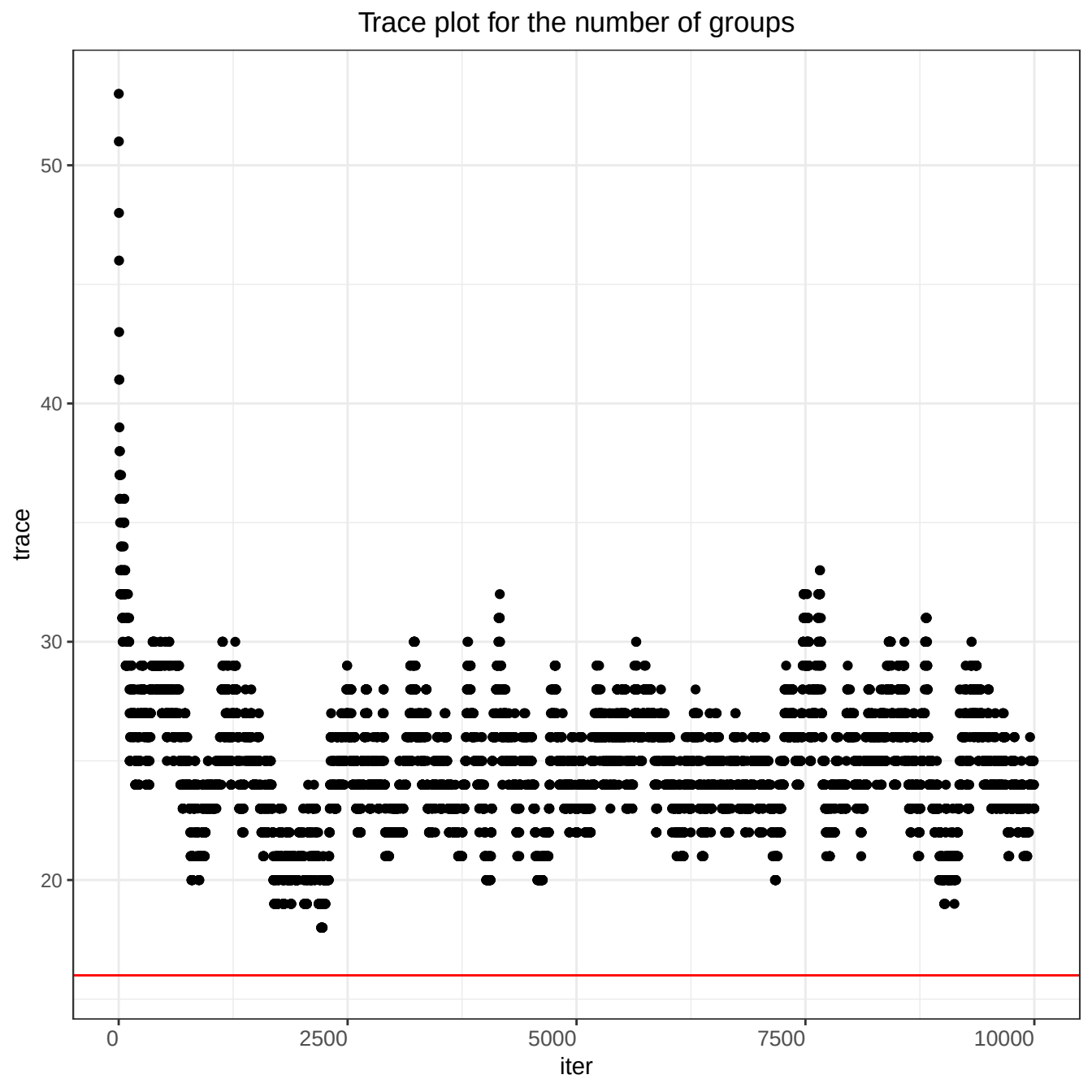
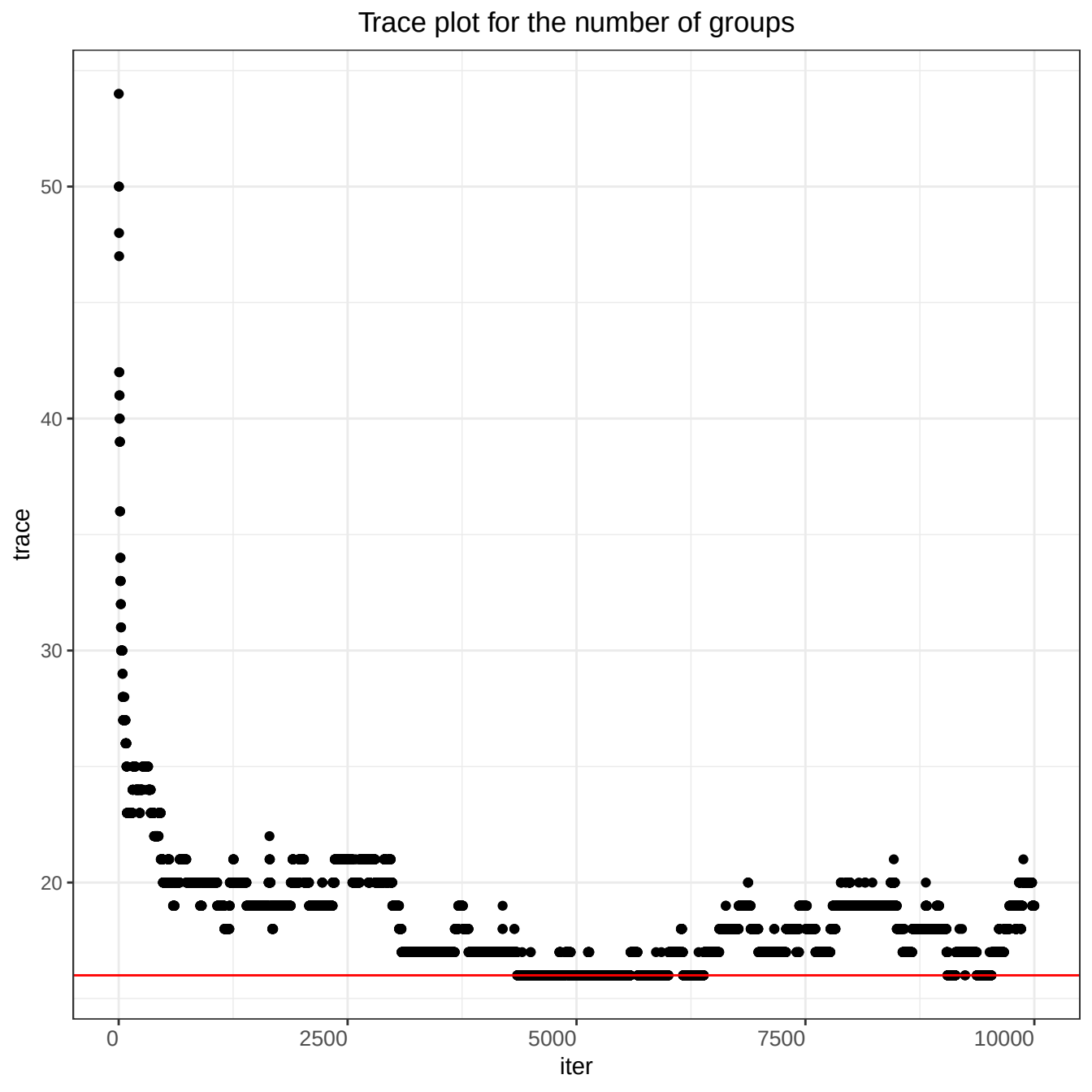
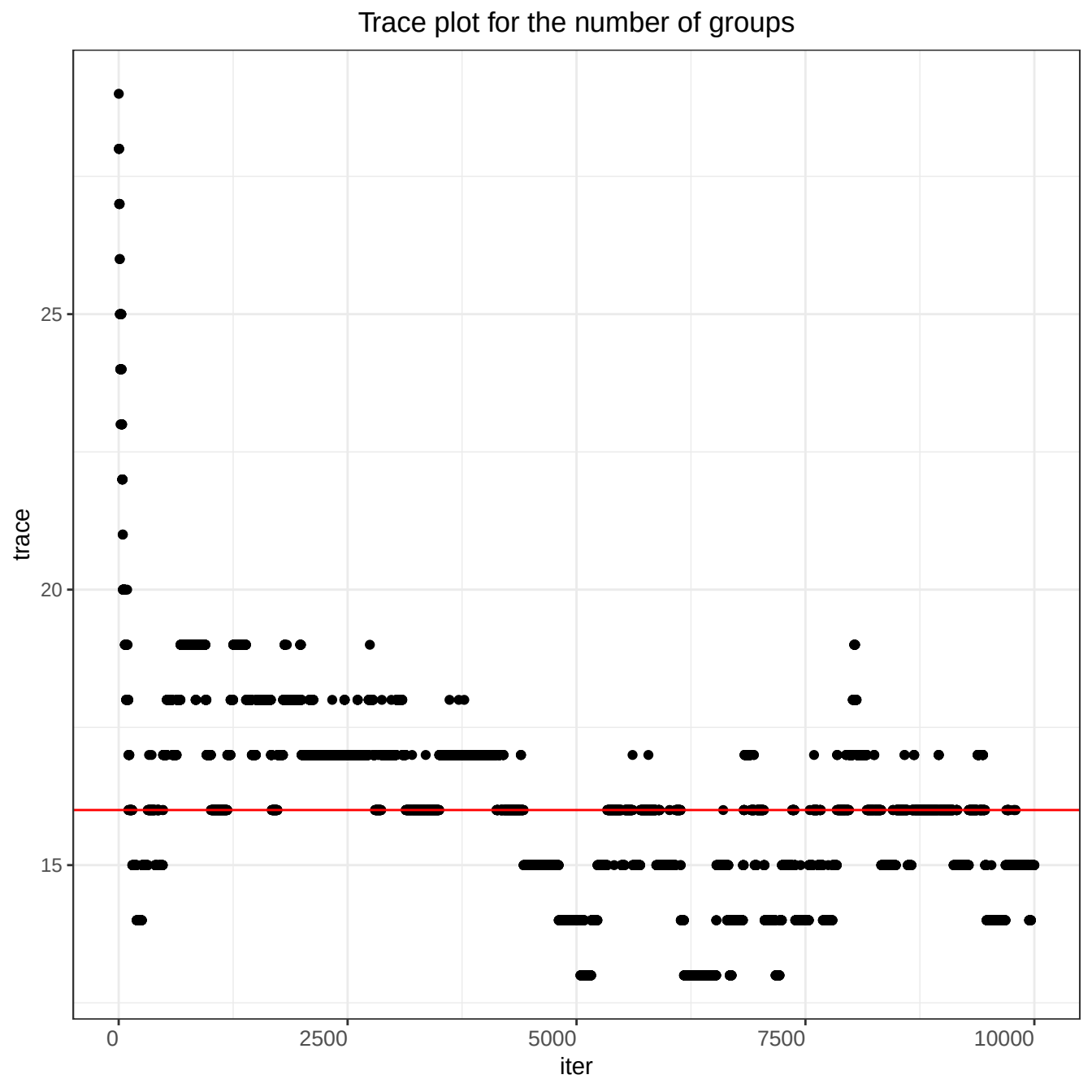
