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Output File Name Root:  ser_untar_metab.short100
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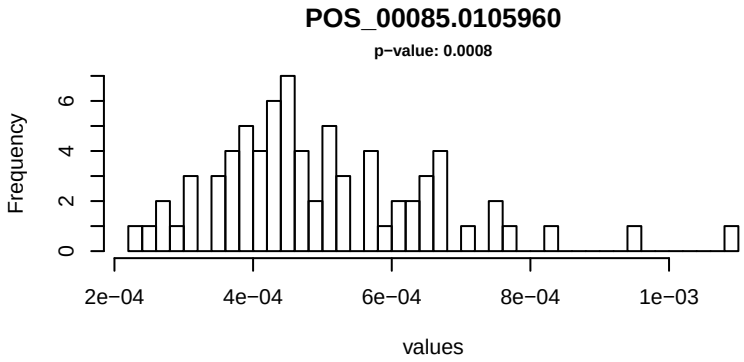


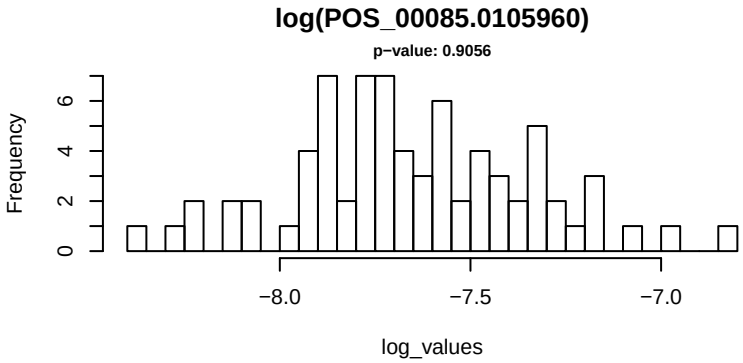


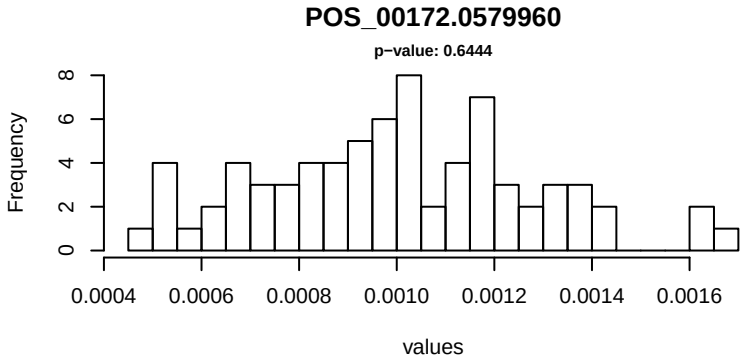


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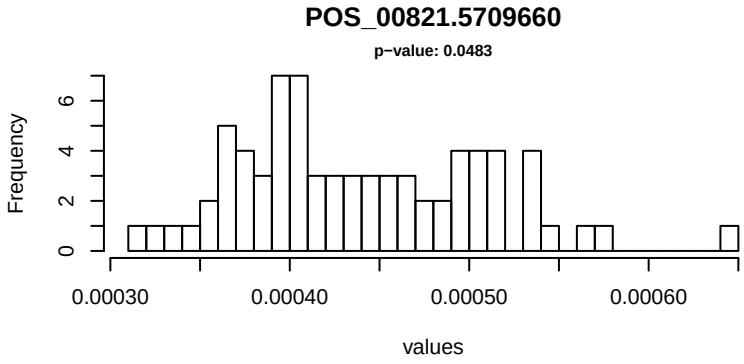


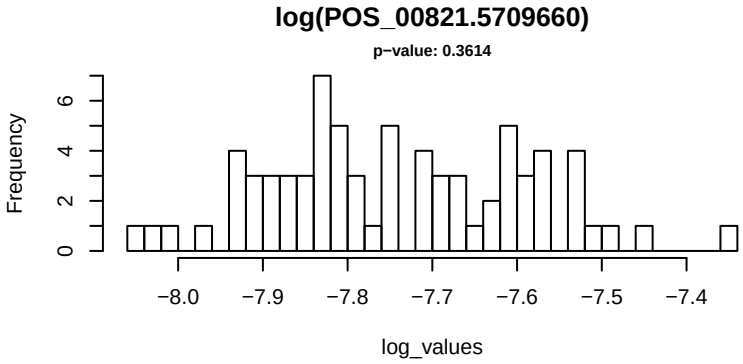


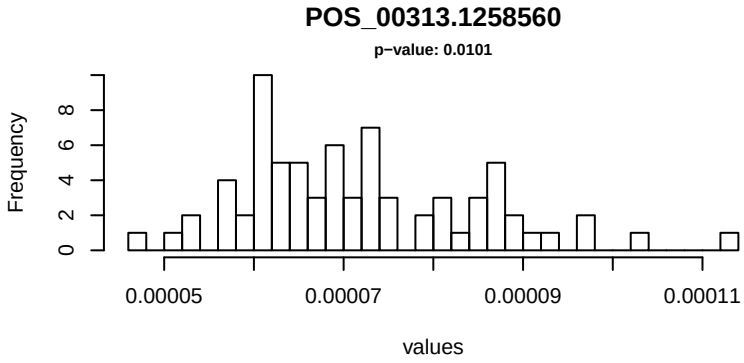


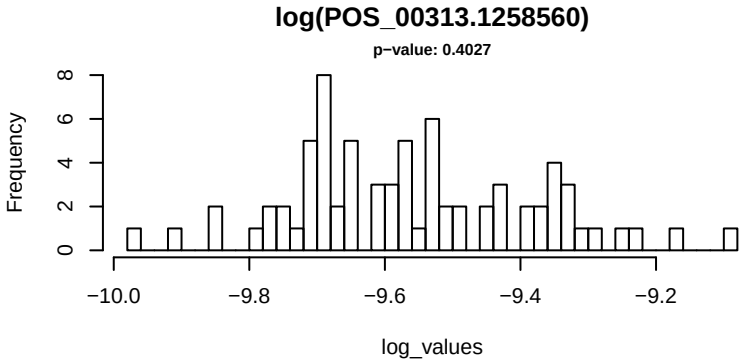


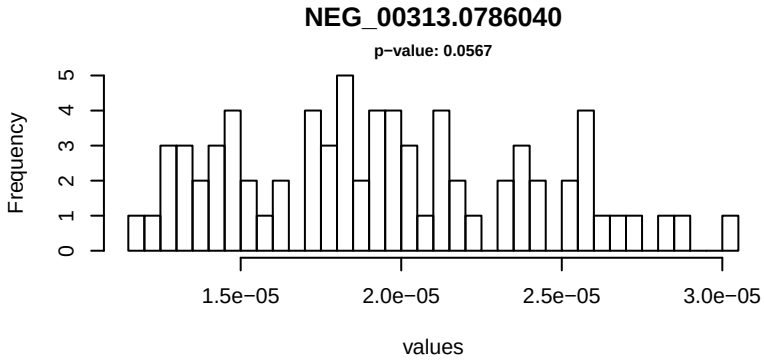


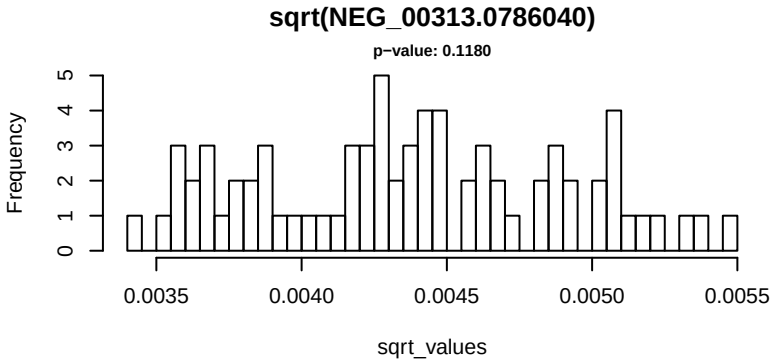

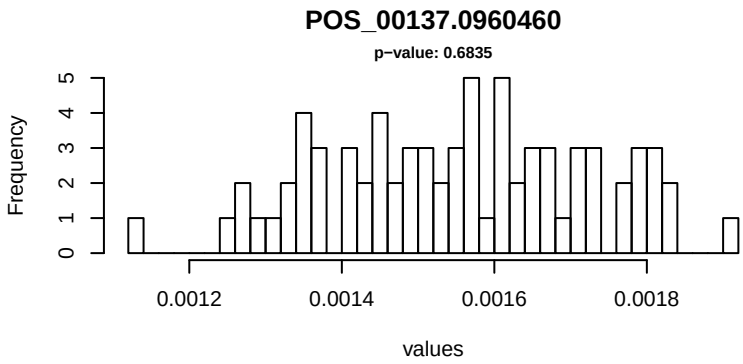


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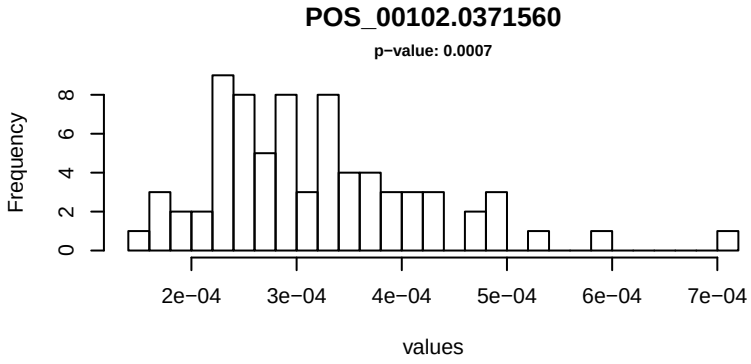


