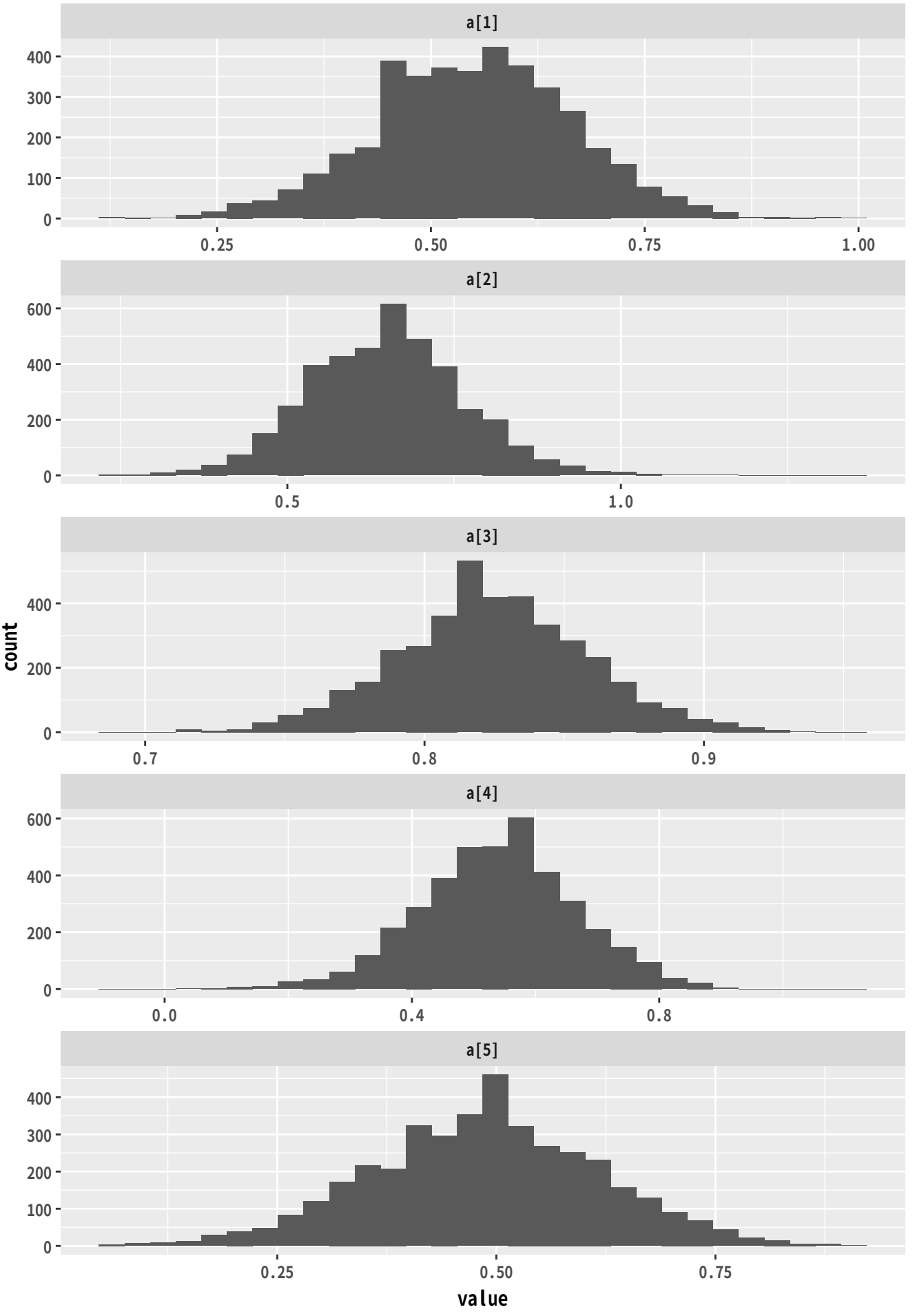
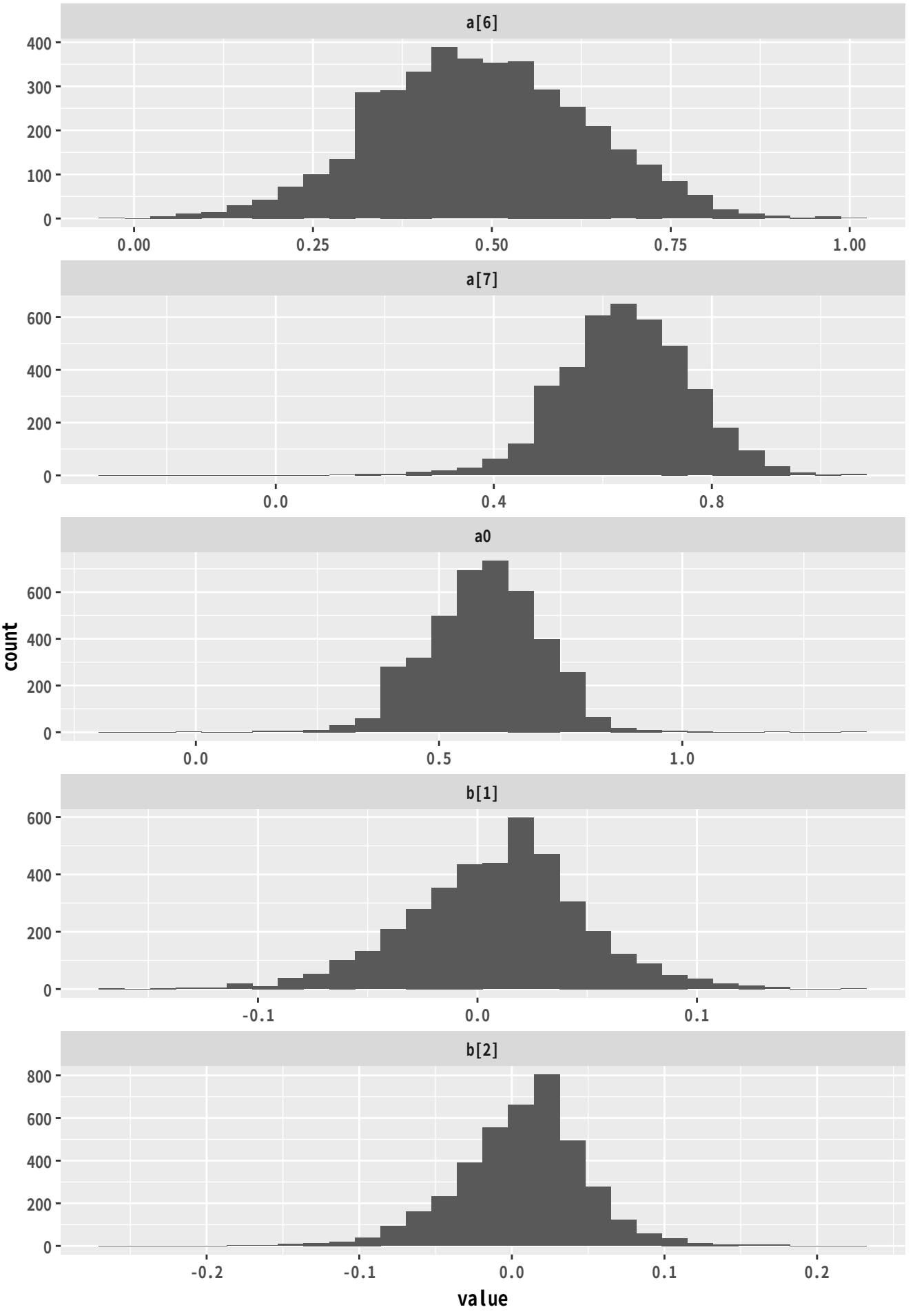
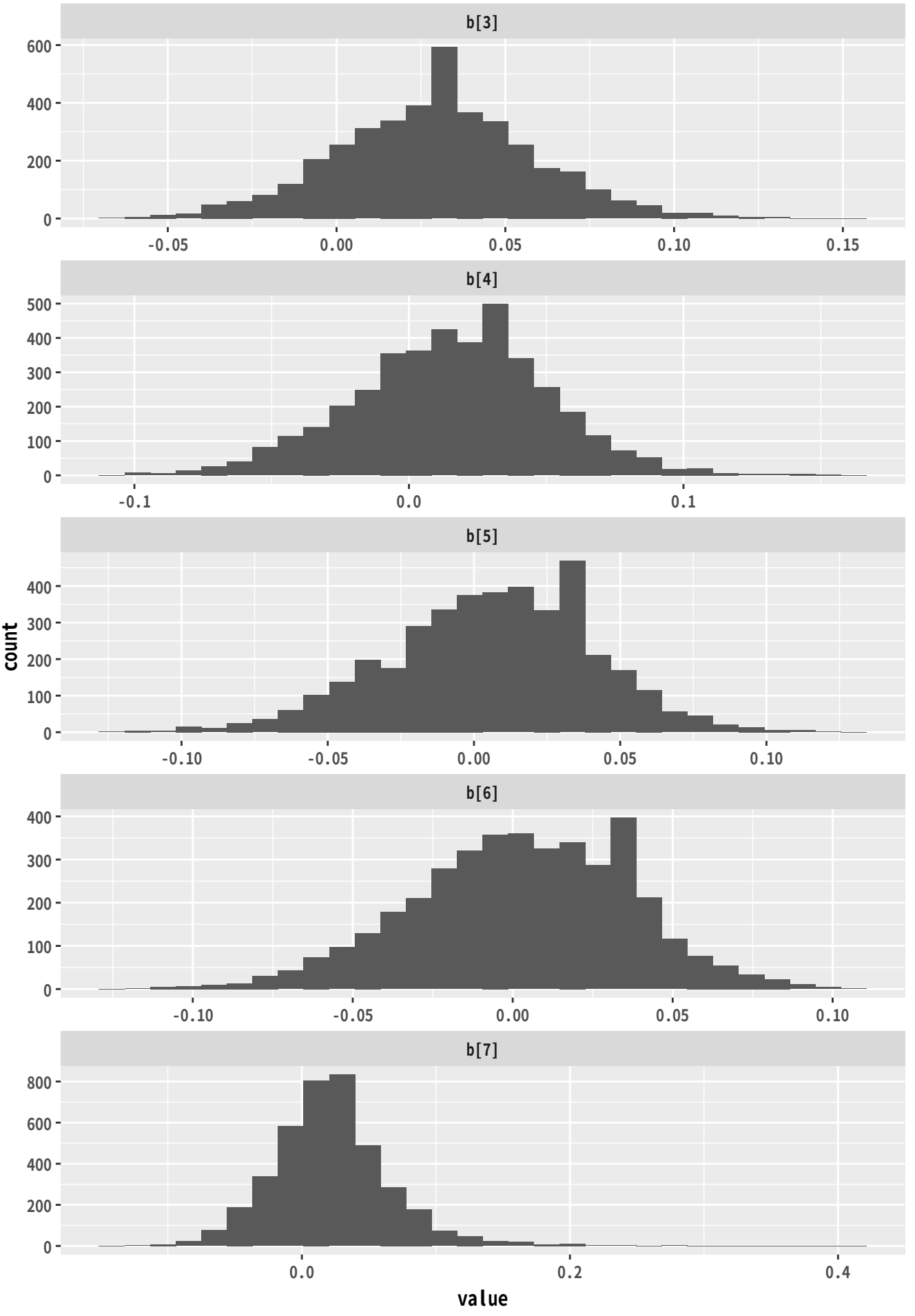
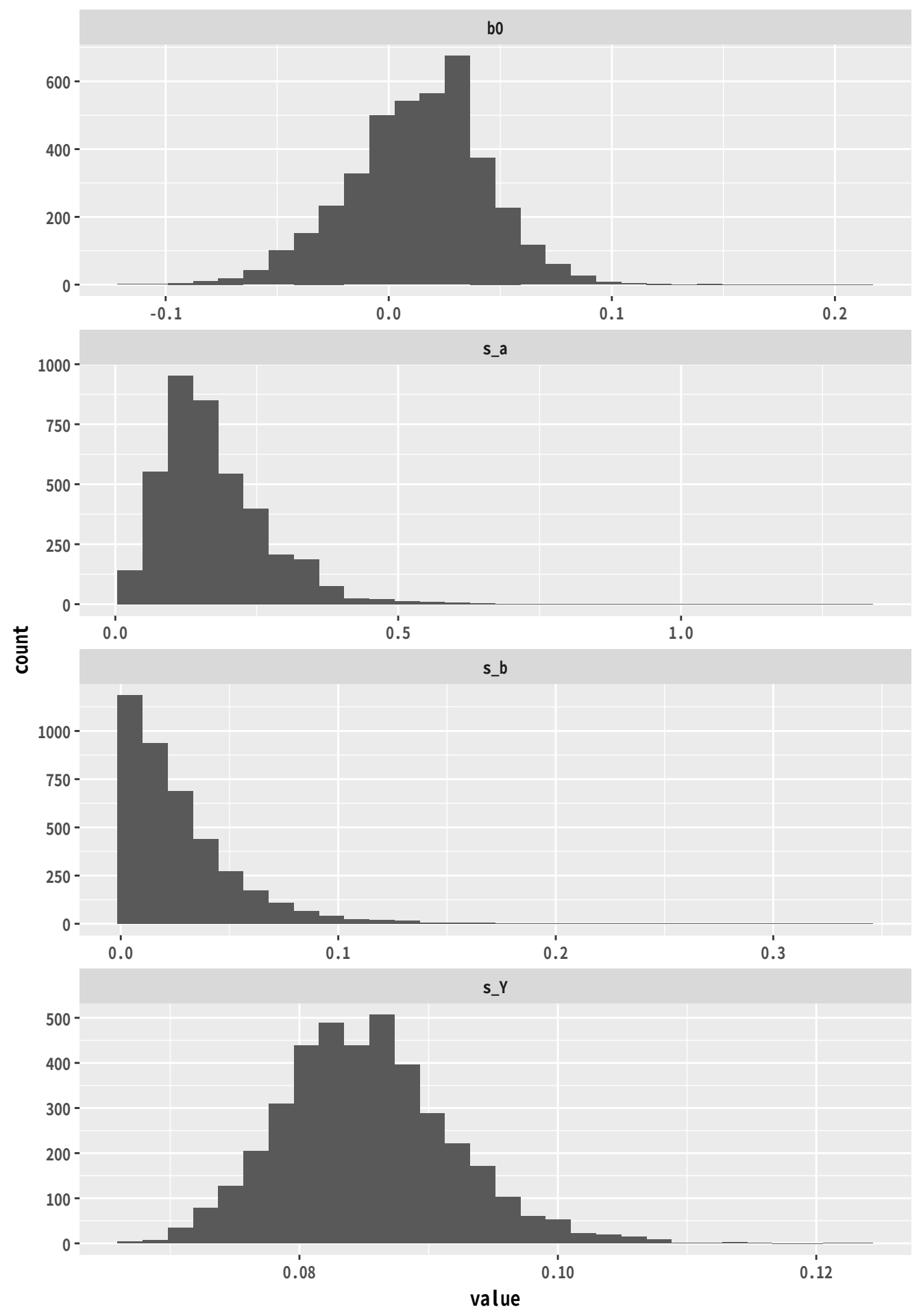
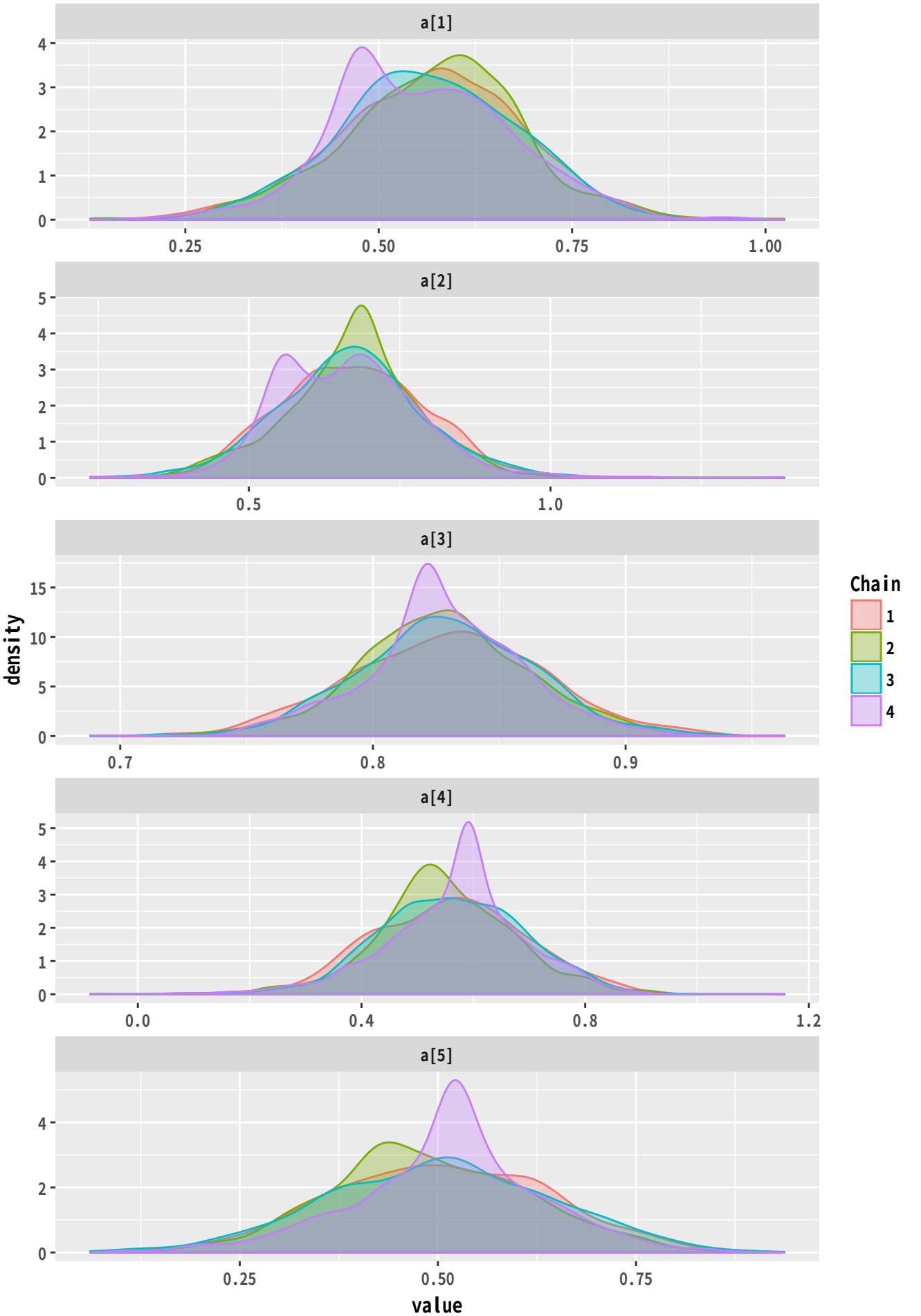
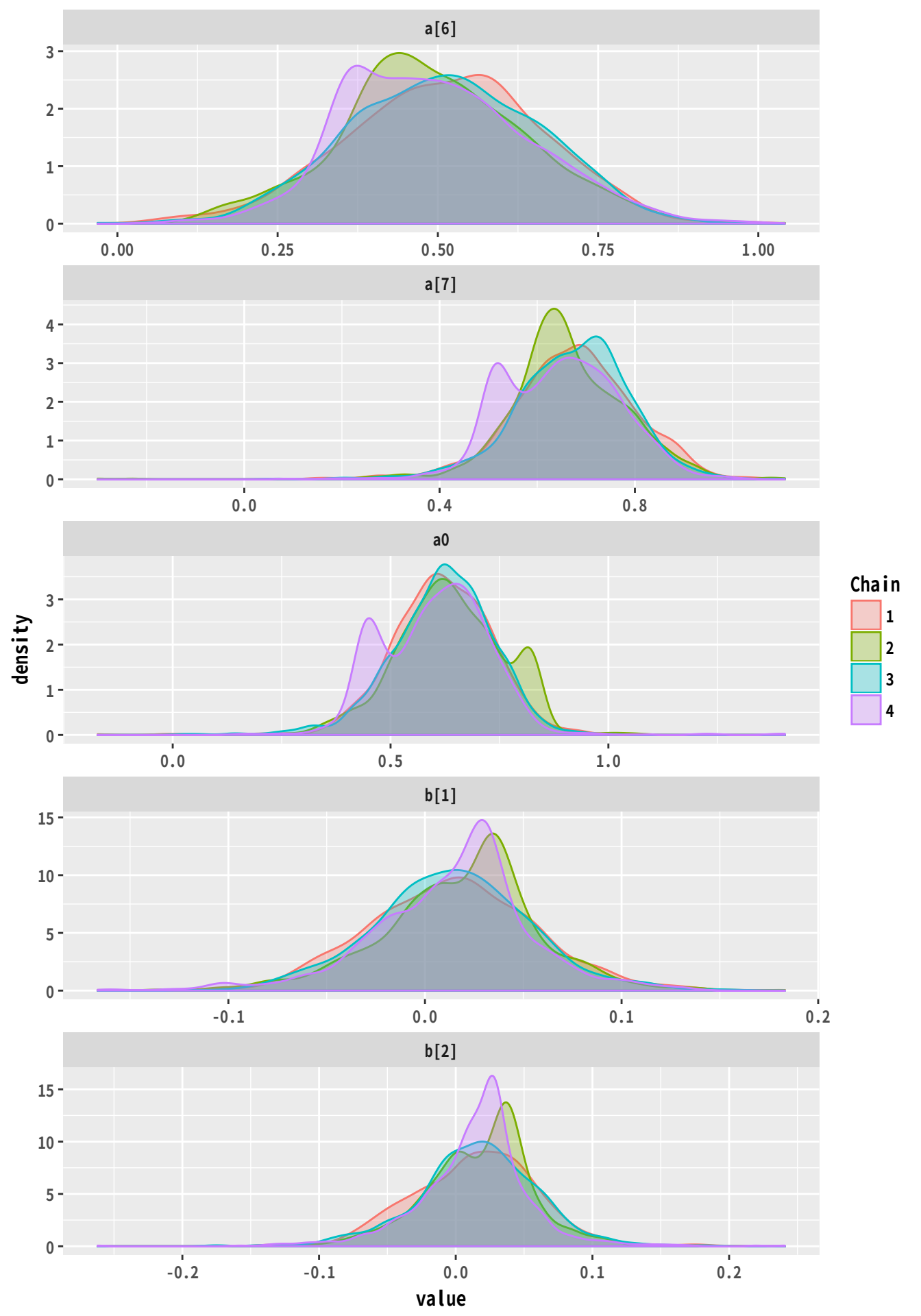