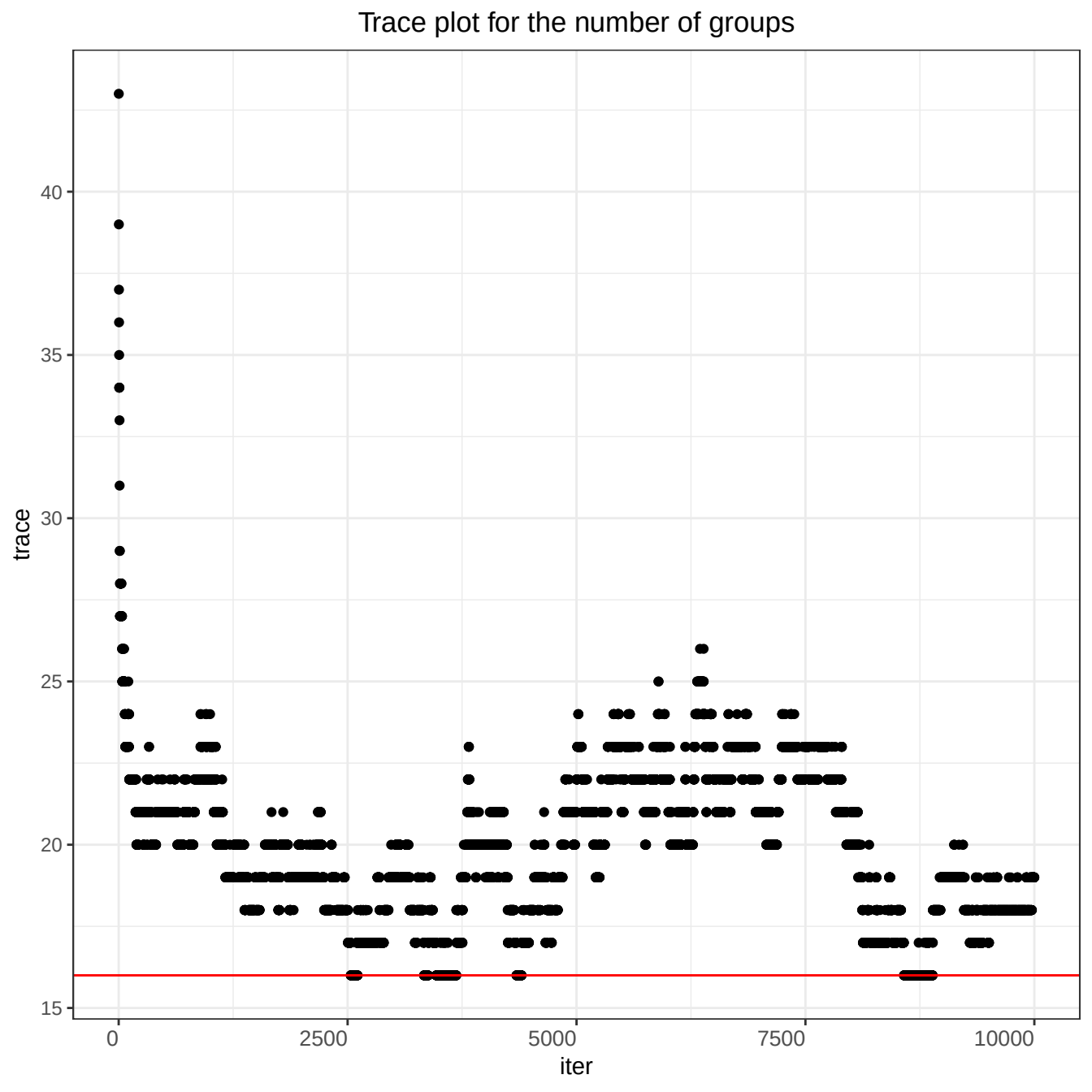
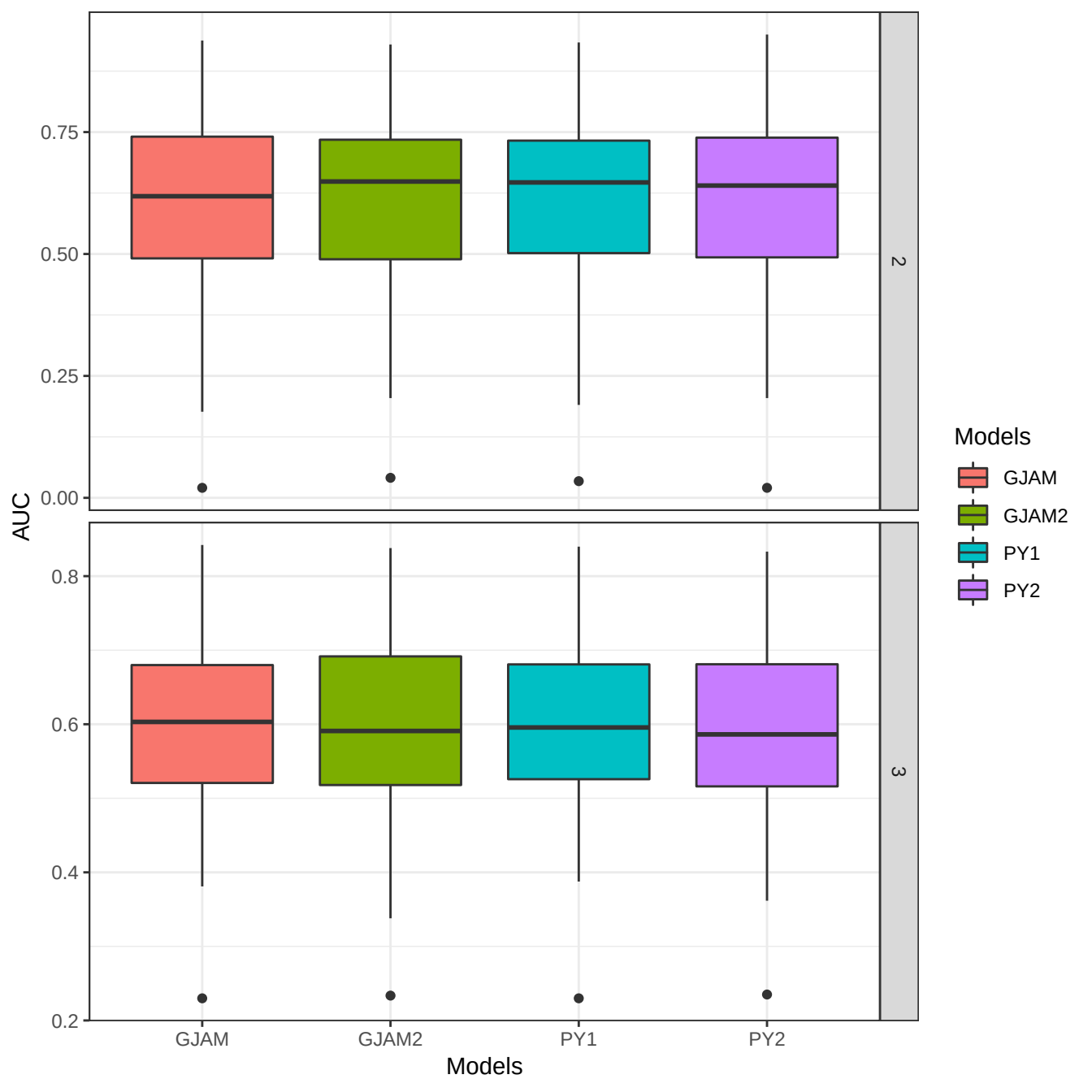
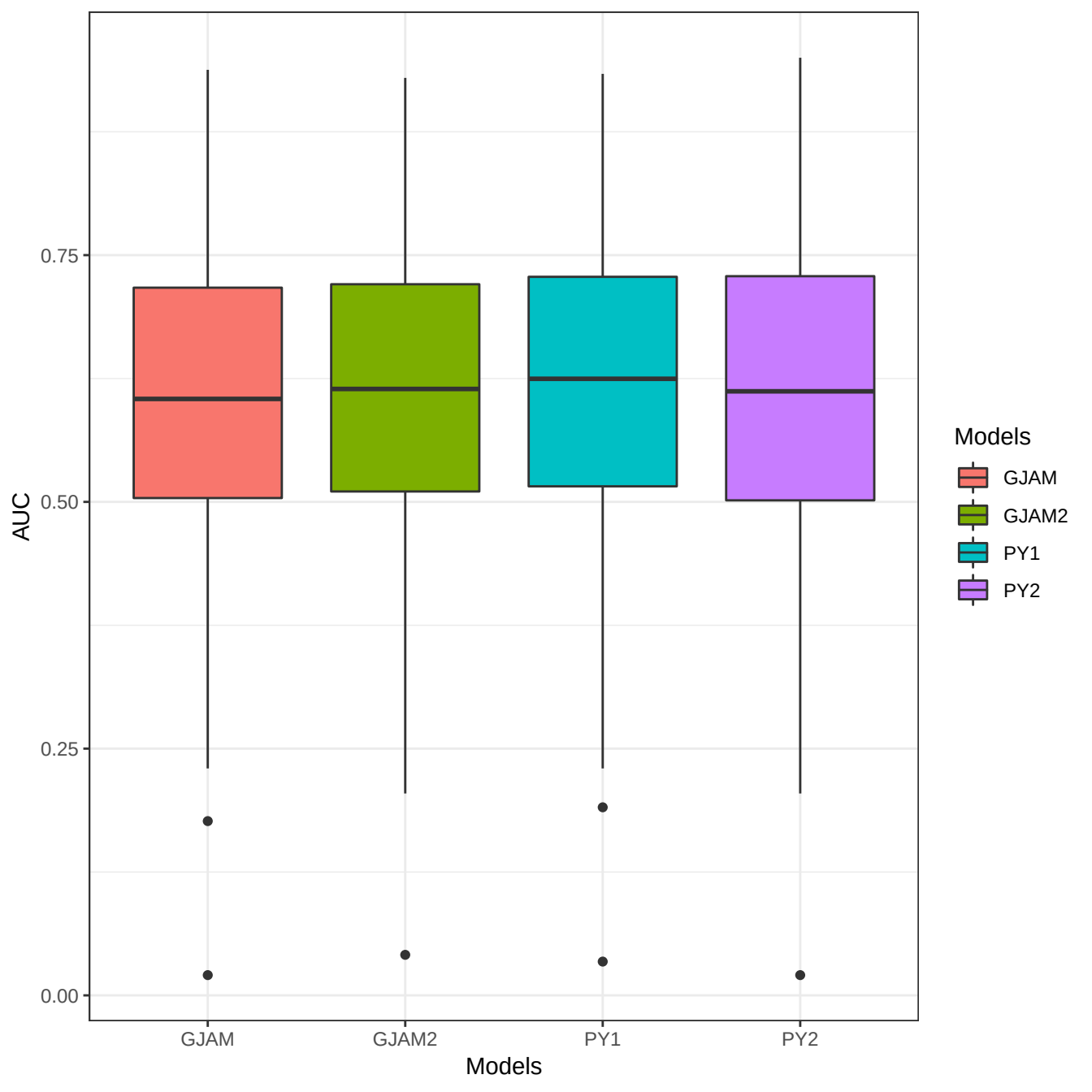

