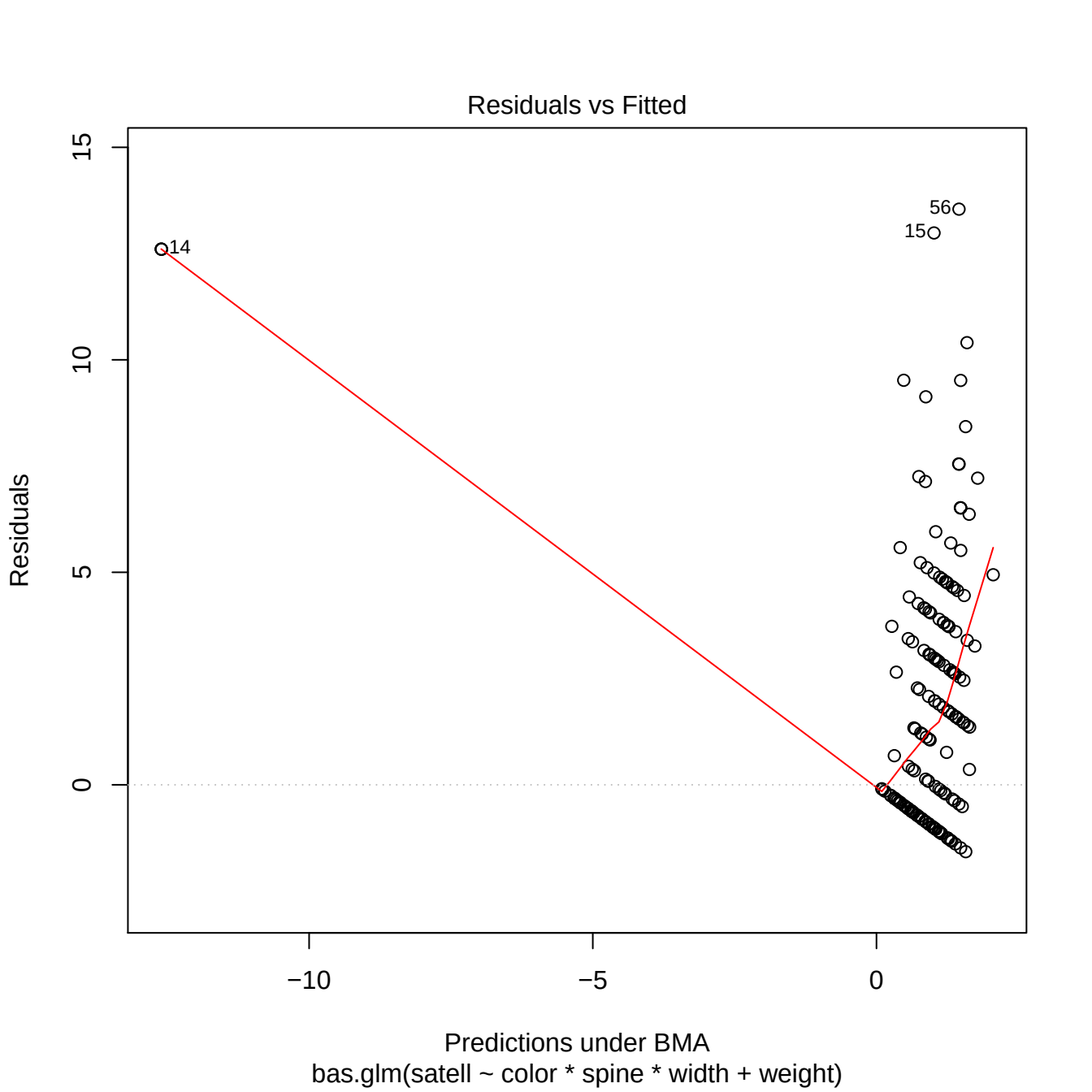
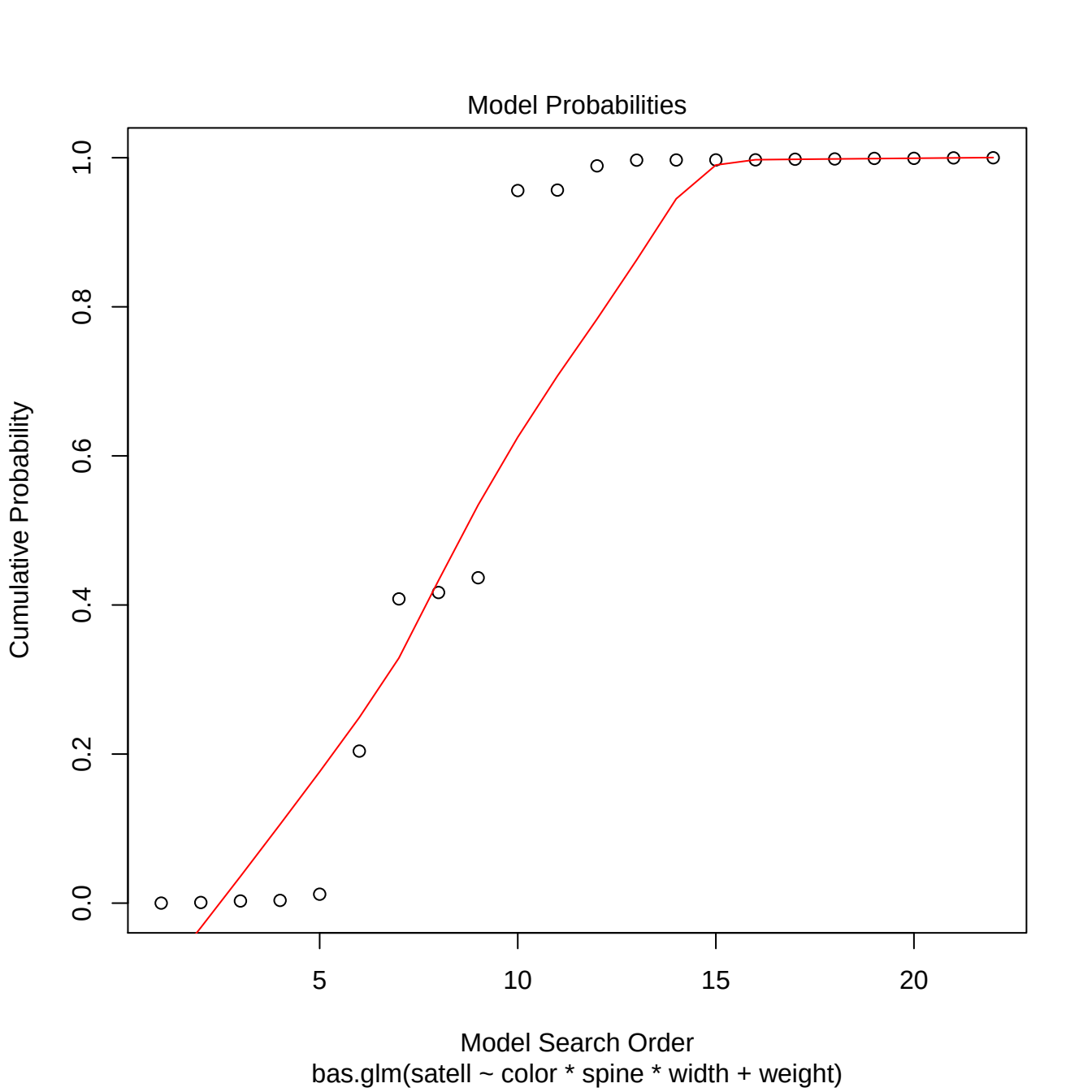
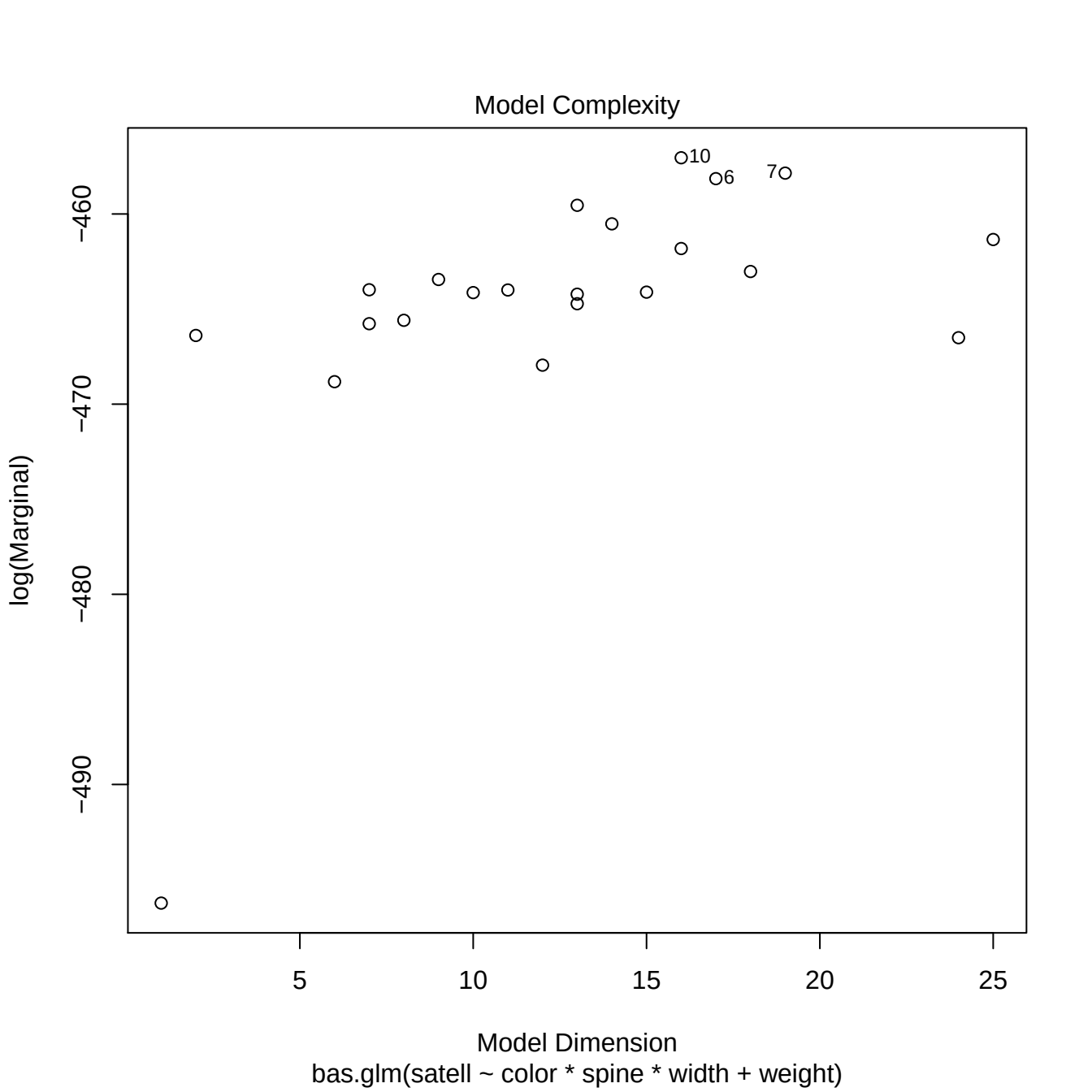
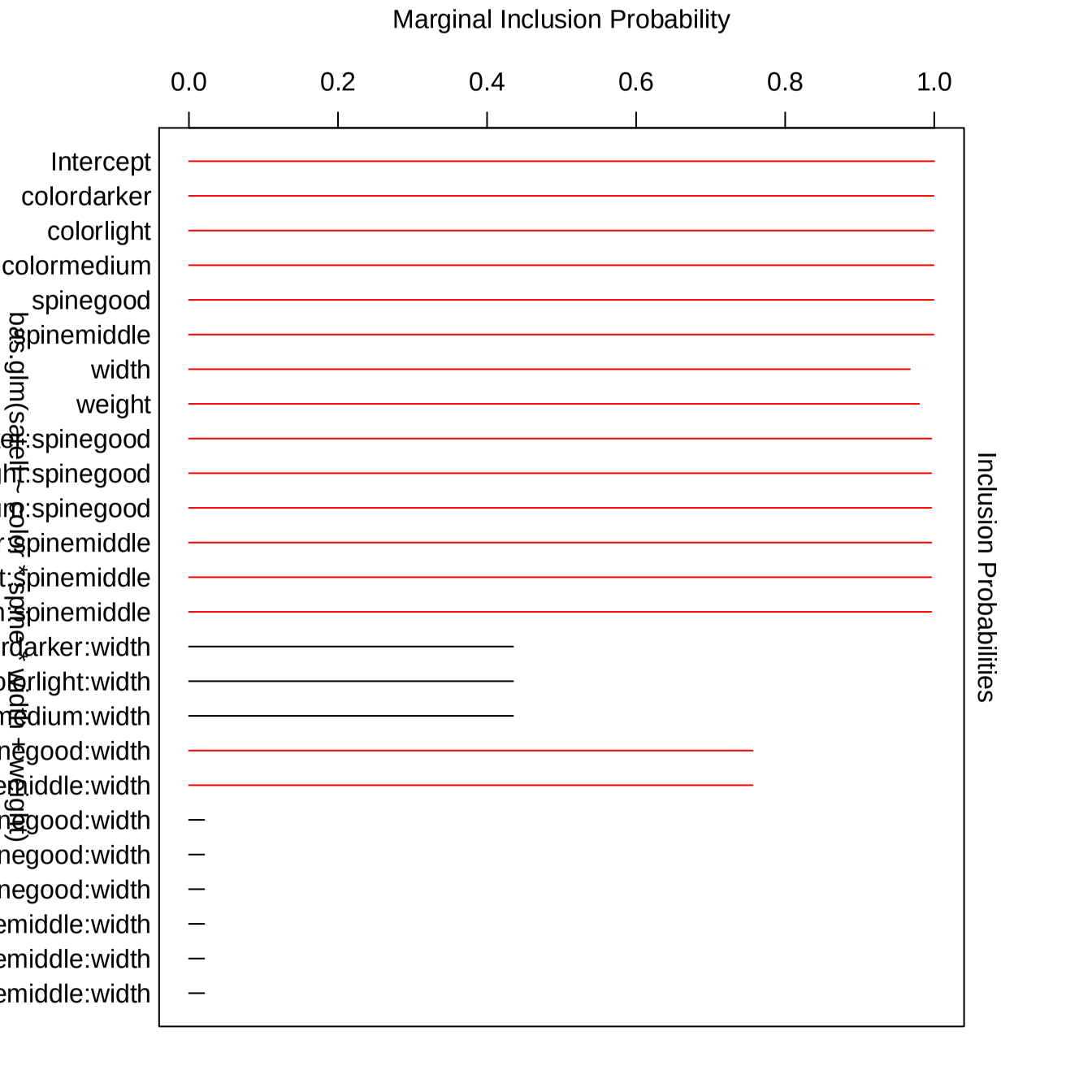
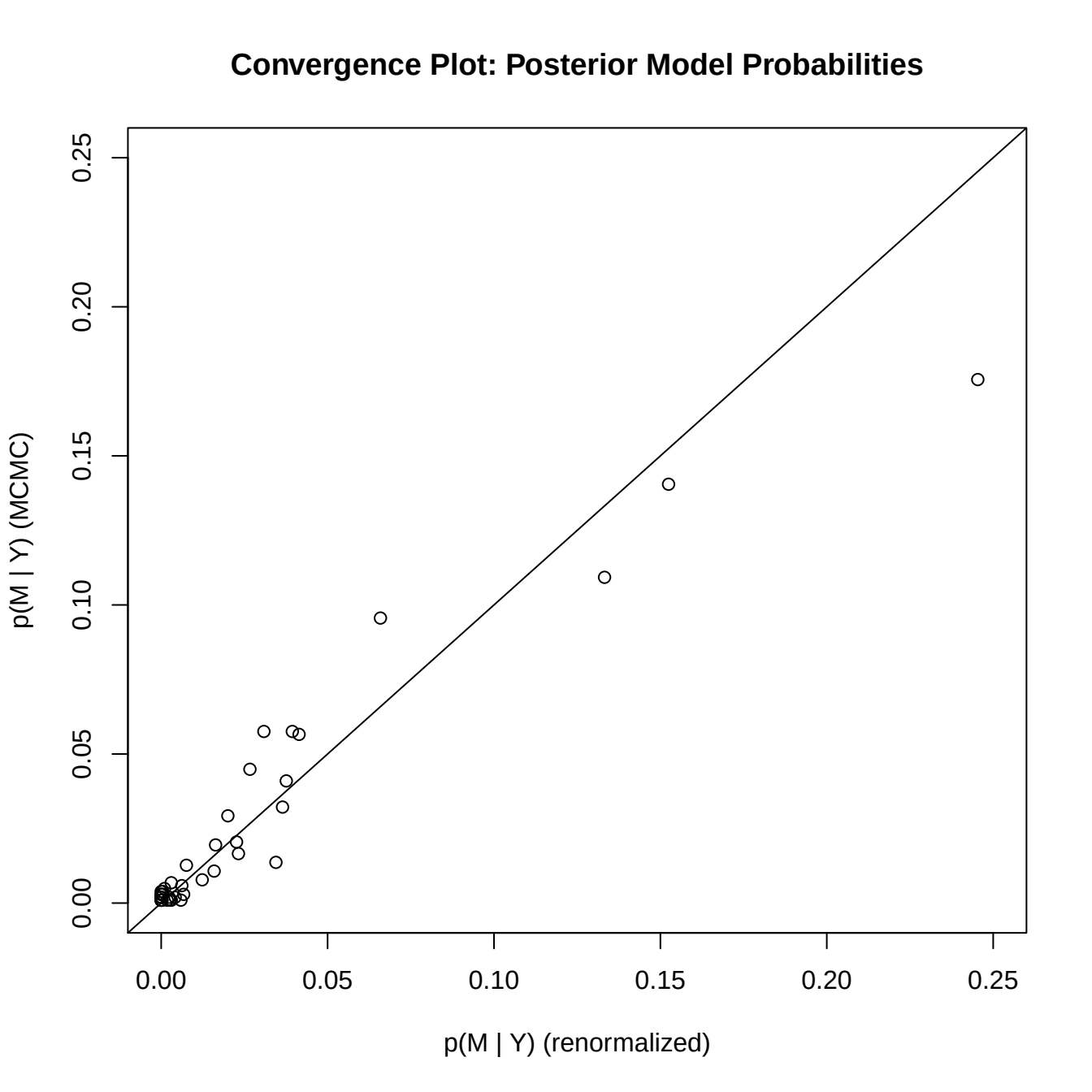
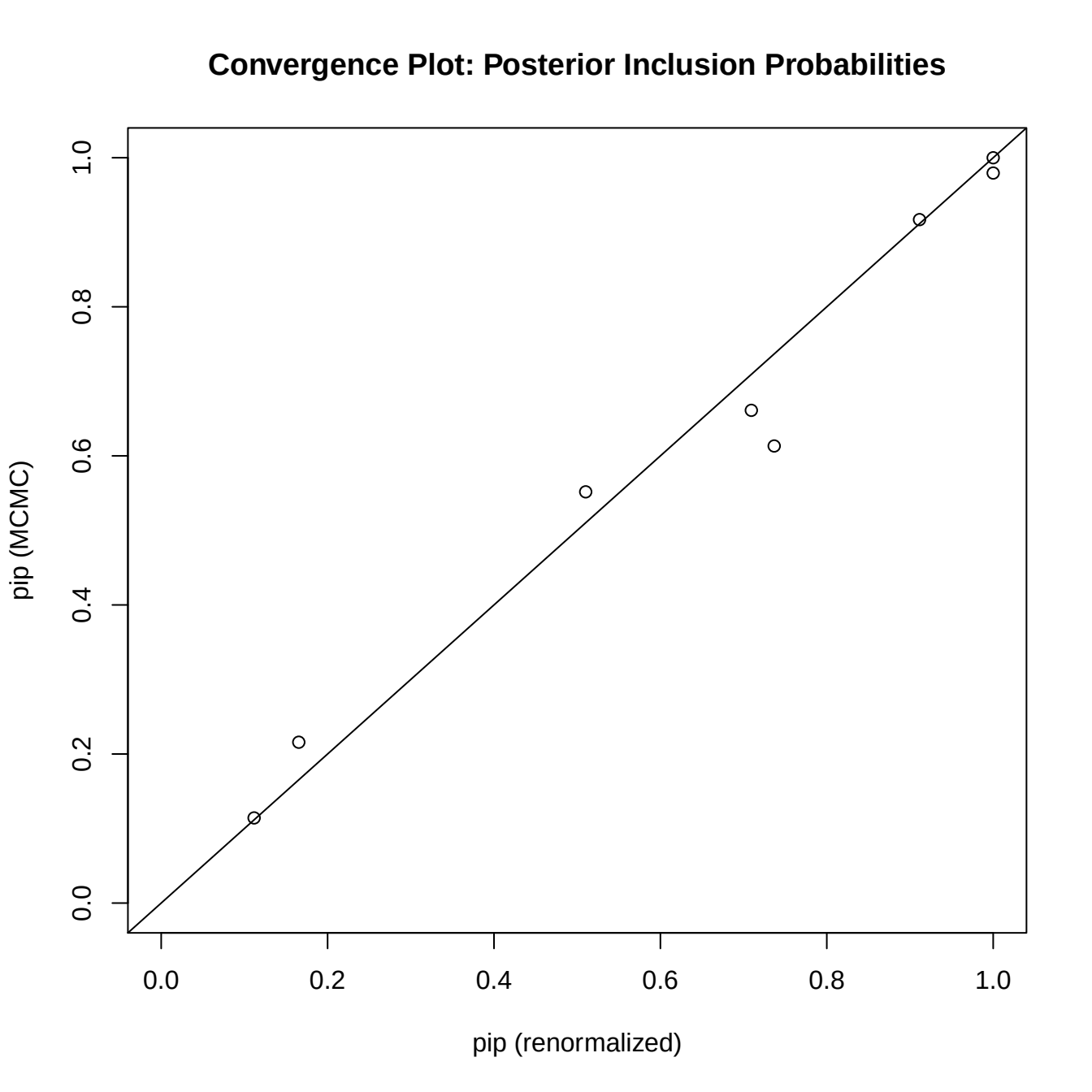

