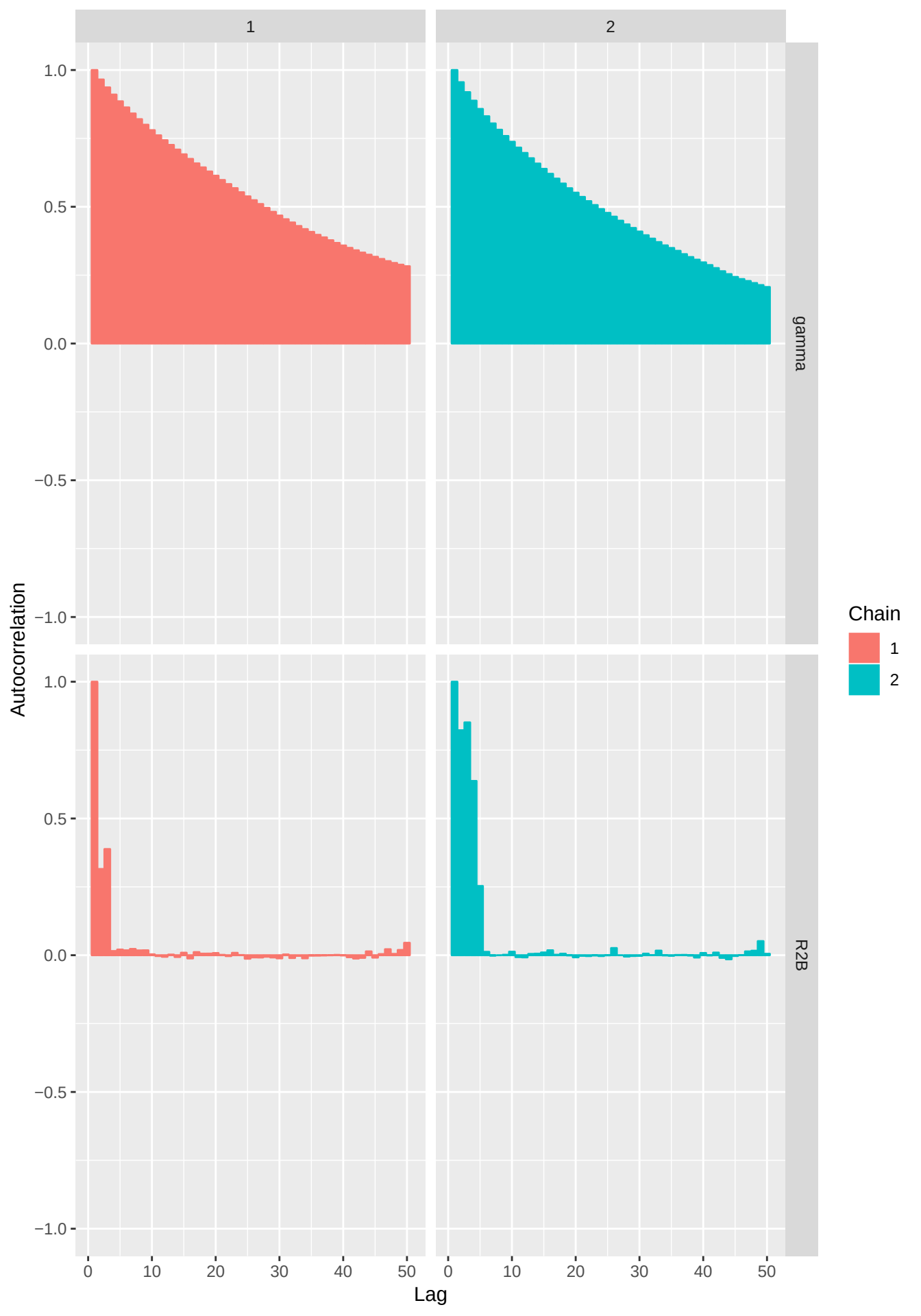

1
2
sigma2
Running Mean
6000
4000
2000
0
0
2500
5000
7500
10000
Iteration
Chain
1
2