a[1]
400
300
200
100
0
0.25
0.50
0.75
1.00
a[2]
600
400
200
0
0.5
1.0
a[3]
400
200
0
0.7
0.8
0.9
a[4]
600
400
200
0
0.0
0.4
0.8
a[5]
400
300
200
100
0
0.25
0.50
0.75
count
value

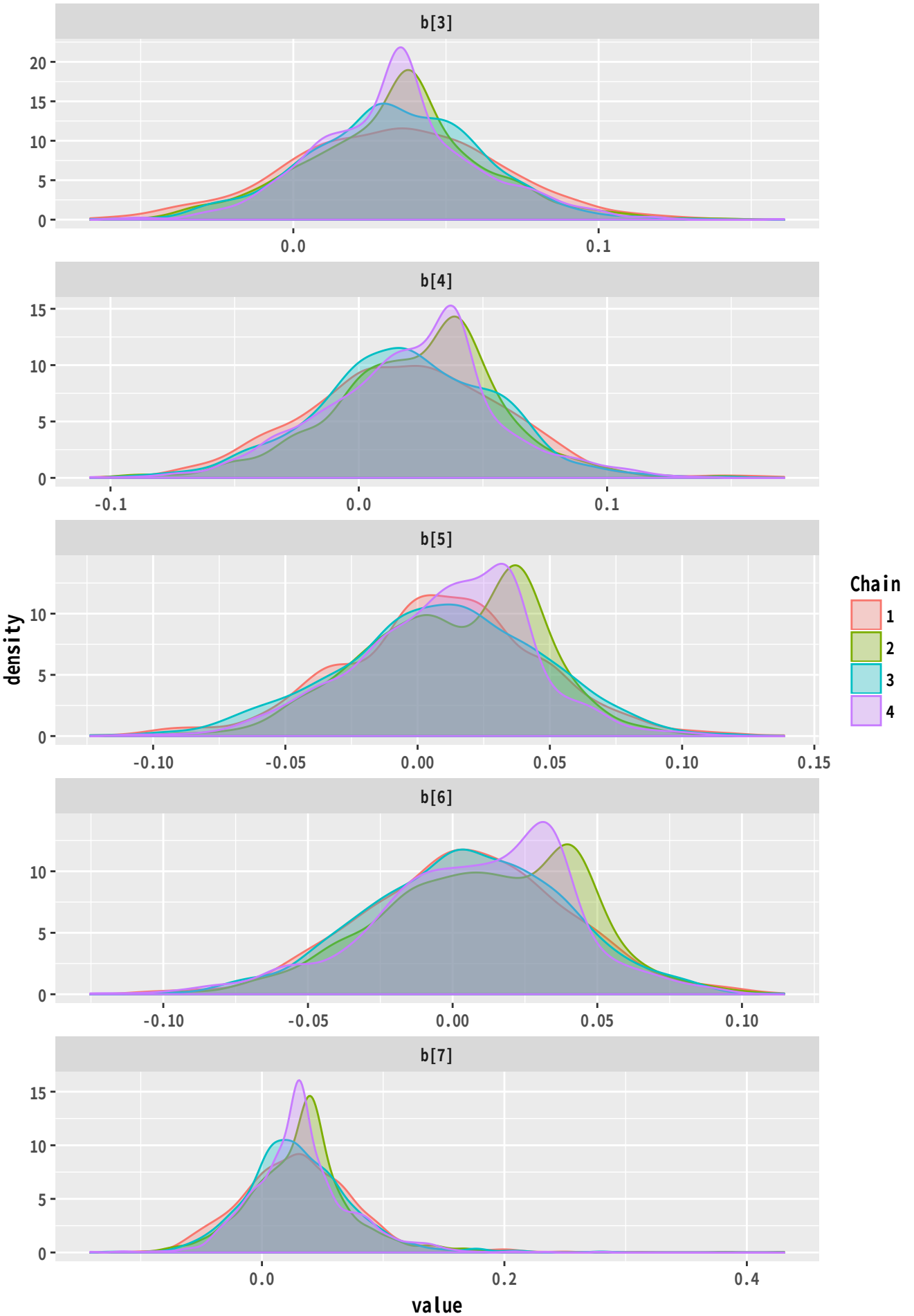

a[6]
400
300
200
100
0
0.00
0.25
0.50
0.75
1.00
a[7]
600
400
200
0
0.0
0.4
0.8
a0
600
400
200
0
0.0
0.5
1.0
count
b[1]
600
400
200
0
-0.1
0.0
0.1
b[2]
800
600
400
200
0
-0.2
-0.1
0.0
0.1
0.2
value

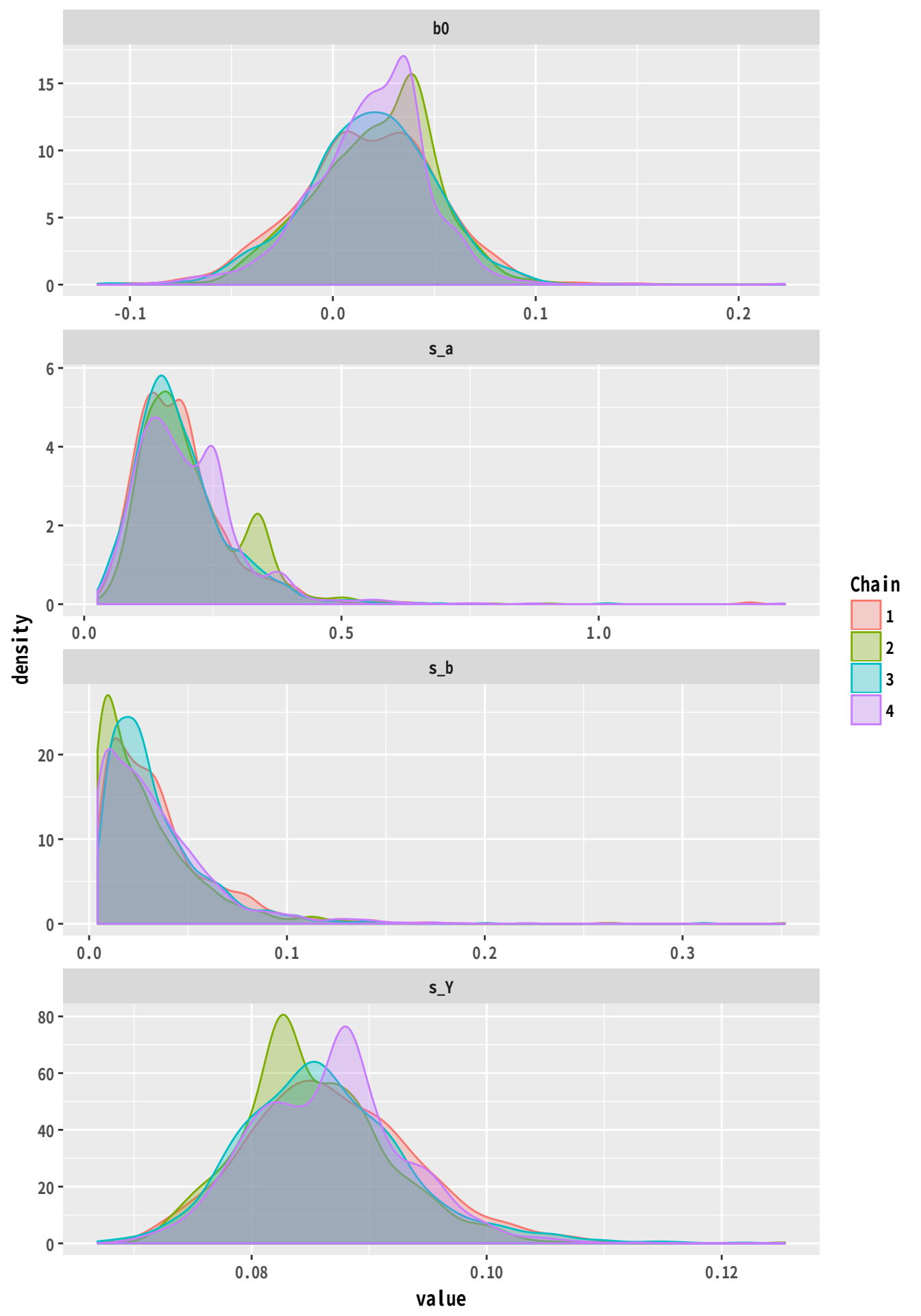

b[3]
600
400
200
0
-0.05
0.00
0.05
0.10
0.15
b[4]
500
400
300
200
100
0
-0.1
0.0
0.1
b[5]
count
400
300
200
100
0
-0.10
-0.05
0.00
0.05
0.10
b[6]
400
300
200
100
0
-0.10
-0.05
0.00
0.05
0.10
b[7]
800
600
400
200
0
0.0
0.2
0.4
value