Residuals vs Fitted
Residuals
15
10
5
0
14
56
15
−10
−5
0
Predictions under BMA
bas.glm(satell ~ color * spine * width + weight)

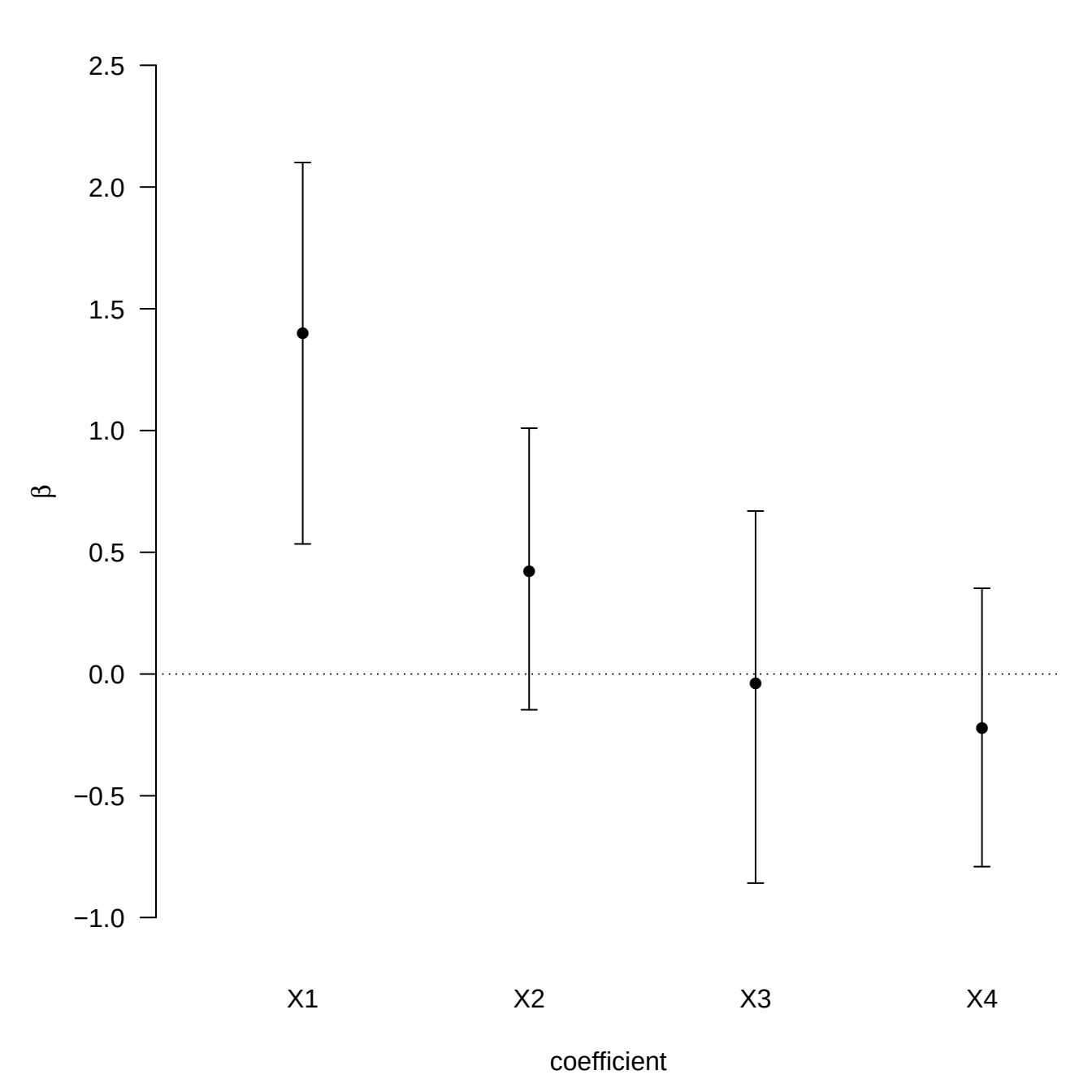

Model Probabilities
Cumulative Probability
0.0
0.2
0.4
0.6
0.8
1.0
5
10
15
20
Model Search Order
bas.glm(satell ~ color * spine * width + weight)

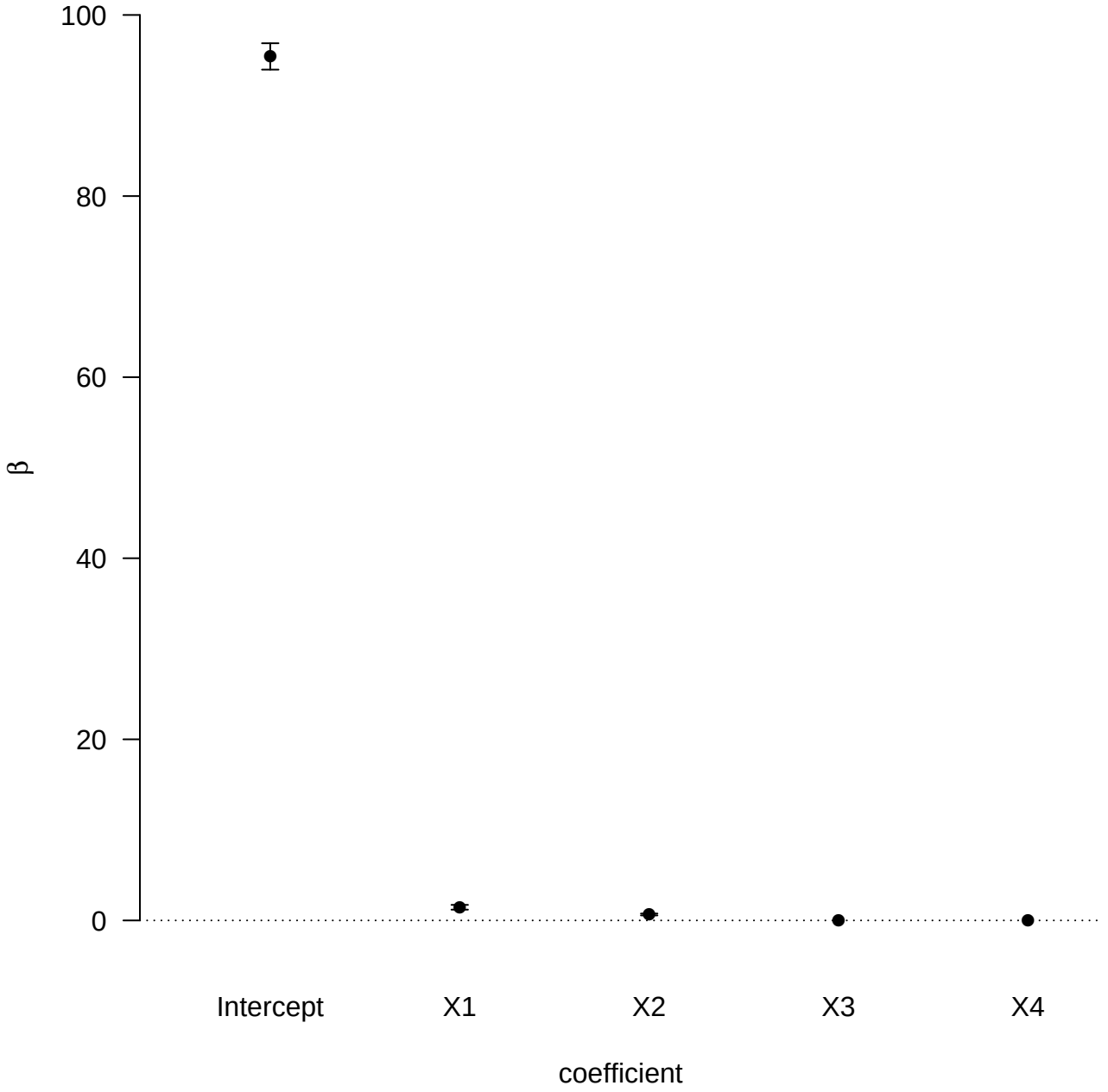

Model Complexity
log(Marginal)
−460
−470
−480
−490
10
6
7
8
5
10
15
20
25
Model Dimension
bas.glm(satell ~ color * spine * width + weight)

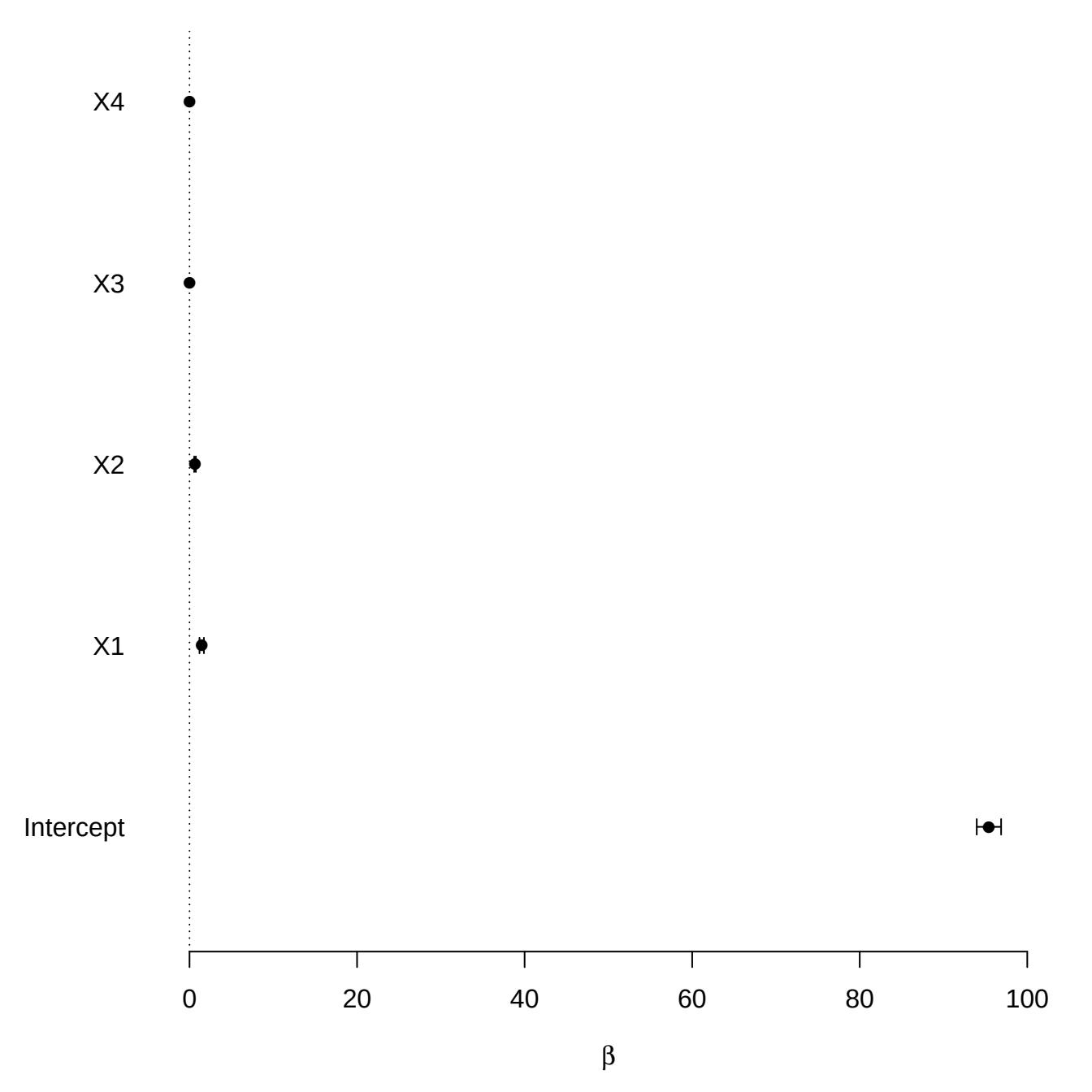

Marginal Inclusion Probability
0.0
0.2
0.4
0.6
0.8
1.0
Intercept
colordarker
colorlight
colormedium
spinegood
spinemiddle
width
weight
:spinegood
:spinegood
:spinegood
spinemiddle
spinemiddle
spinemiddle
rdarker:width
orlight:width
edium:width
negood:width
middle:width
negood:width
negood:width
negood:width
emiddle:width
emiddle:width
emiddle:width
Inclusion Probabilities

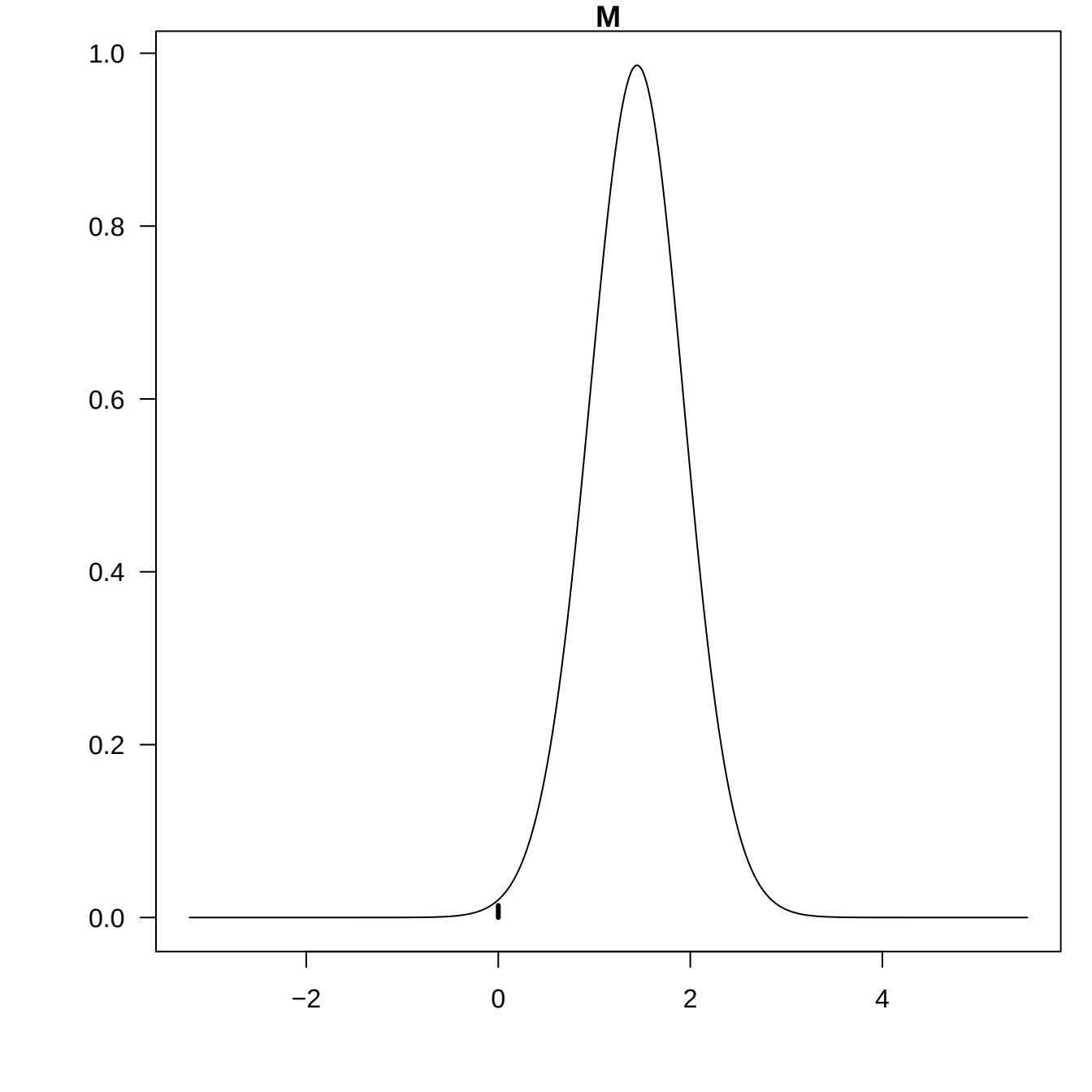

Convergence Plot: Posterior Model Probabilities
p(M | Y) (MCMC)
0.00
0.05
0.10
0.15
0.20
0.25
p(M | Y) (renormalized)
0.00
0.05
0.10
0.15
0.20
0.25

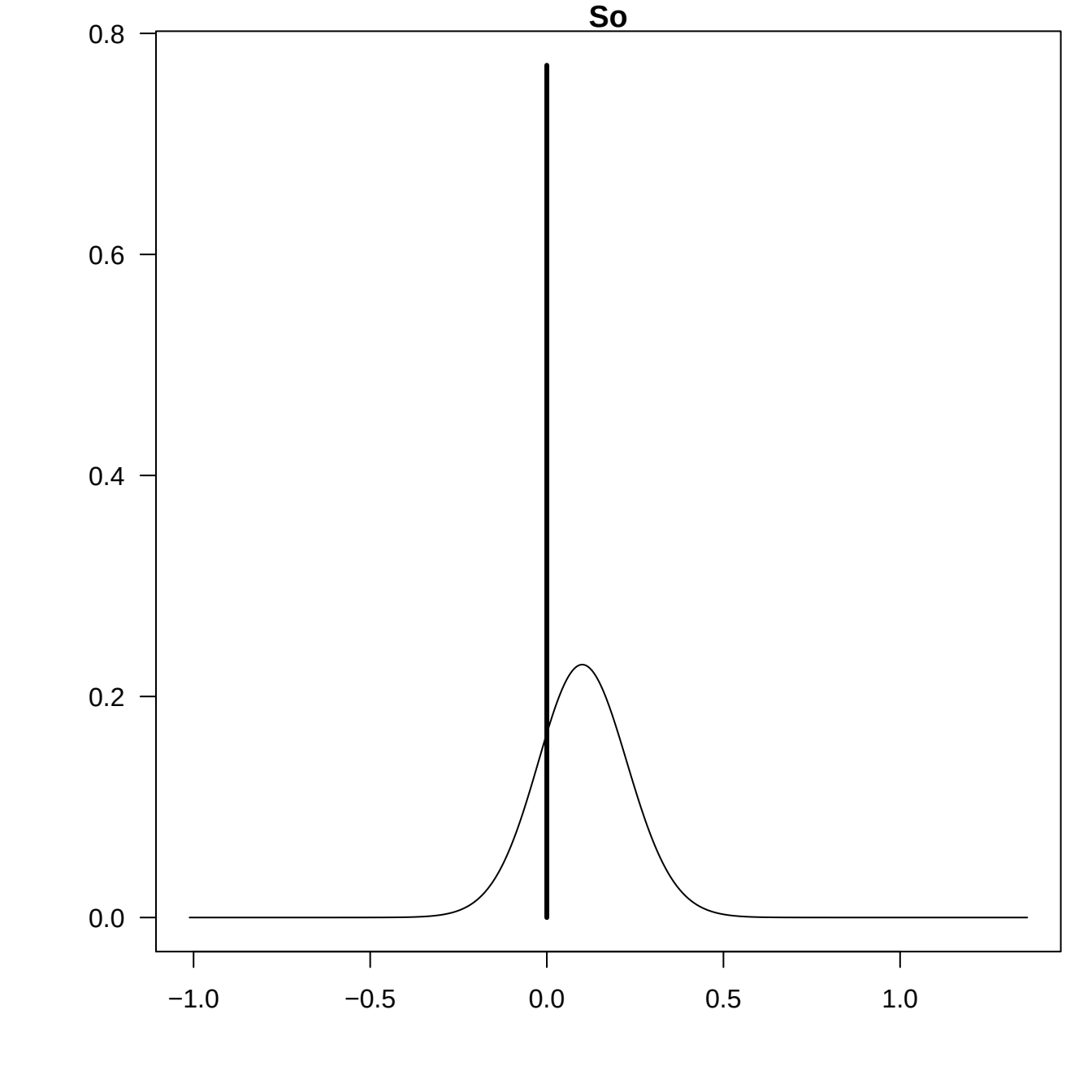

Convergence Plot: Posterior Inclusion Probabilities
pip (MCMC)
pip (renormalized)
0.0
0.2
0.4
0.6
0.8
1.0