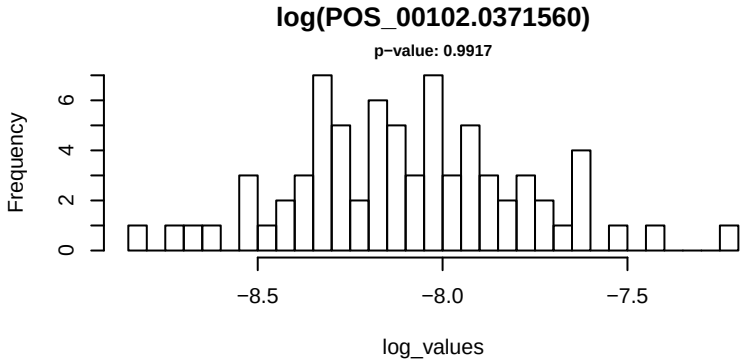


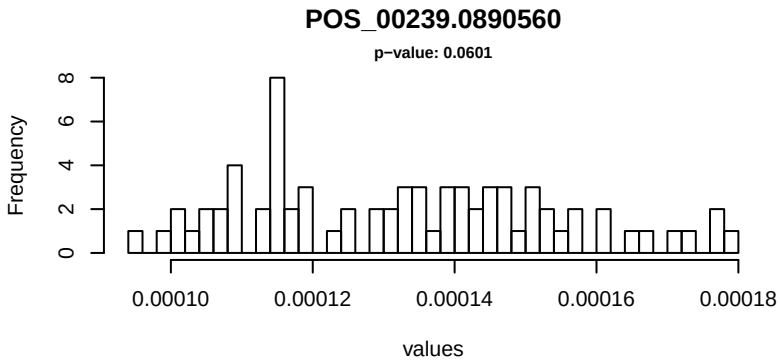


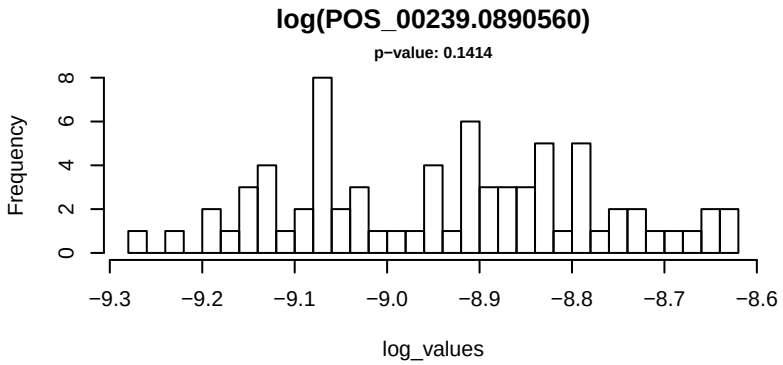


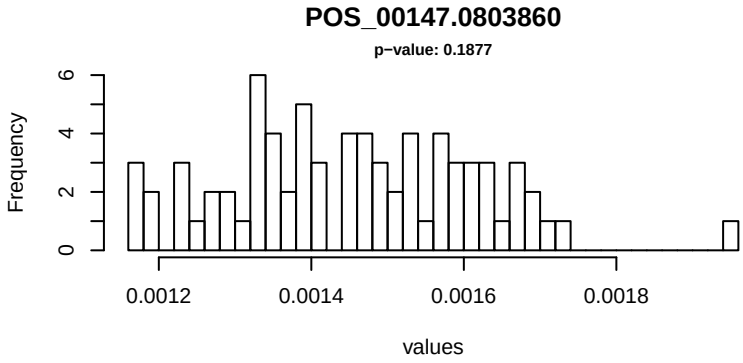


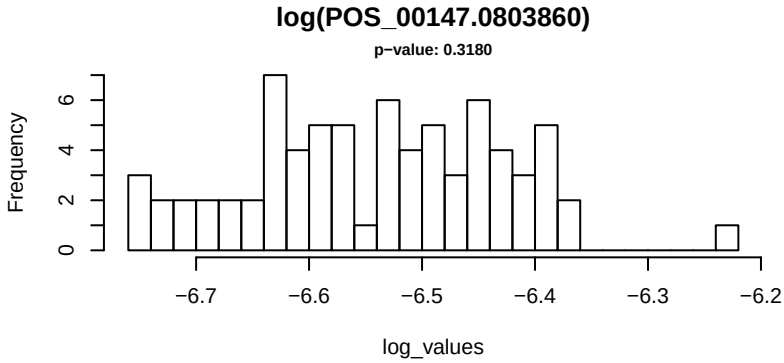


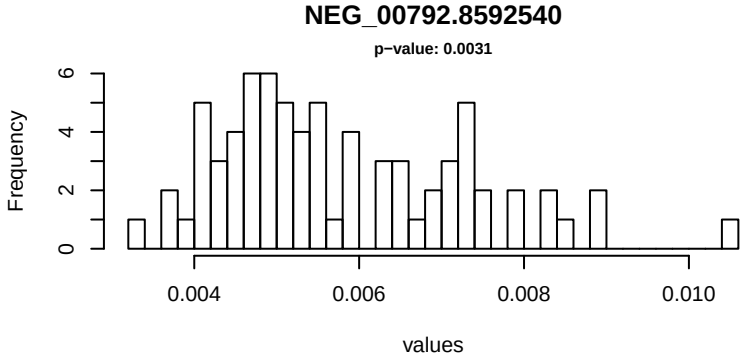


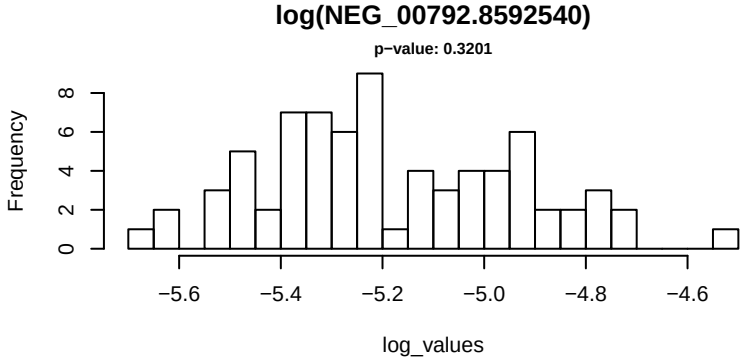

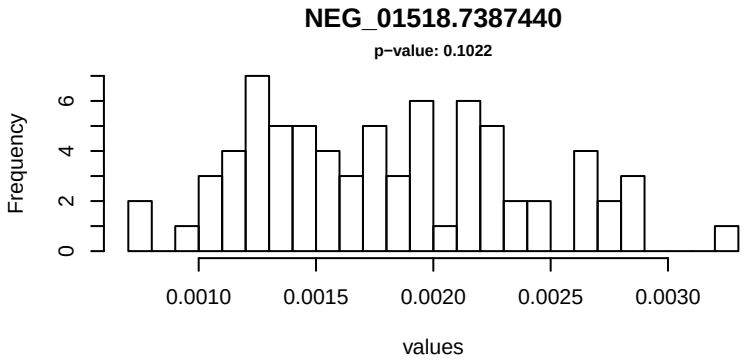


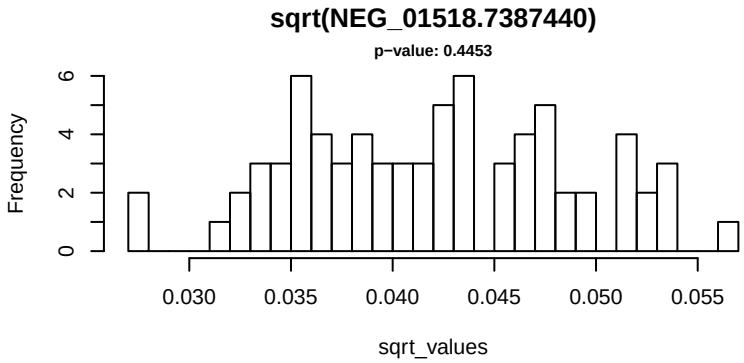


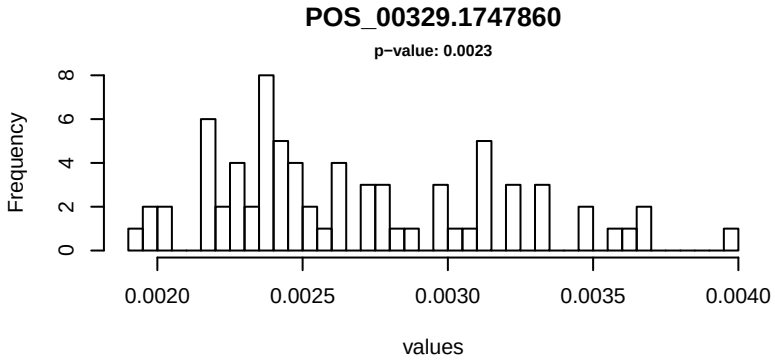


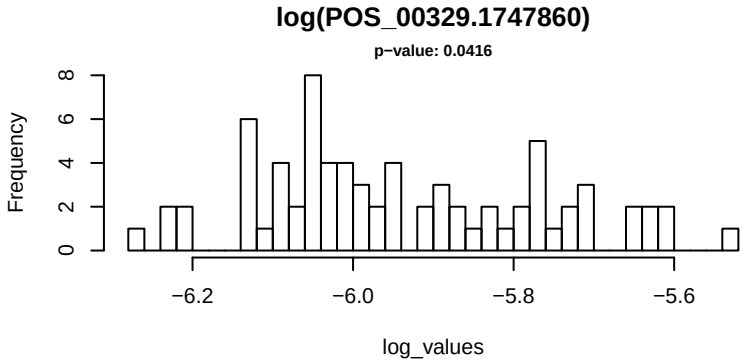


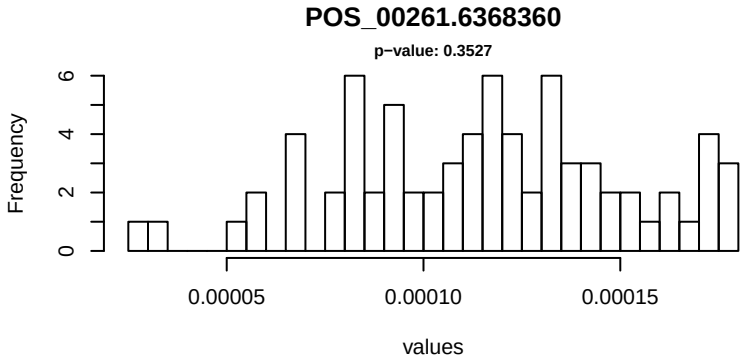


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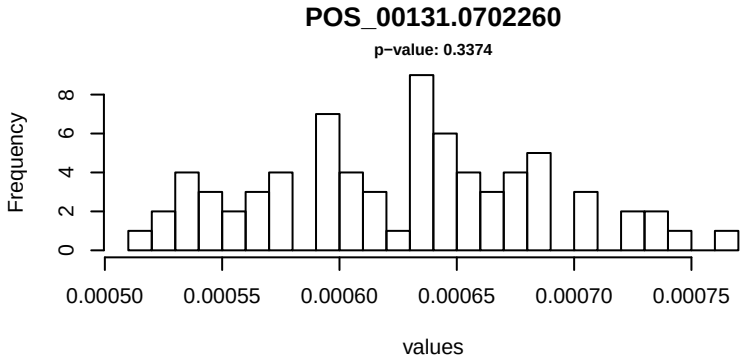


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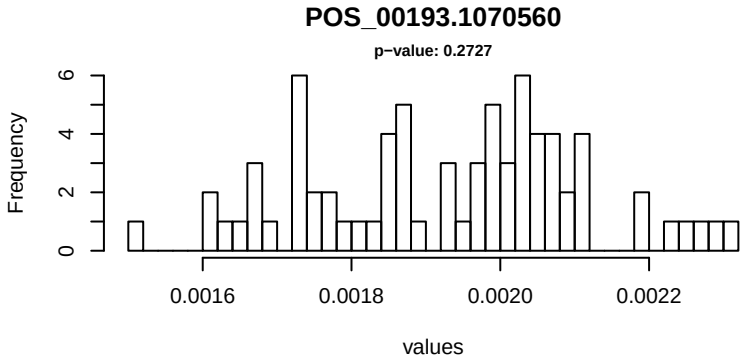