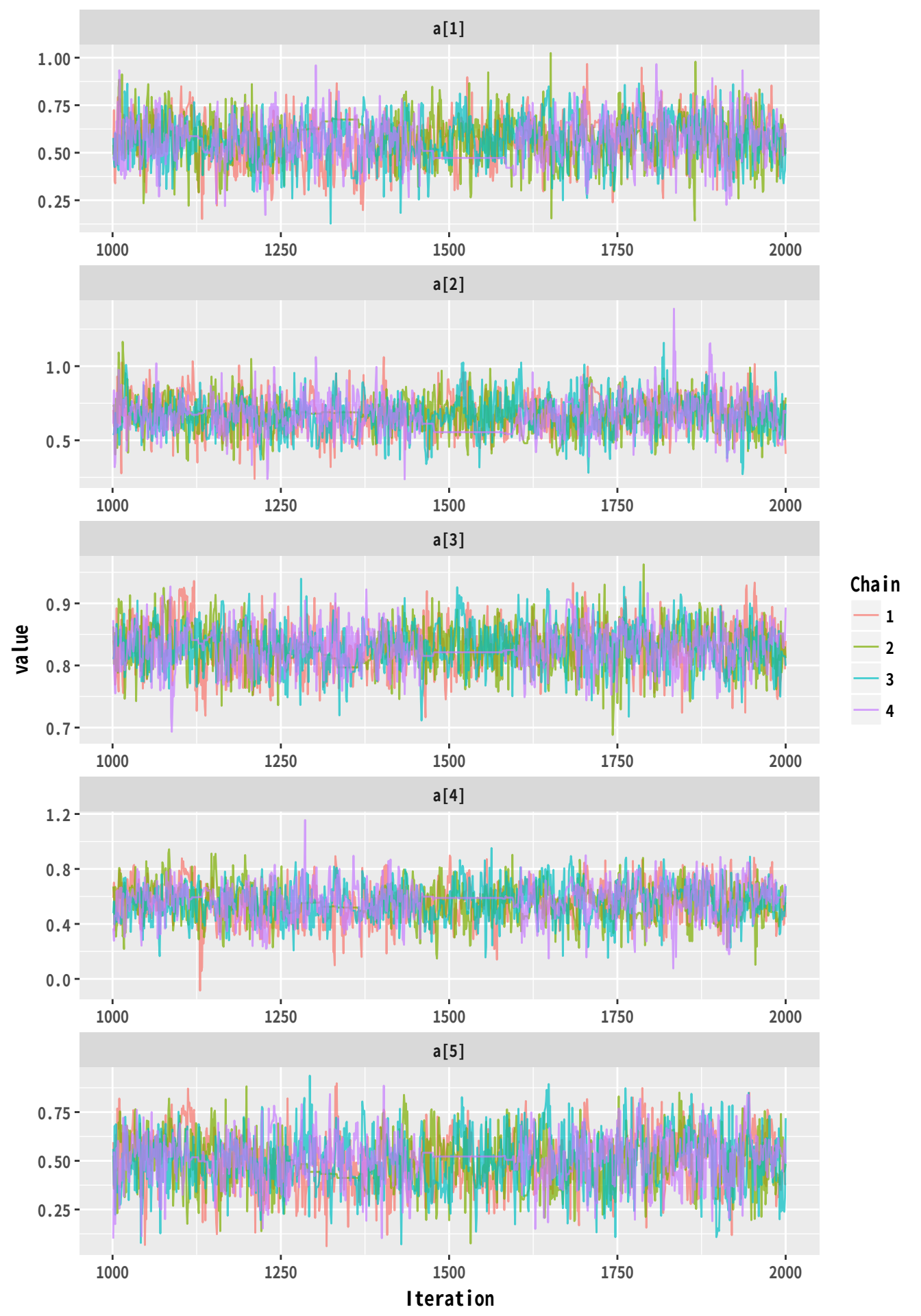

b0
s_a
s_b
s_Y
count
value
600
400
200
0
-0.1
0.0
0.1
0.2
1000
750
500
250
0
0.5
1.0
0.3
100
300
0.08
0.10
0.12