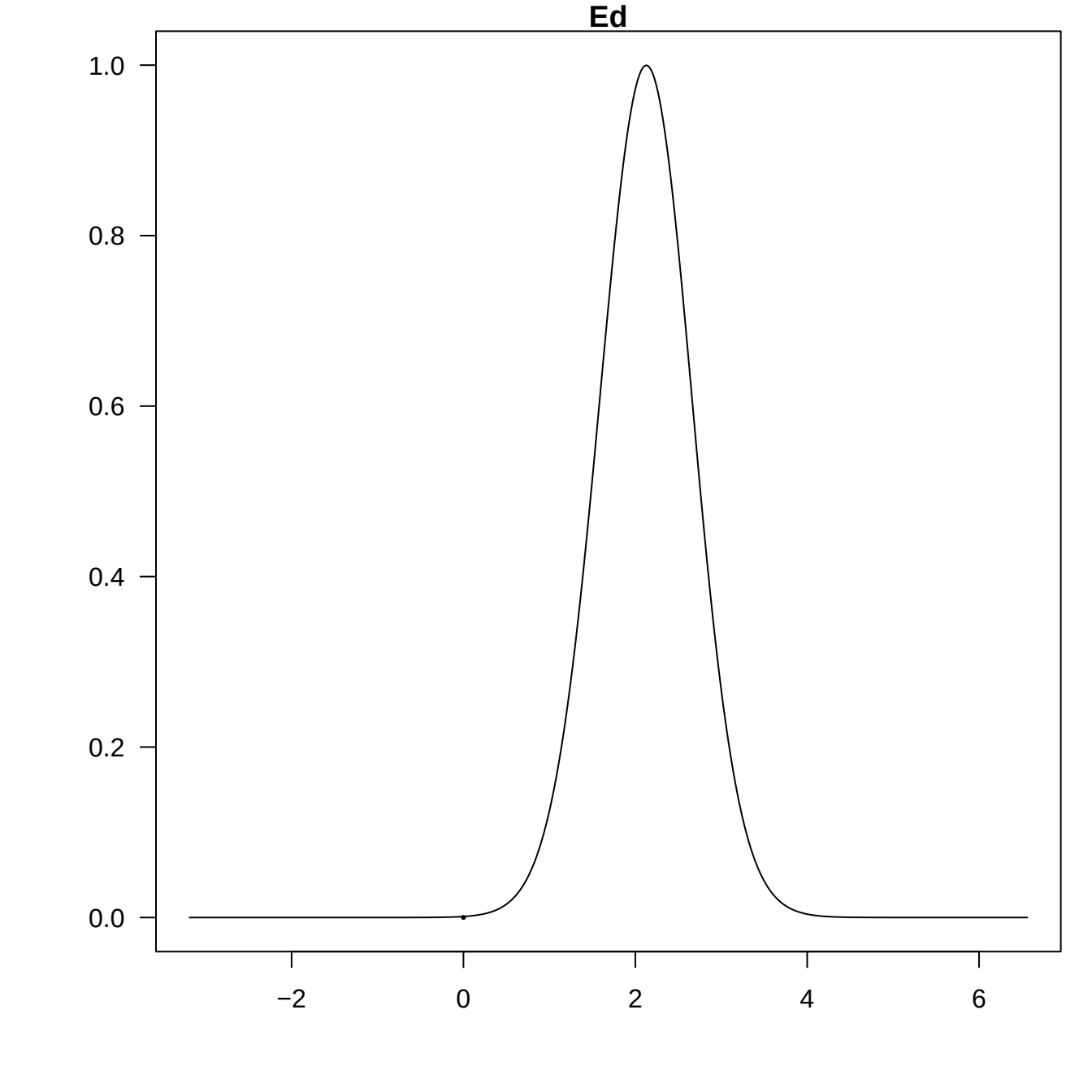

2.5
2.0
1.5
1.0
0.5
0.0
−0.5
−1.0
β
X1
X2
X3
X4
coefficient

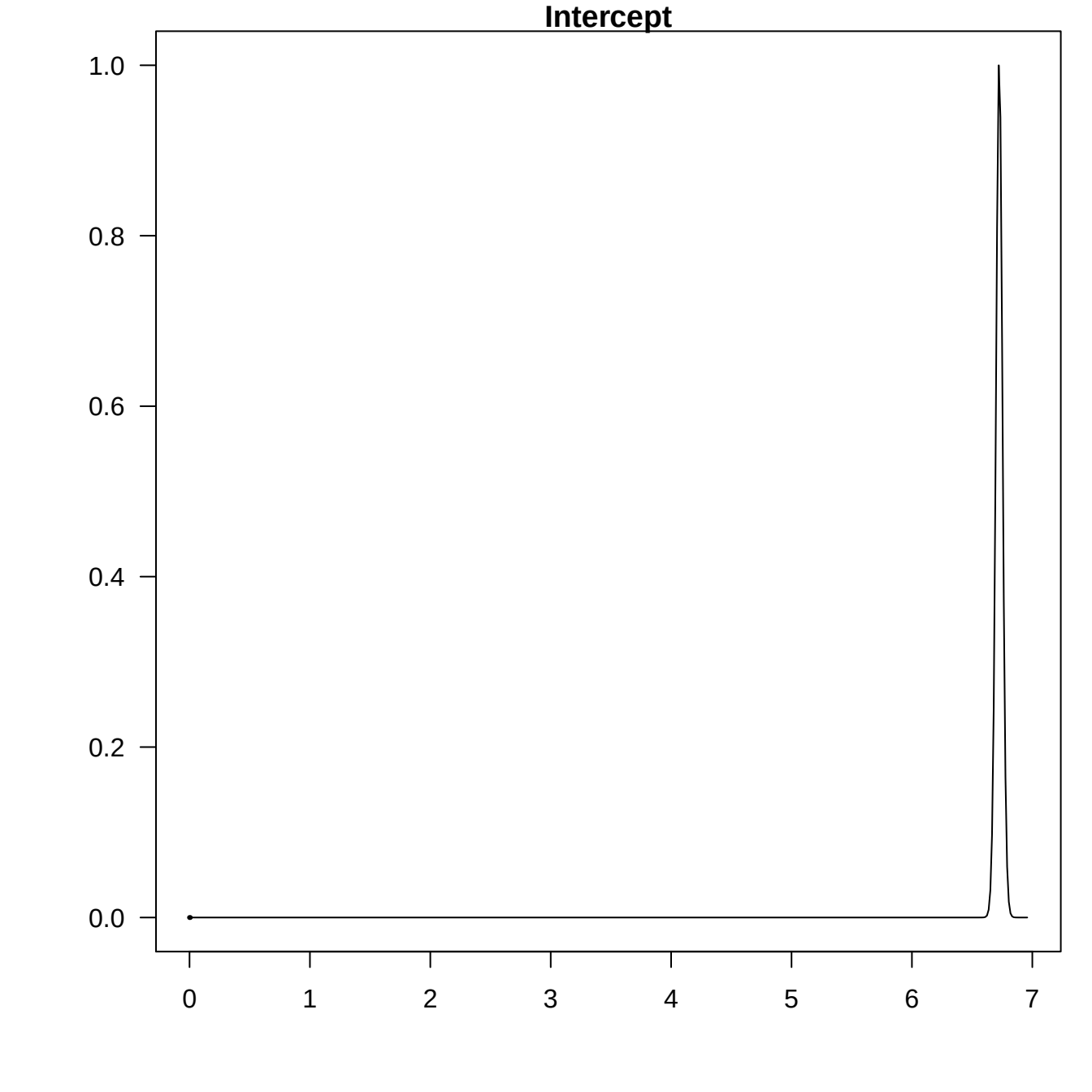

100
80
60
40
20
0
β
Intercept
X1
X2
X3
X4
coefficient

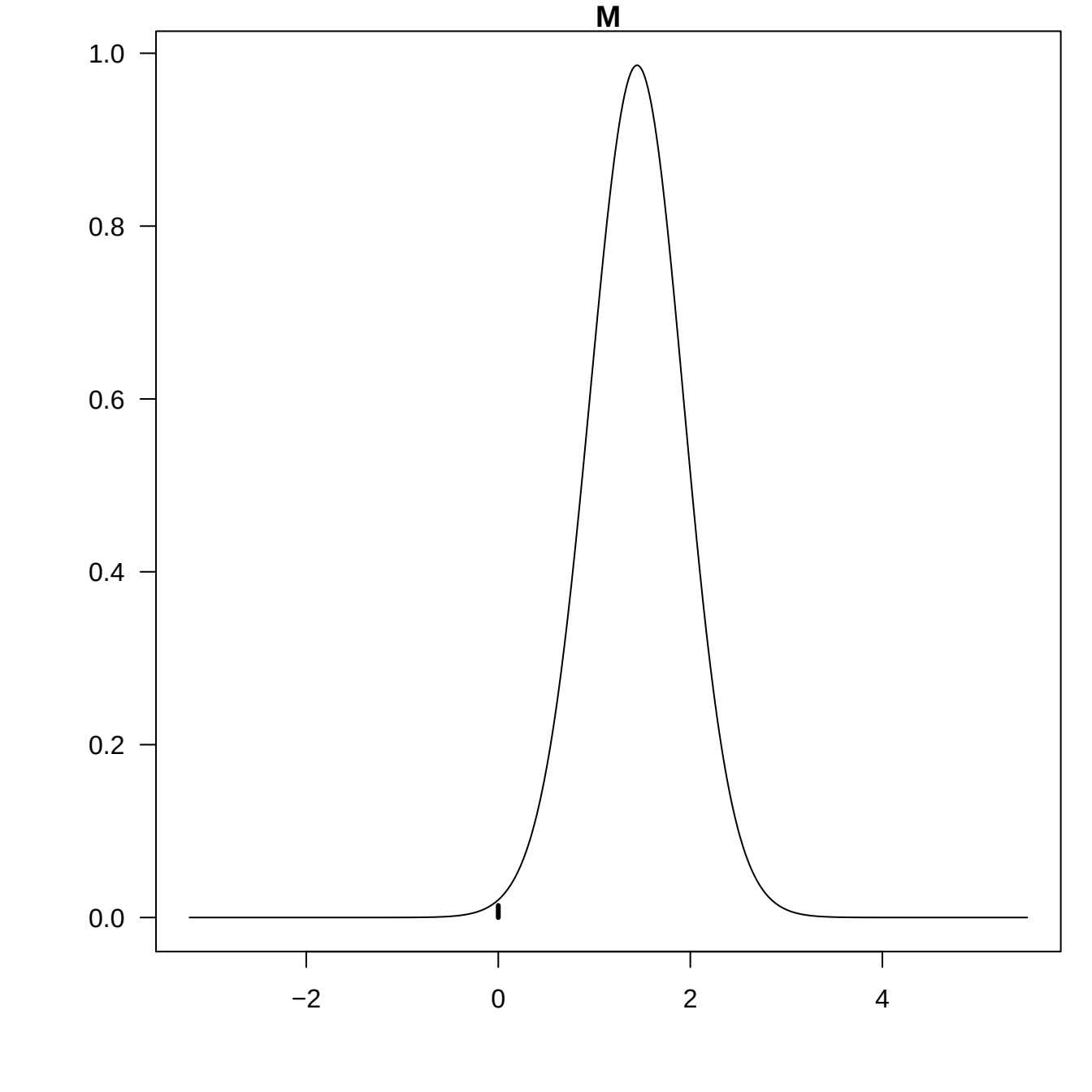

X4
X3
X2
X1
Intercept
0
20
40
60
80
100
β

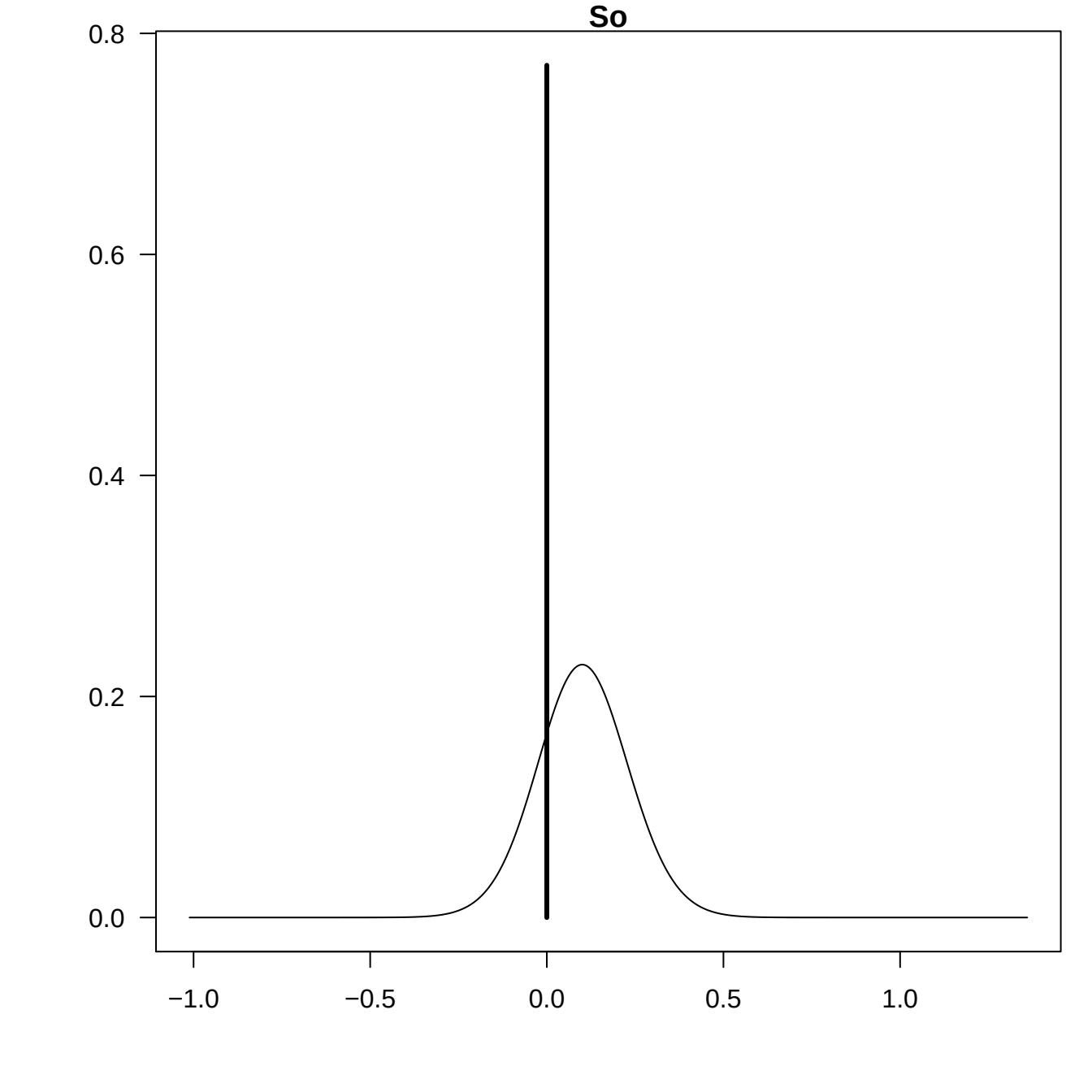

M
1.0
0.8
0.6
0.4
0.2
0.0
−2
0
2
4

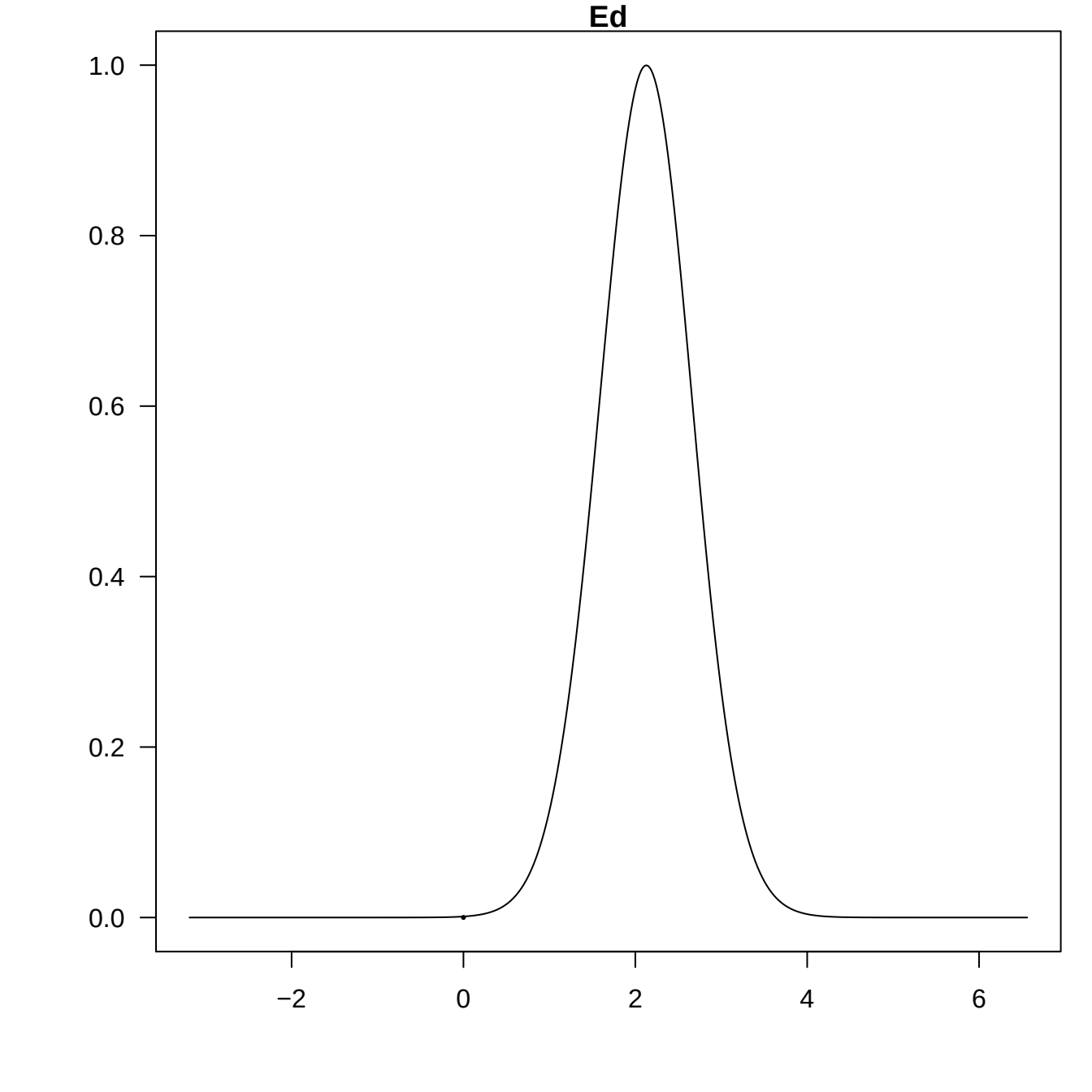

So
0.8
0.6
0.4
0.2
0.0
−1.0
−0.5
0.0
0.5
1.0

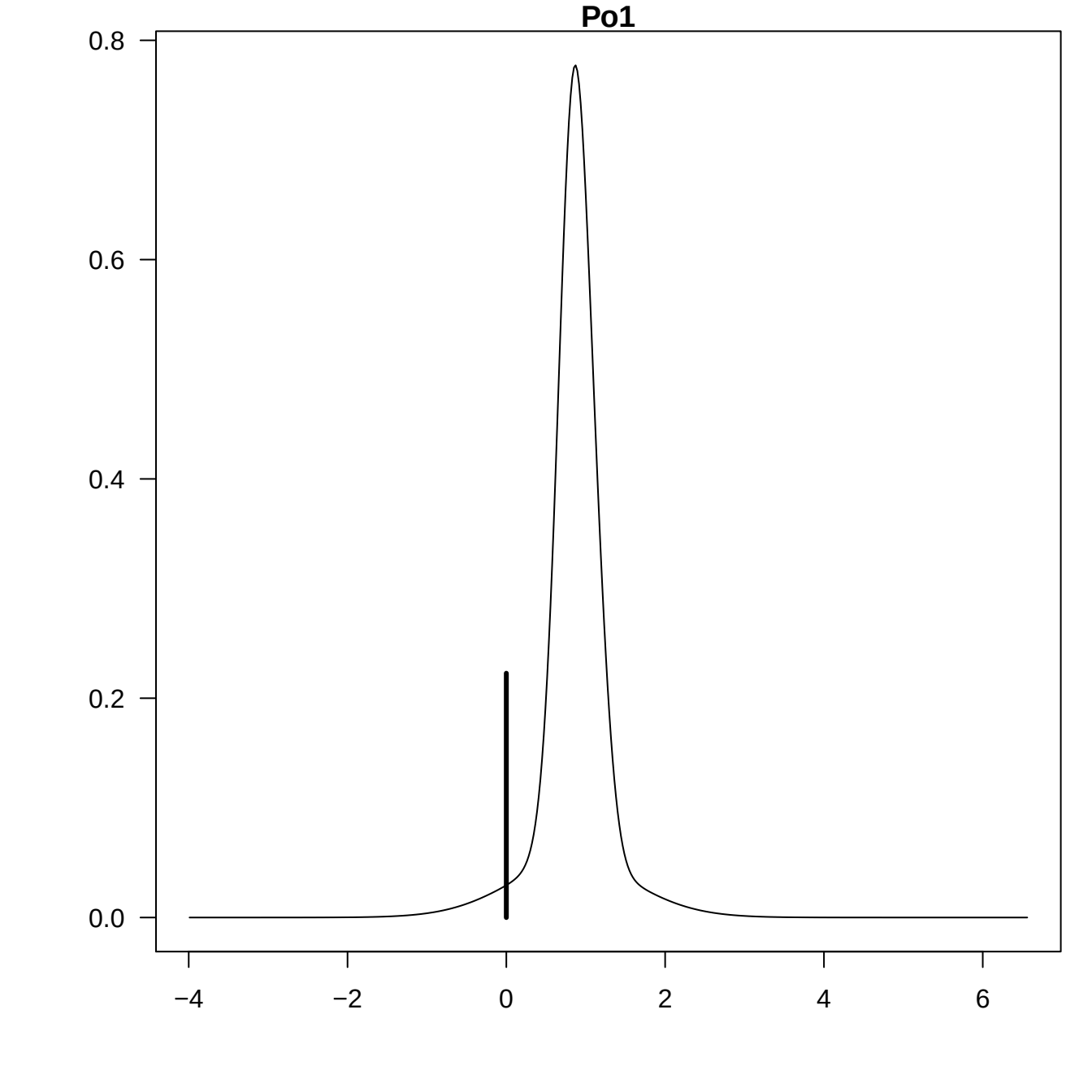

Ed
1.0
0.8
0.6