Trace plot for the number of groups
trace
iter
50
40
30
20
0
2500
5000
7500
10000

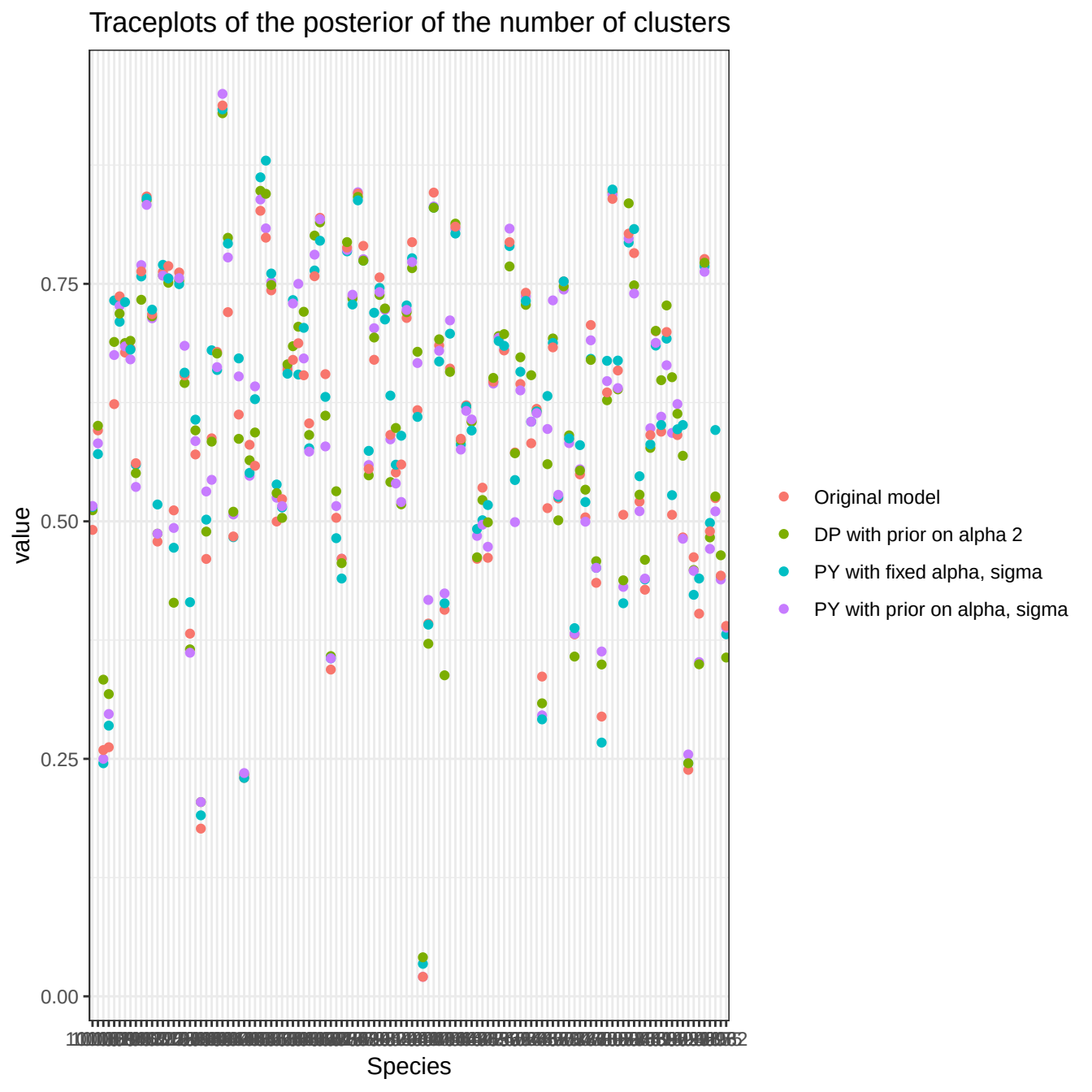

Trace plot for the number of groups
trace
50
40
30
20
0
2500
5000
7500
10000
iter