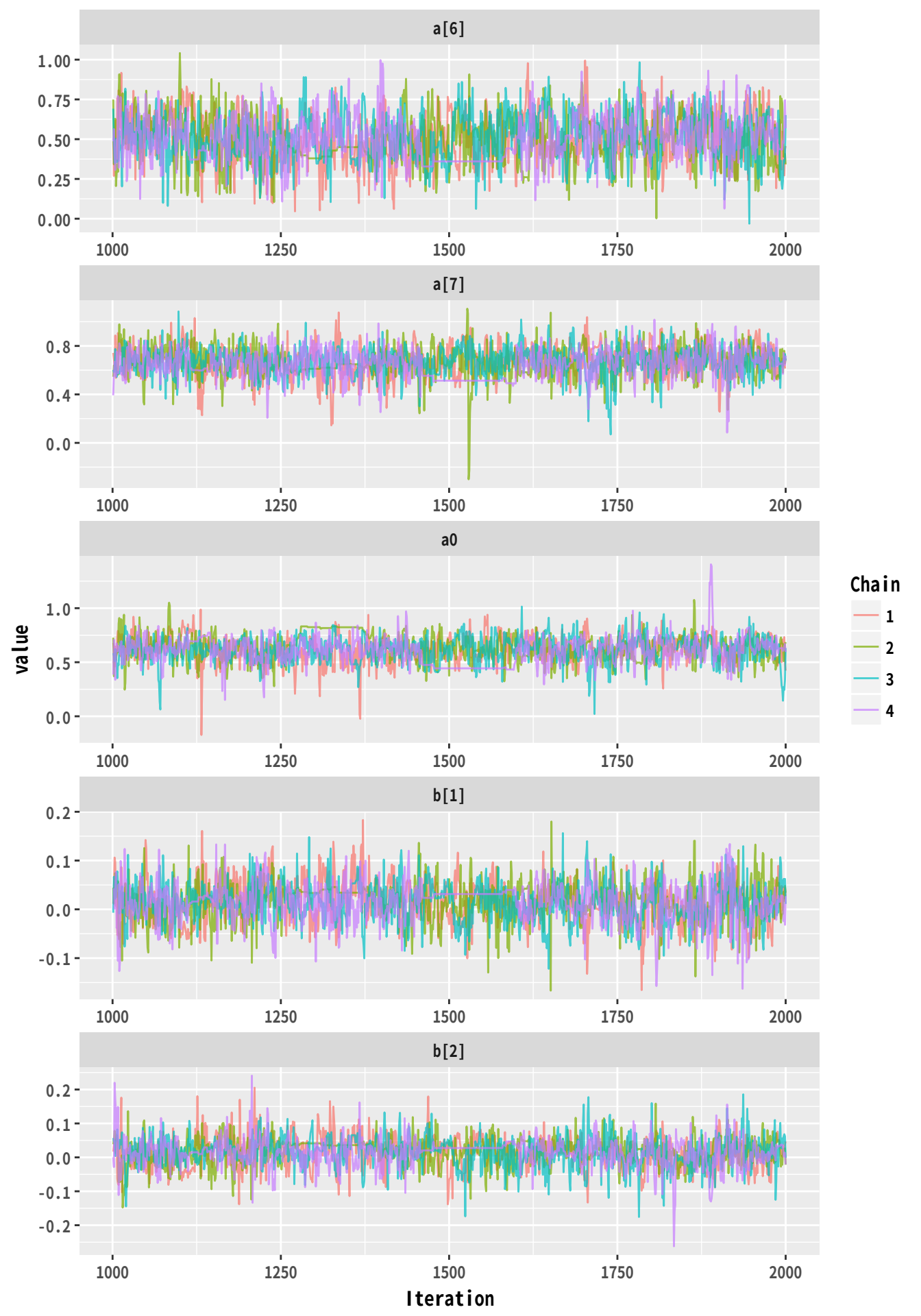

a[1]
a[2]
a[3]
a[4]
a[5]
density
value
Chain
1
2
3
4

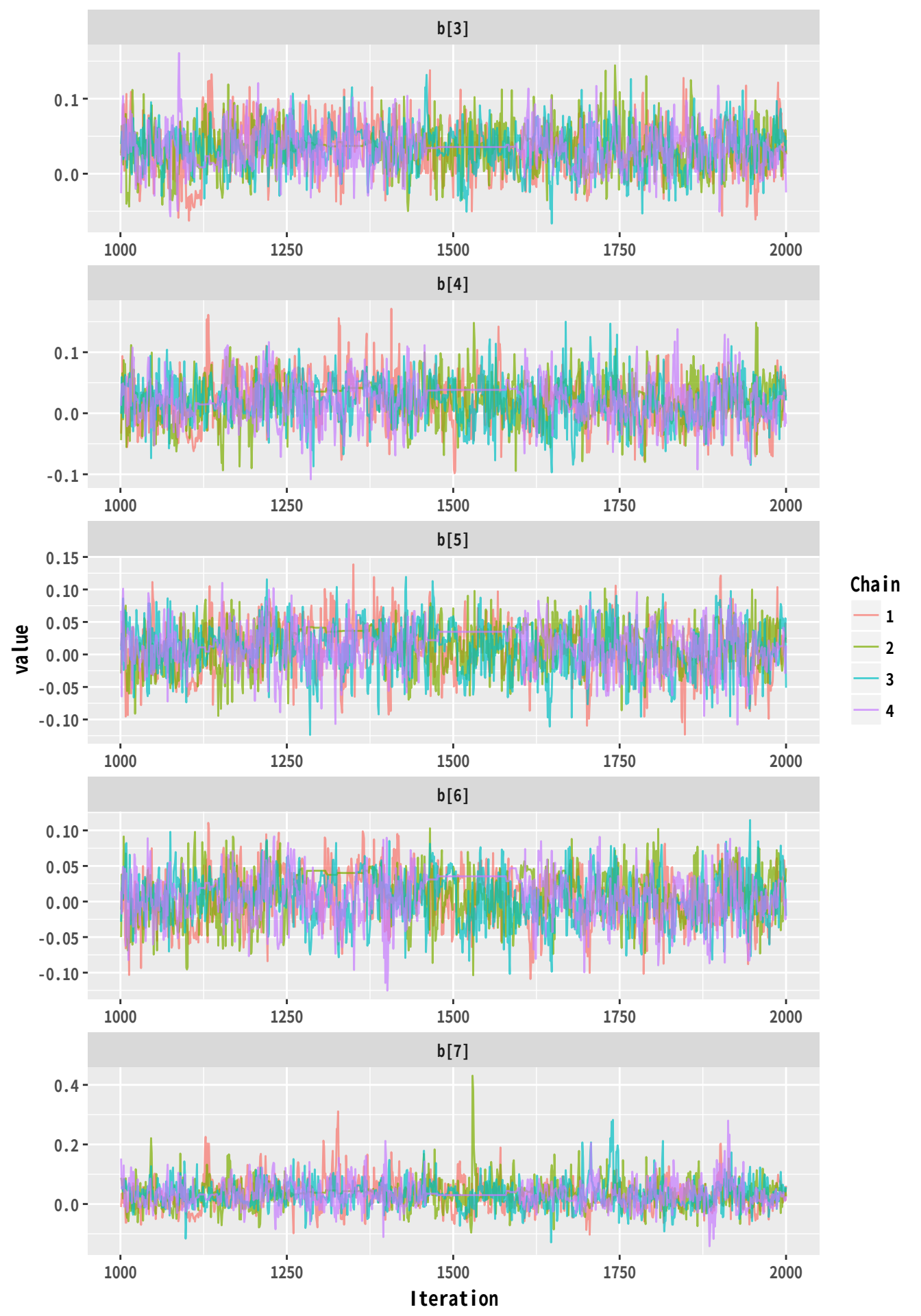

a[6]
a[7]
a0
b[1]
b[2]
density
value
Chain
1
2
3
4

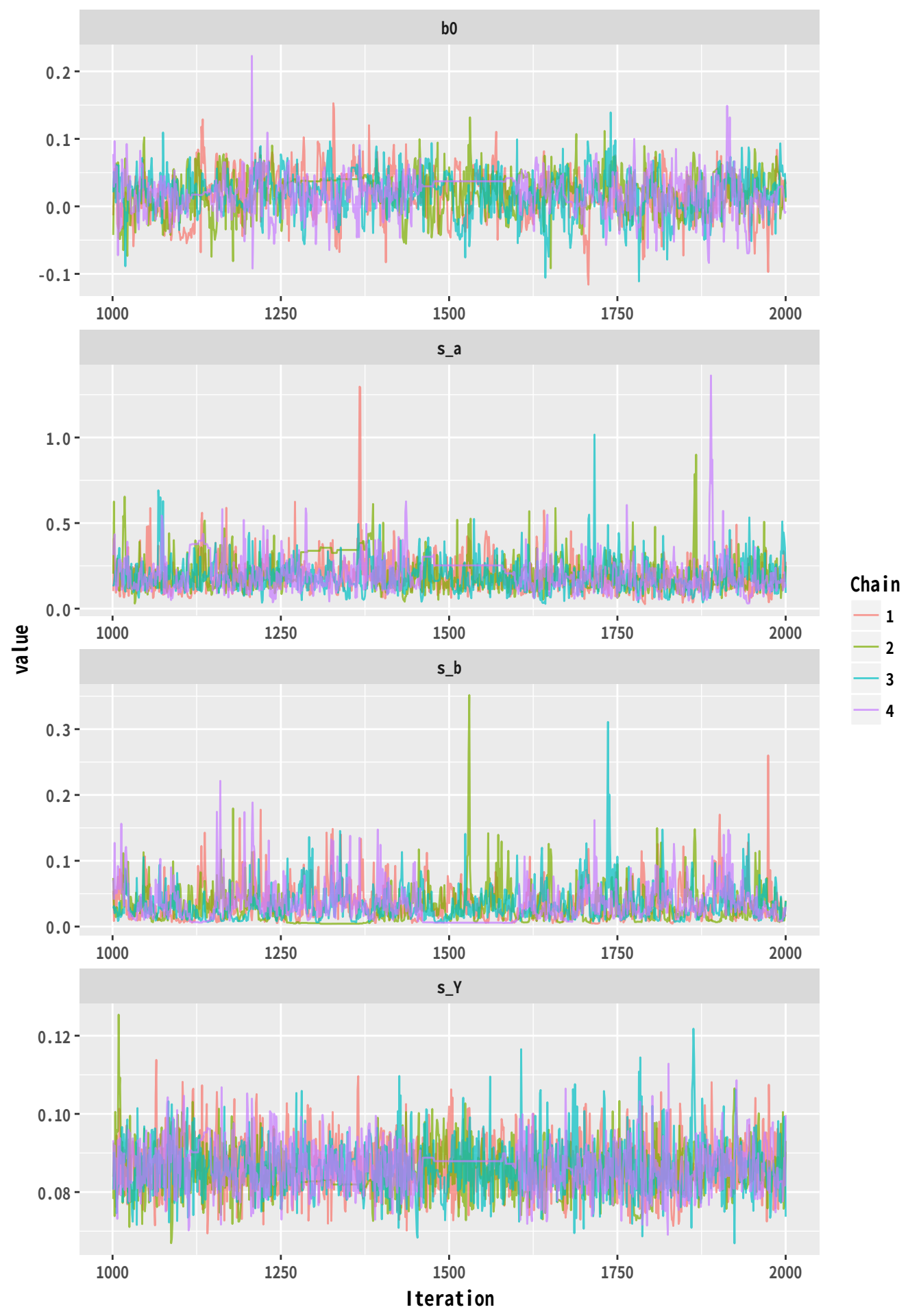

b[3]
b[4]
b[5]
b[6]
b[7]
density
value
Chain
1
2
3
4

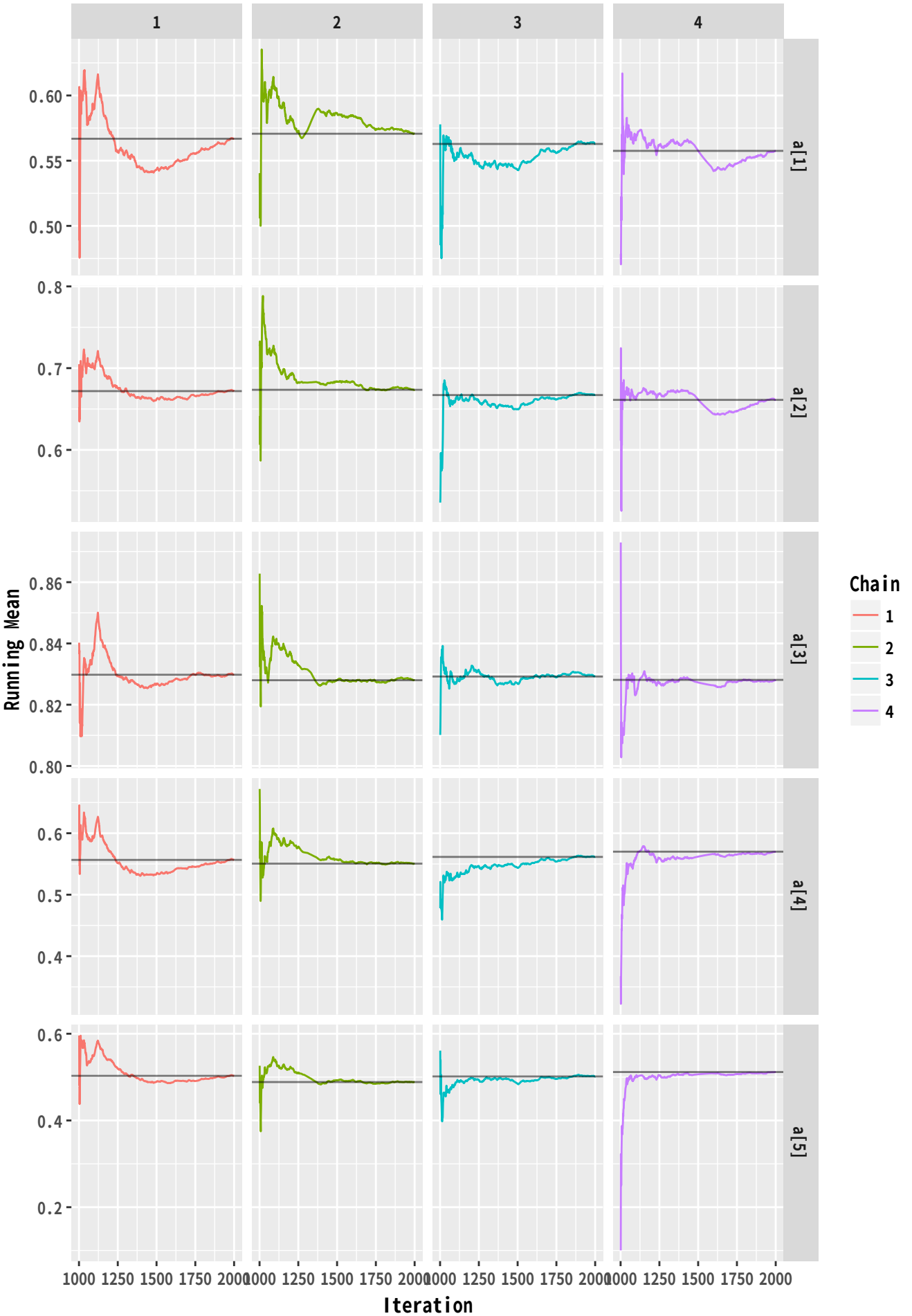

b0
s_a
s_b
s_Y
density
value
Chain
1
2
3
4

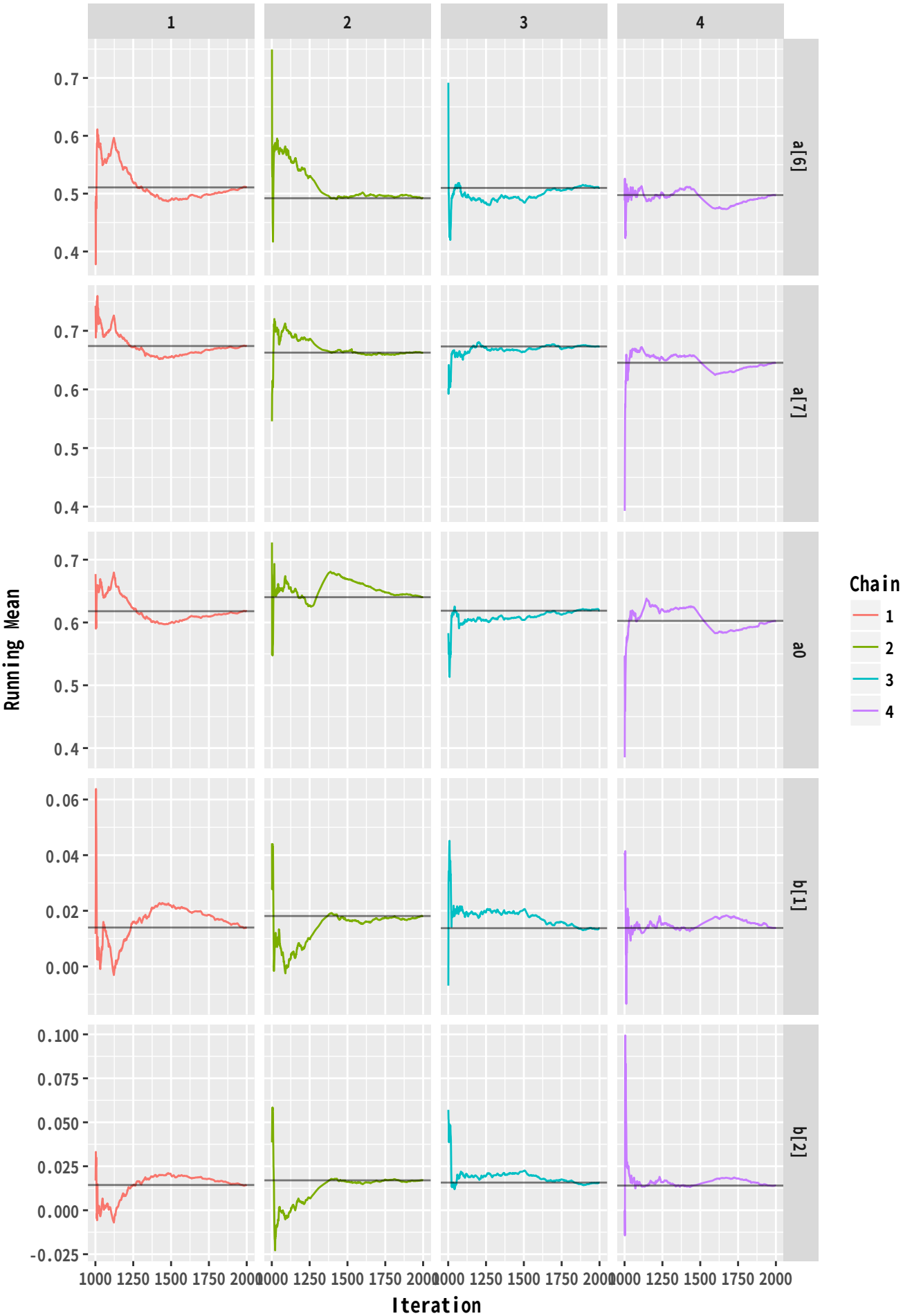

a[1]
a[2]
a[3]
a[4]
a[5]
value
Iteration
Chain
1
2
3
4

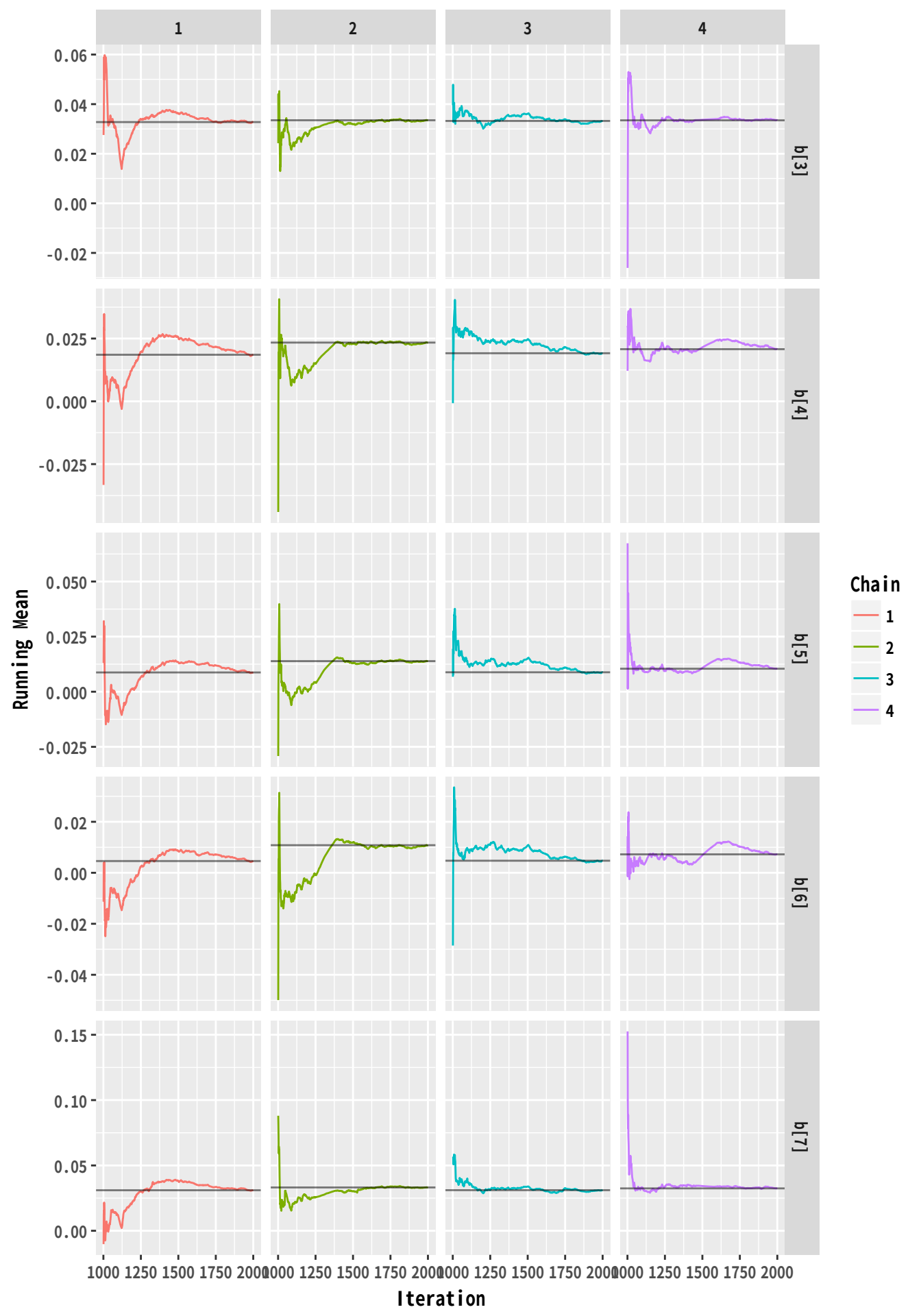

a[6]
1.00
0.75
0.50
0.25
0.00
1000
1250
1500
1750
2000
a[7]
0.8
0.4
0.0
1000
1250
1500
1750
2000
a0
1.0
0.5
0.0
1000
1250
1500
1750
2000
b[1]
0.2
0.1
0.0
-0.1
1000
1250
1500
1750
2000
b[2]
0.2
0.1
0.0
-0.1
-0.2
1000
1250
1500
1750
2000
value
Iteration
Chain
1
2
3
4