0.4
0.2
0.0
−2
0
2
4
6

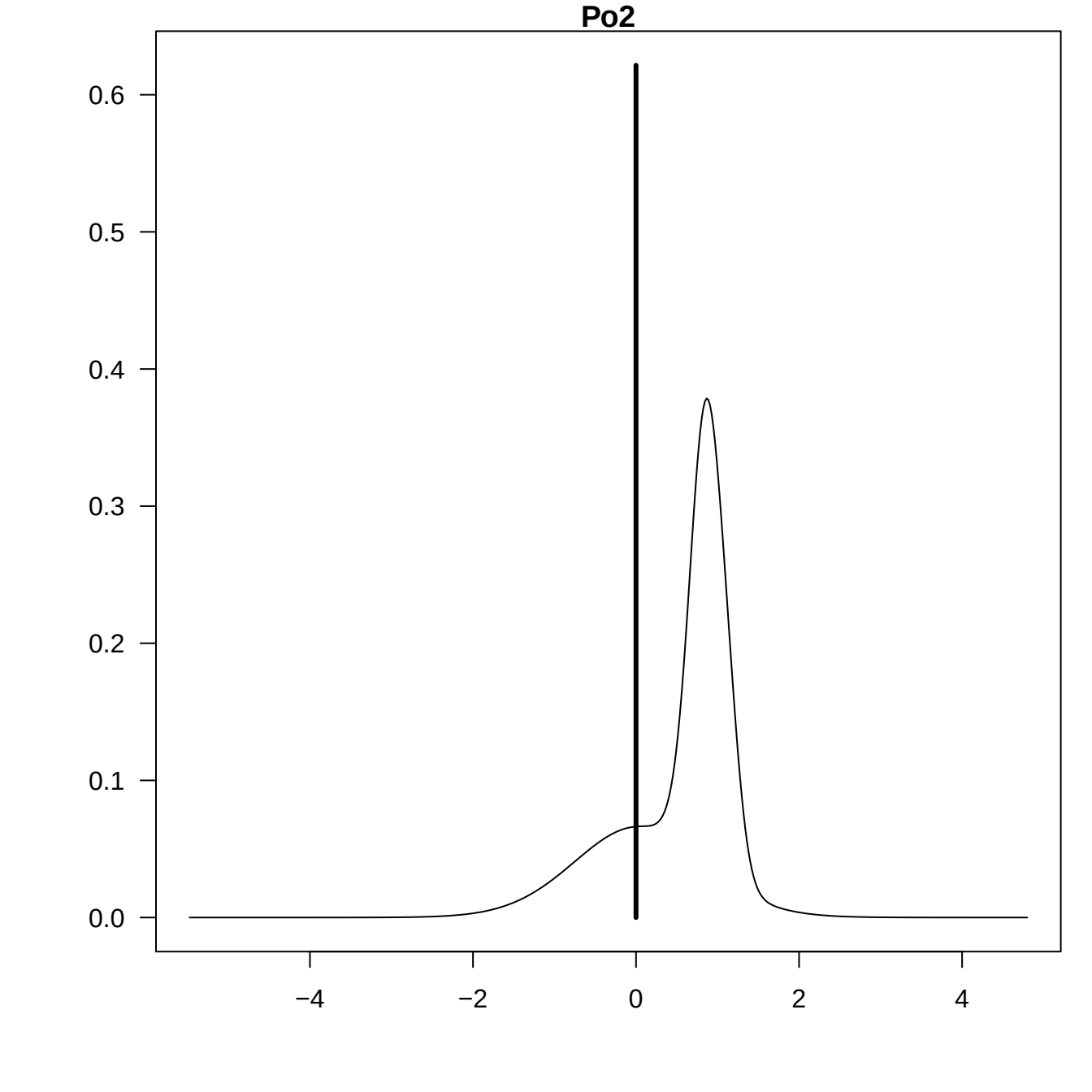

Intercept
1.0
0.8
0.6
0.4
0.2
0.0
0
1
2
3
4
5
6
7

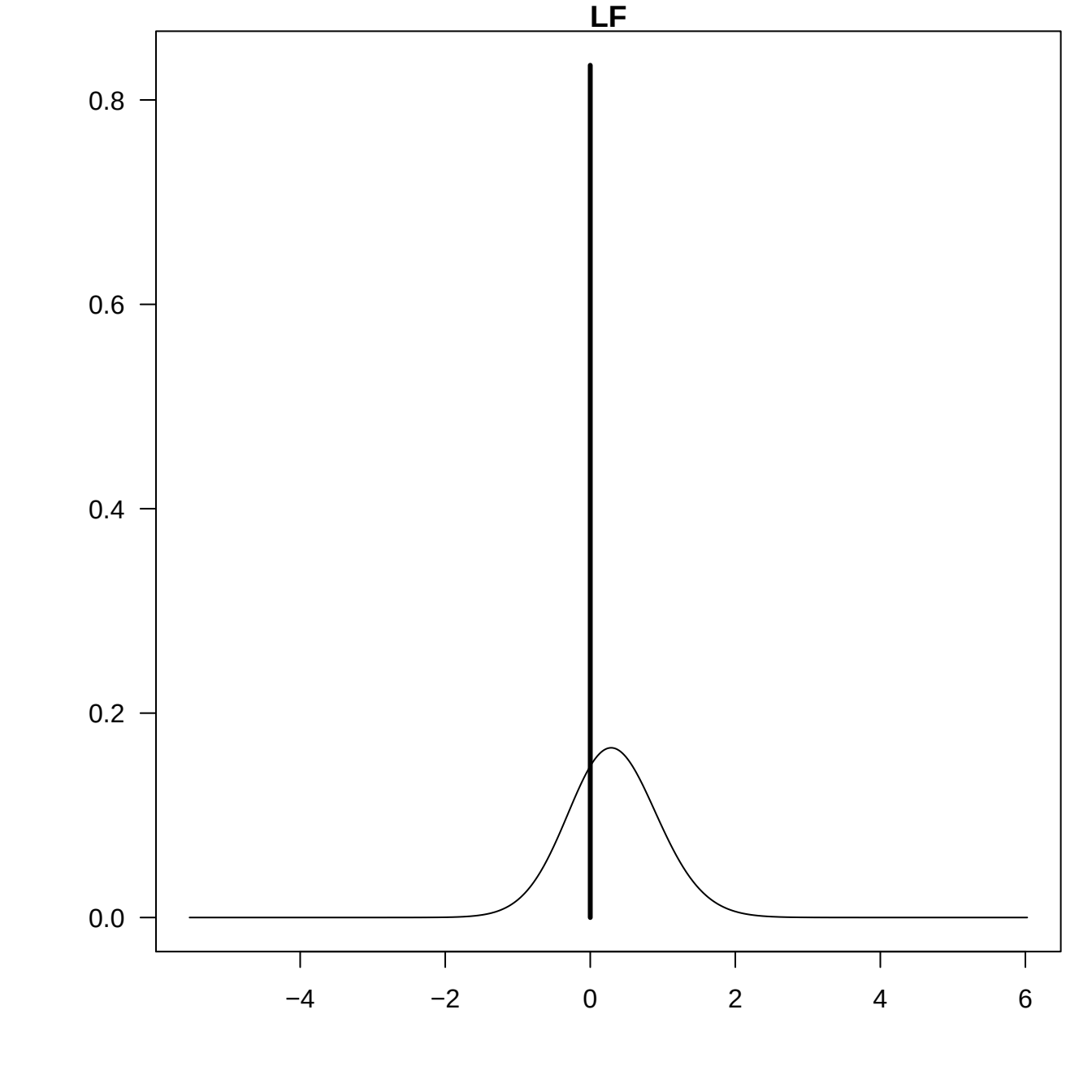

M
1.0
0.8
0.6
0.4
0.2
0.0
−2
0
2
4

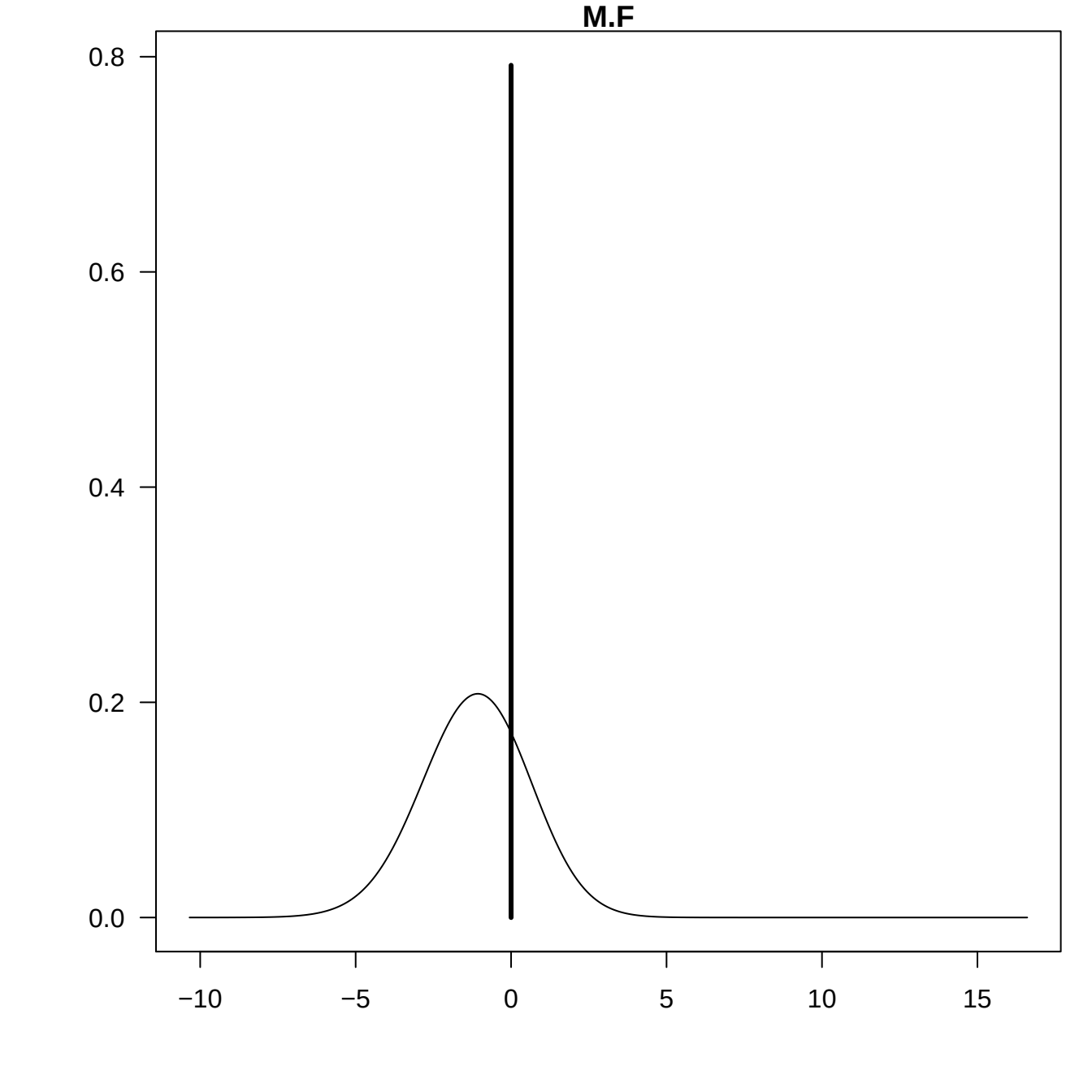

So
0.8
0.6
0.4
0.2
0.0
−1.0
−0.5
0.0
0.5
1.0

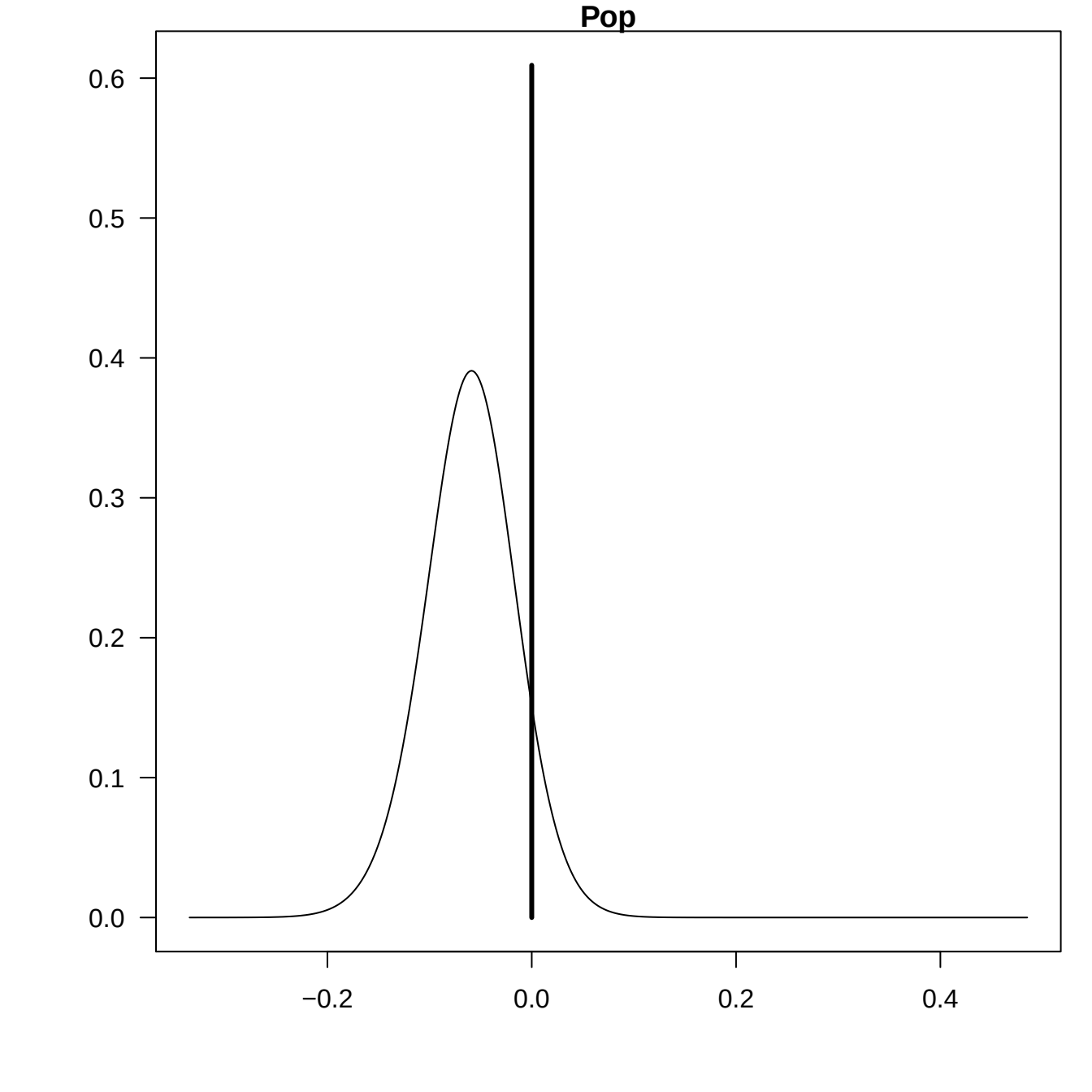

Ed
1.0
0.8
0.6
0.4
0.2
0.0
−2
0
2
4
6

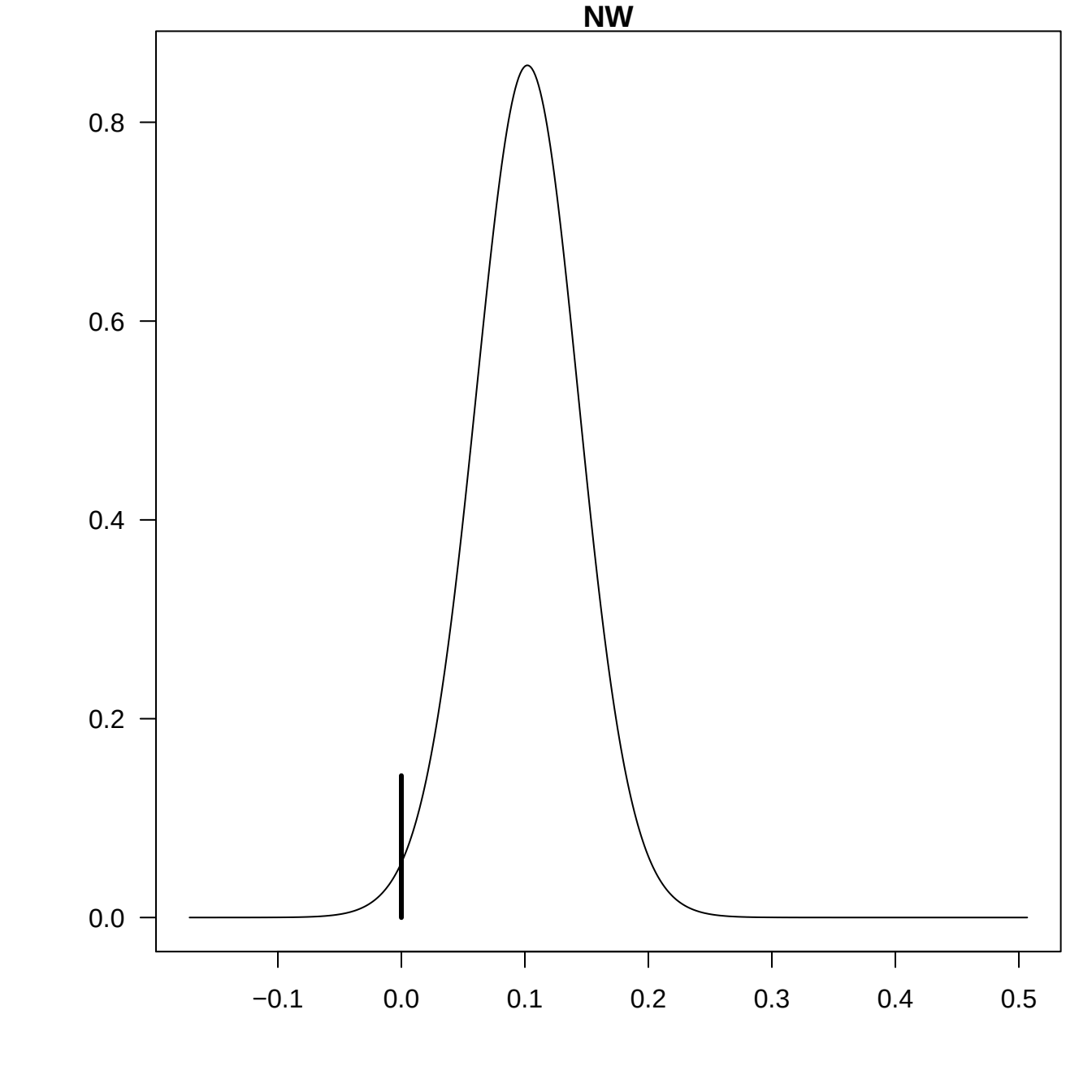

Po1
0.8
0.6
0.4
0.2
0.0
−4
−2
0
2
4
6

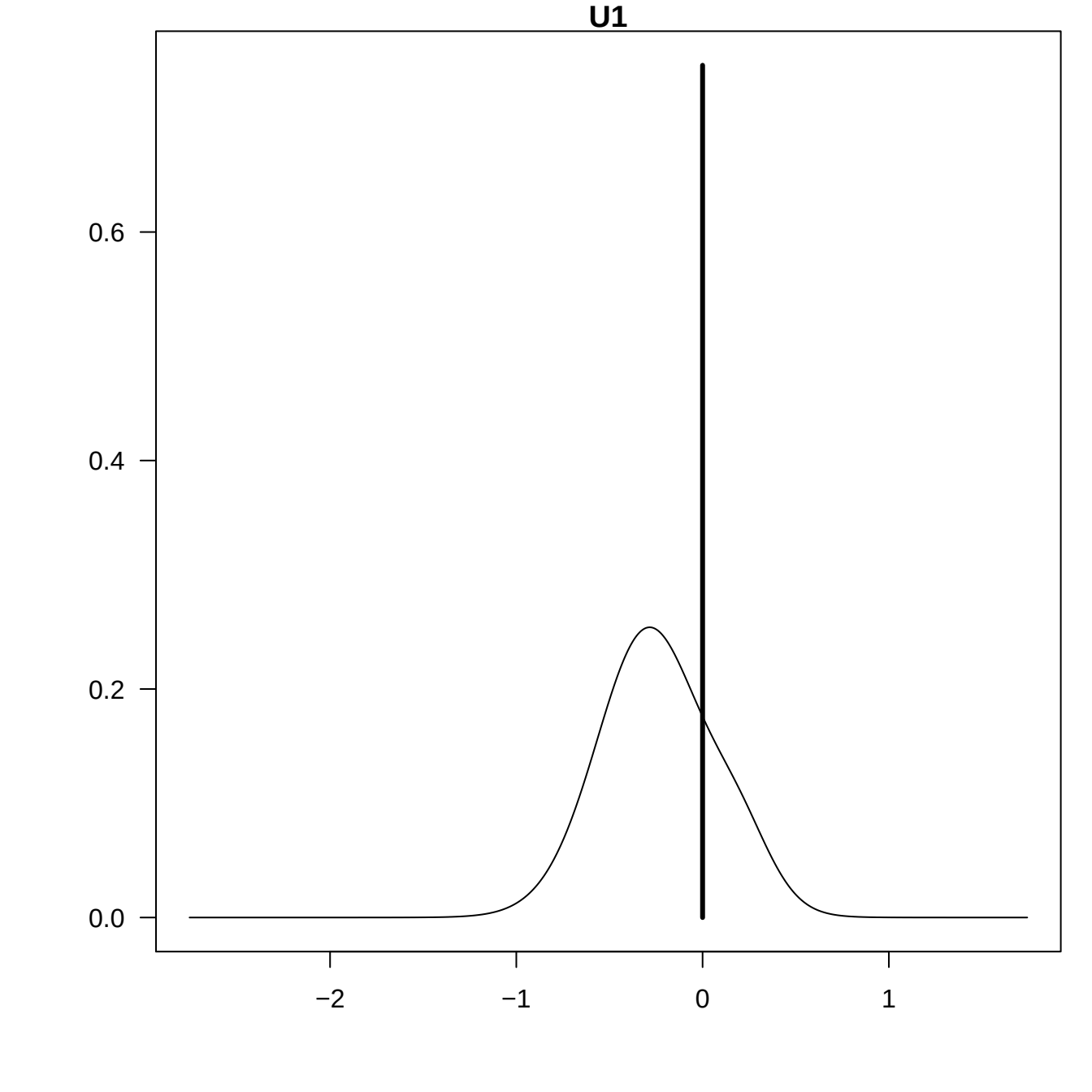

Po2
0.6
0.5
0.4
0.3
0.2