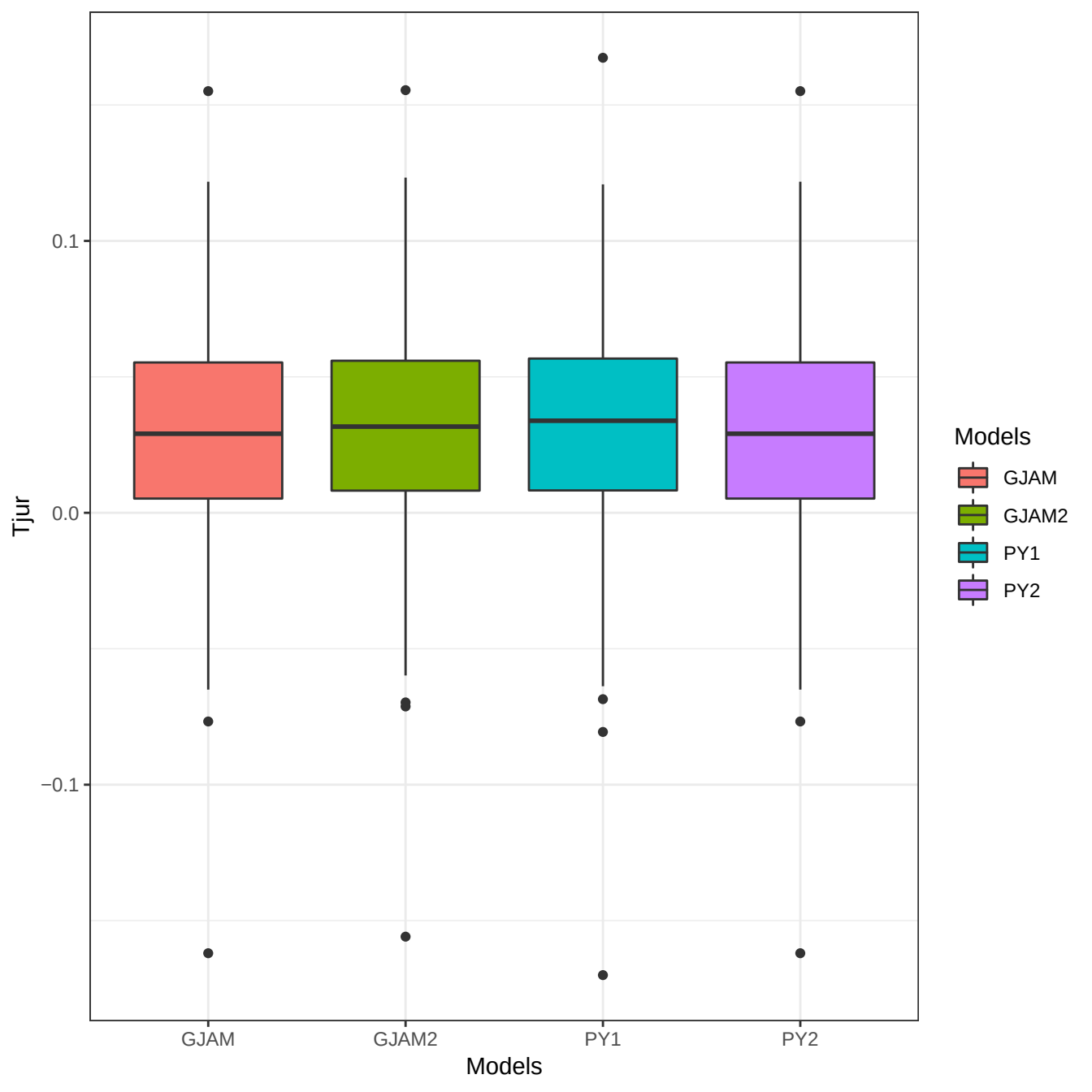

Trace plot for the number of groups
trace
25
20
15
0
2500
5000
7500
10000
iter

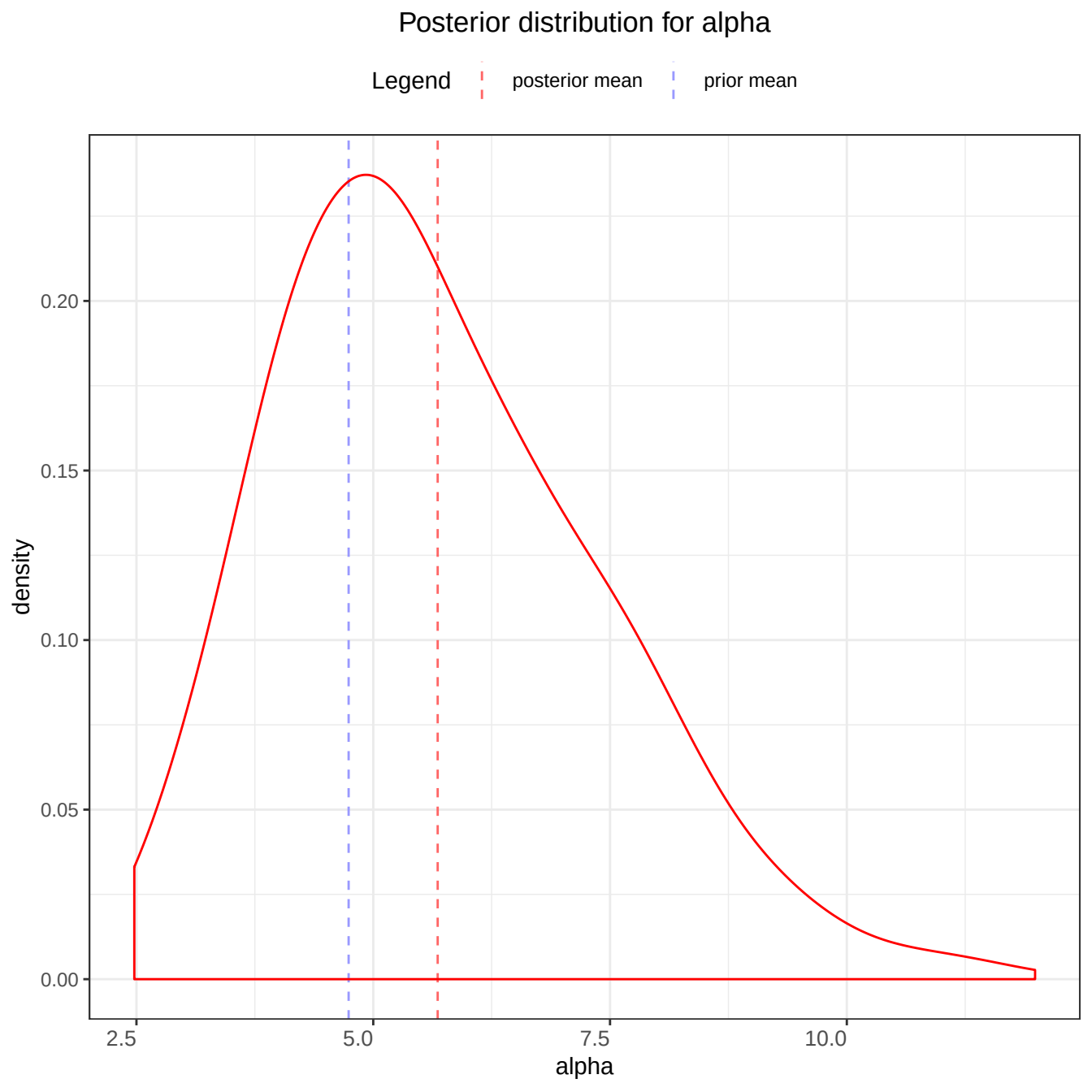

Trace plot for the number of groups
trace
iter
40
35
30
25
20
15
0
2500
5000
7500
10000

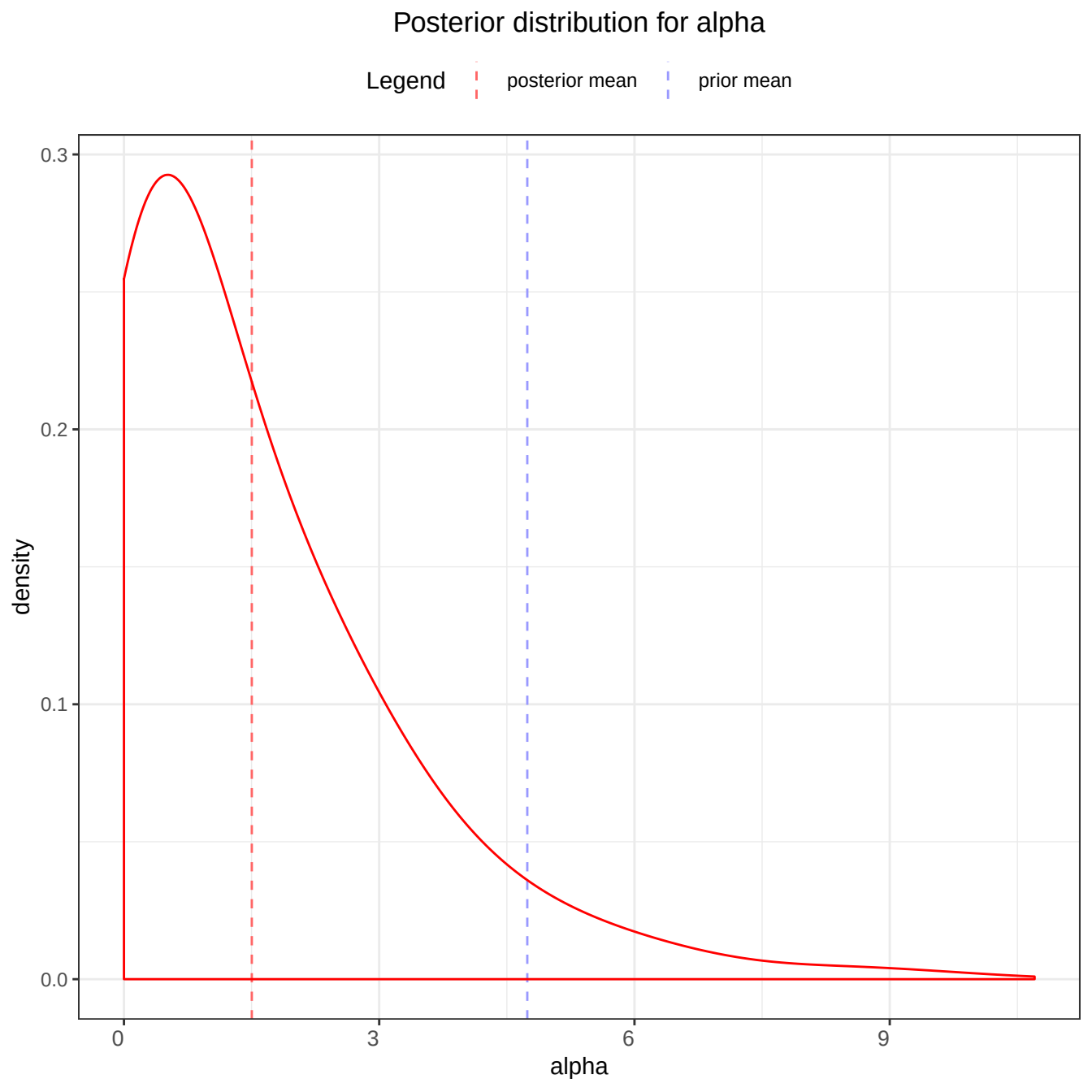

AUC
0.75
0.50
0.25
0.00
2
0.8
0.6
0.4
0.2
3
GJAM
GJAM2
PY1
PY2
Models
Models
GJAM
GJAM2
PY1
PY2