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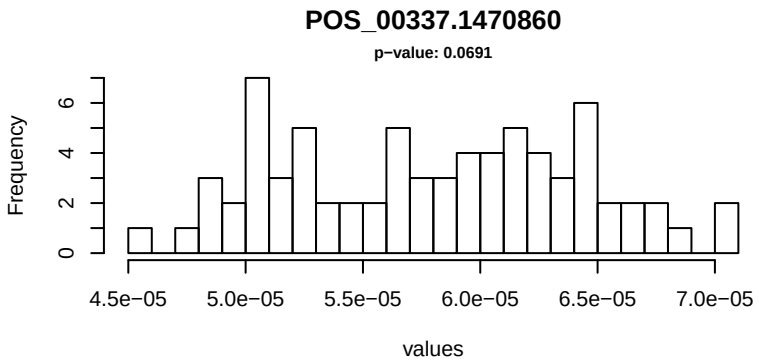


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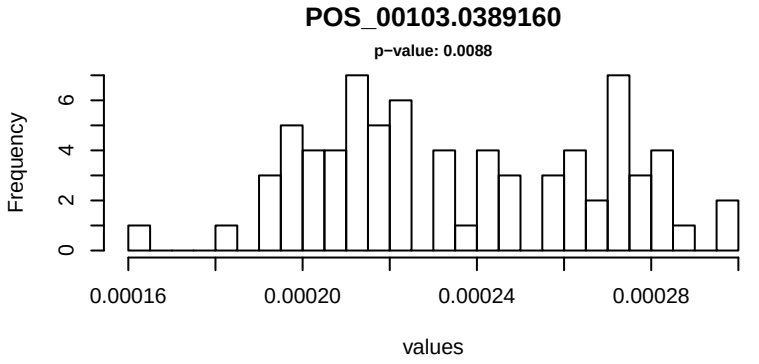