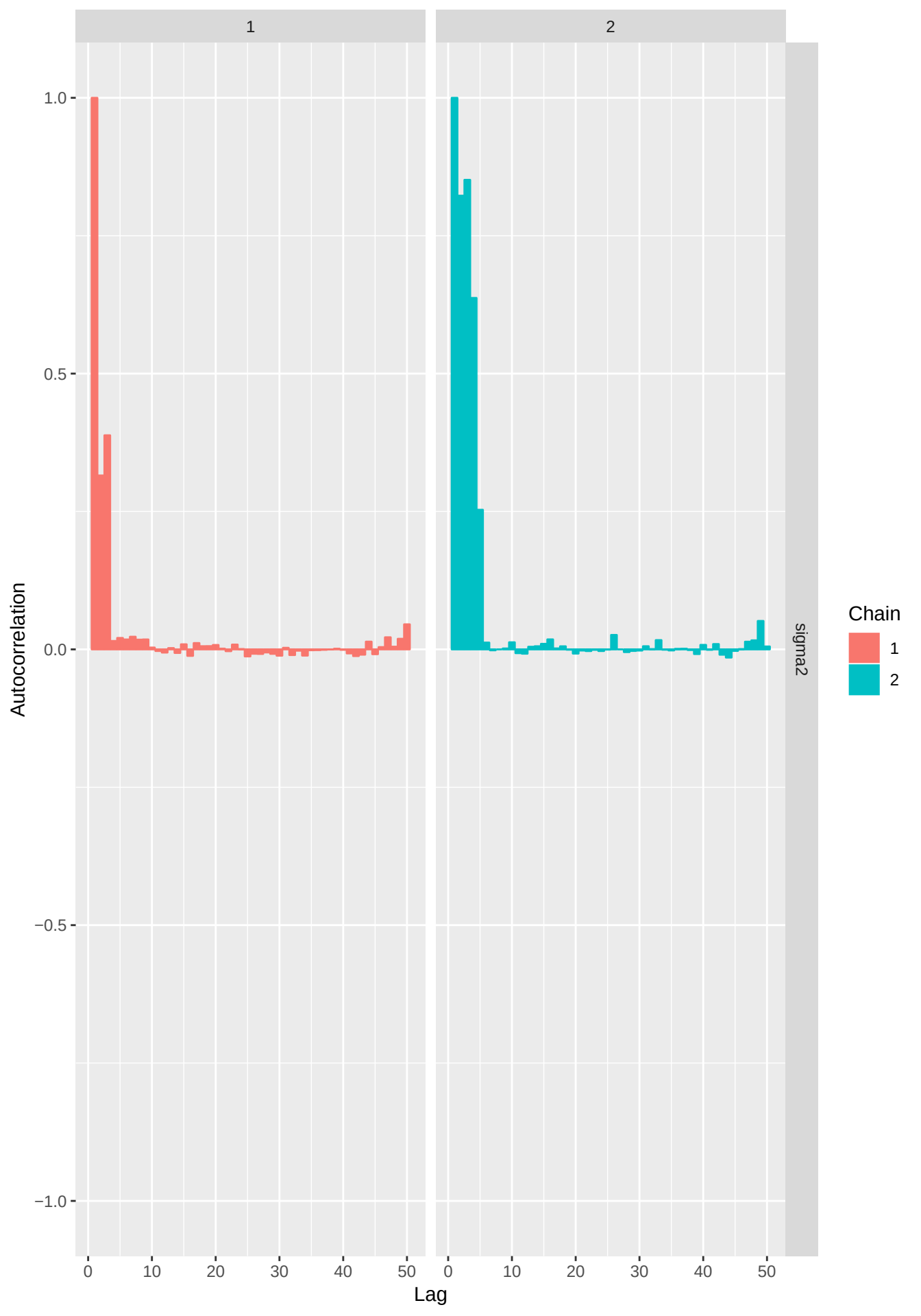

alpha
1
alpha
2
beta
1
beta
2
density
value
Chain length
Complete
Partial