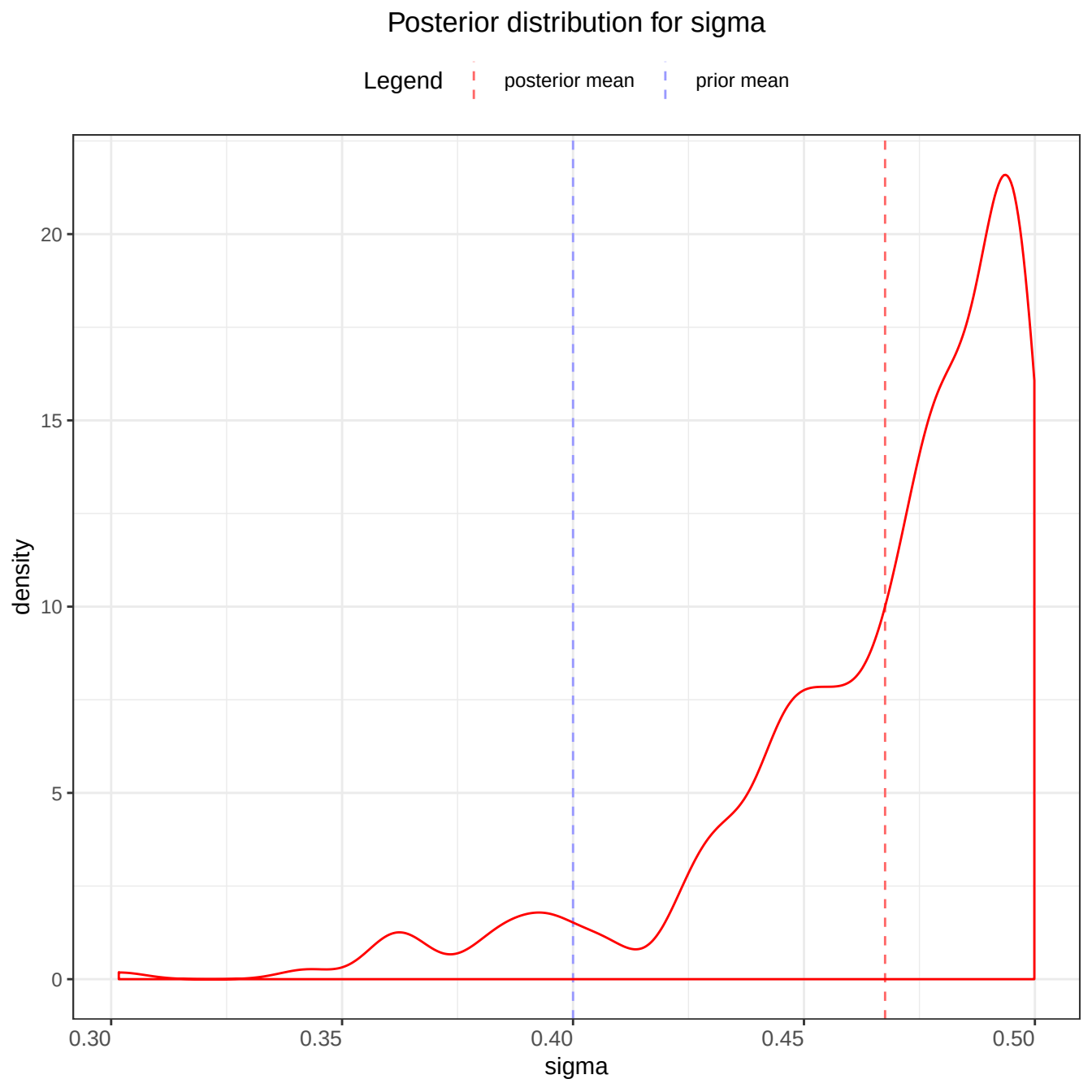

AUC
0.75
0.50
0.25
0.00
GJAM
GJAM2
PY1
PY2
Models
Models
GJAM
GJAM2
PY1
PY2

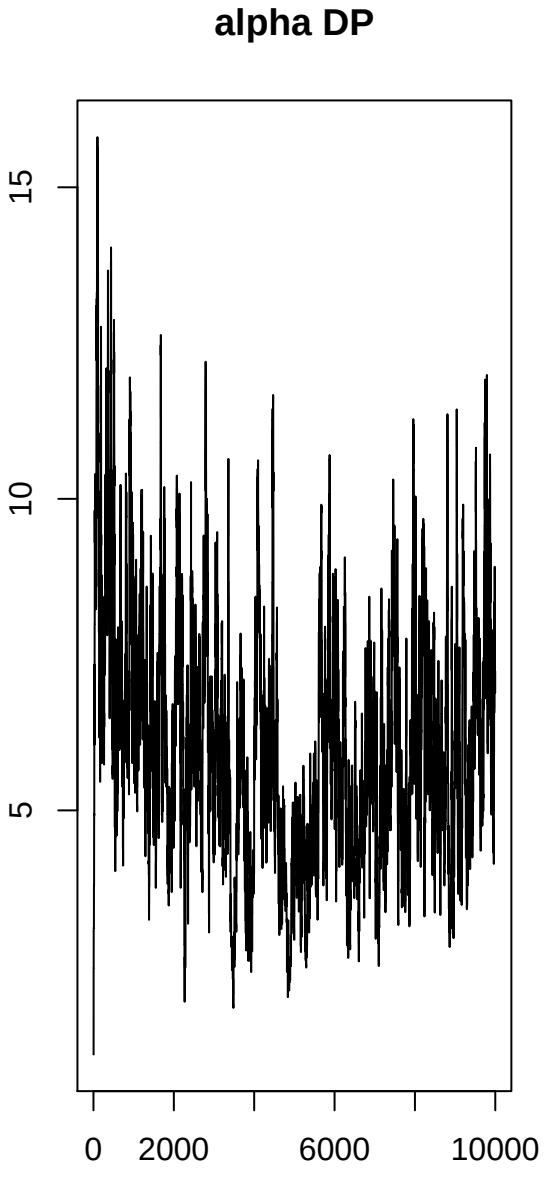

Traceplots of the posterior of the number of clusters
value
0.00
0.25
0.50
0.75
Species
Original model
DP with prior on alpha 2
PY with fixed alpha, sigma
PY with prior on alpha, sigma

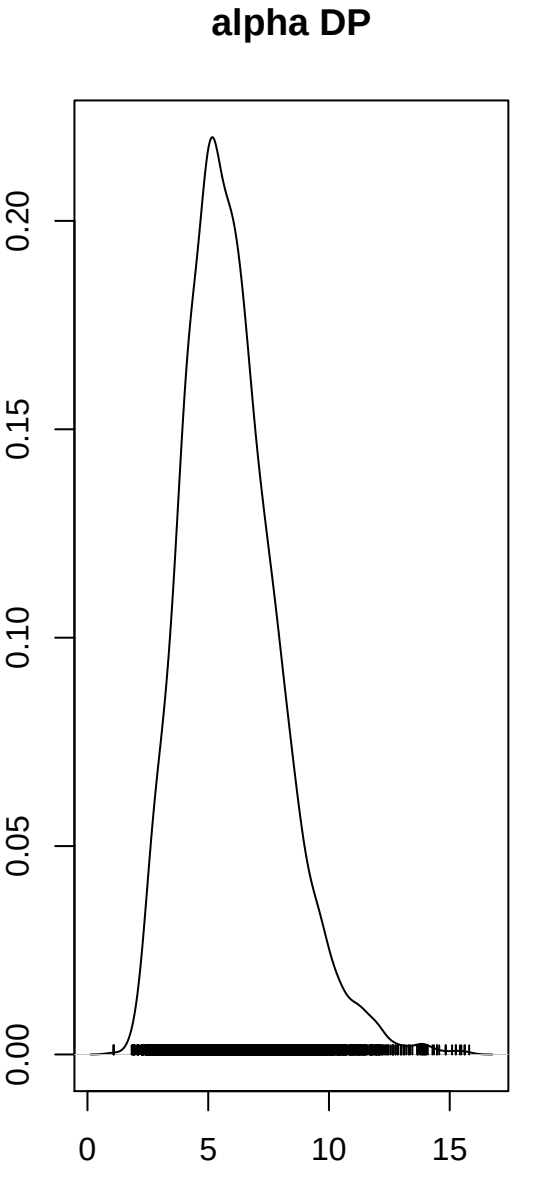

Tjur
0.1
0.0
−0.1
GJAM
GJAM2
PY1
PY2
Models
Models
GJAM
GJAM2
PY1
PY2

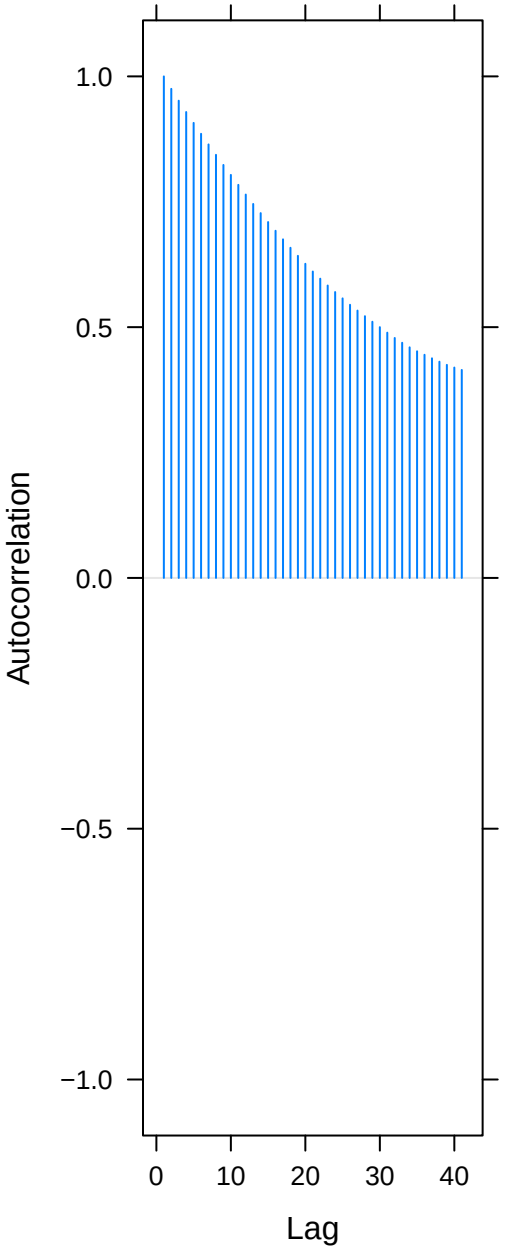

Posterior distribution for alpha
Legend
posterior mean
prior mean
density
0.20
0.15
0.10
0.05
0.00
2.5
5.0
7.5
10.0
alpha