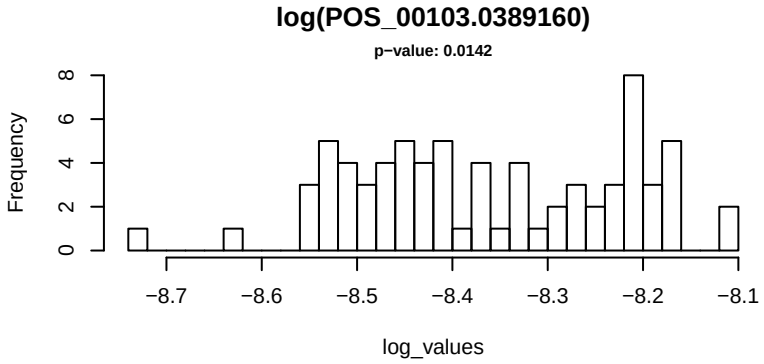


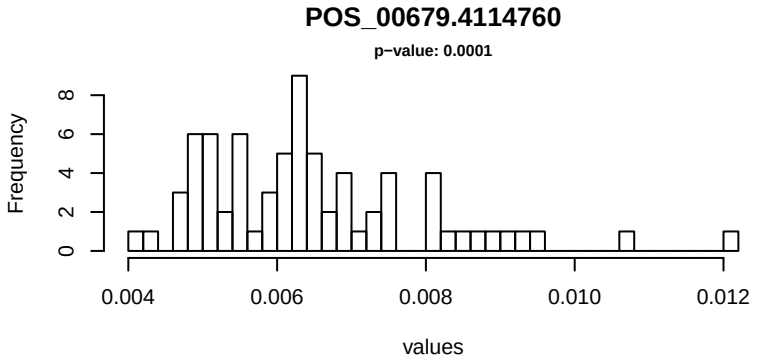


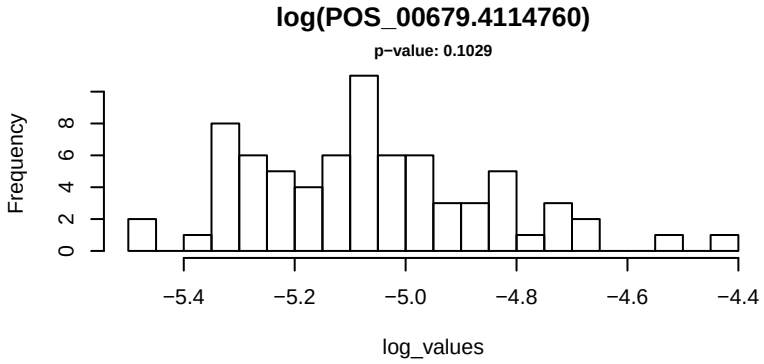


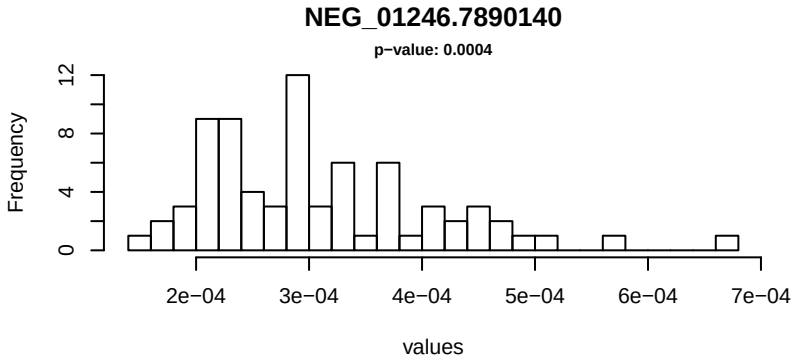


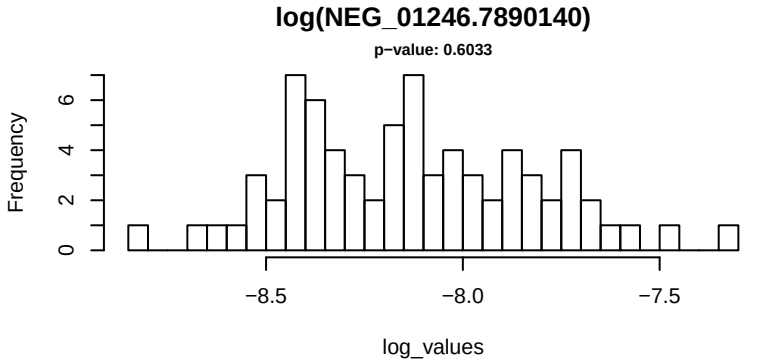


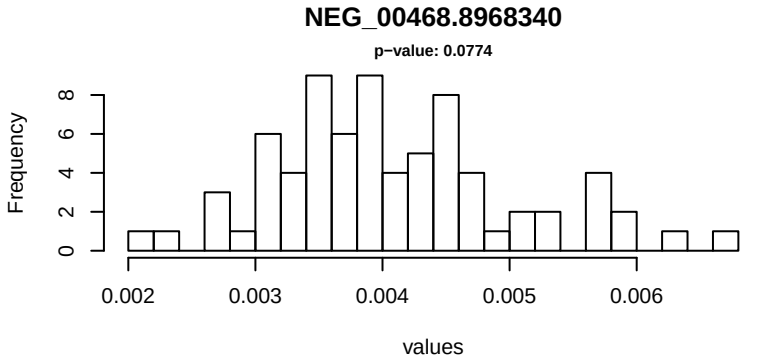


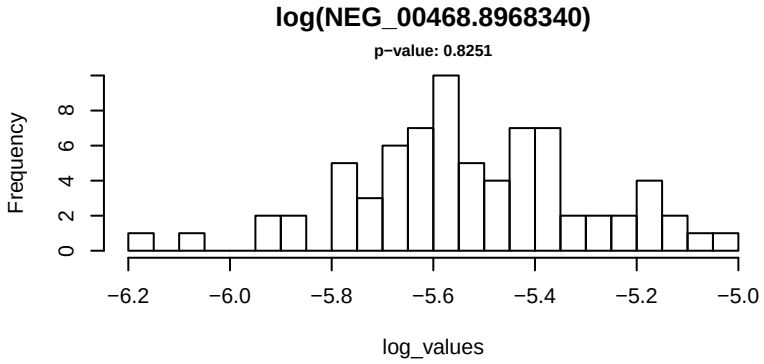

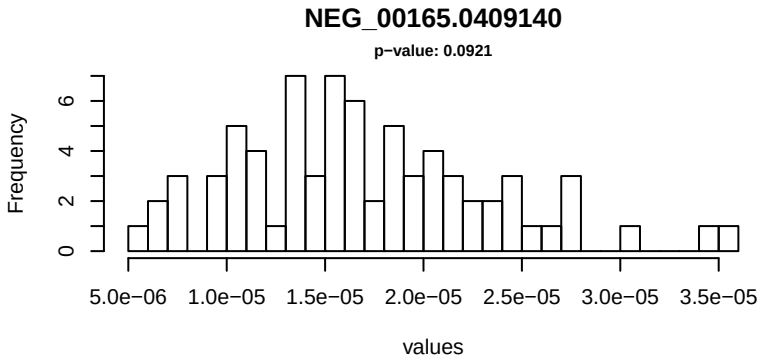


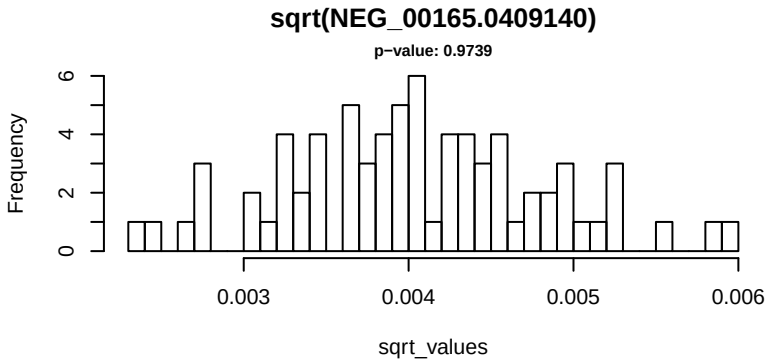


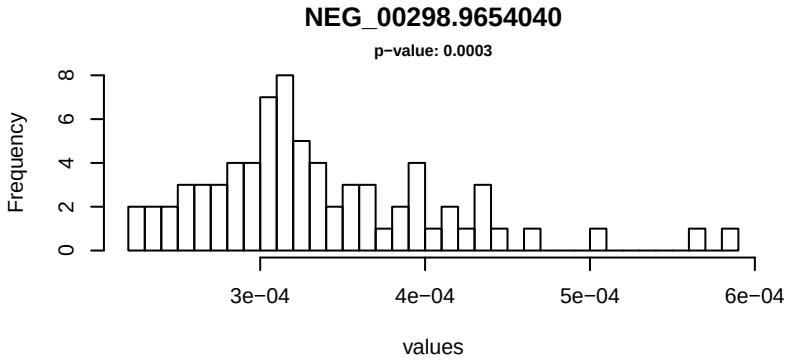


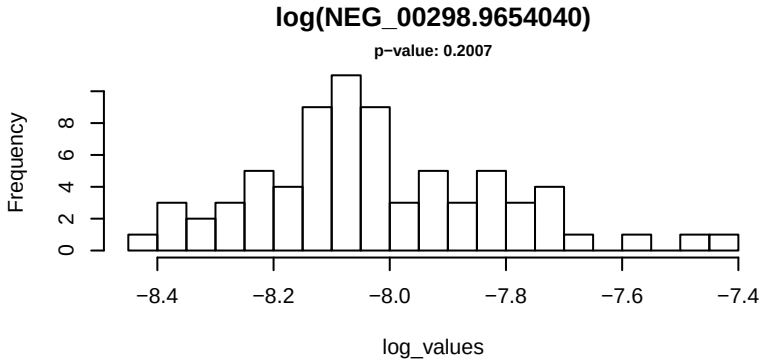


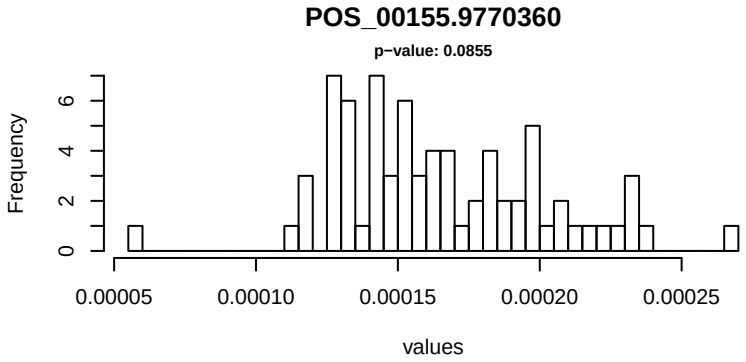


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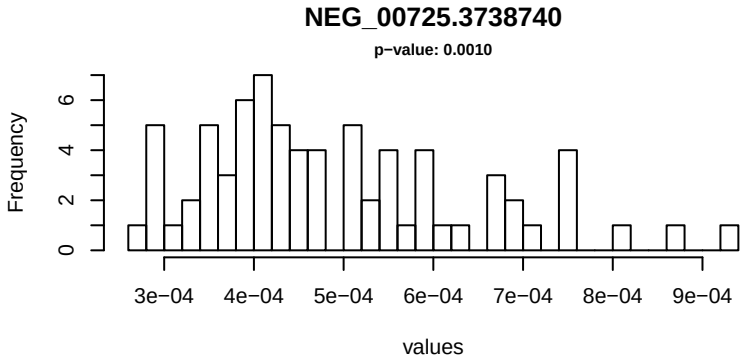


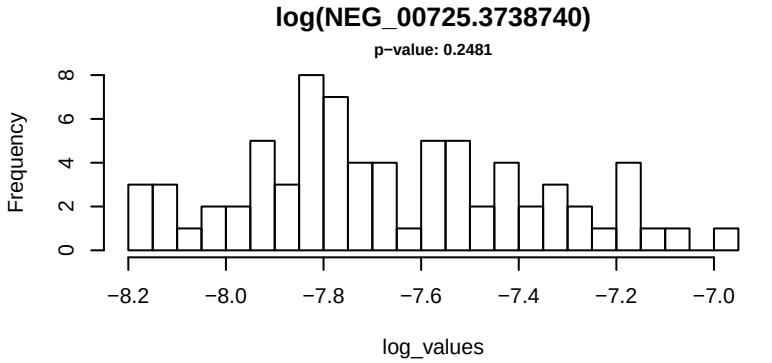


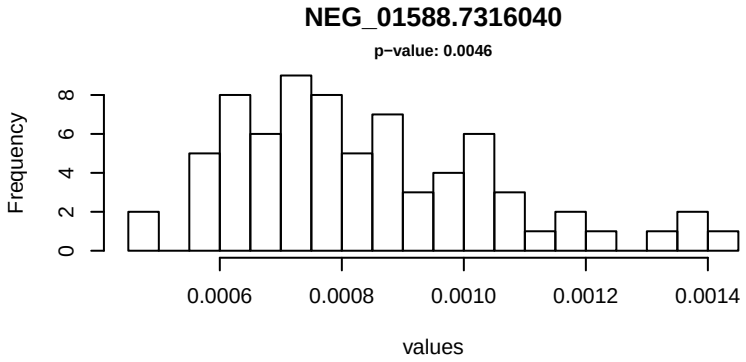


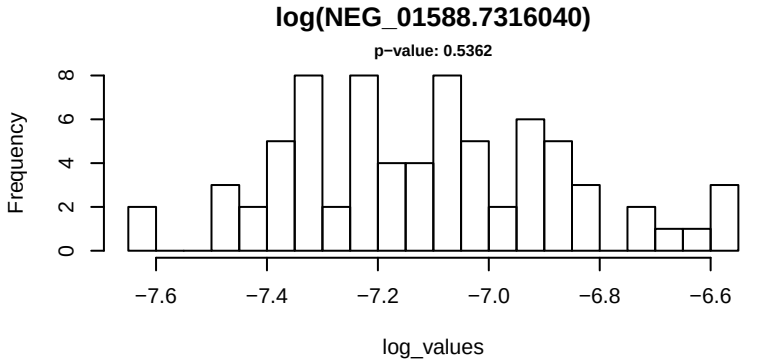

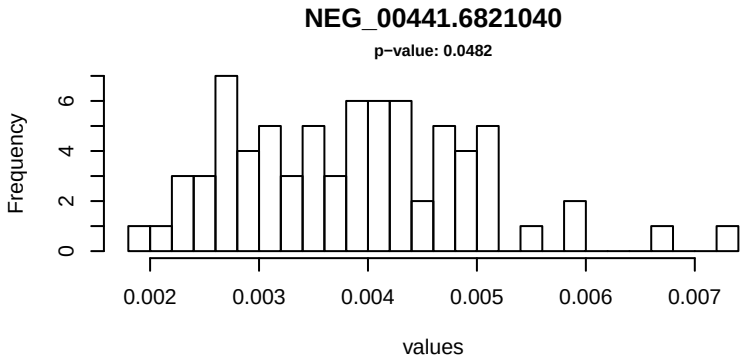


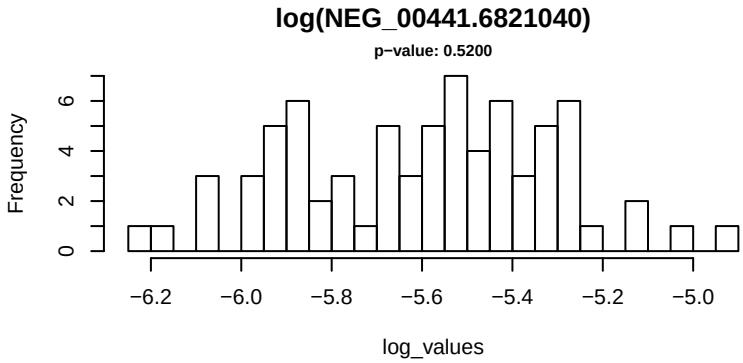


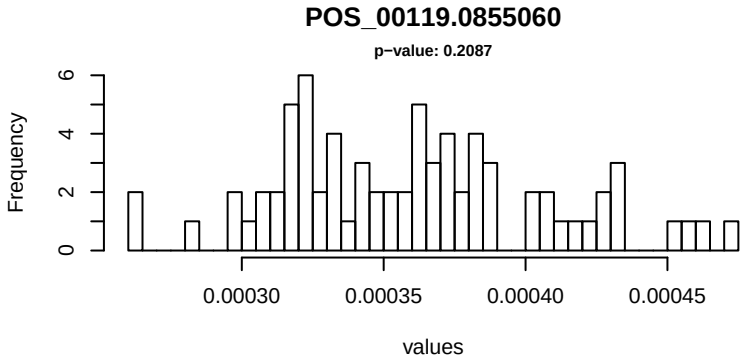


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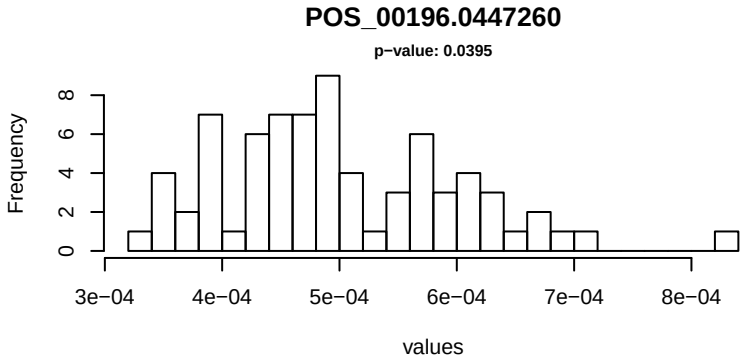