0.1
0.0
−4
−2
0
2
4

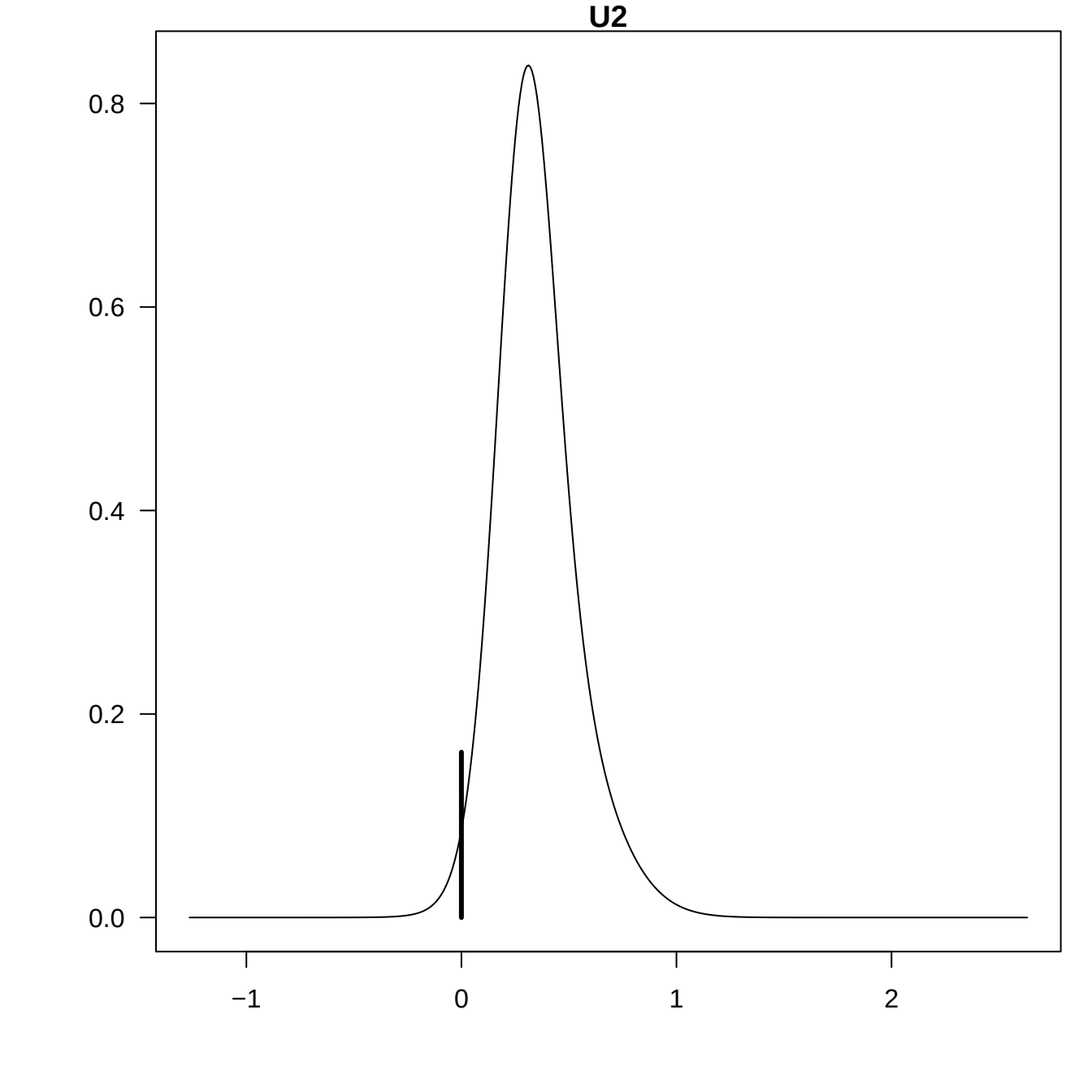

LF
0.8
0.6
0.4
0.2
0.0
−4
−2
0
2
4
6

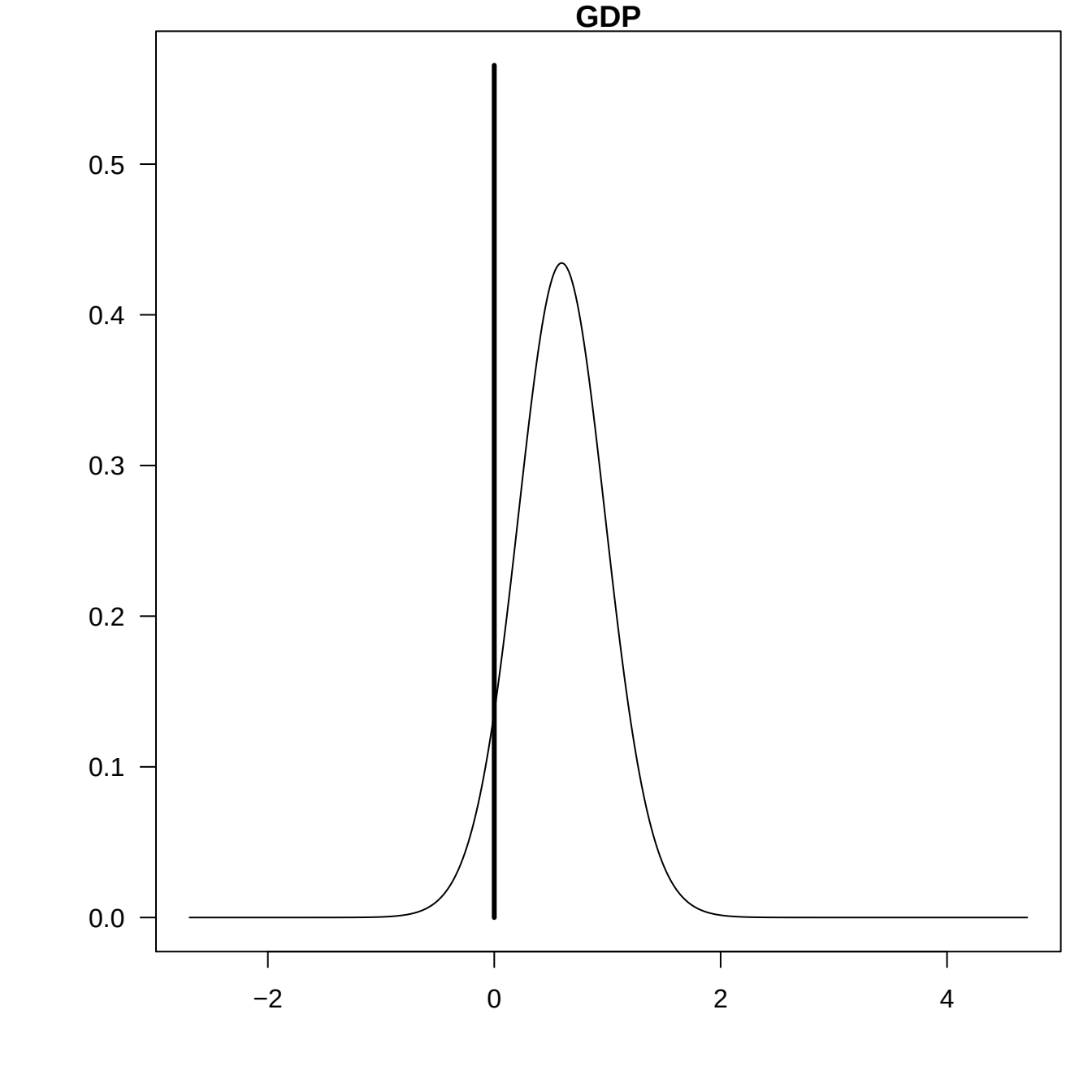

M.F
0.8
0.6
0.4
0.2
0.0
−10
−5
0
5
10
15

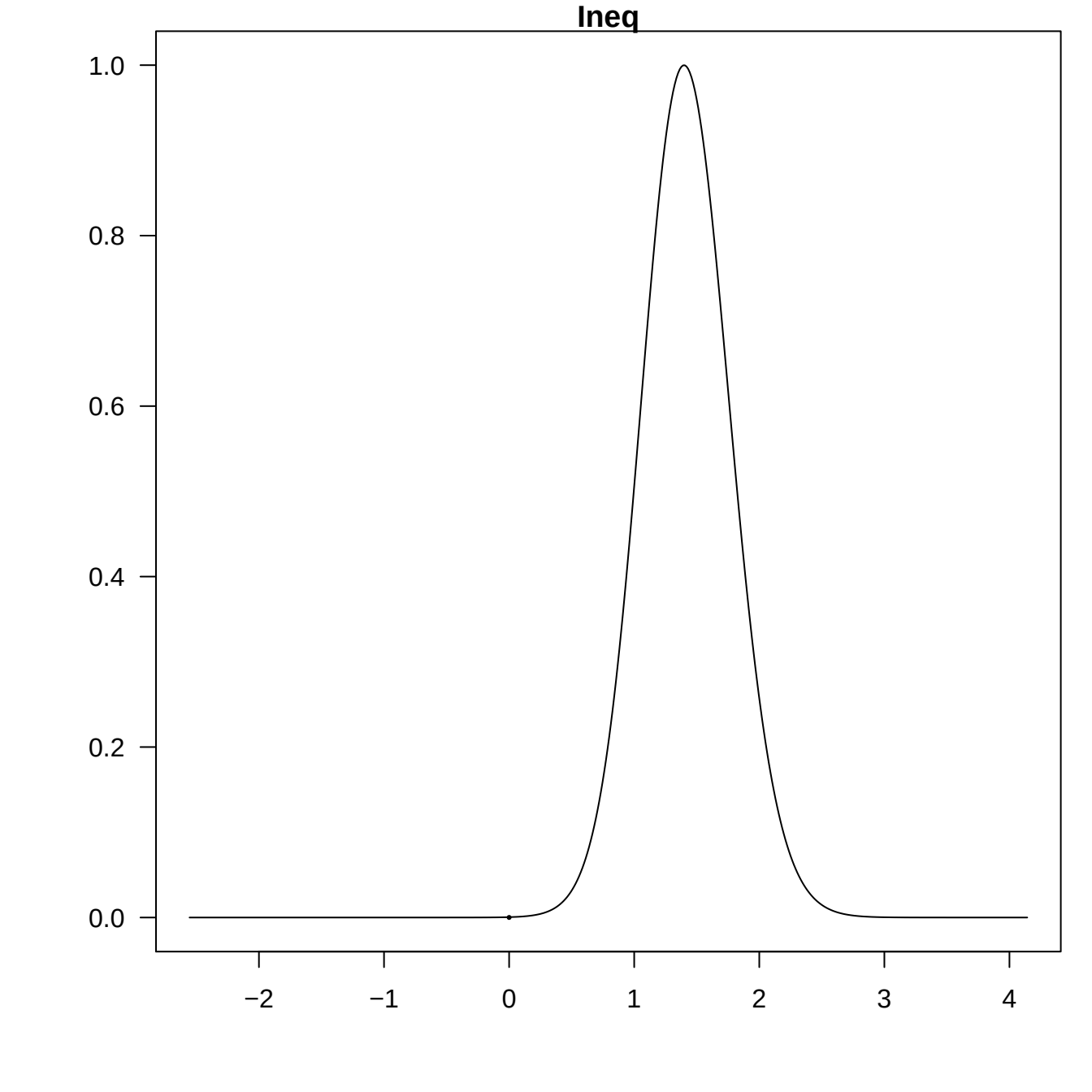

Pop
0.6
0.5
0.4
0.3
0.2
0.1
0.0
−0.2
0.0
0.2
0.4

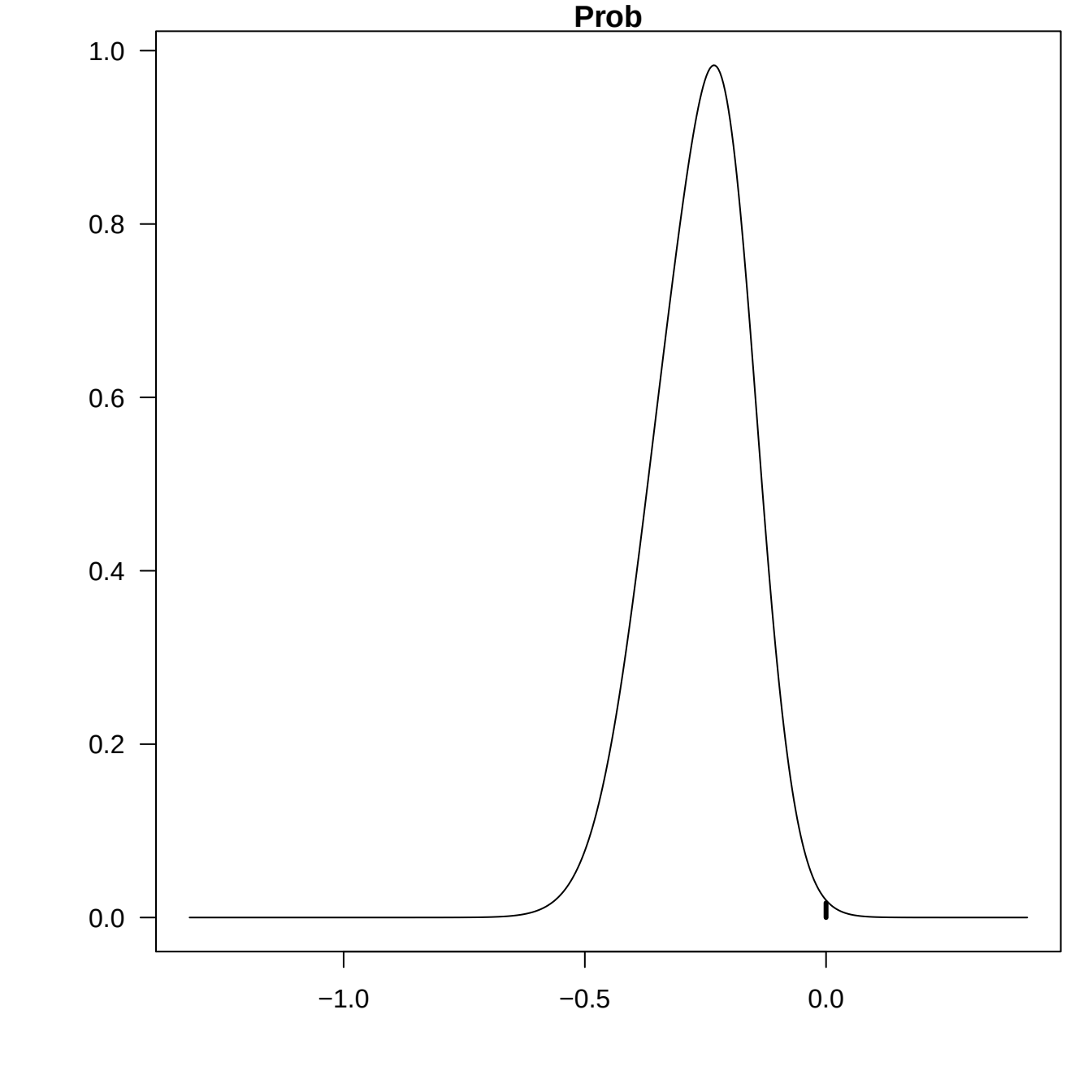

NW
0.8
0.6
0.4
0.2
0.0
−0.1
0.0
0.1
0.2
0.3
0.4
0.5

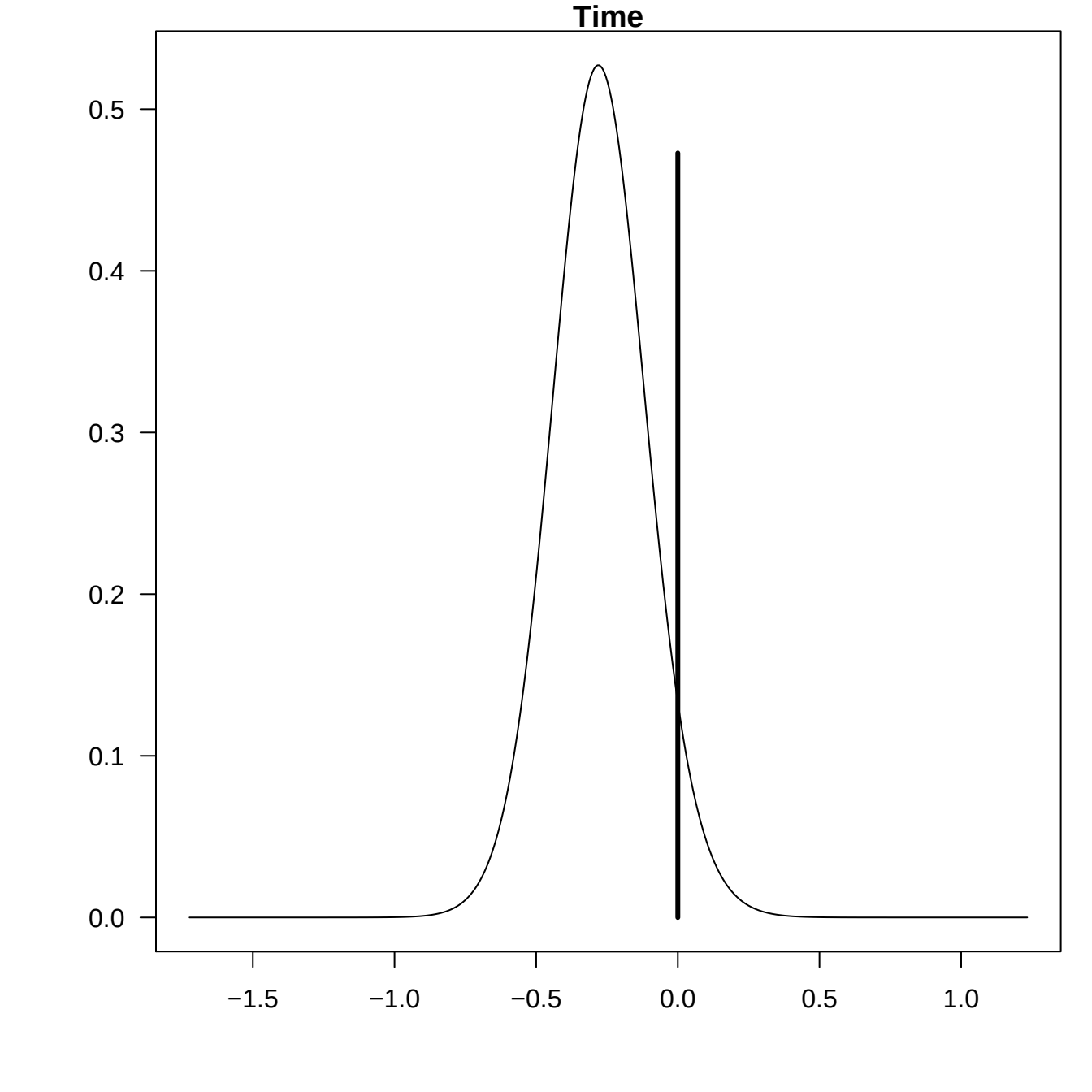

U1
0.6
0.4
0.2
0.0
−2
−1
0
1

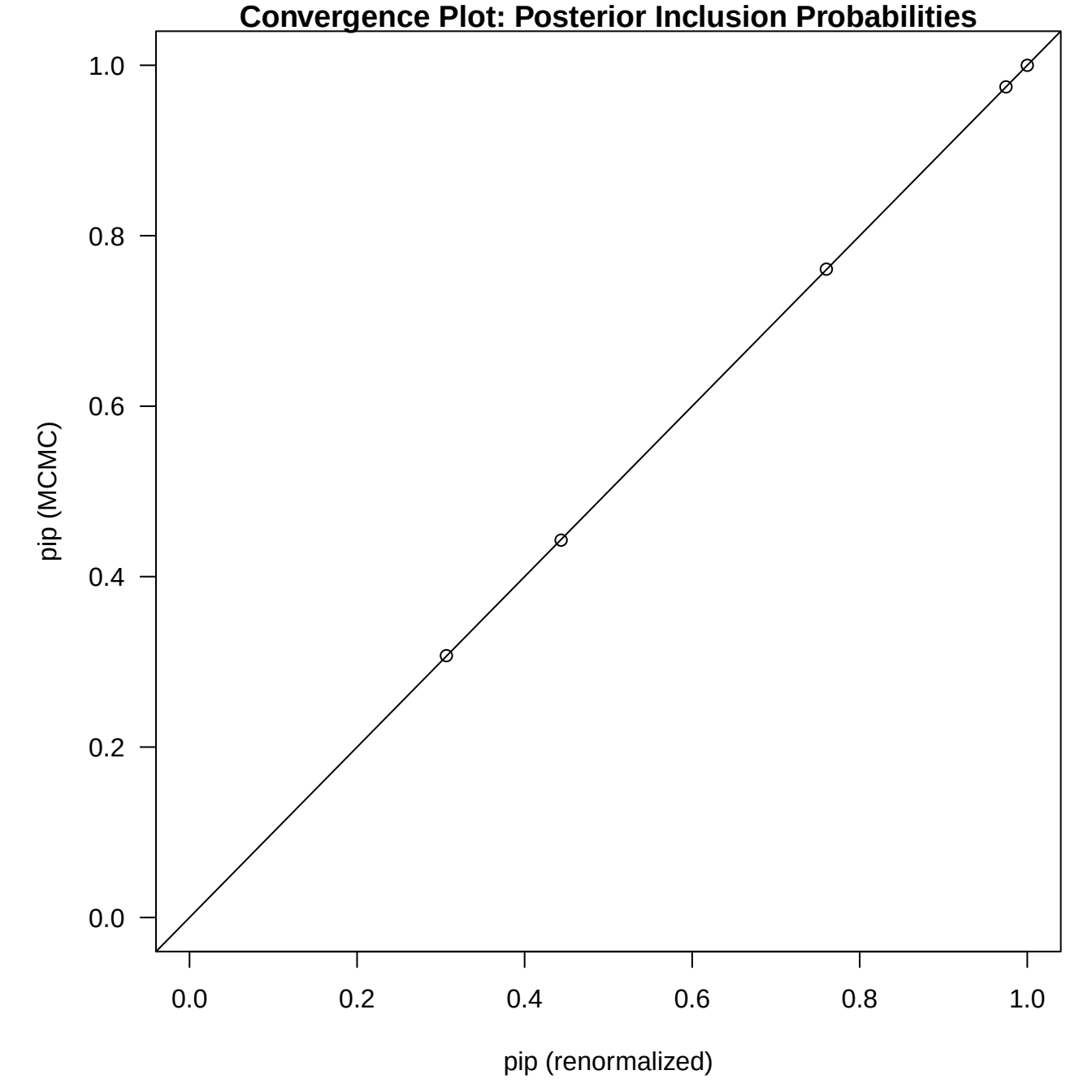

U2
0.8
0.6
0.4
0.2
0.0
−1