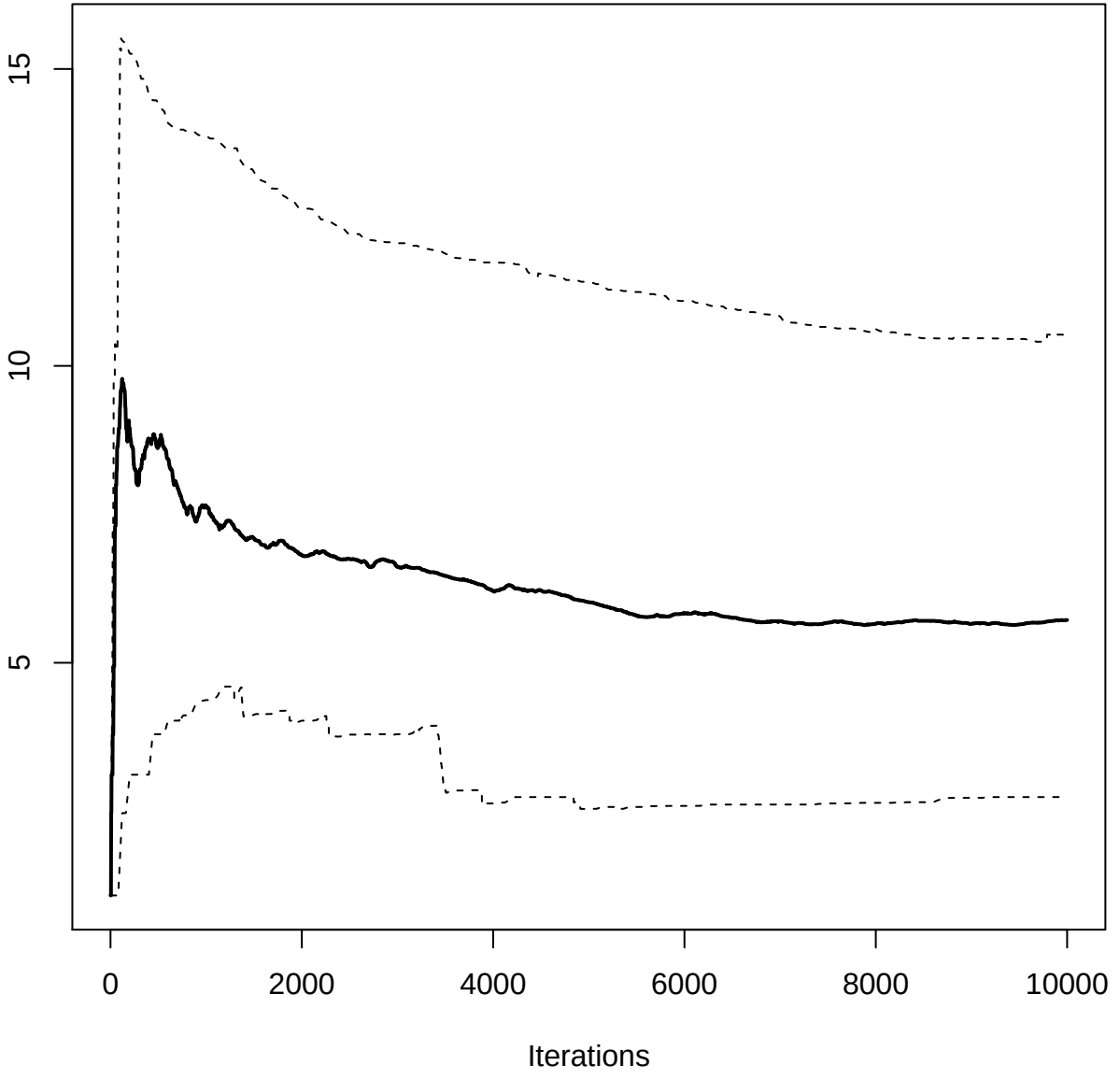

Posterior distribution for alpha
Legend
posterior mean
prior mean
0.3
0.2
0.1
0.0
density
0
3
6
9
alpha

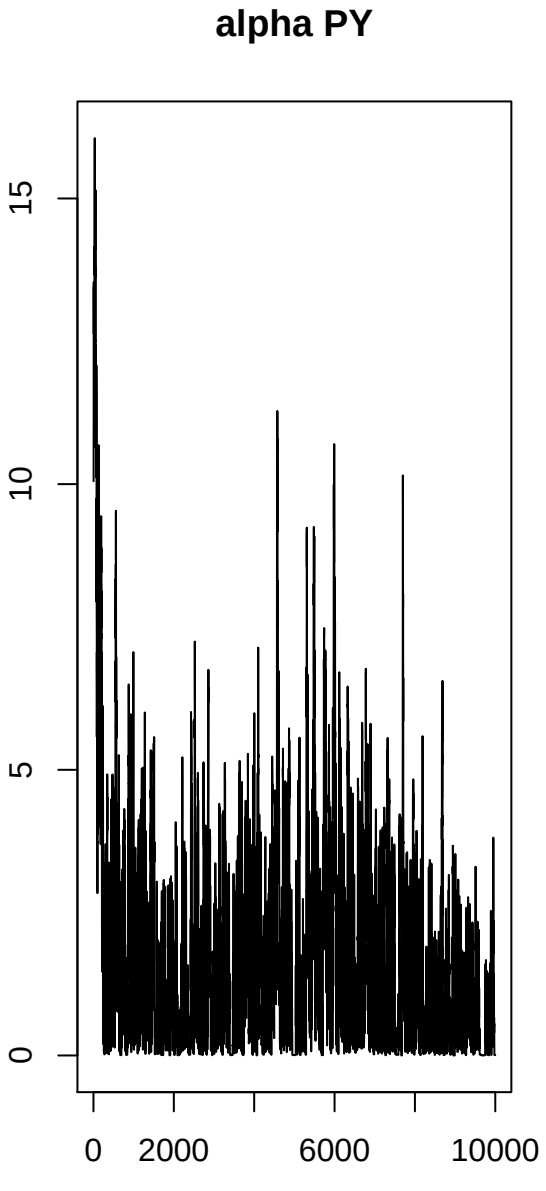

Posterior distribution for sigma
Legend
posterior mean
prior mean
density
sigma
0
5
10
15
20
0.30
0.35
0.40
0.45
0.50