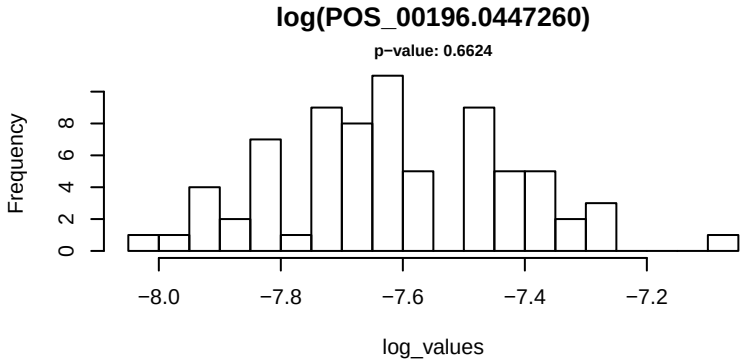


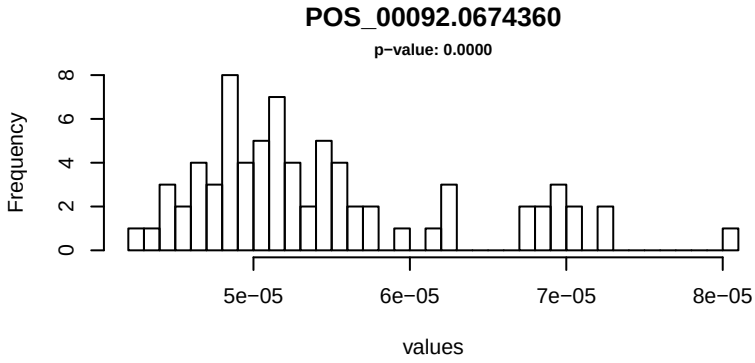


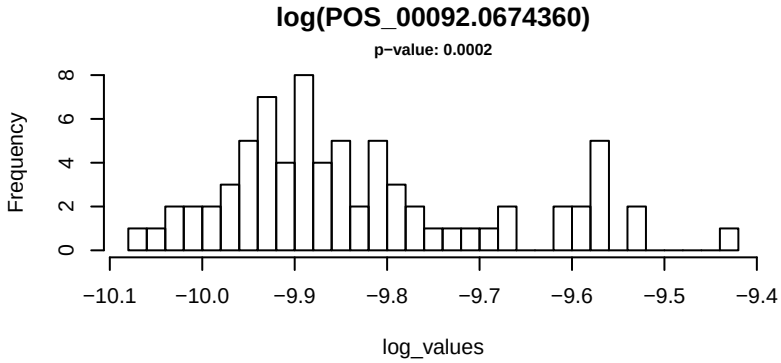


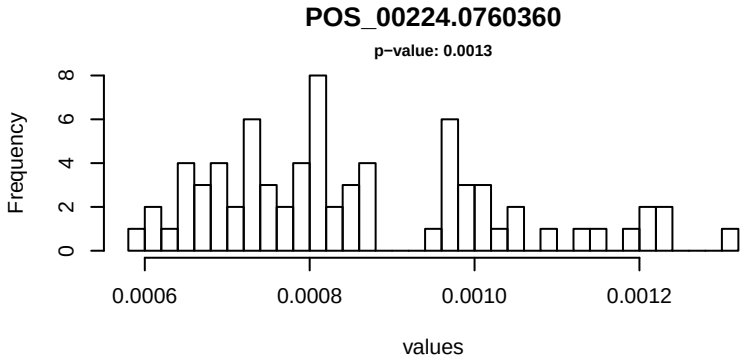


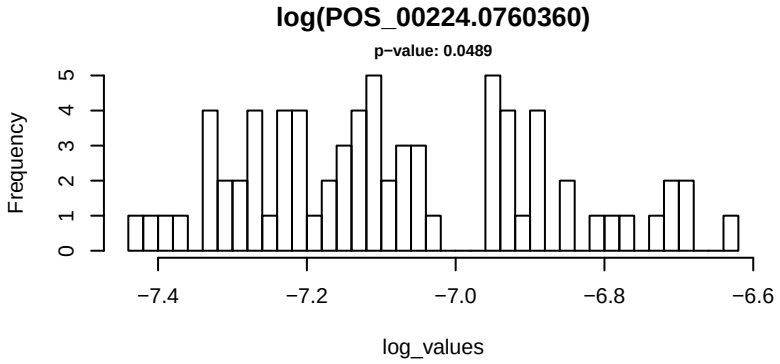

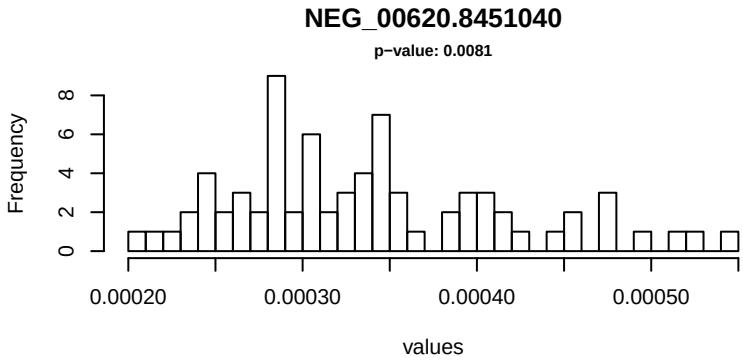


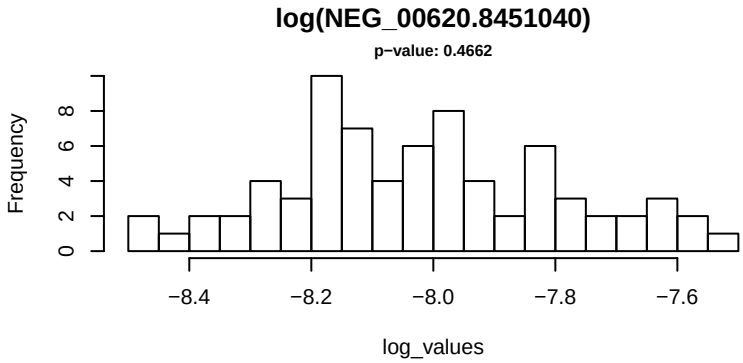


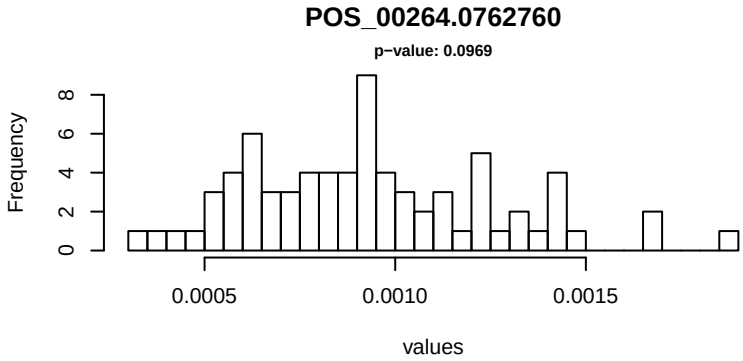


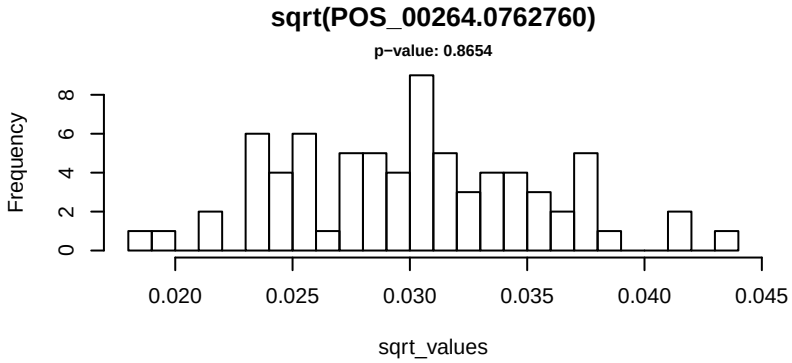


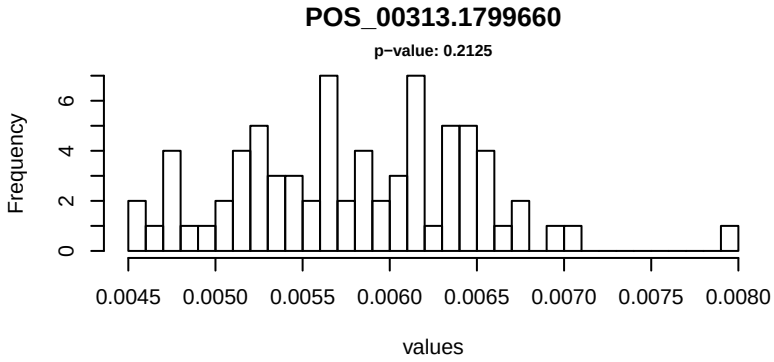


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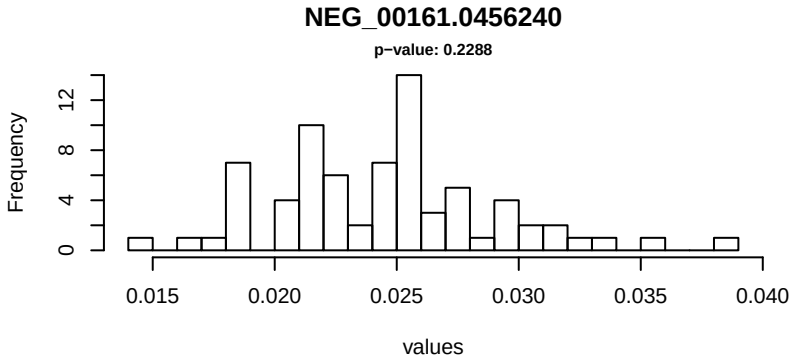


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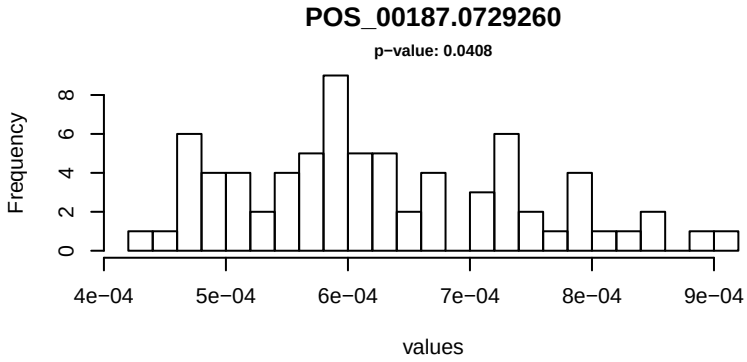


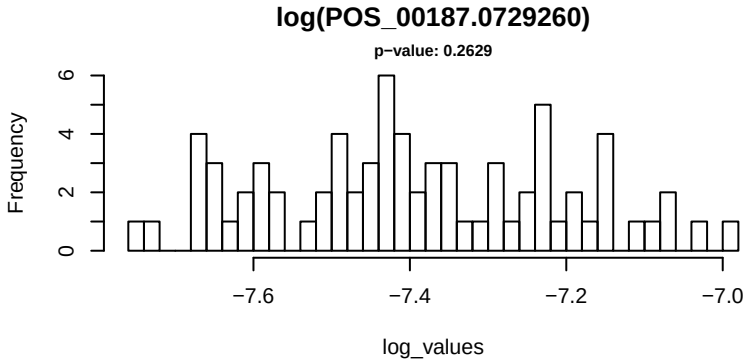

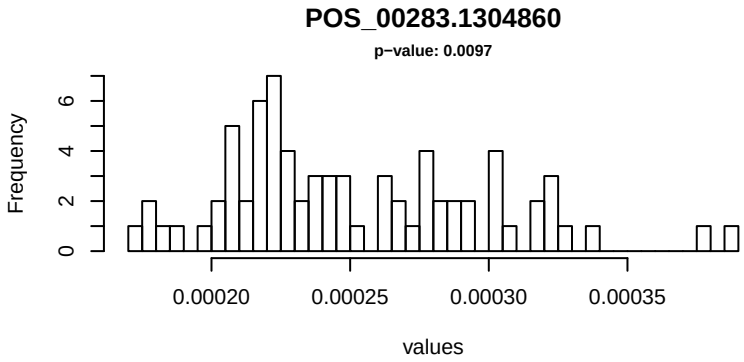


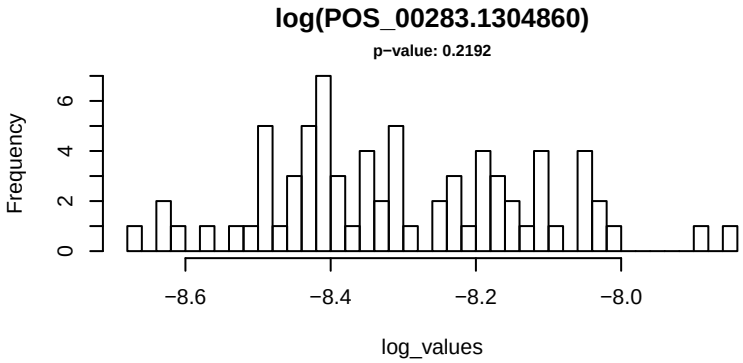


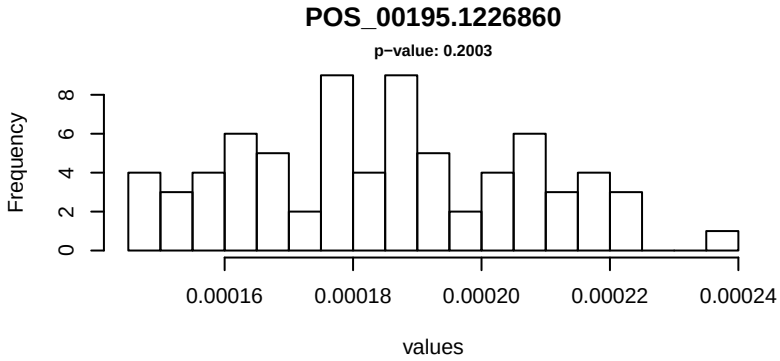


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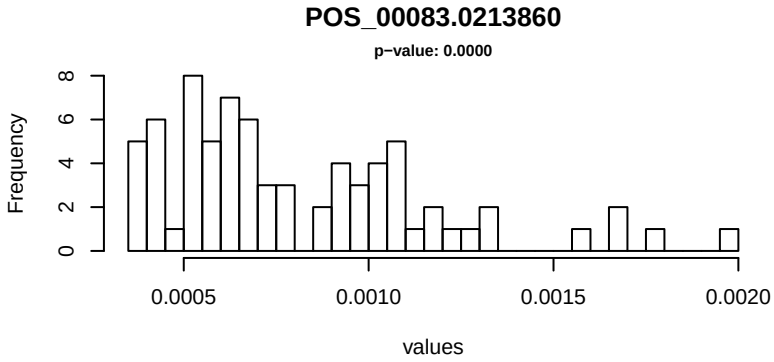