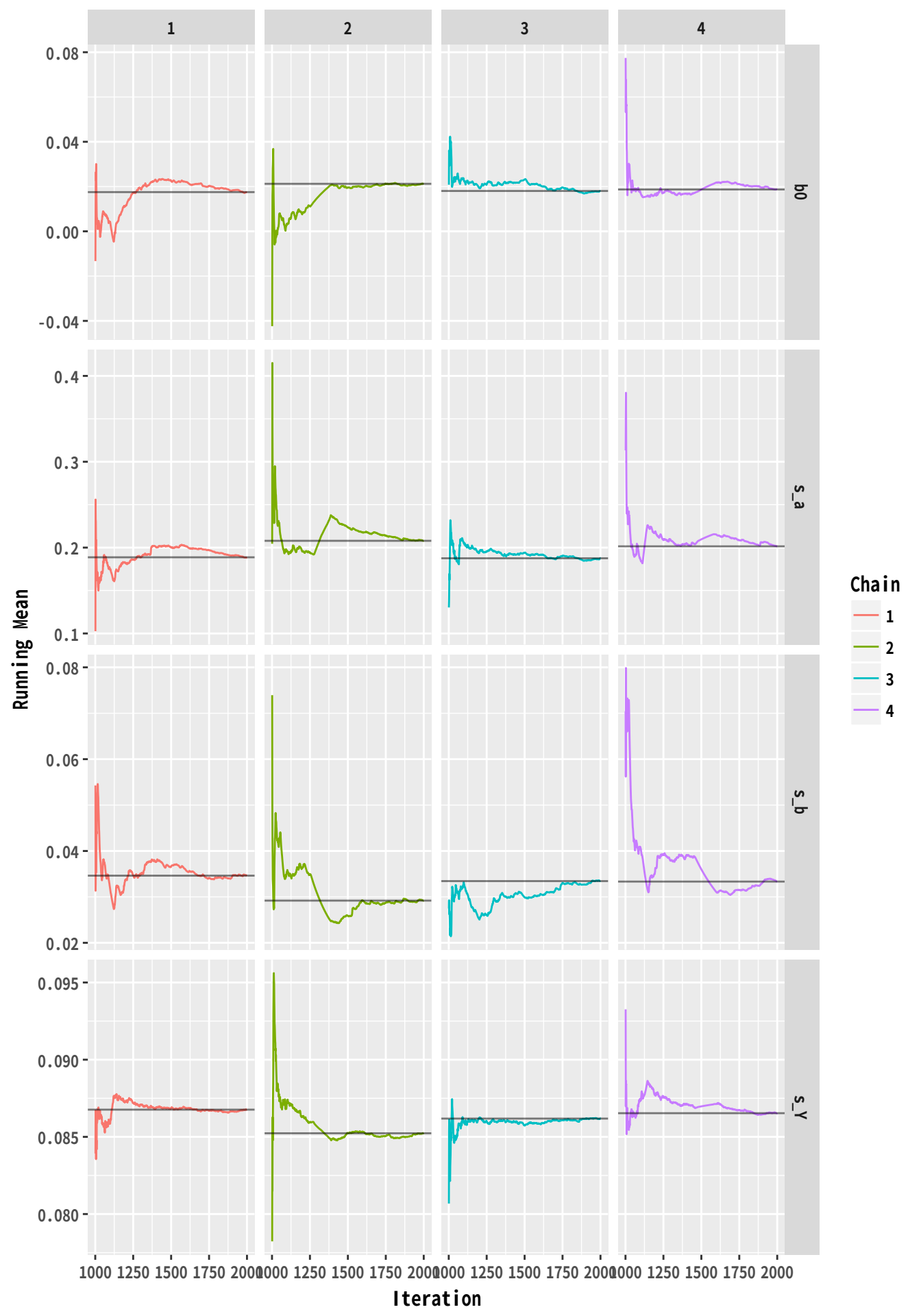

b[3]
b[4]
b[5]
b[6]
b[7]
value
Iteration
Chain
1
2
3
4

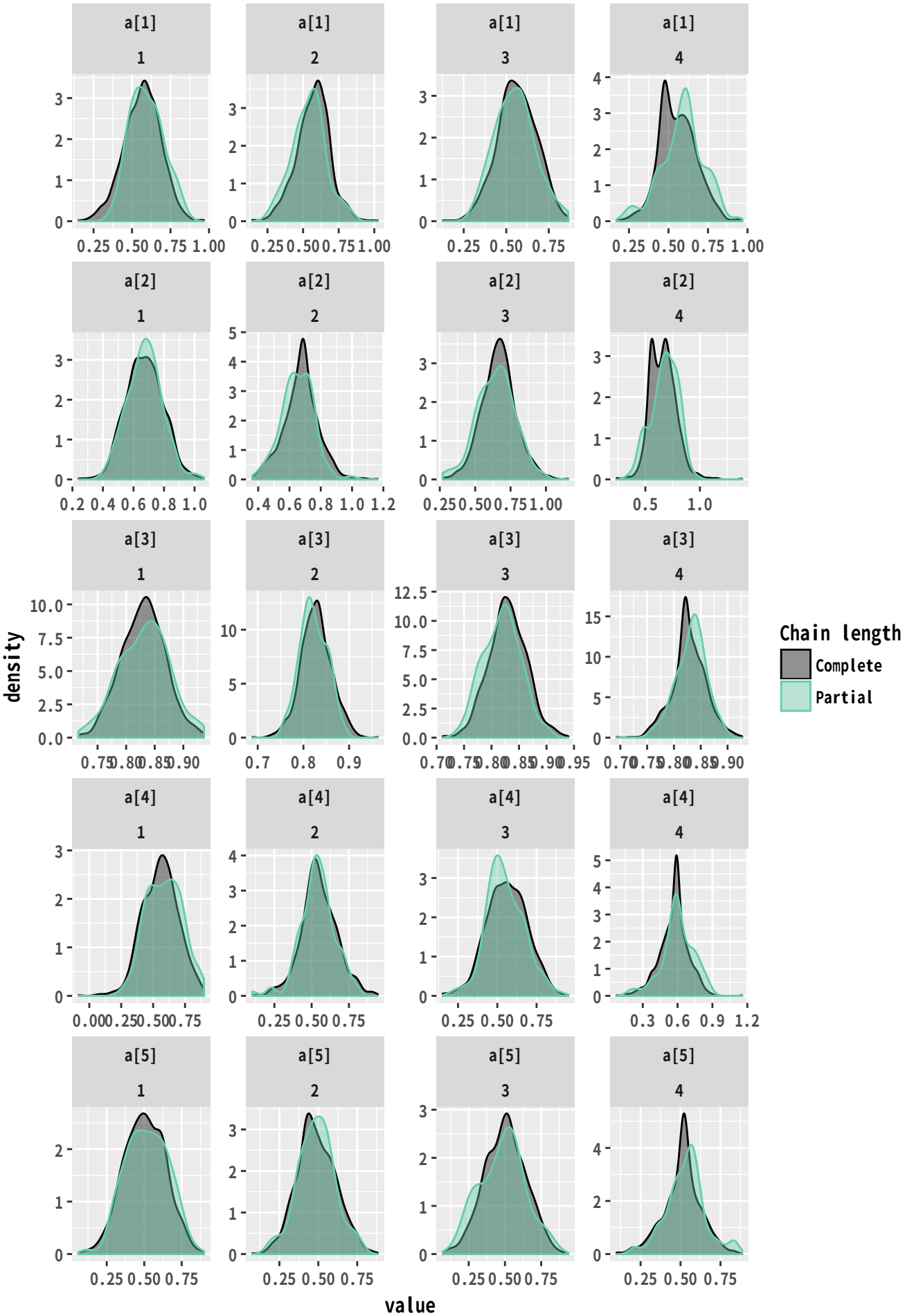

b0
s_a
s_b
s_Y
value
Iteration
Chain
1
2
3
4
0.2
0.1
0.0
-0.1
1.0
0.5
0.3
0.12
0.10
0.08
1000
1250
1500
1750
2000

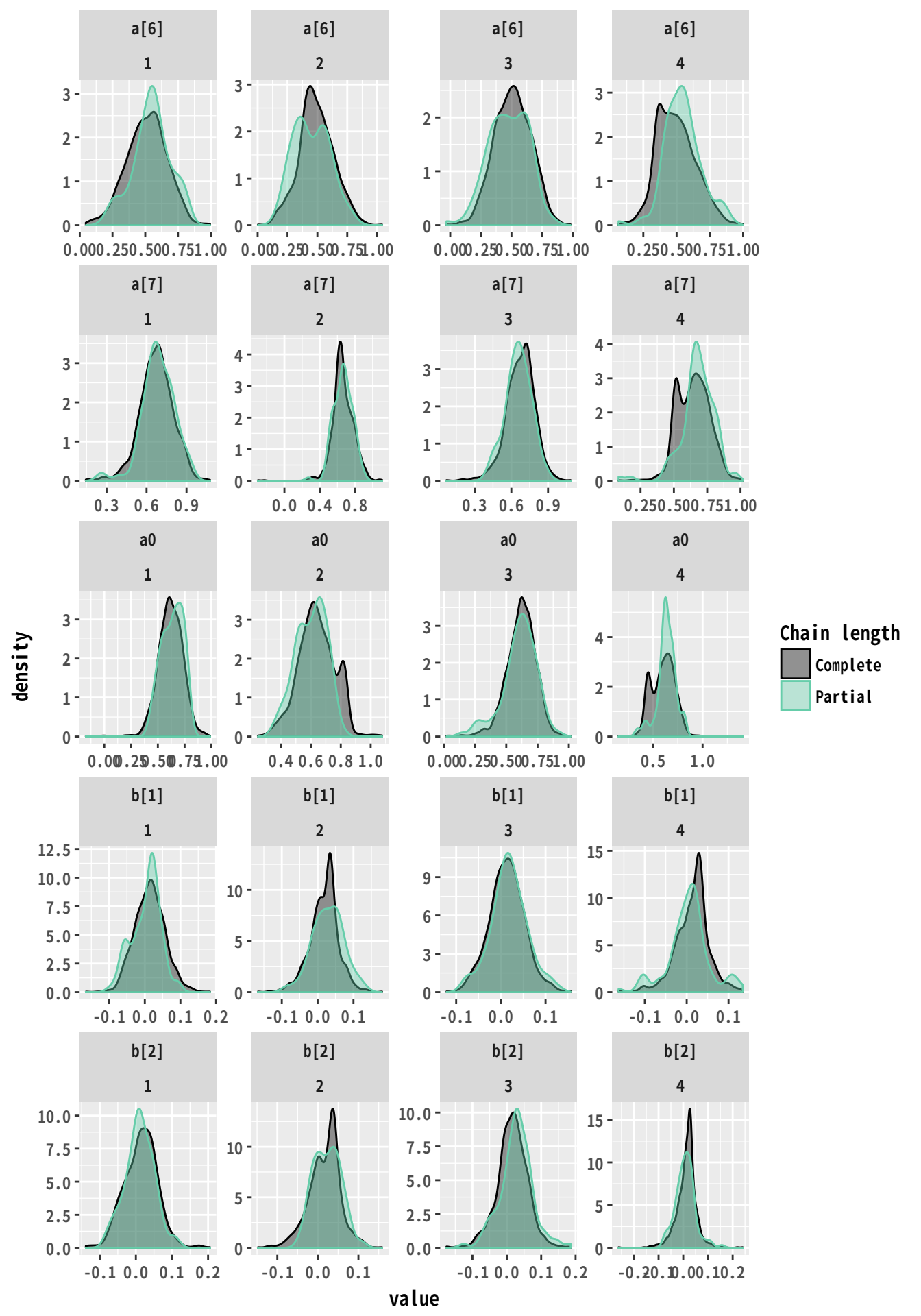

1
2
3
4
a[1]
a[2]
a[3]
a[4]
a[5]
0.60
0.55
0.50
0.8
0.7
0.6
0.86
0.84
0.82
0.80
0.6
0.5
0.4
0.6
0.4
0.2
Running Mean
1000 1250 1500 1750 2000
Iteration
Chain
1
2
3
4

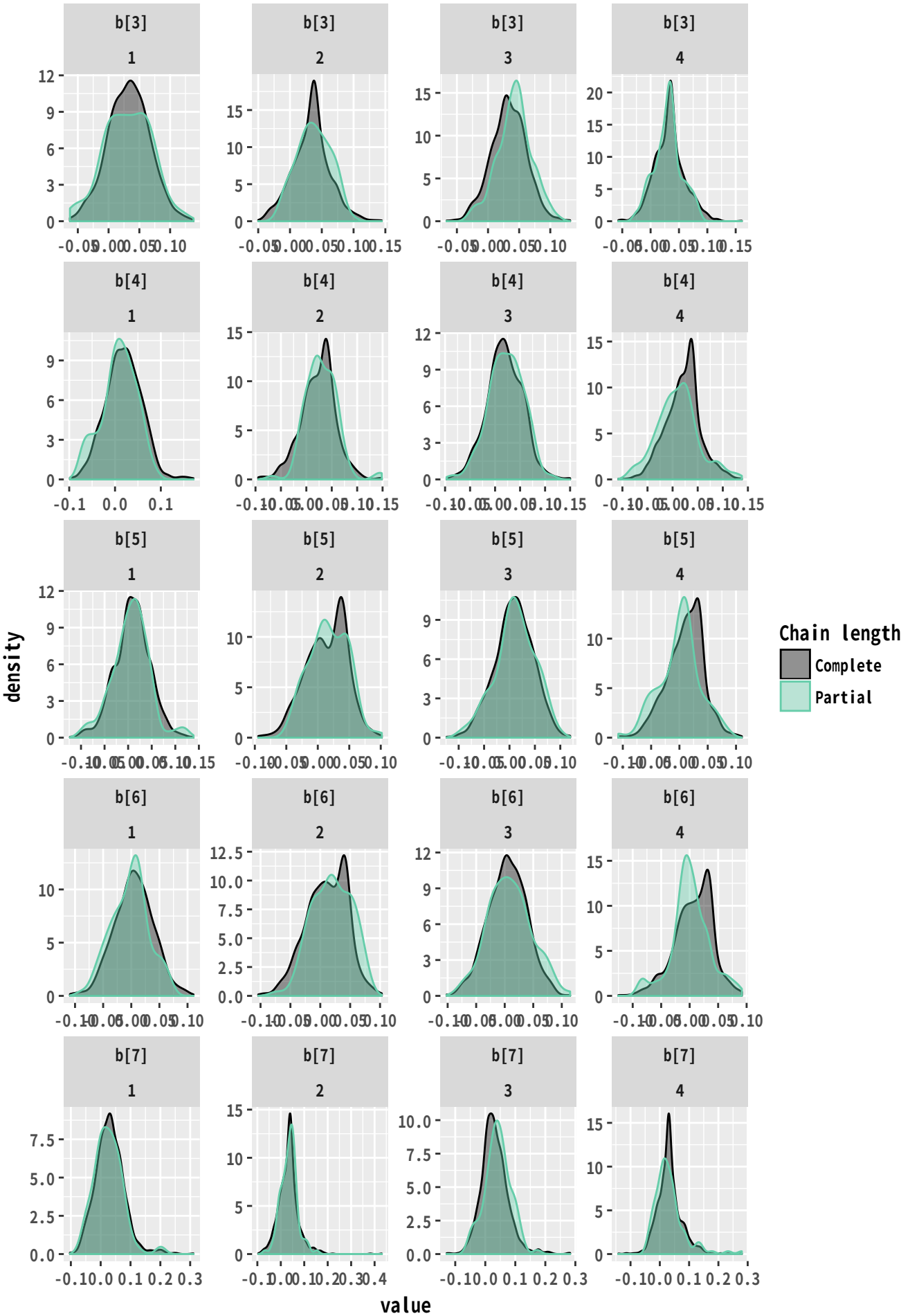

1
2
3
4
a[6]
a[7]
a0
b[1]
b[2]
Running Mean
0.7
0.6
0.5
0.4
0.06
0.04
0.02
0.00
0.100
0.075
0.050
0.025
0.000
-0.025
1000 1250 1500 1750 2000
Iteration
Chain
1
2
3
4