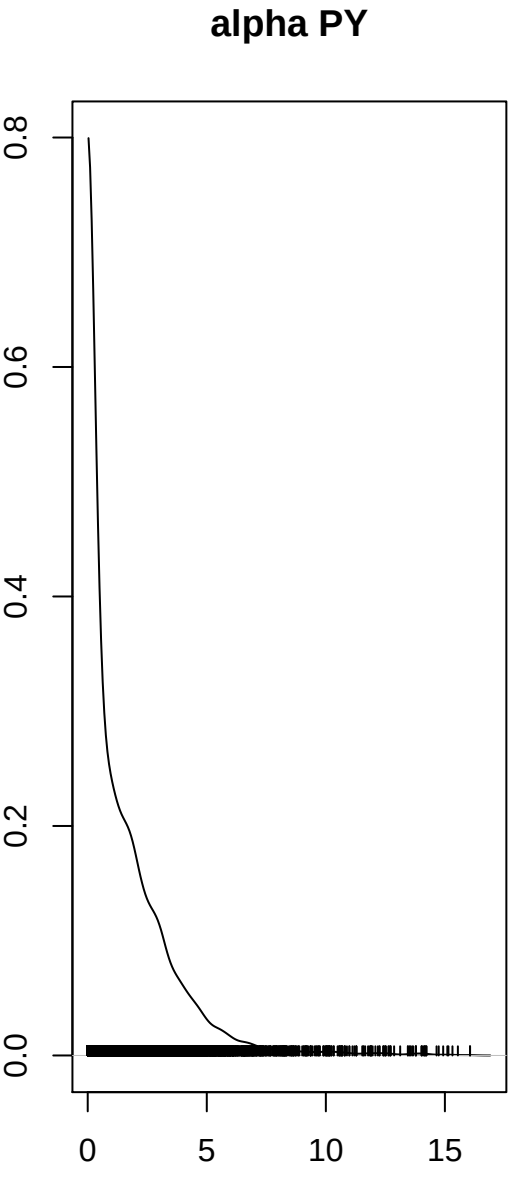

alpha DP
15
10
5
0
2000
6000
10000
Iterations

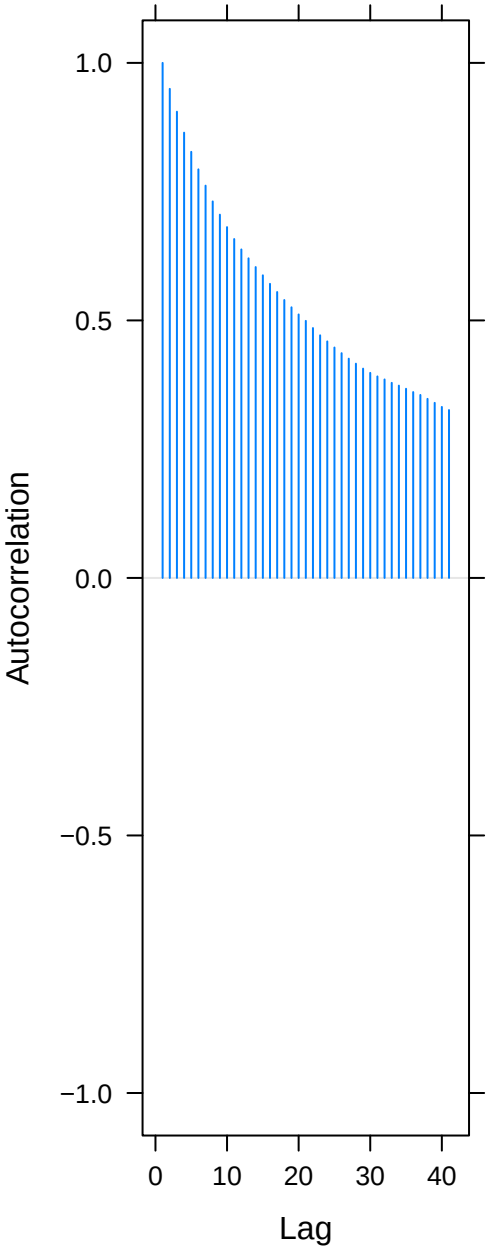

alpha DP
0.20
0.15
0.10
0.05
0.00
0
5
10
15
N = 10000 Bandwidth = 0.3191

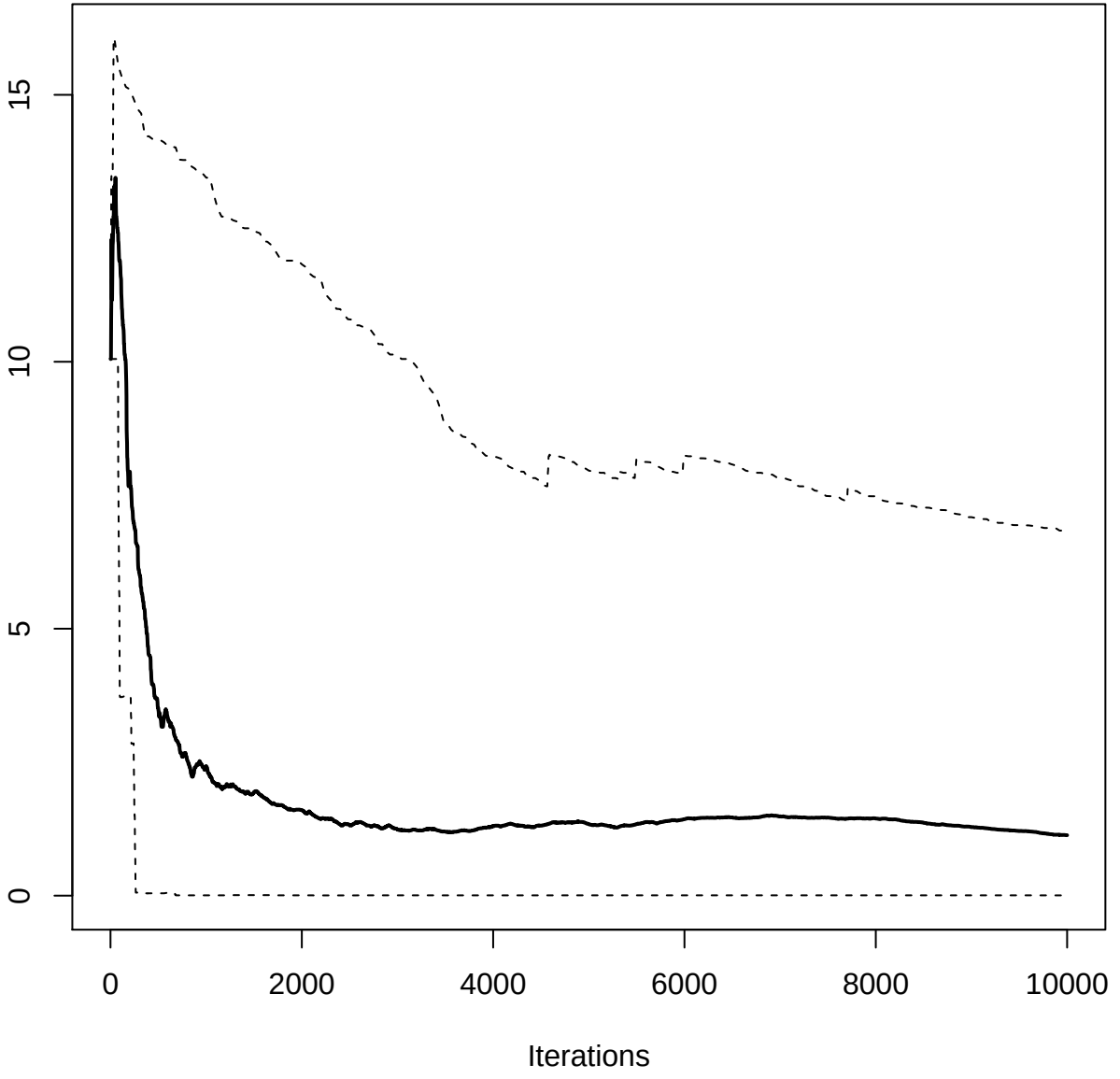

1.0
0.5
0.0
−0.5
−1.0
Autocorrelation
0
10
20
30
40
Lag

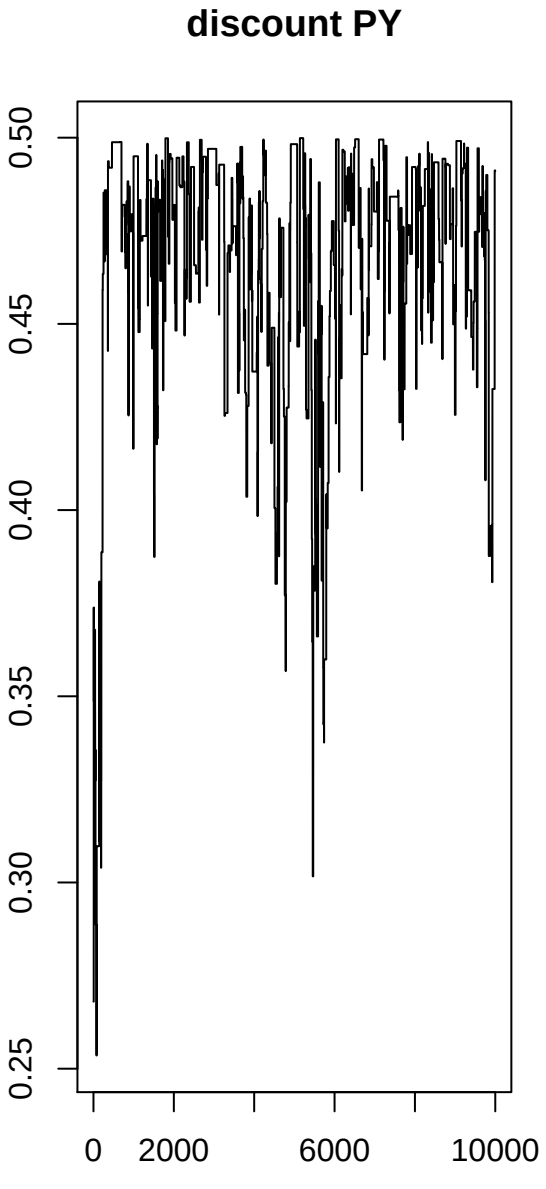

15
10
5
0
2000
4000
6000
8000
10000
Iterations

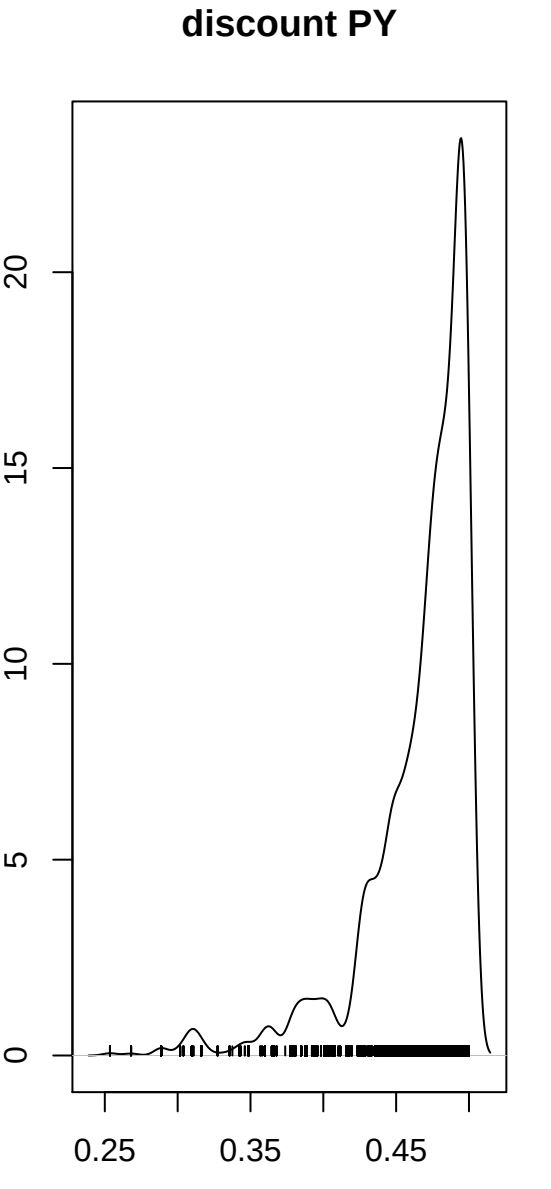

alpha PY
0
5
10
15
0
2000
6000
10000
Iterations

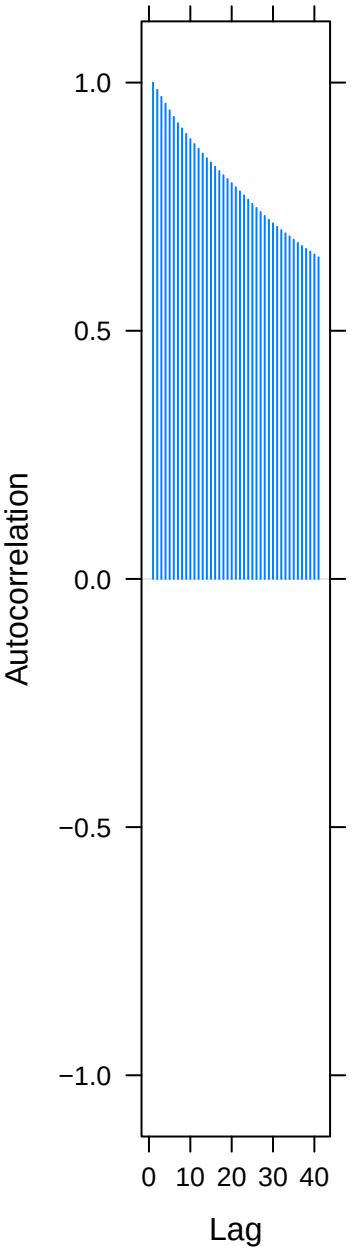

alpha PY
0.0
0.2
0.4
0.6
0.8
0
5
10
15
N = 10000 Bandwidth = 0.2833

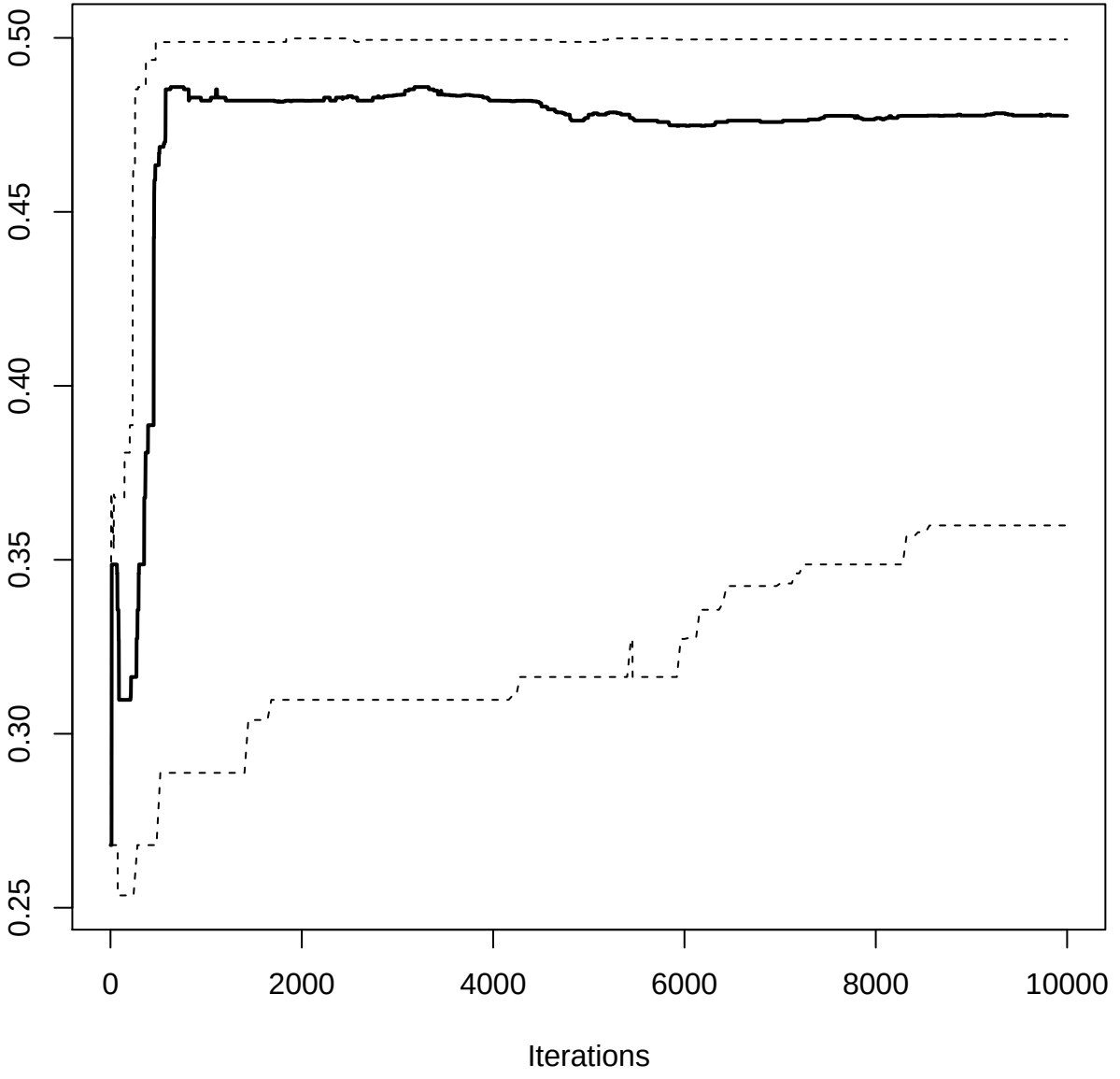

1.0
0.5
0.0
−0.5
−1.0
Autocorrelation
0
10
20
30
40
Lag


15
10
5
0
0
2000
4000
6000
8000
10000
Iterations


discount PY
0.25
0.30
0.35
0.40
0.45
0.50
0
2000
6000
10000
Iterations


discount PY
0
5
10
15
20
0.25
0.35
0.45
N = 10000 Bandwidth = 0.004917


1.0
0.5
0.0
−0.5
−1.0
Autocorrelation
0
10
20
30
40
Lag


0.50
0.45
0.40
0.35
0.30
0.25
0
2000
4000
6000
8000
10000
Iterations


Traceplots of the posterior of the number of clusters
Number of clusters
50
40
30
20
0
2500
5000
7500
10000
iterations
Original model
DP with prior on alpha 2
PY with fixed alpha, sigma
PY with prior on alpha, sigma