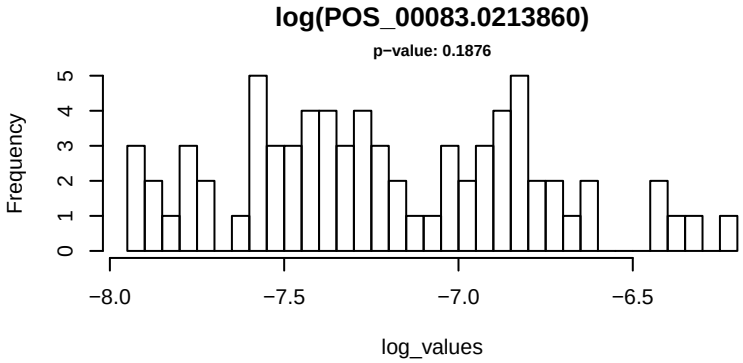


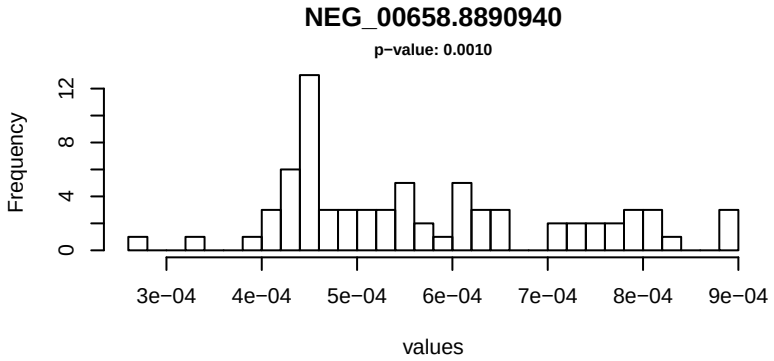


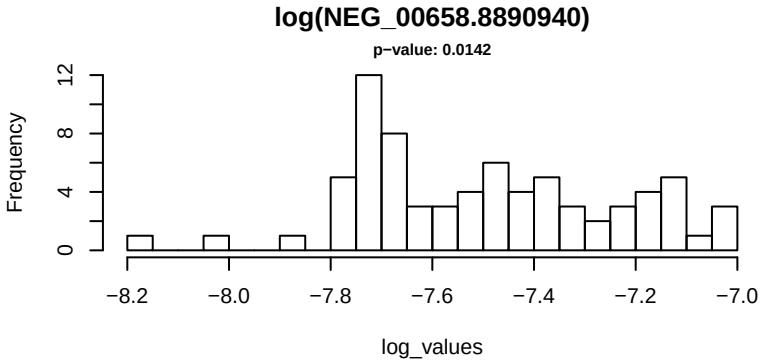


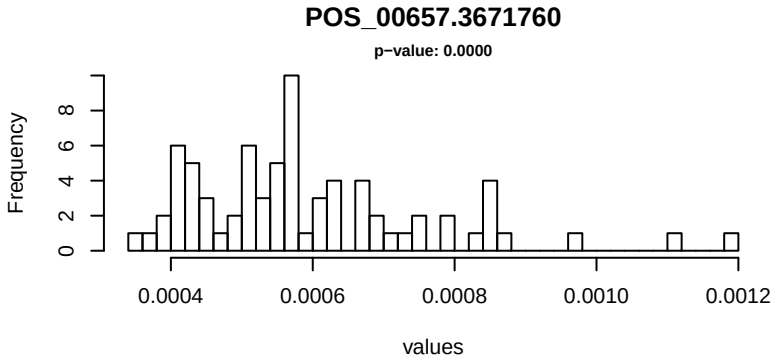


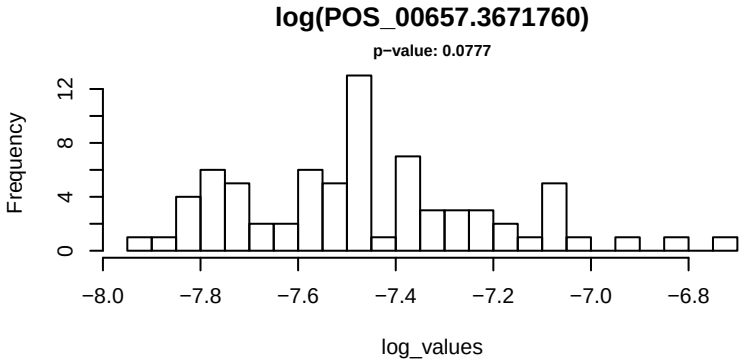

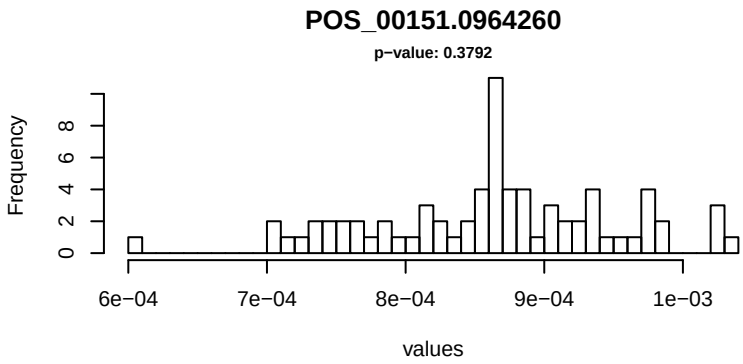


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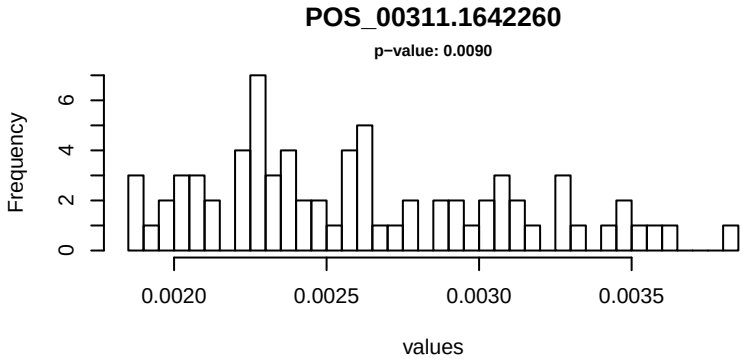


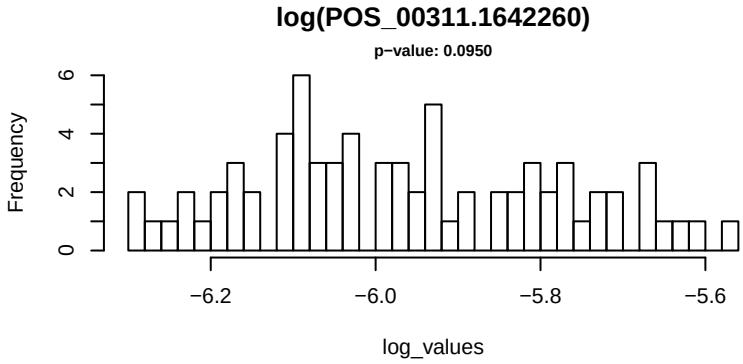


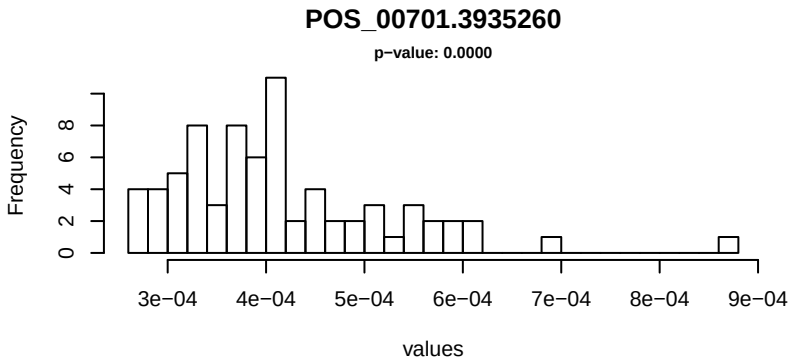


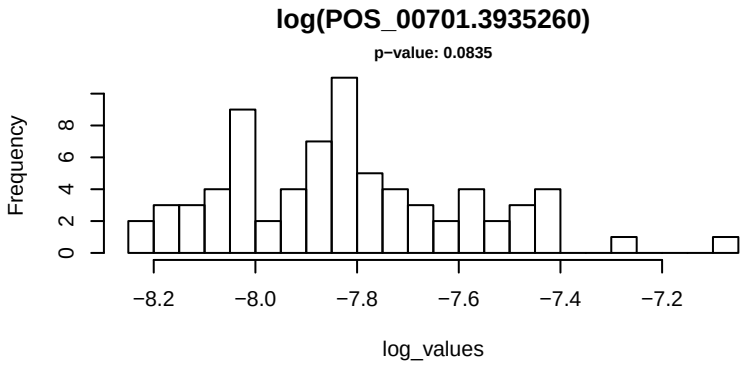


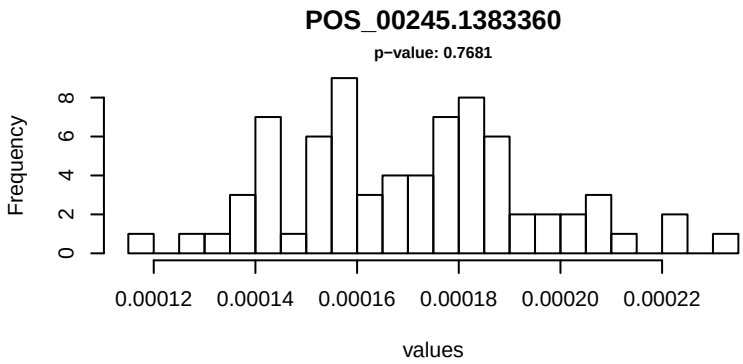


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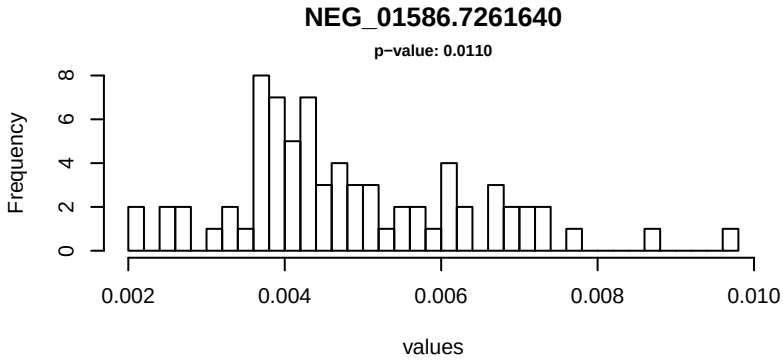