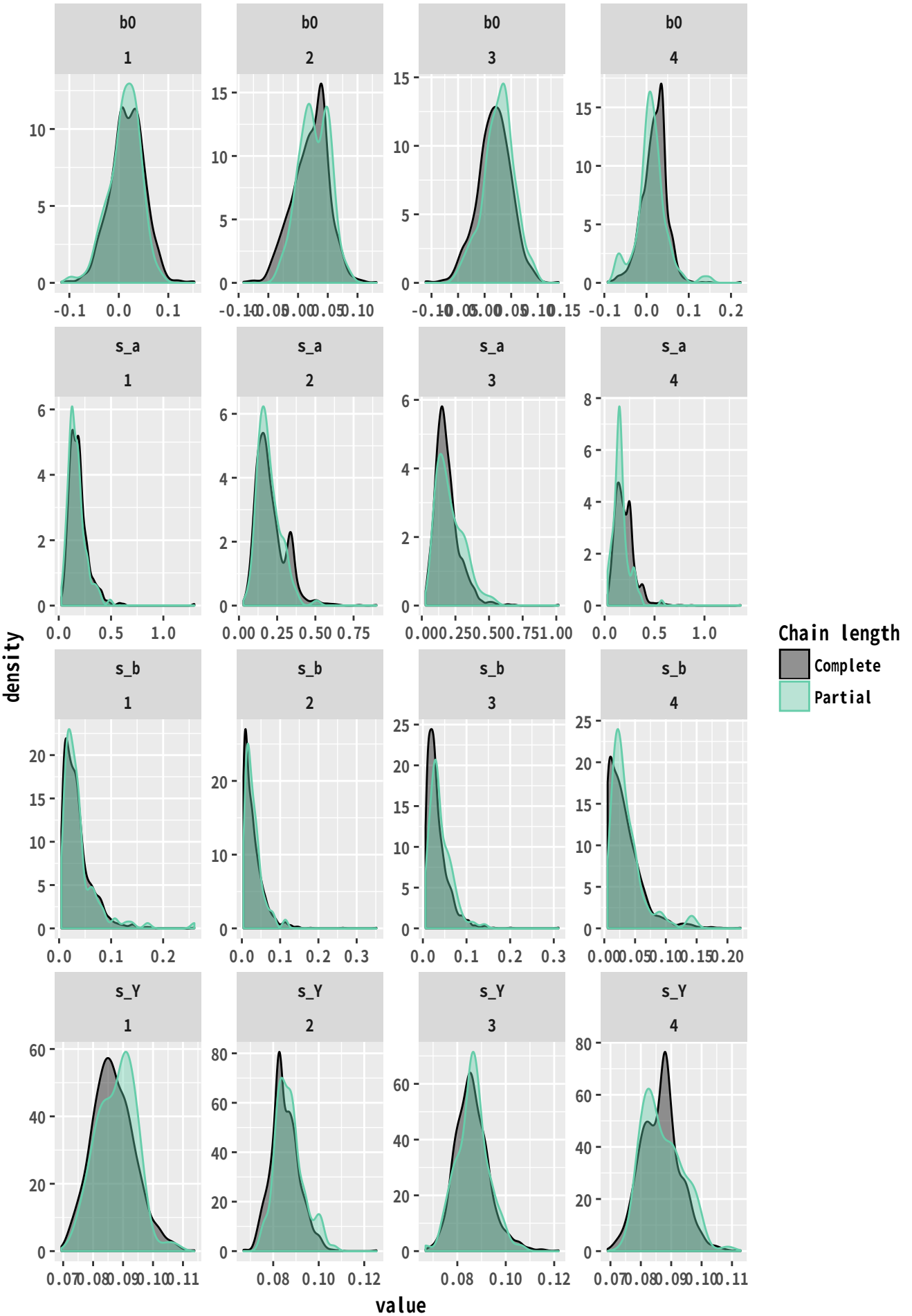

1
2
3
4
b[3]
b[4]
b[5]
b[6]
b[7]
0.06
0.04
0.02
0.00
-0.02
0.025
0.000
-0.025
0.050
0.025
0.000
-0.025
0.02
0.00
-0.02
-0.04
0.15
0.10
0.05
0.00
1000 1250 1500 1750 2000
Running Mean
Iteration
Chain
1
2
3
4

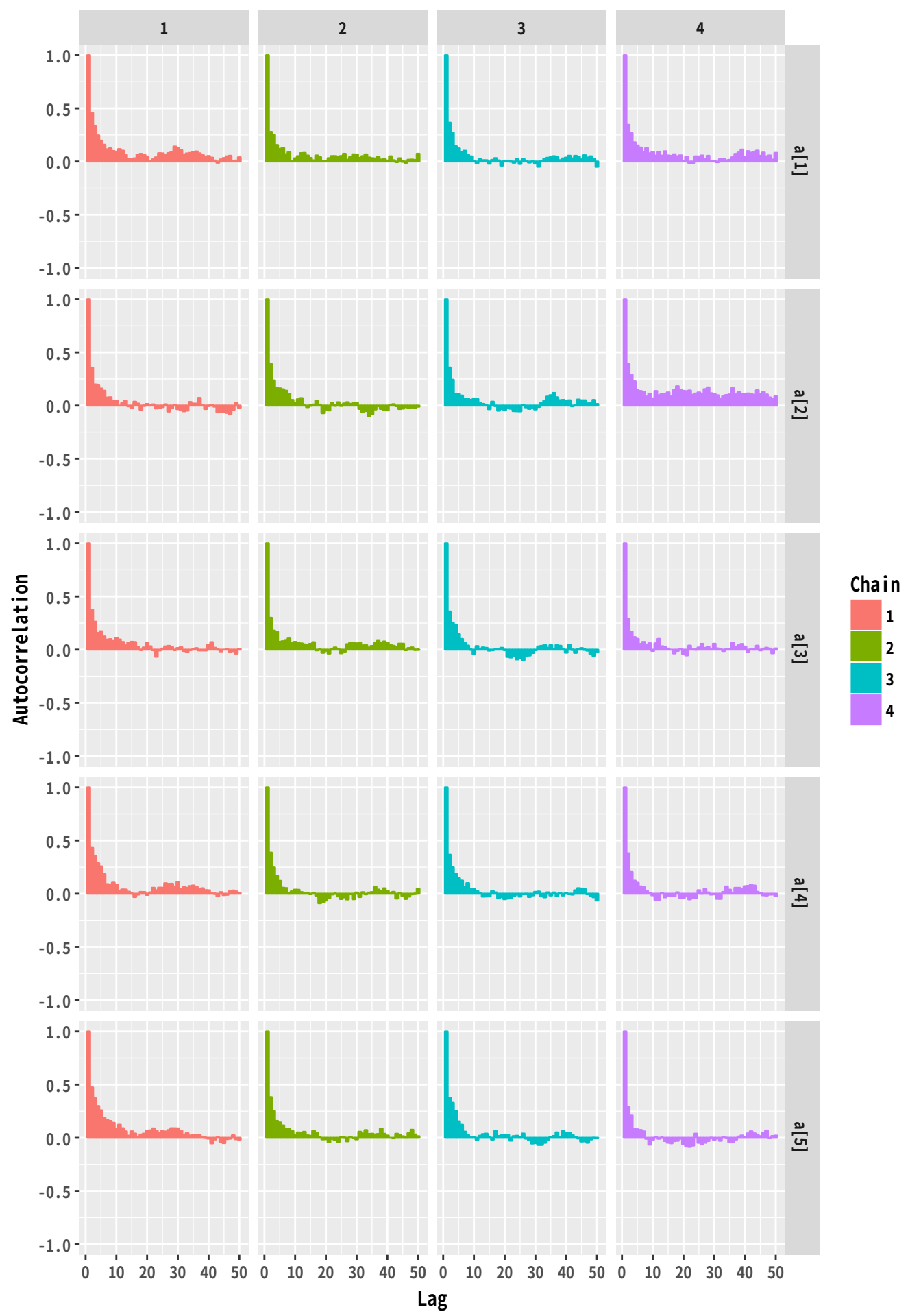

1
2
3
4
b0
s_a
s_b
s_y
Running Mean
Iteration
Chain
1
2
3
4
0.08
0.04
0.00
-0.04
0.4
0.3
0.2
0.1
0.06
0.02
0.095
0.090
0.085
0.080
1000 1250 1500 1750 2000

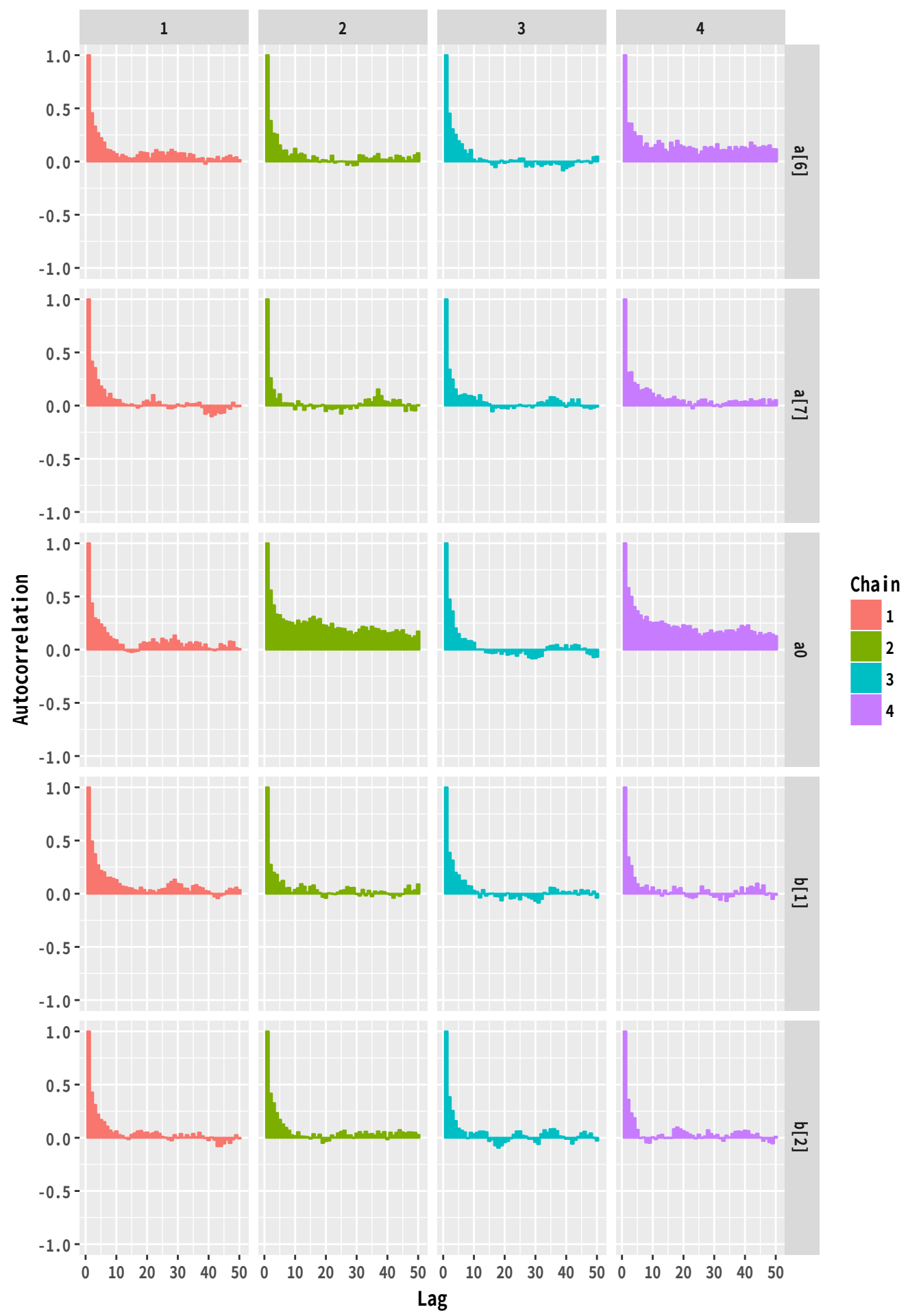

a[1] 1
a[1] 2
a[1] 3
a[1] 4
a[2] 1
a[2] 2
a[2] 3
a[2] 4
a[3] 1
a[3] 2
a[3] 3
a[3] 4
a[4] 1
a[4] 2
a[4] 3
a[4] 4
a[5] 1
a[5] 2
a[5] 3
a[5] 4
density
value
Chain length
Complete
Partial