0
1
2

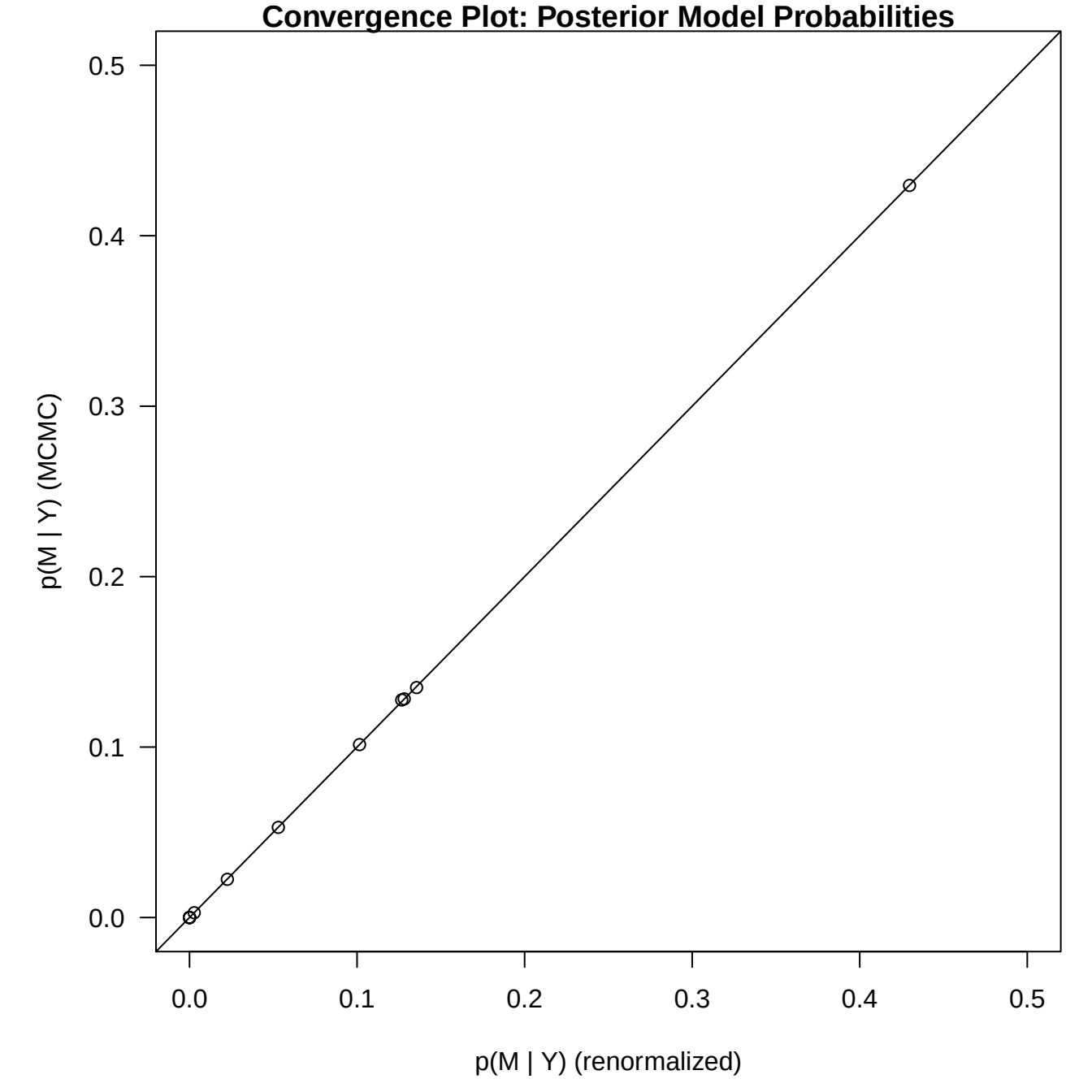

GDP
0.5
0.4
0.3
0.2
0.1
0.0
−2
0
2
4

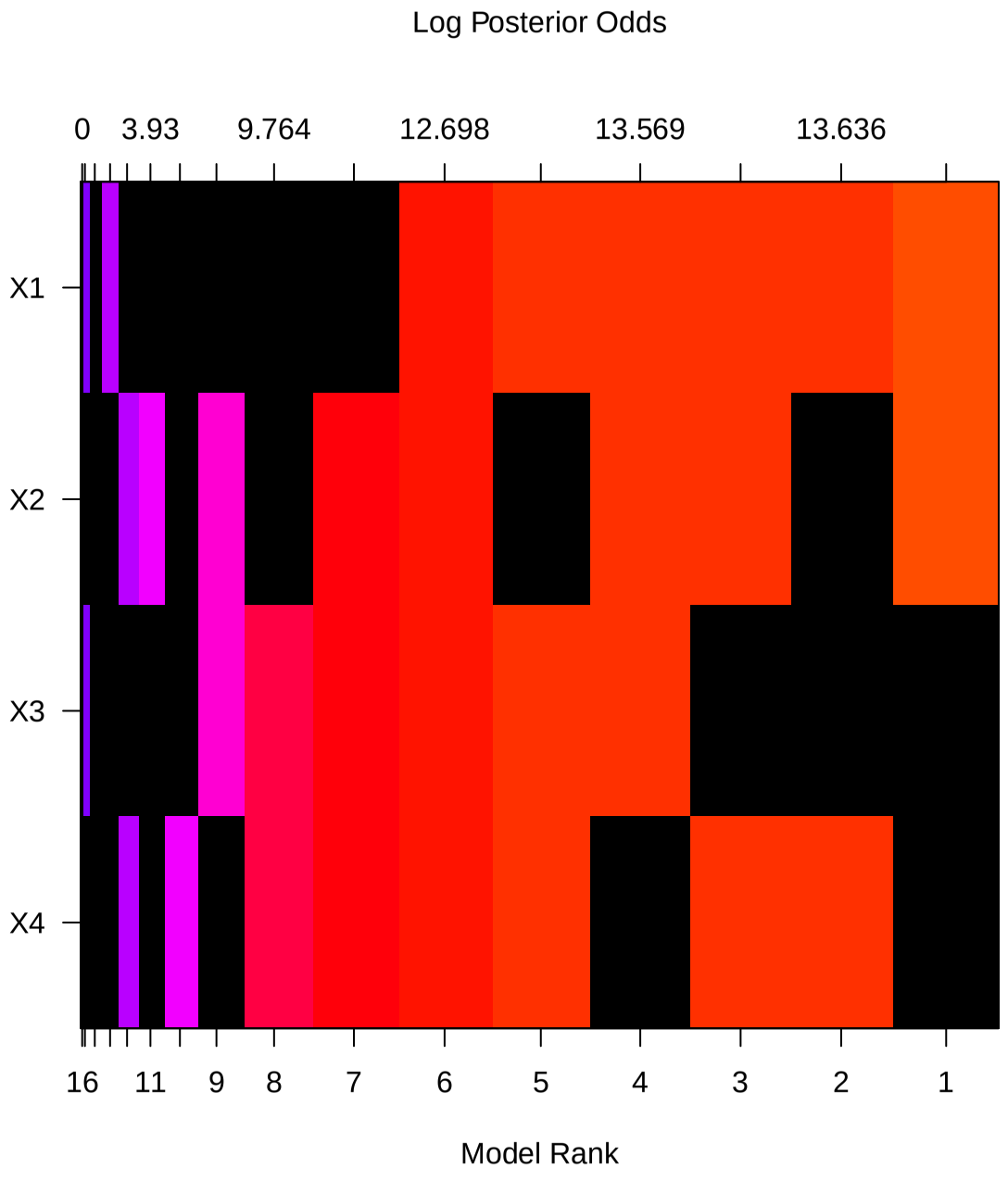

Ineq
1.0
0.8
0.6
0.4
0.2
0.0
−2
−1
0
1
2
3
4

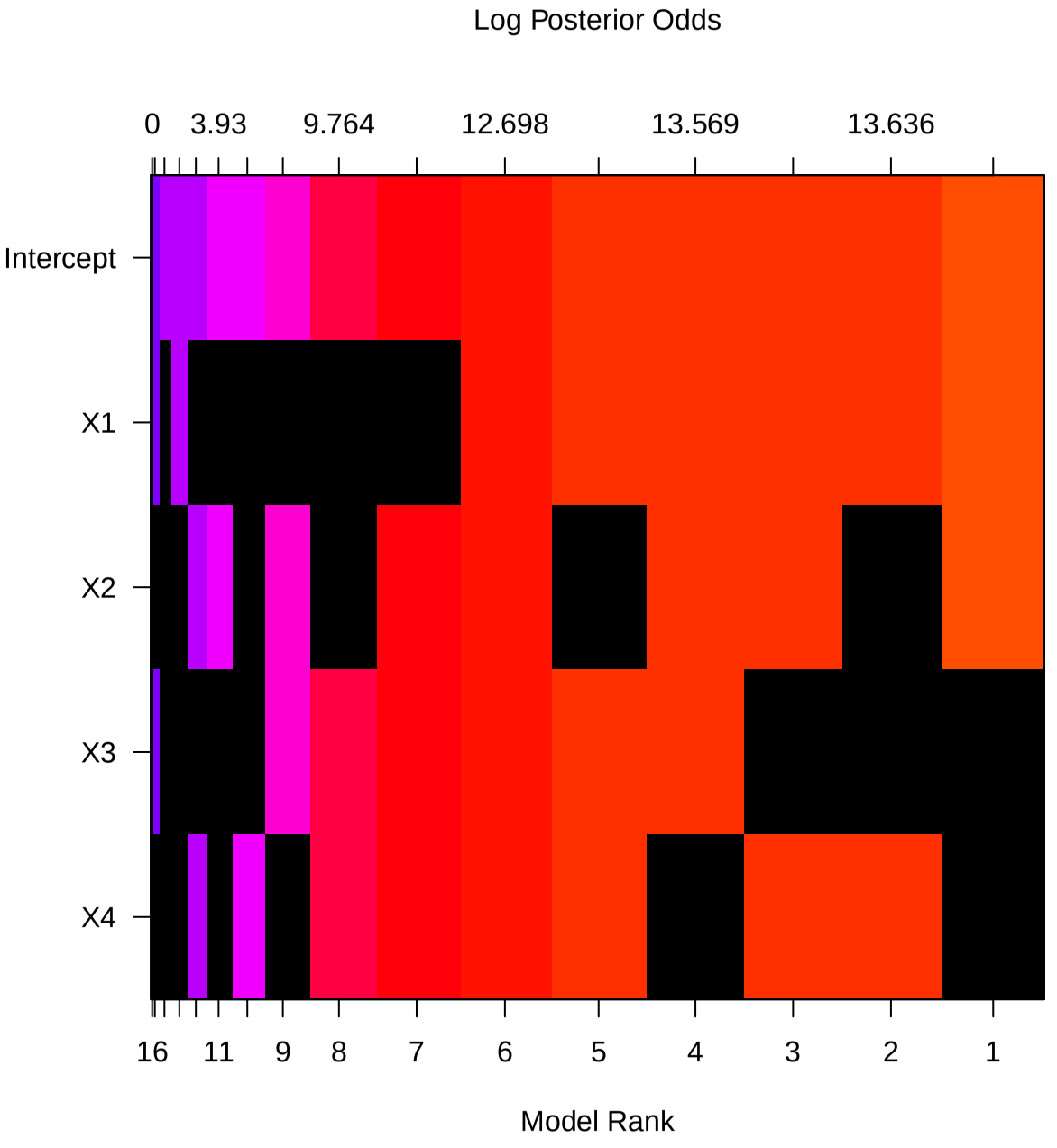

Prob
1.0
0.8
0.6
0.4
0.2
0.0
−1.0
−0.5
0.0

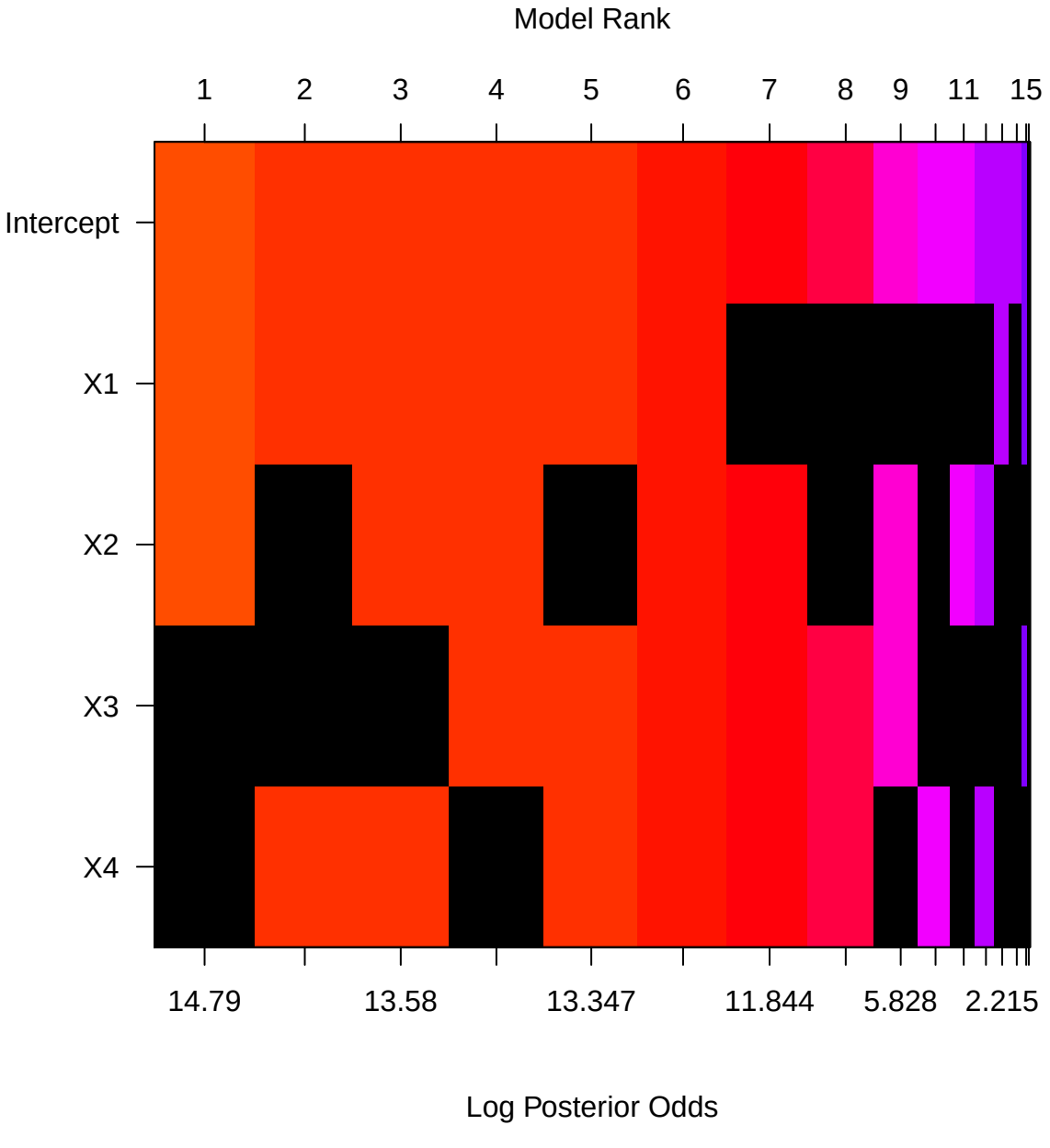

Time
0.5
0.4
0.3
0.2
0.1
0.0
−1.5
−1.0
−0.5
0.0
0.5
1.0

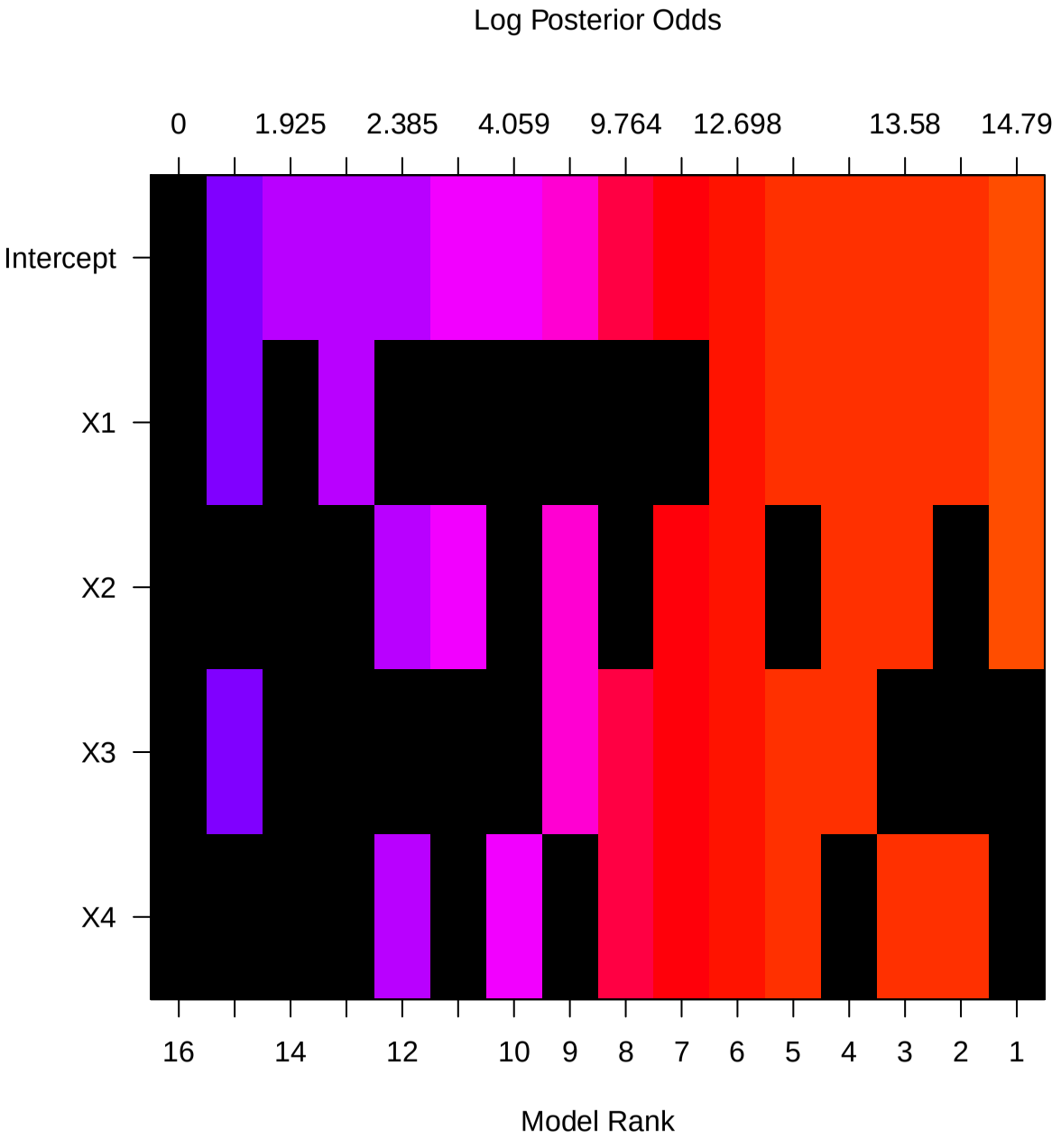

Convergence Plot: Posterior Inclusion Probabilities
pip (MCMC)
pip (renormalized)
0.0
0.2
0.4
0.6
0.8
1.0