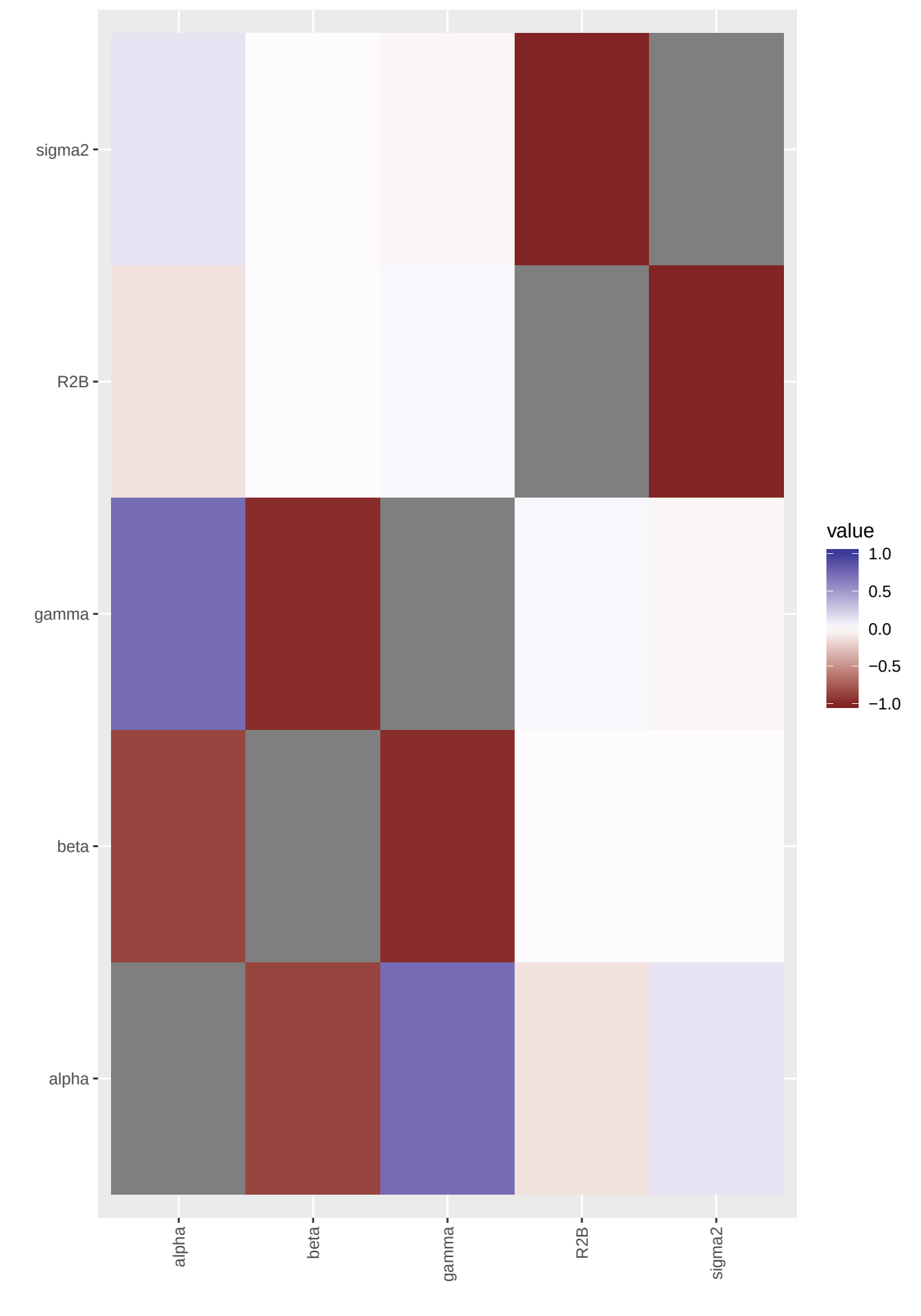

gamma
1
gamma
2
R2B
1
R2B
2
density
value
Chain length
Complete
Partial

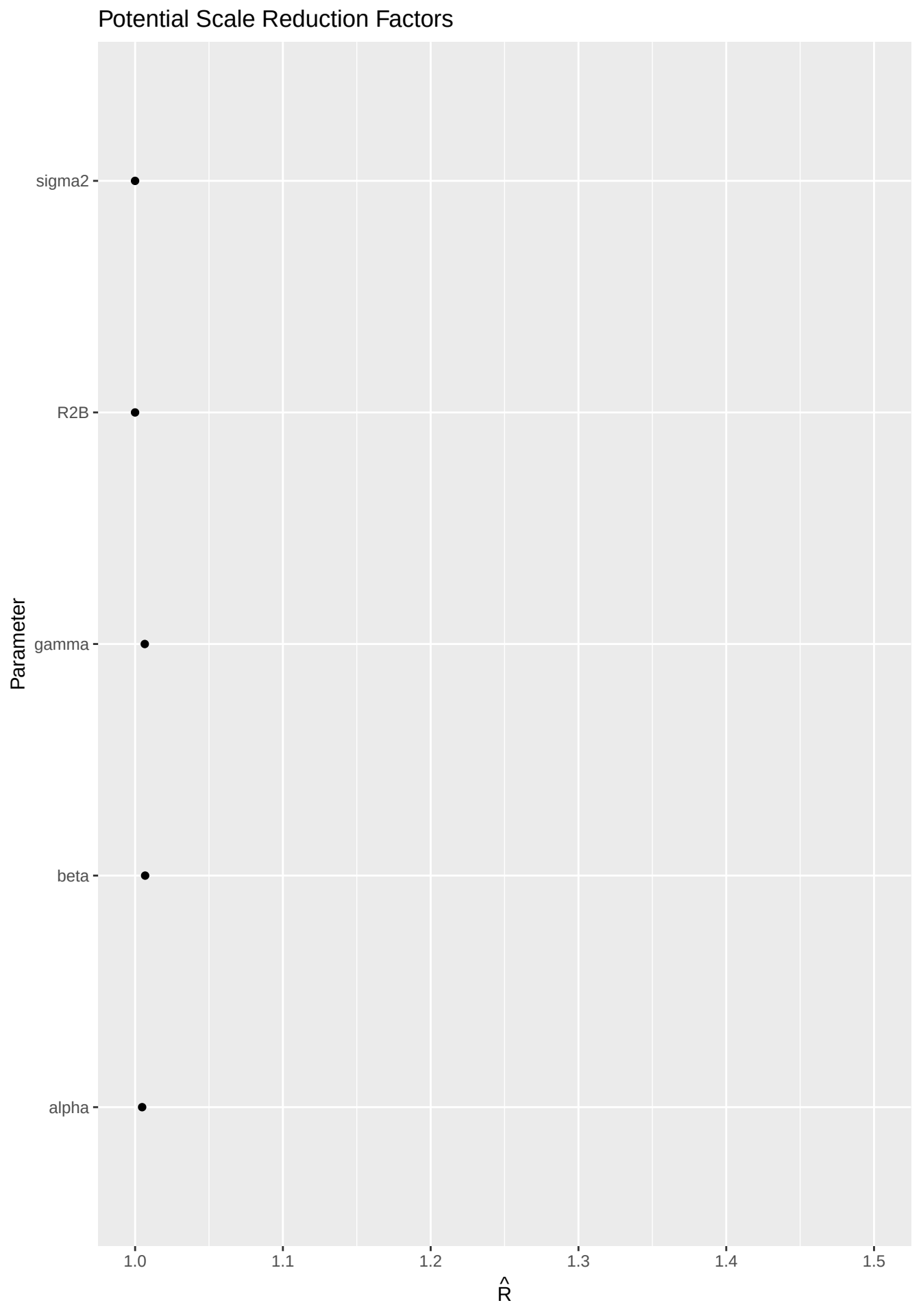

sigma2
1
sigma2
2
density
0.4
0.3
0.2
0.1
0.0
0.2
0.1
0.0
0
2000
4000
6000
0
500
1000
1500
2000
2500
value
Chain length
Complete
Partial