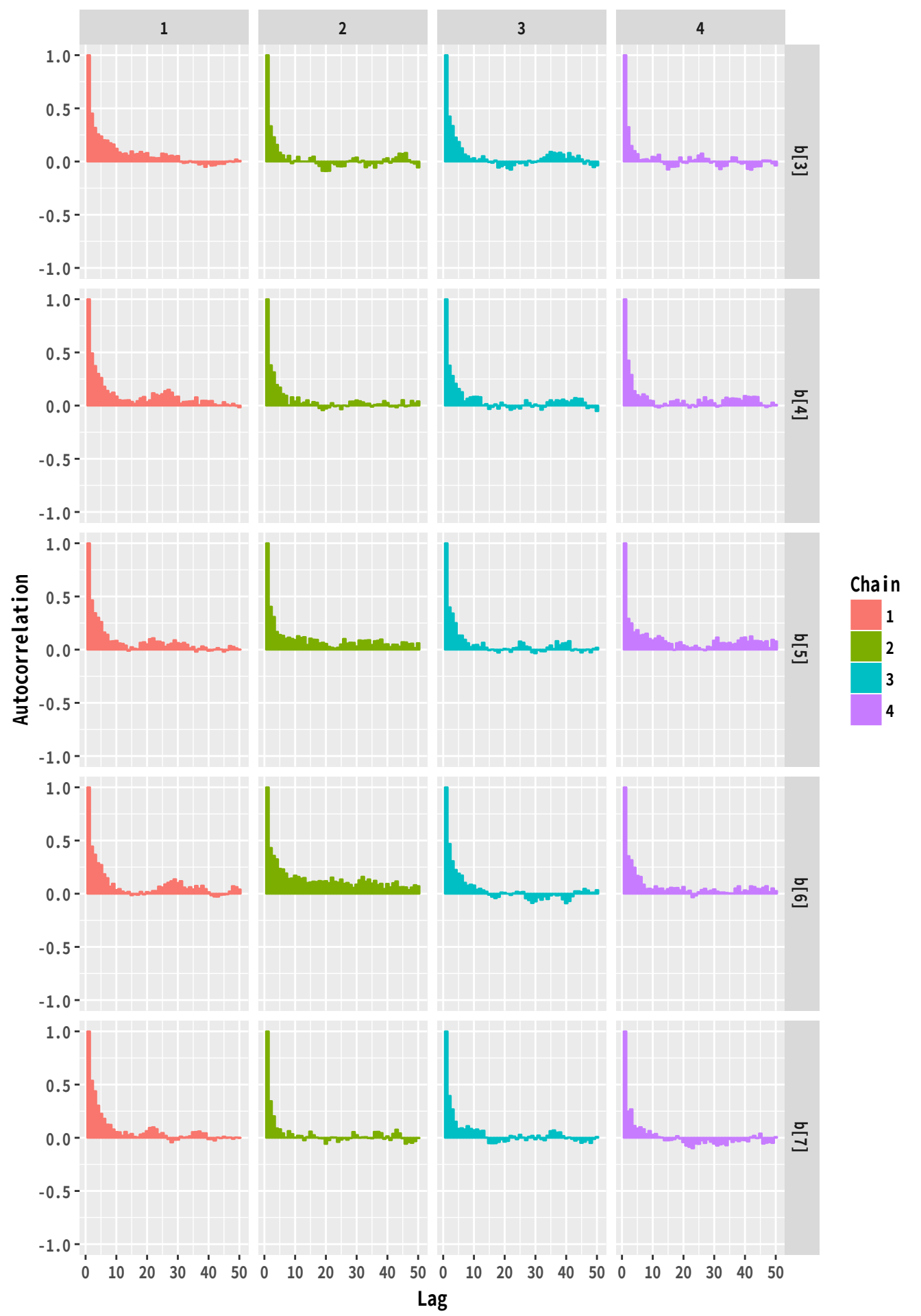

a[6]
1
2
3
4
a[7]
a0
b[1]
b[2]
density
value
Chain length
Complete
Partial

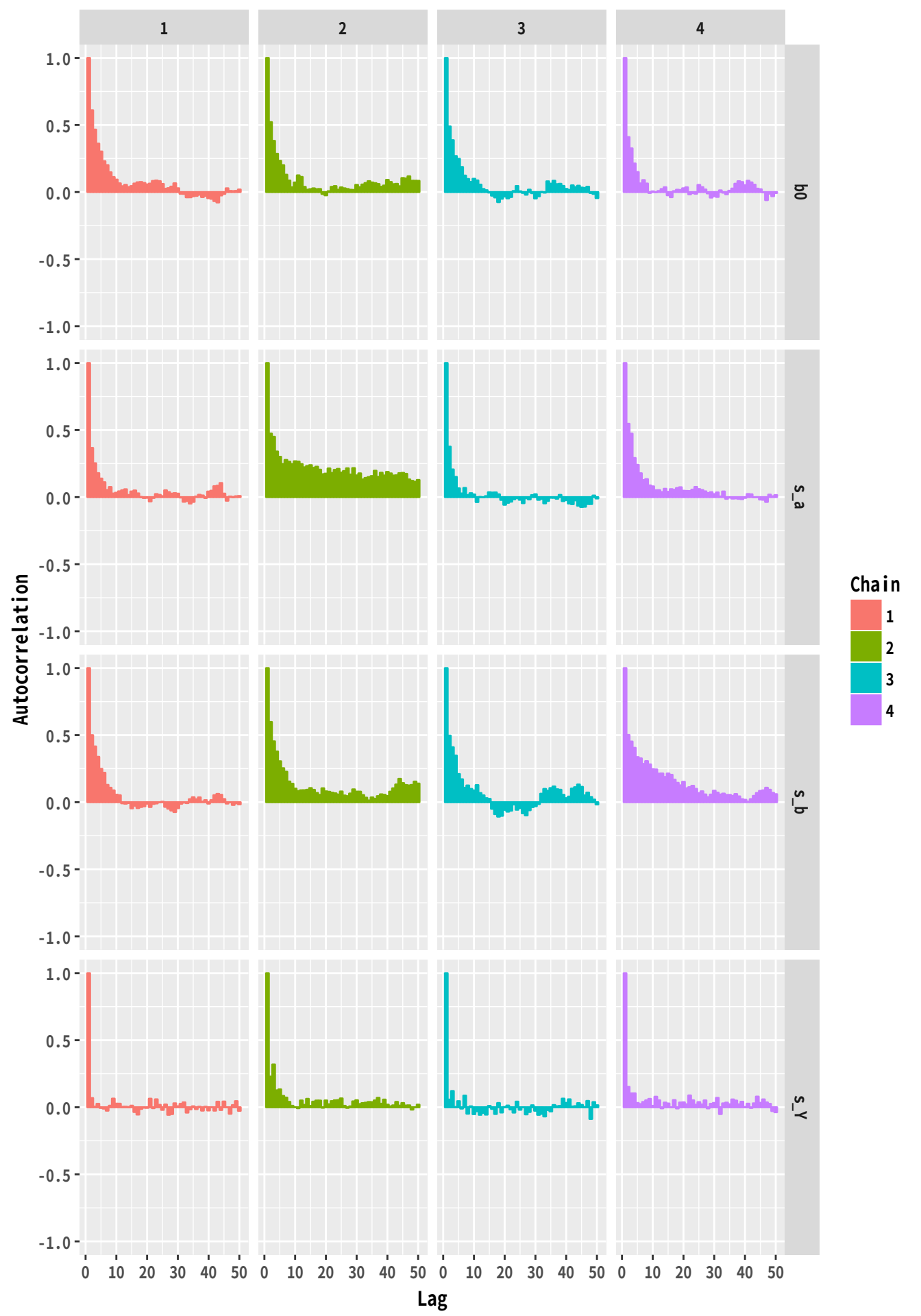

b[3] 1
b[3] 2
b[3] 3
b[3] 4
b[4] 1
b[4] 2
b[4] 3
b[4] 4
b[5] 1
b[5] 2
b[5] 3
b[5] 4
b[6] 1
b[6] 2
b[6] 3
b[6] 4
b[7] 1
b[7] 2
b[7] 3
b[7] 4
density
value
Chain length
Complete
Partial

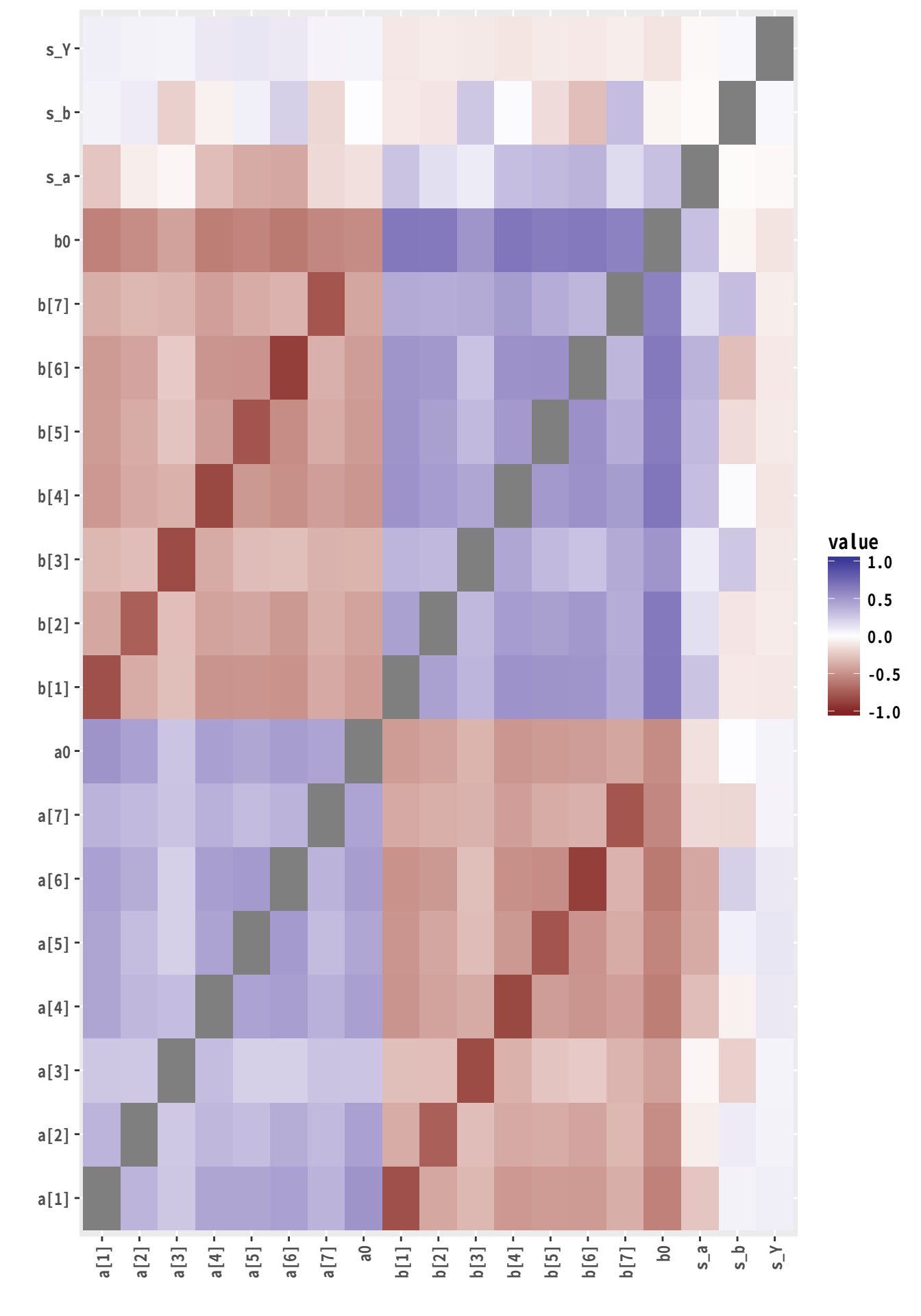

b0
1
b0
2
b0
3
b0
4
s_a
1
s_a
2
s_a
3
s_a
4
s_b
1
s_b
2
s_b
3
s_b
4
s_Y
1
s_Y
2
s_Y
3
s_Y
4
density
value
Chain length
Complete
Partial

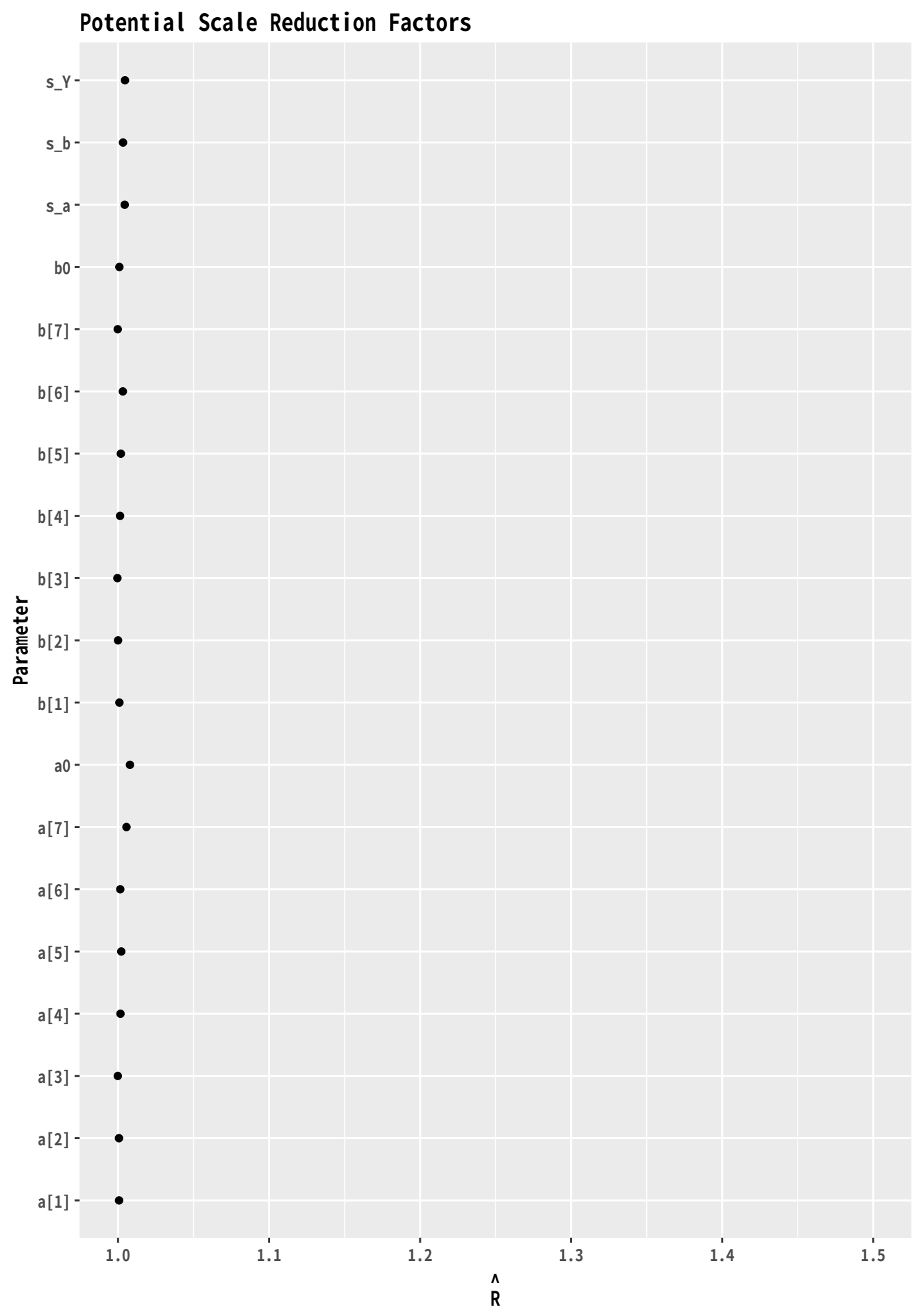

1
2
3
4
a[1]
a[2]
a[3]
a[4]
a[5]
1.0
0.5
0.0
-0.5
-1.0
Autocorrelation
0
10
20
30
40
50
Lag
Chain
1
2
3
4