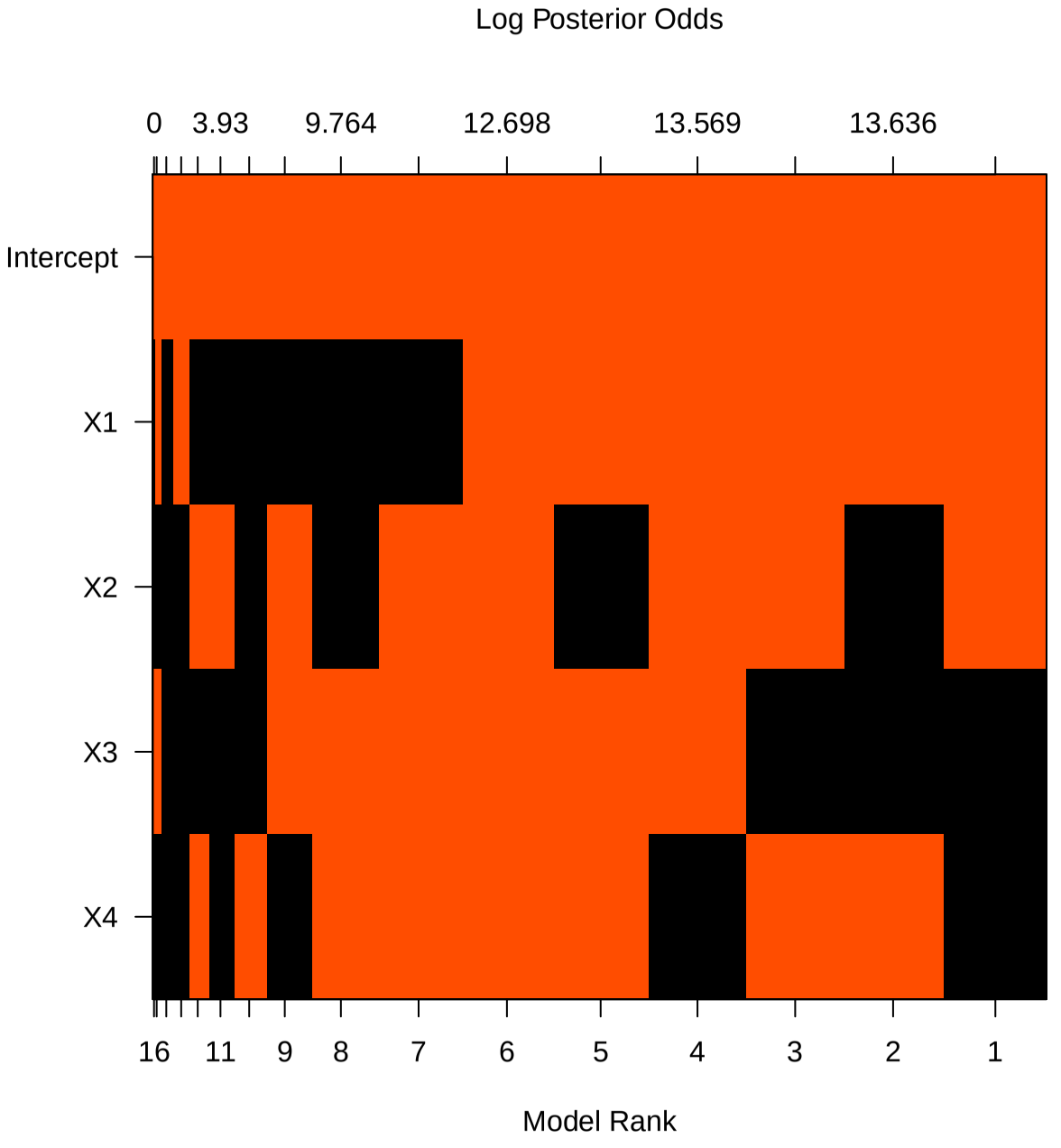

Convergence Plot: Posterior Model Probabilities
p(M | Y) (MCMC)
p(M | Y) (renormalized)
0.0
0.1
0.2
0.3
0.4
0.5

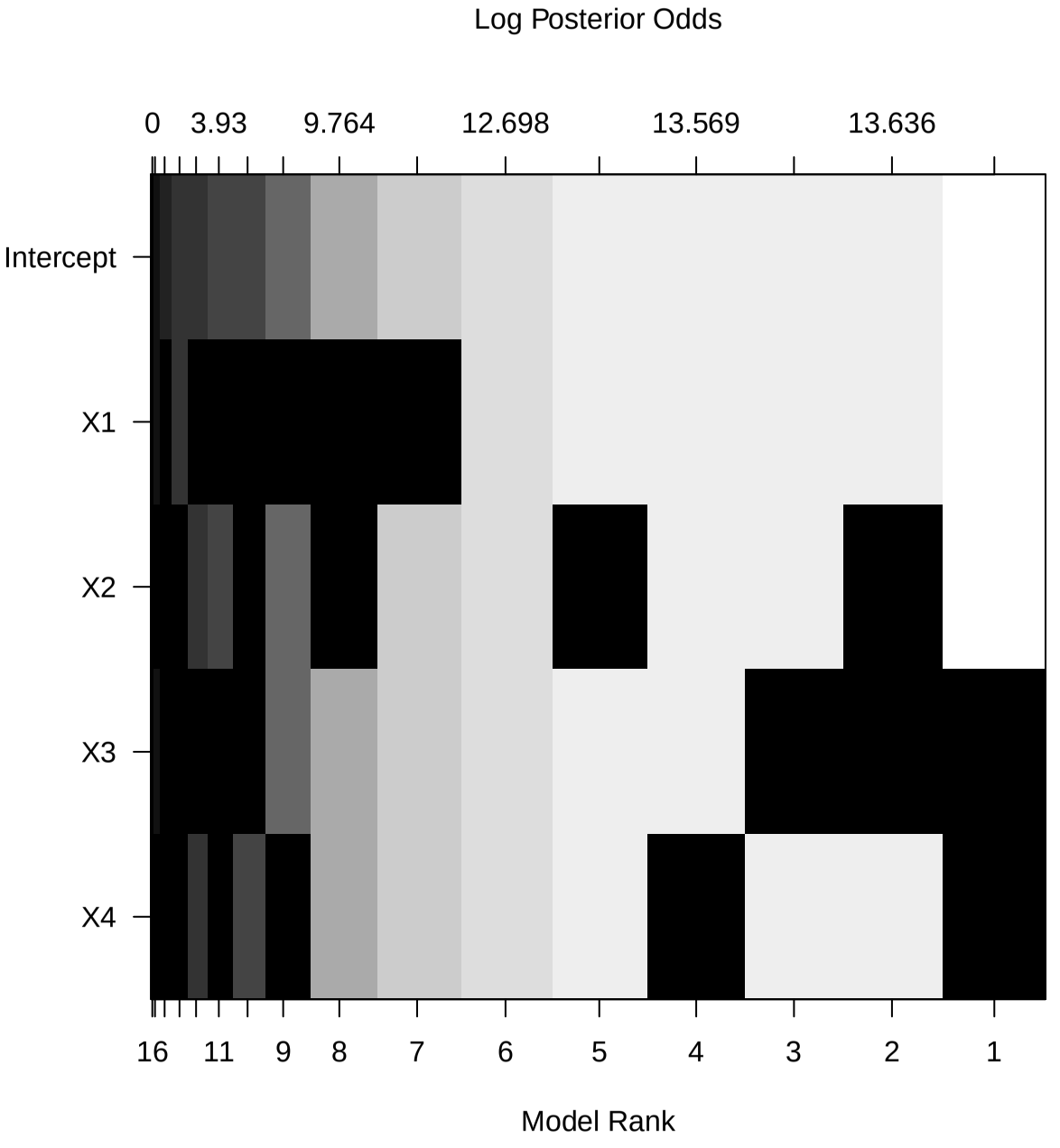

Log Posterior Odds
0
3.93
9.764
12.698
13.569
13.636
X1
X2
X3
X4
16
11
9
8
7
6
5
4
3
2
1
Model Rank

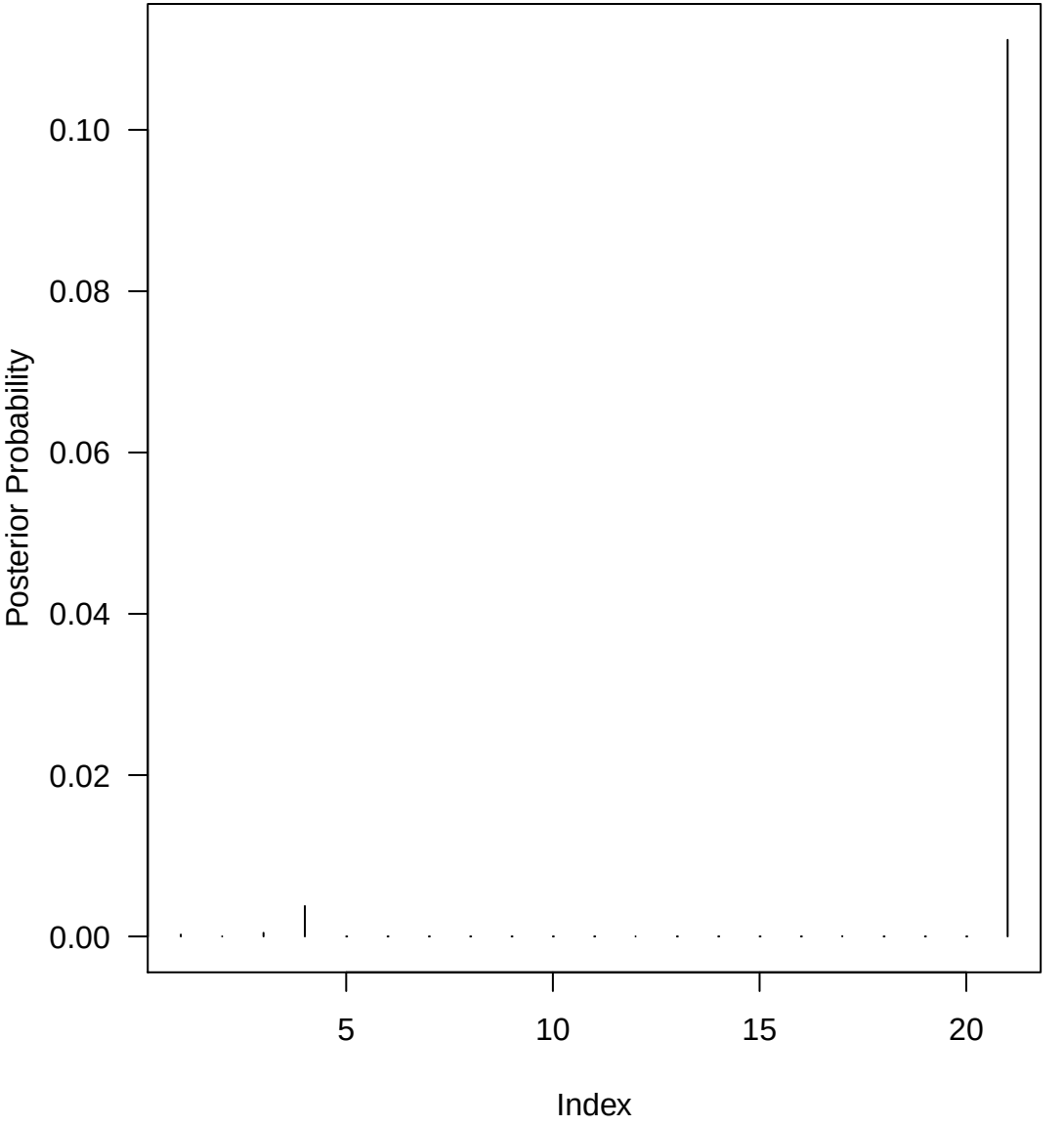

Log Posterior Odds
0
3.93
9.764
12.698
13.569
13.636
Intercept
X1
X2
X3
X4
16
11
9
8
7
6
5
4
3
2
1
Model Rank

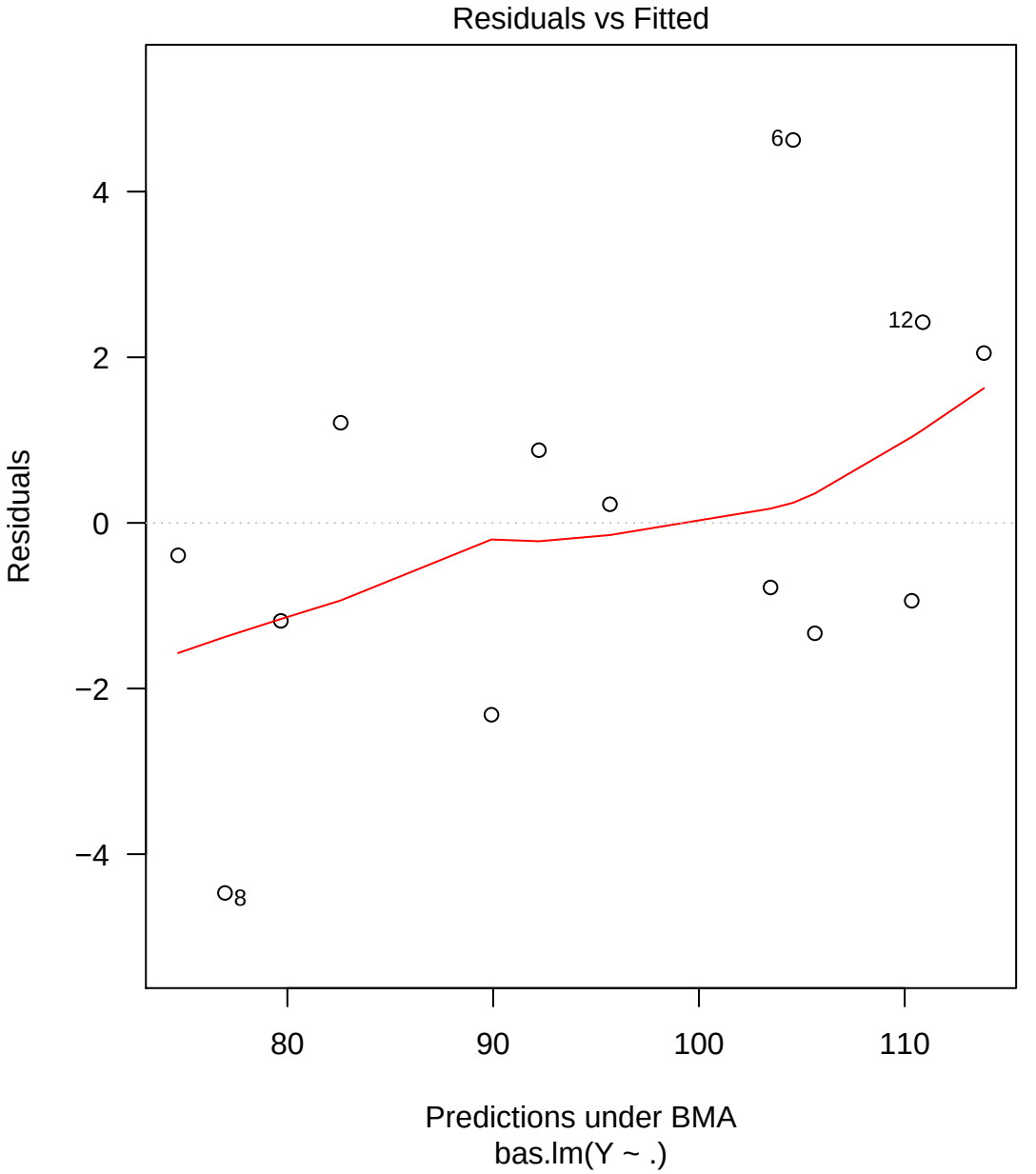

Model Rank
1
2
3
4
5
6
7
8
9
11
15
Intercept
X1
X2
X3
X4
14.79
13.58
13.347
11.844
5.828
2.215
Log Posterior Odds

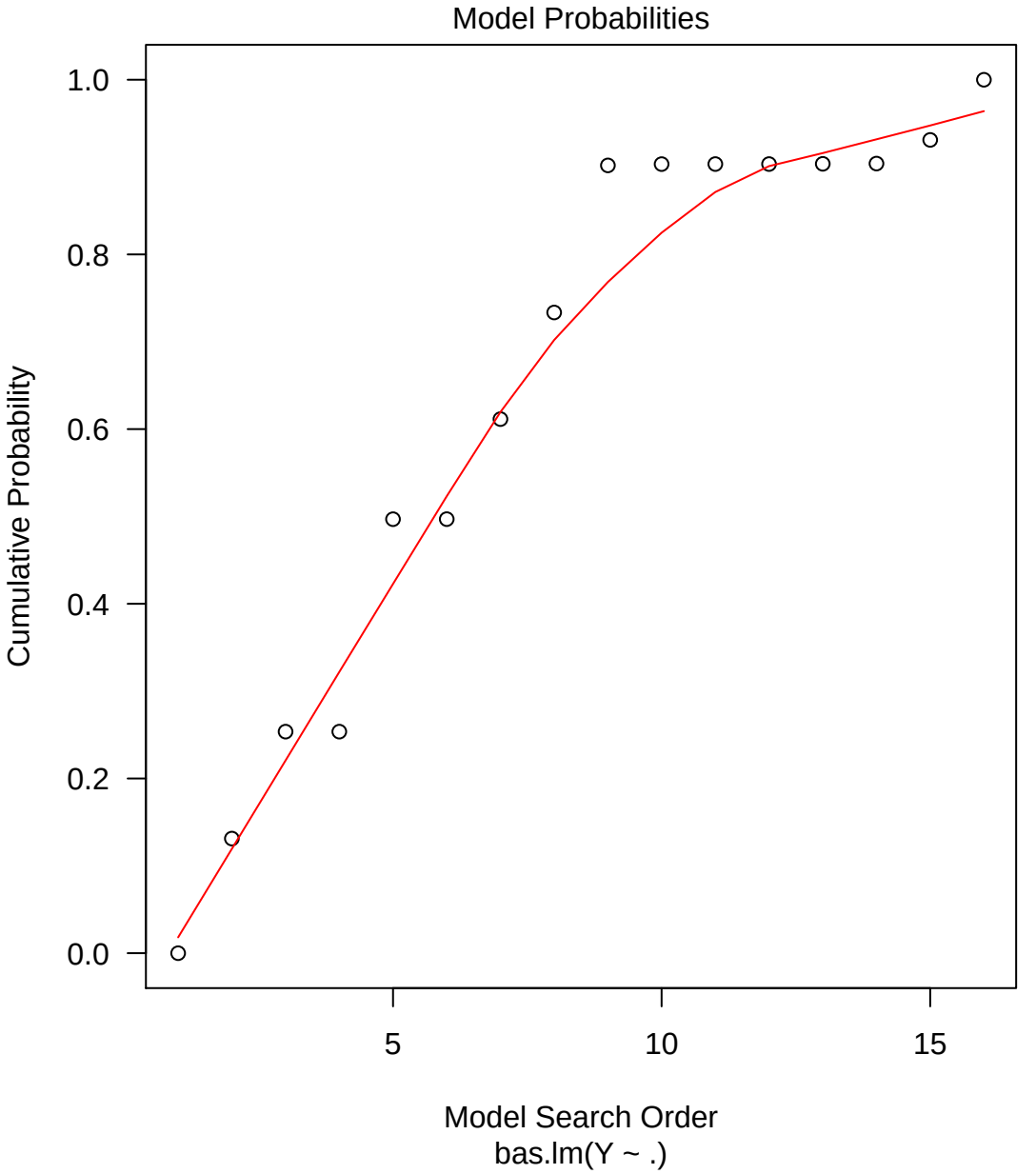

Log Posterior Odds
0
1.925
2.385
4.059
9.764
12.698
13.58
14.79
Intercept
X1
X2
X3
X4
16
14
12
10
9
8
7
6
5
4
3
2
1
Model Rank