	Parameter	GJAM	GJAM2	PY1	PY2	r	iter	burn
1	DIC	9.033	9.199	9.032	8.999	5	10000	5000
2	mean AUC	0.595	0.601	0.605	0.599	5	10000	5000
3	mean Tjur	0.029	0.031	0.032	0.029	5	10000	5000
4	mean p_N	0.000	0.000	0.013	0.013	5	10000	5000
5	VI dist	4.039	3.682	3.746	3.634	5	10000	5000
6	AR dist	0.047	0.080	0.074	0.079	5	10000	5000
7	mean K	28.626	17.444	15.094	20.261	5	10000	5000

	Estimate	SE	CI_025	CI_975
bio190	1.36	0.0623	1.24	1.48
slope	0.928	0.0484	0.836	1.02
I(bio190^2)	1.12	0.0743	0.974	1.26
I(slope^2)	0.735	0.0495	0.642	0.836

	Estimate	SE	CI_025	CI_975
bio190	1.44	0.0708	1.31	1.59
slope	0.964	0.0553	0.86	1.07
I(bio190^2)	1.11	0.0553	0.995	1.21
I(slope^2)	0.75	0.0494	0.657	0.854

	Estimate	SE	CI_025	CI_975
bio190	1.48	0.0778	1.33	1.63
slope	0.985	0.0591	0.872	1.1
I(bio190^2)	1.1	0.0551	0.996	1.22
I(slope^2)	0.754	0.054	0.654	0.863

	Estimate	SE	CI_025	CI_975
bio190	1.42	0.0633	1.3	1.55
slope	0.954	0.051	0.858	1.06
I(bio190^2)	1.11	0.0554	1.01	1.23
I(slope^2)	0.746	0.0508	0.651	0.85

	bio190	slope
VIF	1.32	1.32
factor	0	0
slope	0.49	NA

	bio190	slope
VIF	1.32	1.32
factor	0	0
slope	0.49	NA

	bio190	slope
VIF	1.32	1.32
factor	0	0
slope	0.49	NA

	bio190	slope
VIF	1.32	1.32
factor	0	0
slope	0.49	NA