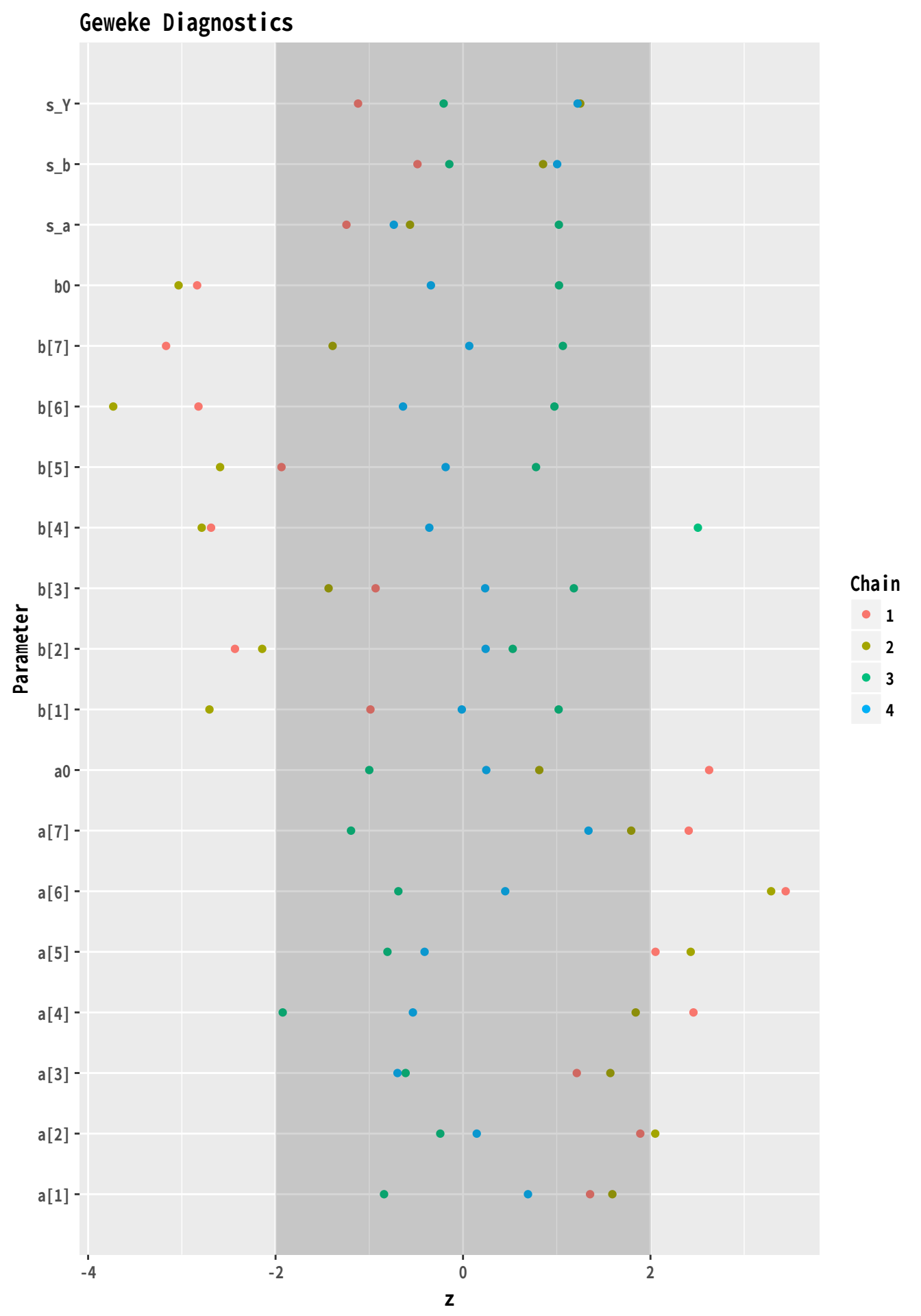

1
2
3
4
a[6]
a[7]
a0
b[1]
b[2]
Autocorrelation
1.0
0.5
0.0
-0.5
-1.0
0
10
20
30
40
50
Lag
Chain
1
2
3
4

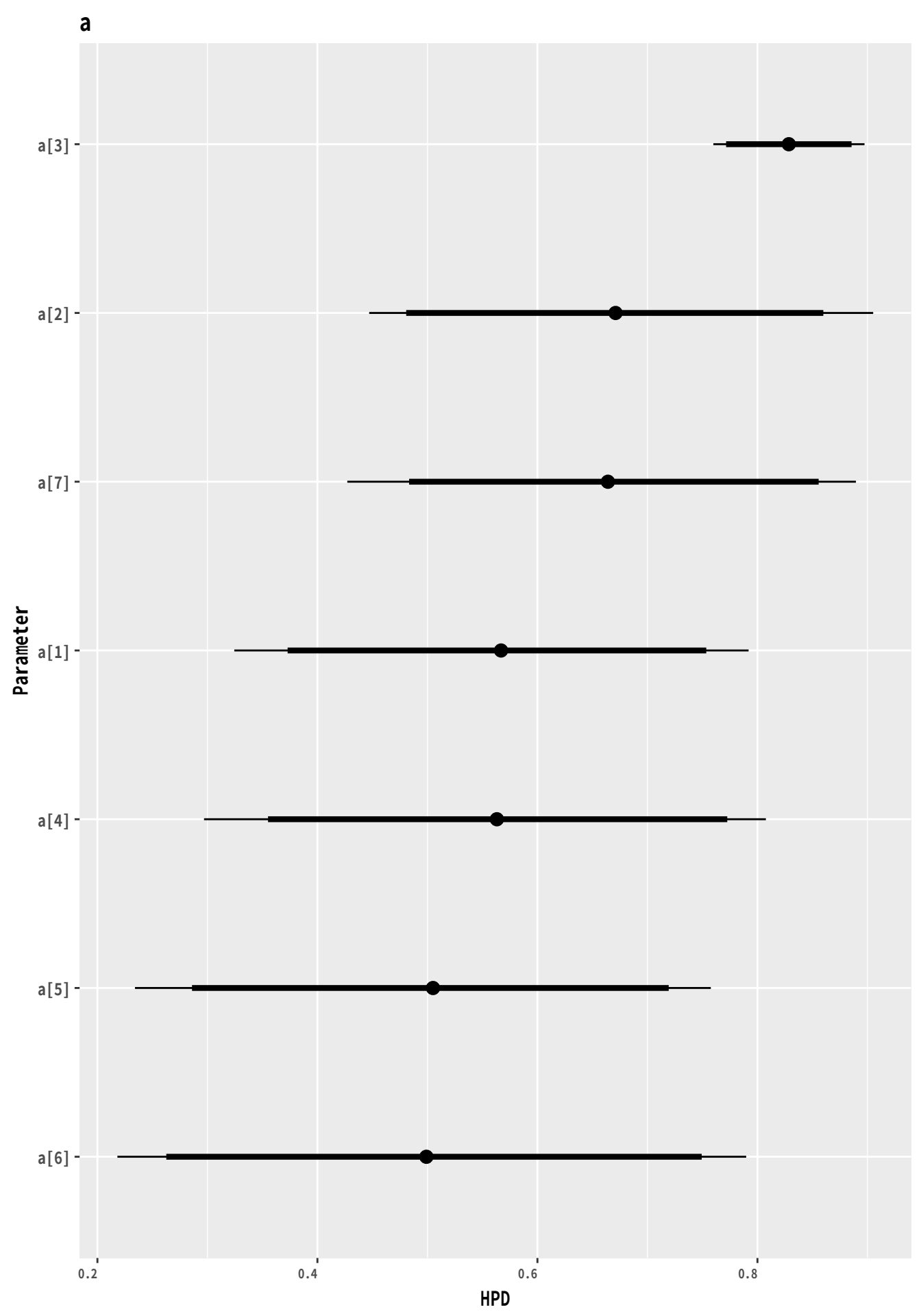

1
2
3
4
b[3]
b[4]
b[5]
b[6]
b[7]
1.0
0.5
0.0
-0.5
-1.0
0
10
20
30
40
50
Autocorrelation
Lag
Chain
1
2
3
4

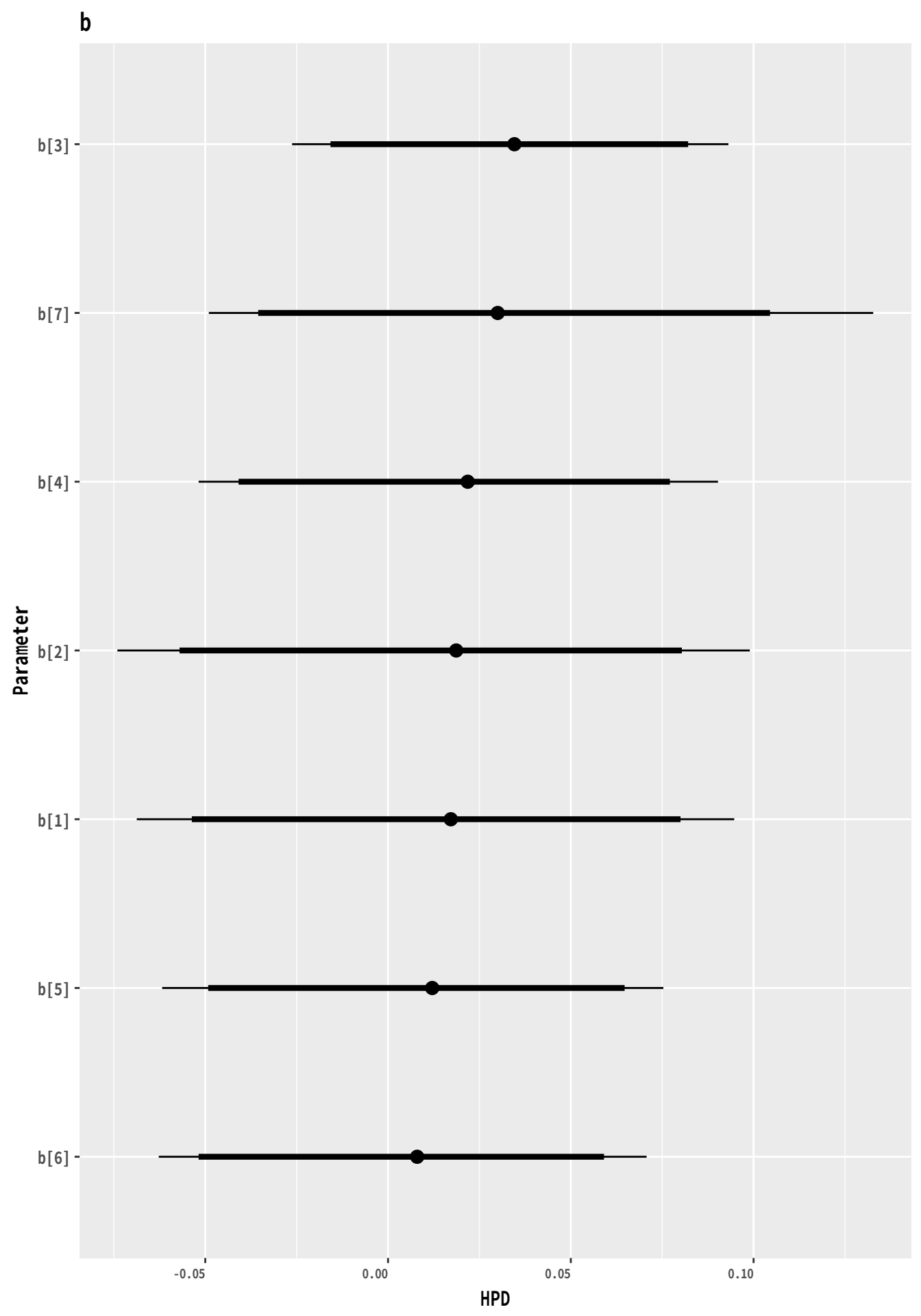

1
2
3
4
b0
s_a
s_b
s_y
Autocorrelation
1.0
0.5
0.0
-0.5
-1.0
0
10
20
30
40
50
Lag
Chain
1
2
3
4


s_Y
s_b
s_a
b0
b[7]
b[6]
b[5]
b[4]
b[3]
b[2]
b[1]
a0
a[7]
a[6]
a[5]
a[4]
a[3]
a[2]
a[1]
a[1]
a[2]
a[3]
a[4]
a[5]
a[6]
a[7]
a0
b[1]
b[2]
b[3]
b[4]
b[5]
b[6]
b[7]
b0
s_a
s_b
s_Y
value
1.0
0.5
0.0
-0.5
-1.0


Potential Scale Reduction Factors
s_Y
s_b
s_a
b0
b[7]
b[6]
b[5]
b[4]
b[3]
b[2]
b[1]
a0
a[7]
a[6]
a[5]
a[4]
a[3]
a[2]
a[1]
Parameter
1.0
1.1
1.2
1.3
1.4
1.5
R^


Geweke Diagnostics
s_Y
s_b
s_a
b0
b[7]
b[6]
b[5]
b[4]
b[3]
b[2]
b[1]
a0
a[7]
a[6]
a[5]
a[4]
a[3]
a[2]
a[1]
Parameter
-4
-2
0
2
z
Chain
1
2
3
4


a
a[3]
a[2]
a[7]
a[1]
a[4]
a[5]
a[6]
Parameter
0.2
0.4
0.6
0.8
HPD


b
b[3]
b[7]
b[4]
b[2]
b[1]
b[5]
b[6]
Parameter
-0.05
0.00
0.05
0.10
HPD