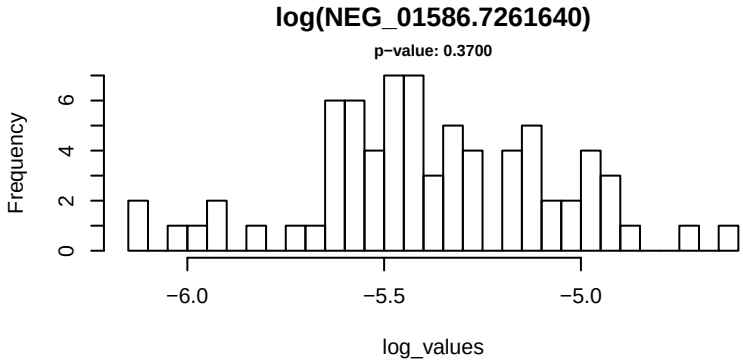

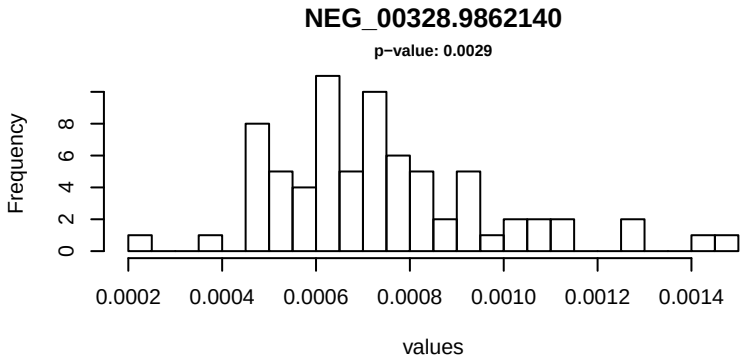


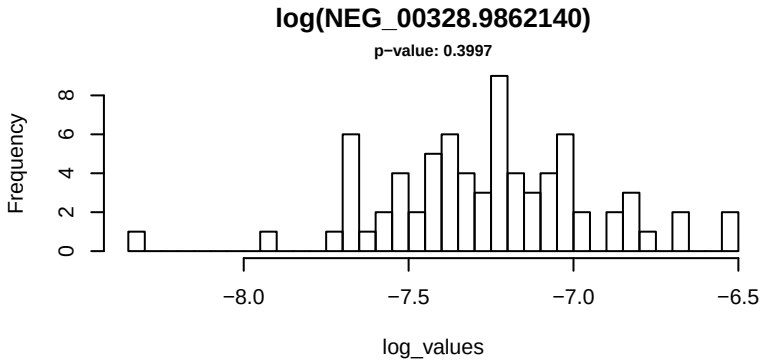


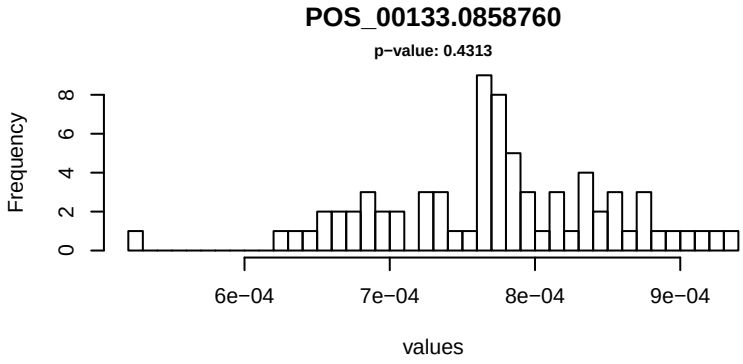


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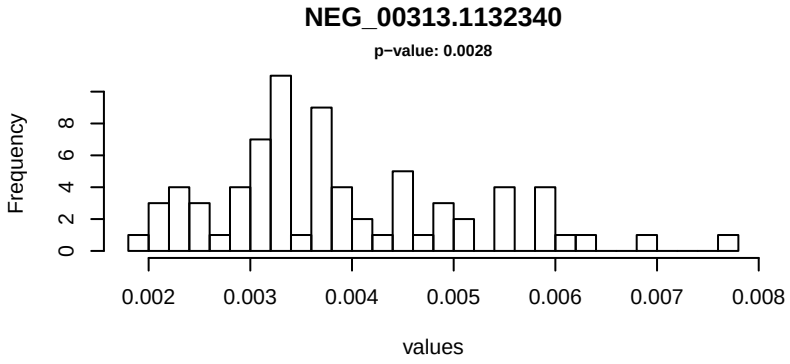


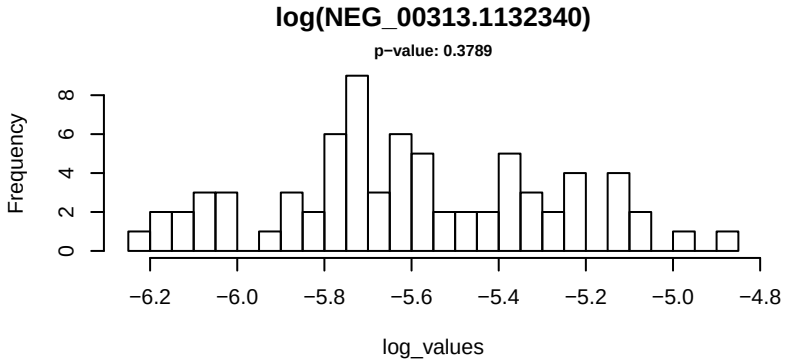


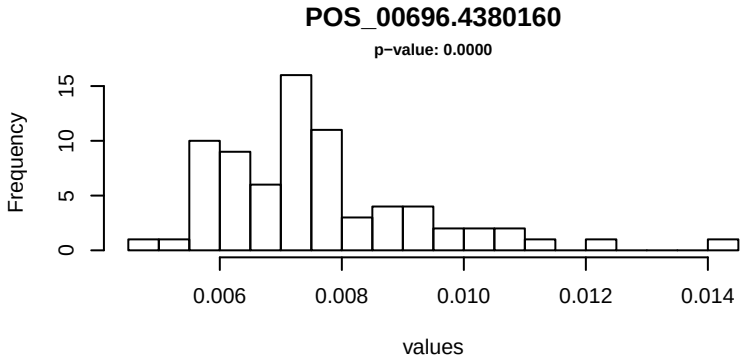


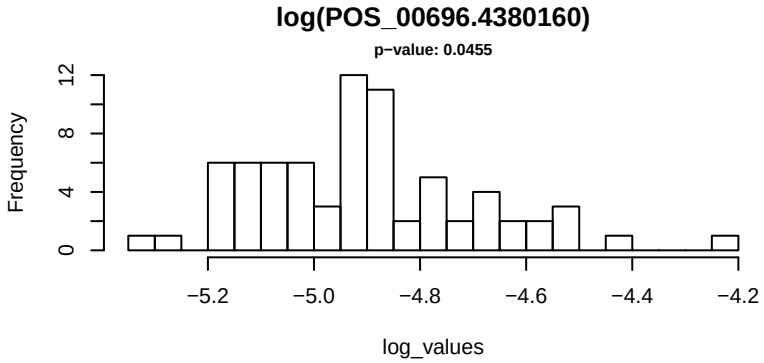


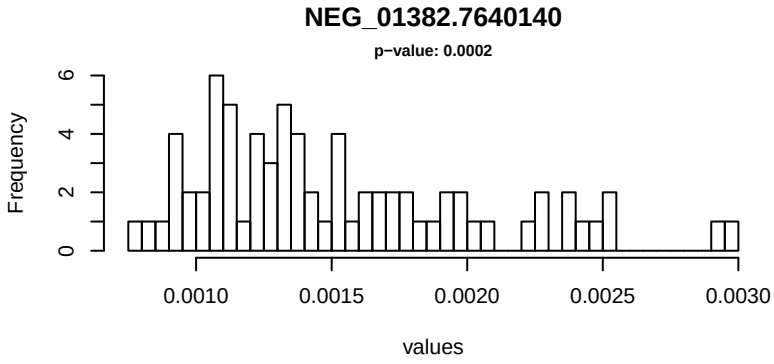


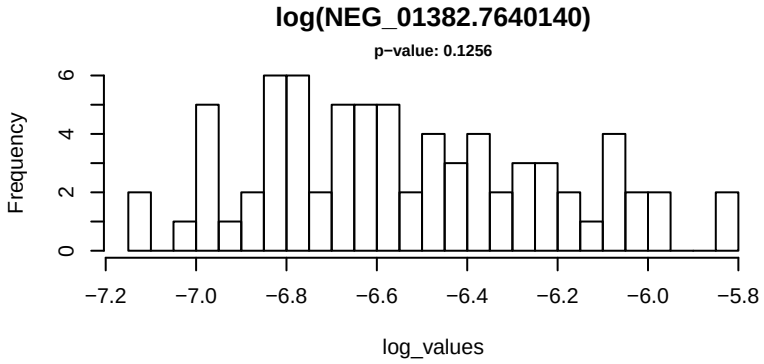

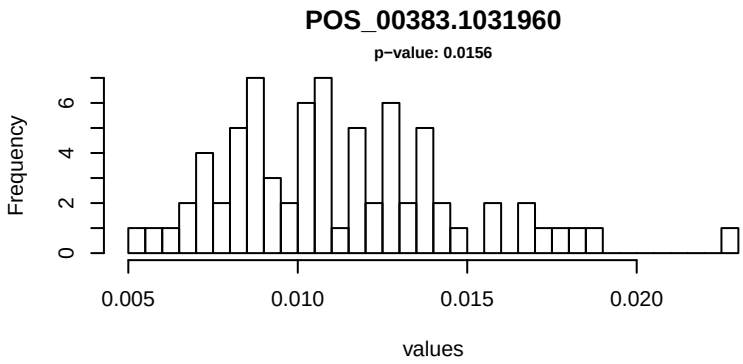


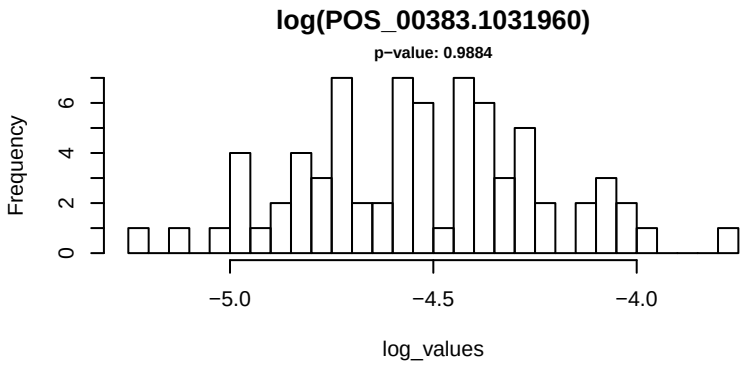


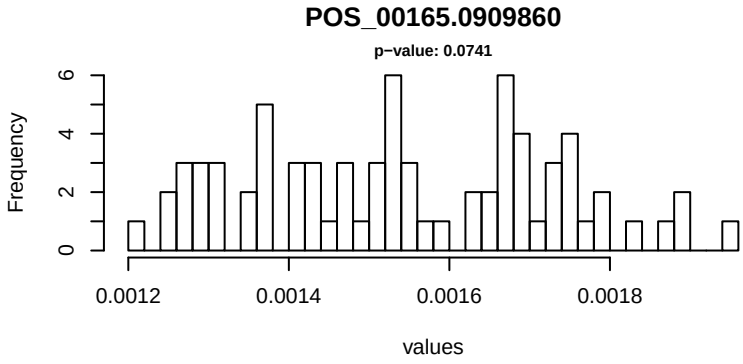


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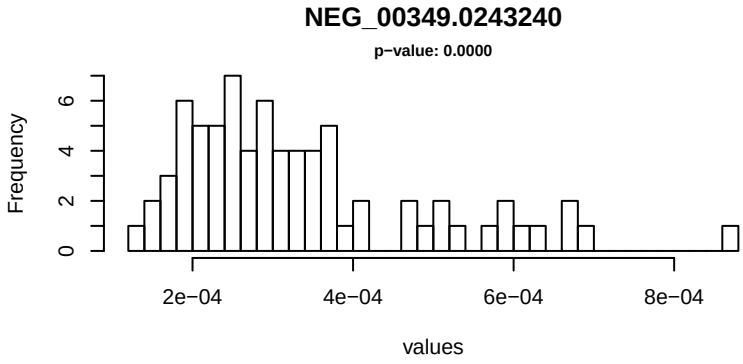