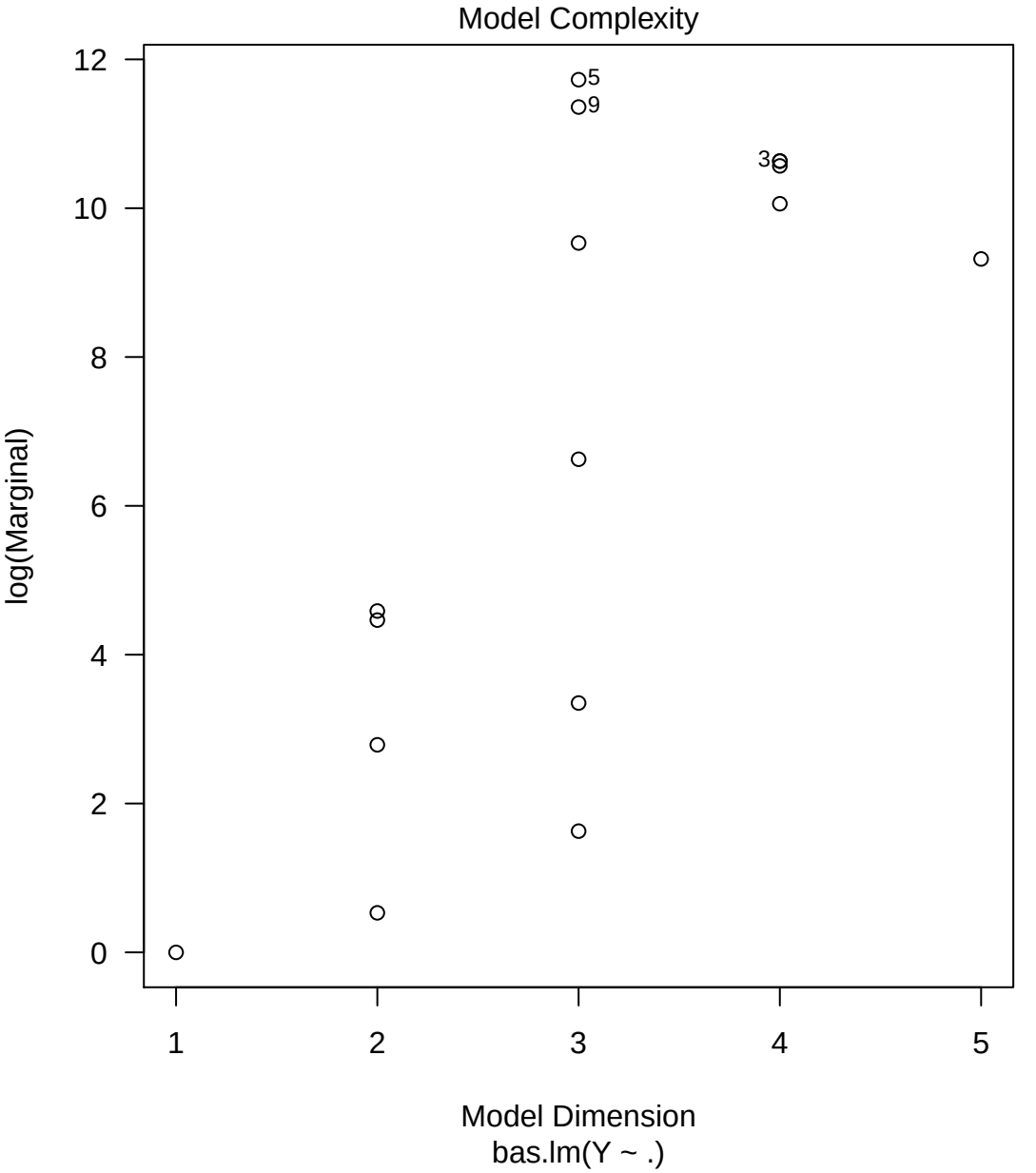

Log Posterior Odds
0
3.93
9.764
12.698
13.569
13.636
Intercept
X1
X2
X3
X4
16
11
9
8
7
6
5
4
3
2
1
Model Rank

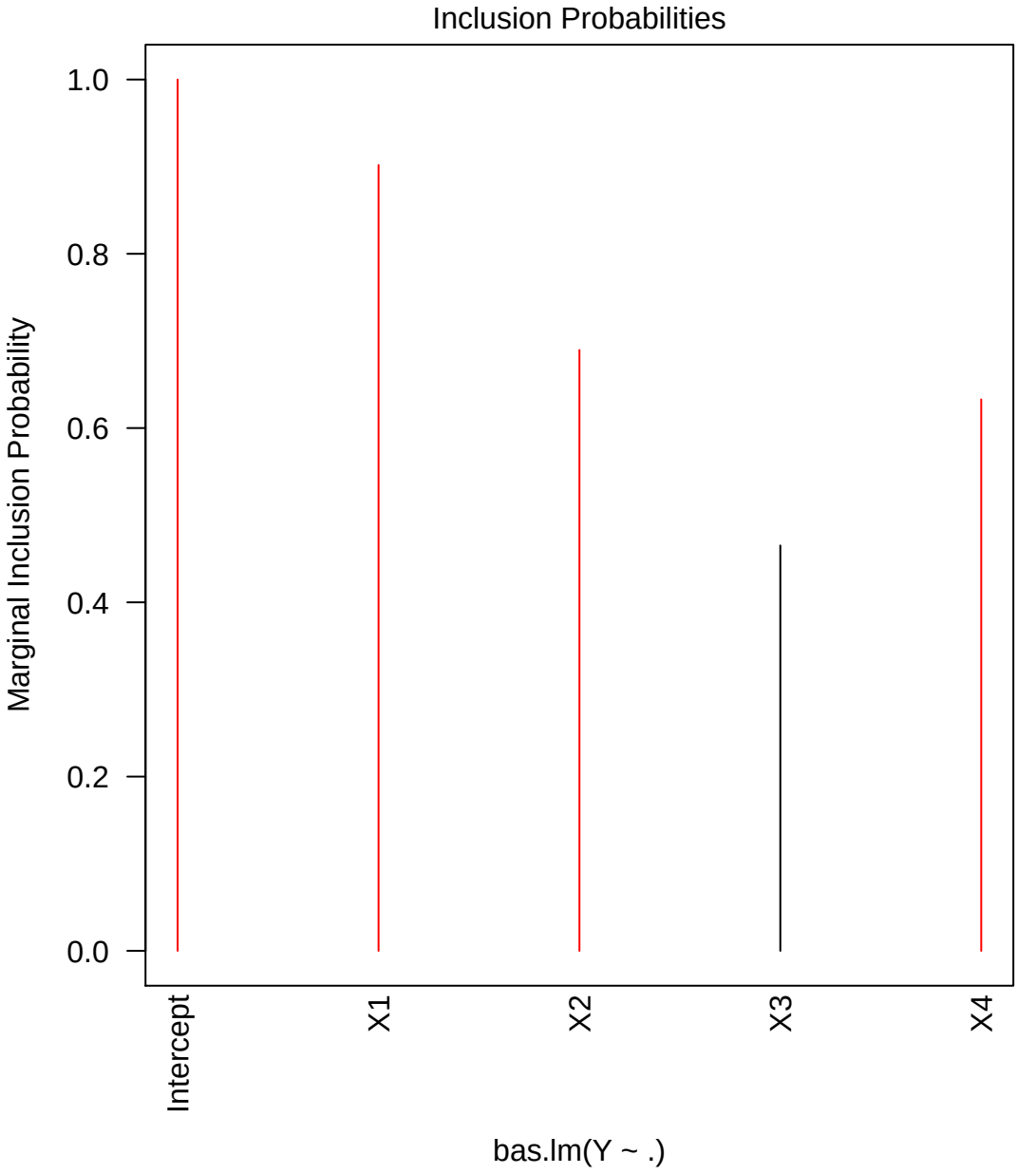

Log Posterior Odds
0
3.93
9.764
12.698
13.569
13.636
Intercept
X1
X2
X3
X4
16
11
9
8
7
6
5
4
3
2
1
Model Rank

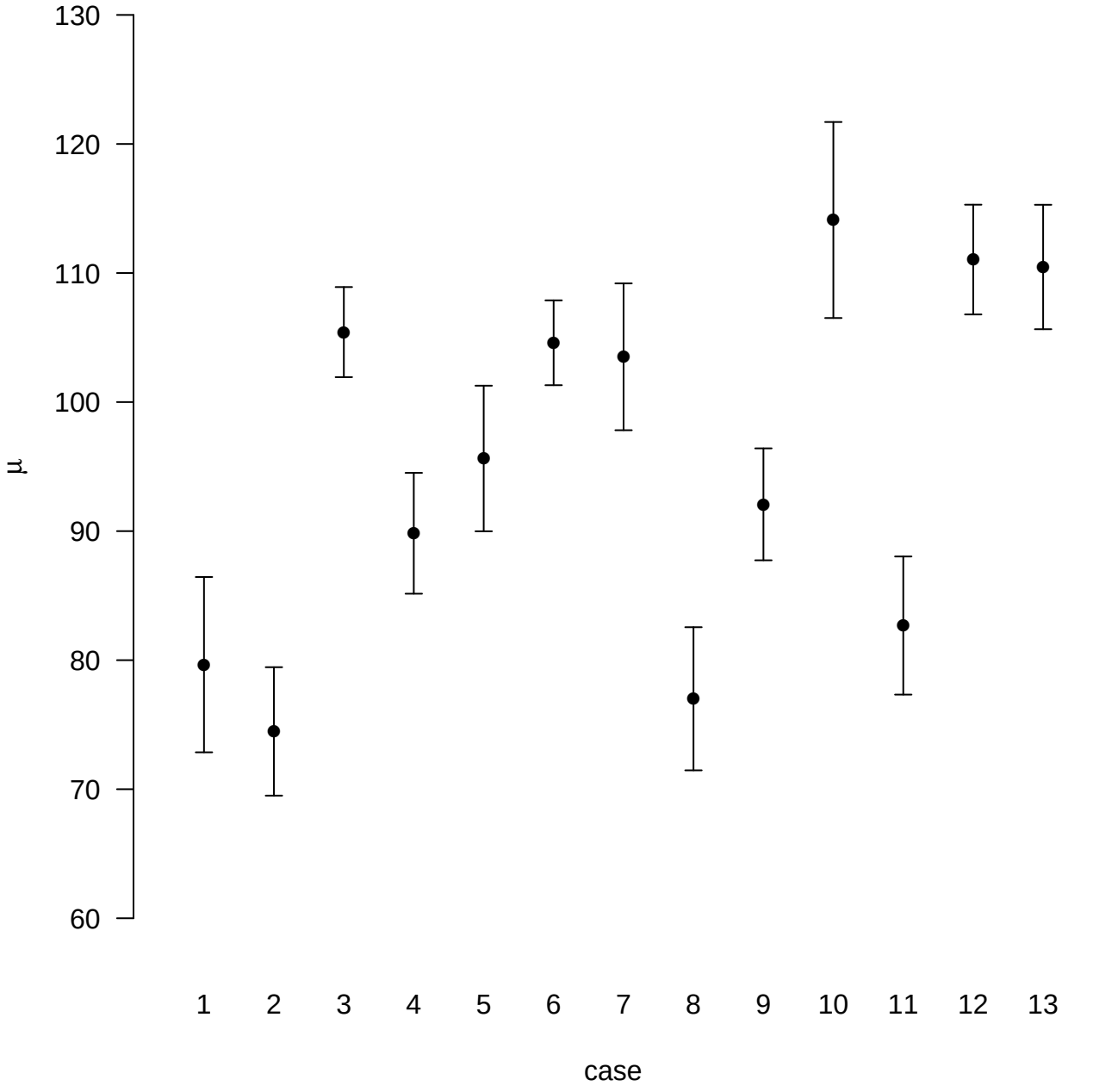

0.10
0.08
0.06
0.04
0.02
0.00
Posterior Probability
5
10
15
20
Index

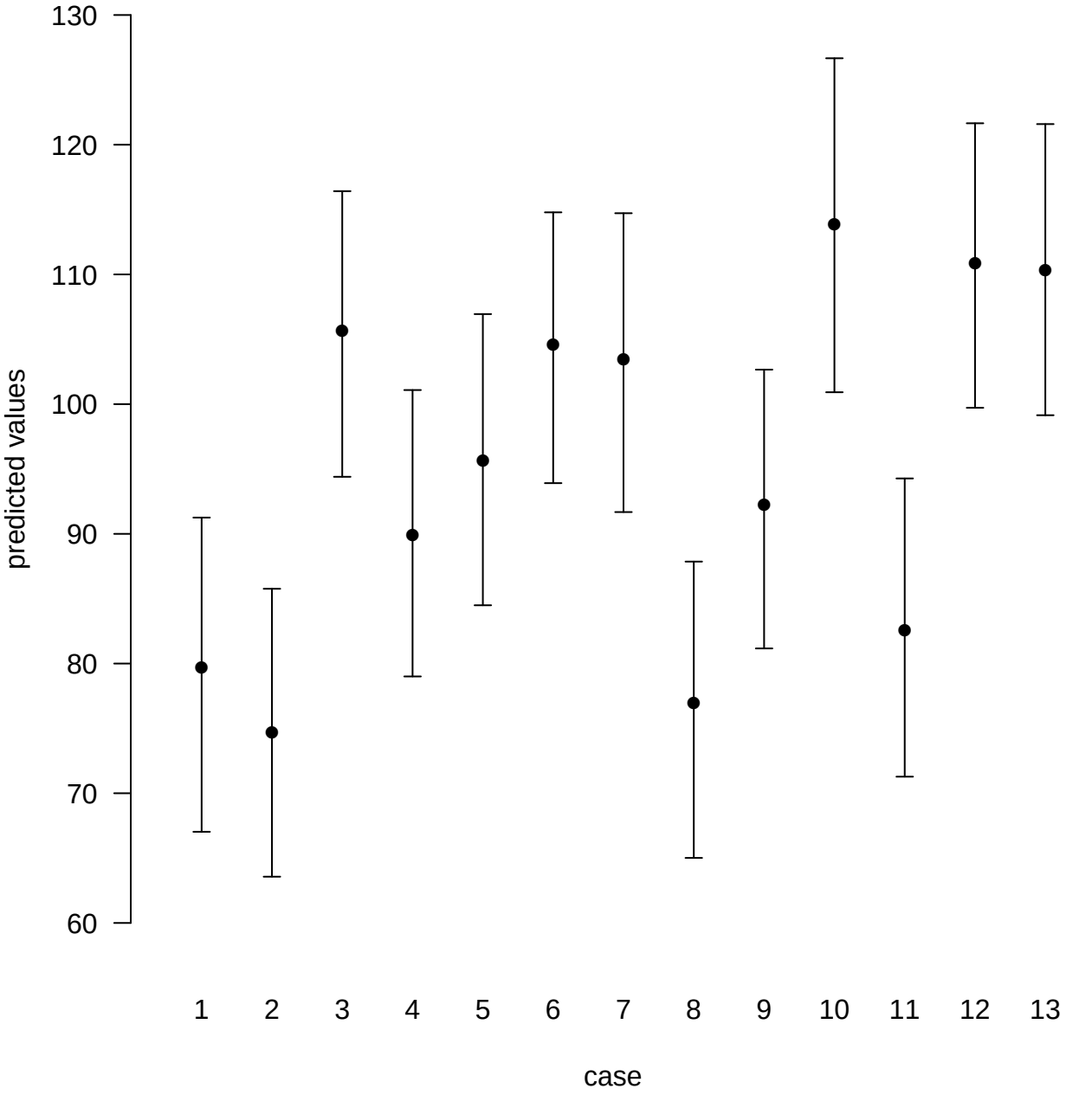

Residuals vs Fitted
Residuals
Predictions under BMA
bas.lm(Y ~ .)
6
12
8
4
2
0
−2
−4
80
90
100
110

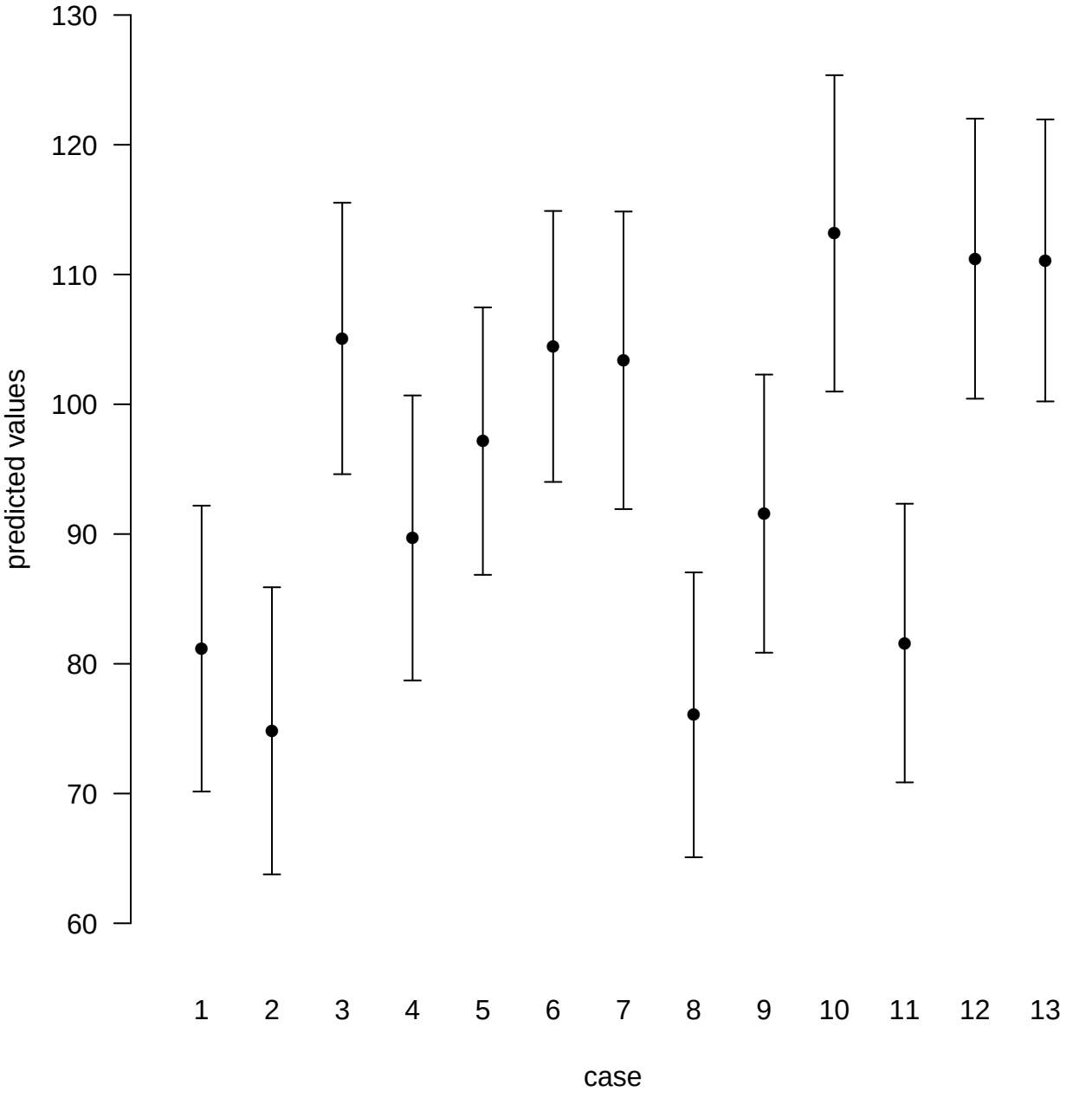

Model Probabilities
Cumulative Probability
1.0
0.8
0.6
0.4
0.2
0.0
5
10
15
Model Search Order
bas.lm(Y ~ .)


Model Complexity
log(Marginal)
Model Dimension
bas.lm(Y ~ .)
0
2
4
6
8
10
12
1
2
3
4
5
5
9
3


Inclusion Probabilities
Marginal Inclusion Probability
1.0
0.8
0.6
0.4
0.2
0.0
Intercept
X1
X2
X3
X4
bas.lm(Y ~ .)


130
120
110
100
90
80
70
60
μ
1
2
3
4
5
6
7
8
9
10
11
12
13
case


130
120
110
100
90
80
70
60
predicted values
1
2
3
4
5
6
7
8
9
10
11
12
13
case


130
120
110
100
90
80
70
60
predicted values
1
2
3
4
5
6
7
8
9
10
11
12
13
case