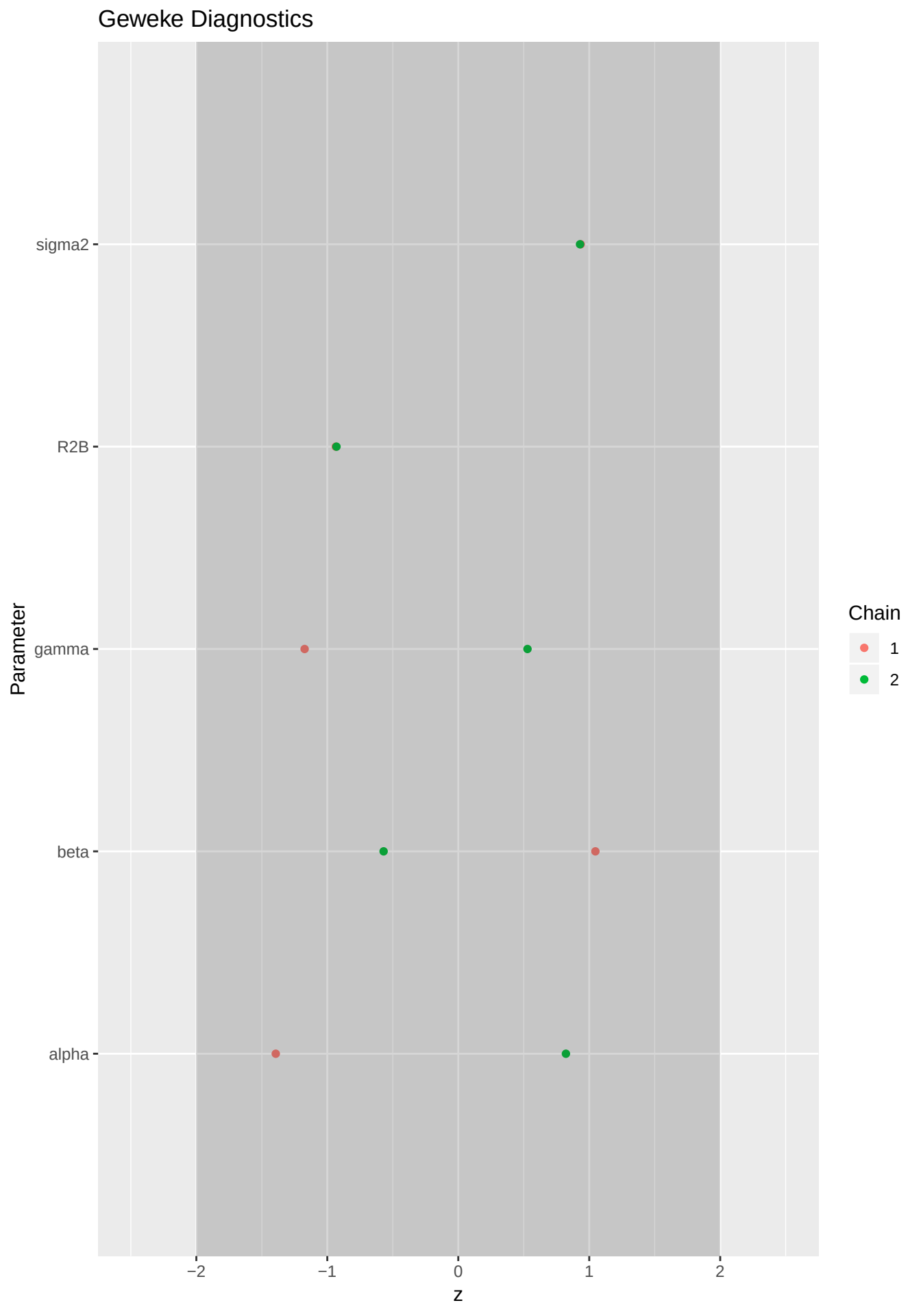

1
2
alpha
beta
1.0
0.5
0.0
−0.5
−1.0
Autocorrelation
0
10
20
30
40
50
Lag
Chain
1
2


1
2
gamma
R2B
Autocorrelation
Lag
Chain
1
2
1.0
0.5
0.0
−0.5
−1.0
0
10
20
30
40
50


1
2
1.0
0.5
0.0
−0.5
−1.0
Autocorrelation
0
10
20
30
40
50
Lag
sigma2
Chain
1
2


sigma2
R2B
gamma
beta
alpha
alpha
beta
gamma
R2B
sigma2
value
1.0
0.5
0.0
−0.5
−1.0


Potential Scale Reduction Factors
sigma2
R2B
gamma
beta
alpha
Parameter
1.0
1.1
1.2
1.3
1.4
1.5
R̂


Geweke Diagnostics
sigma2
R2B
gamma
beta
alpha
Parameter
−2
−1
0
1
2
z
Chain
1
2