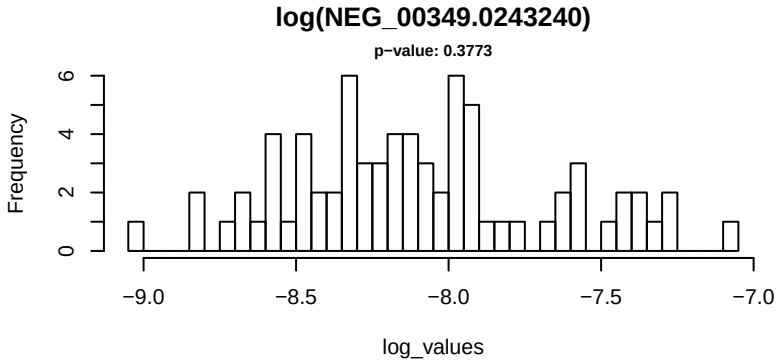


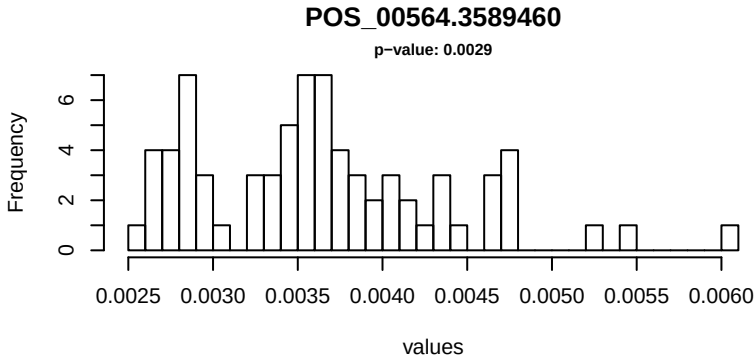


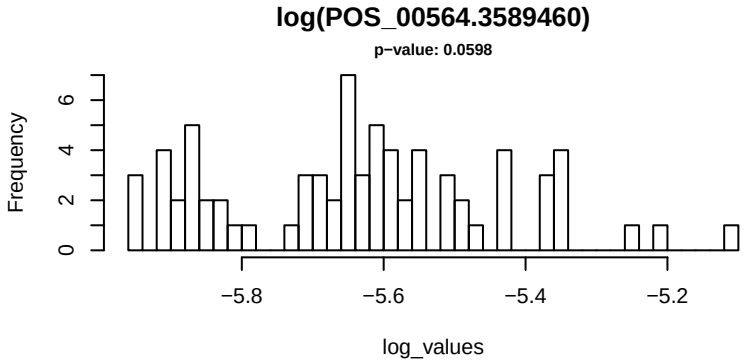


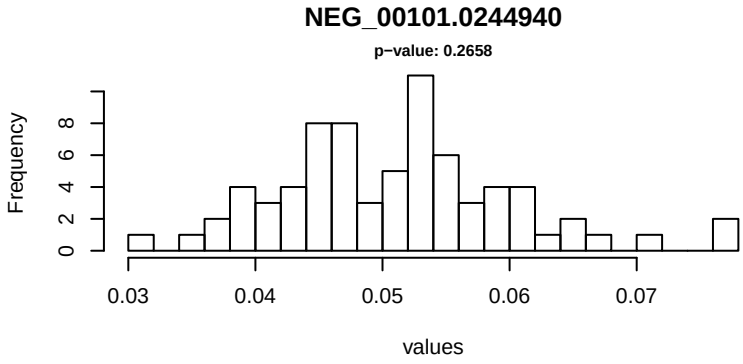


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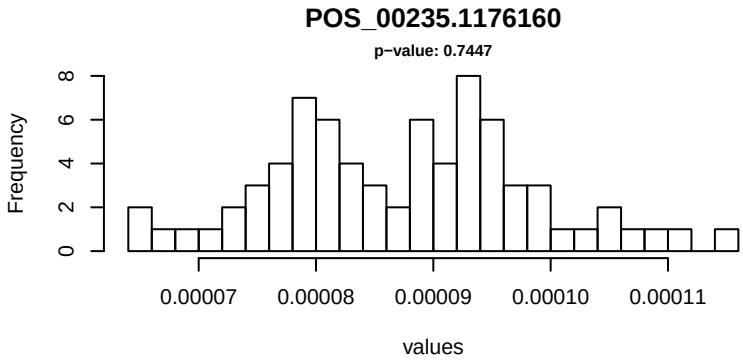


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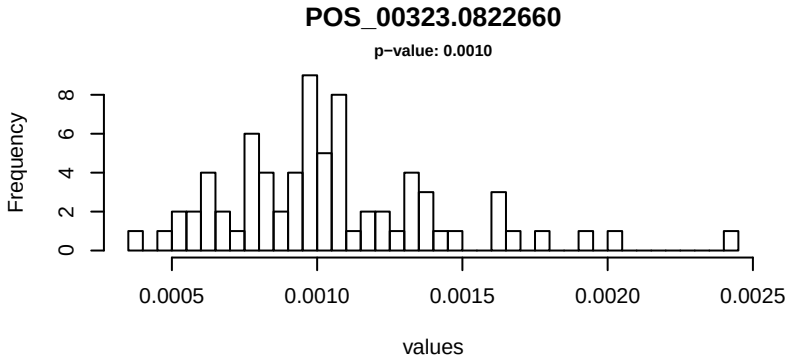


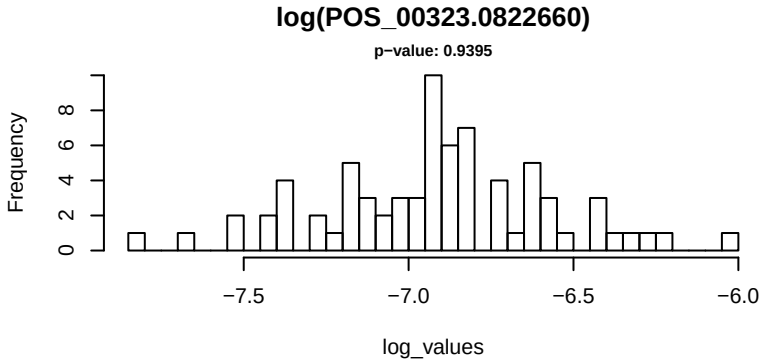


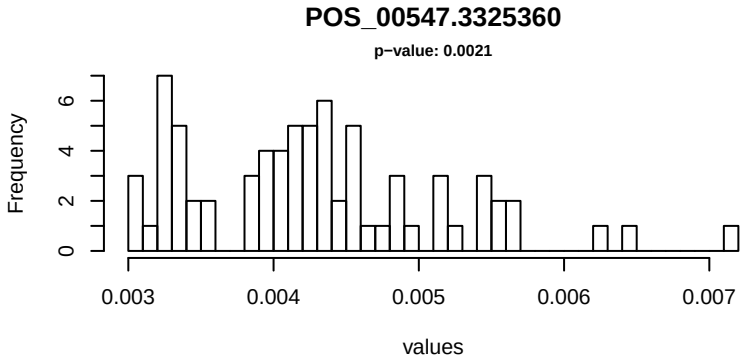


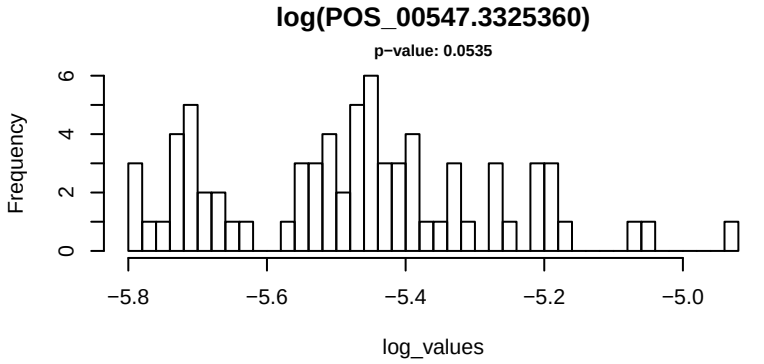


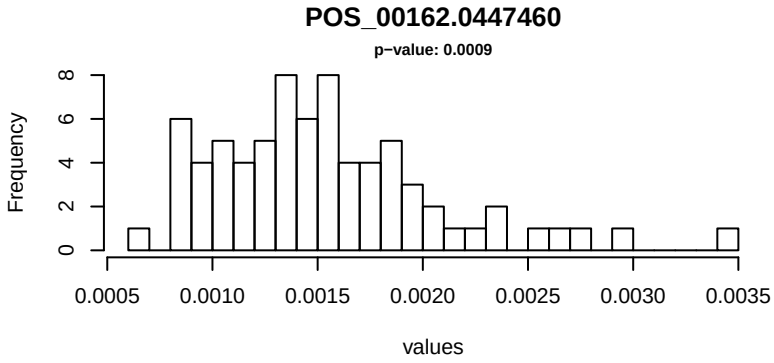


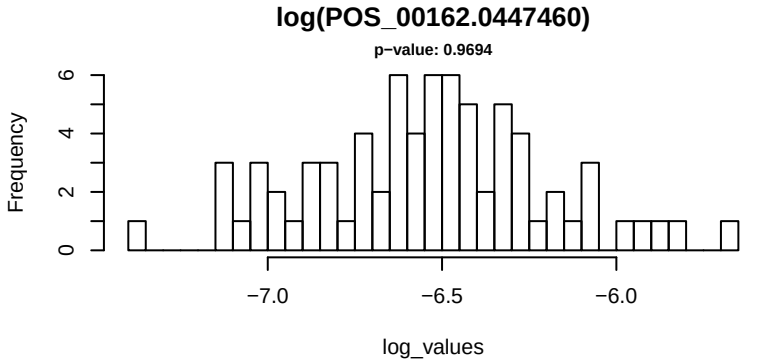


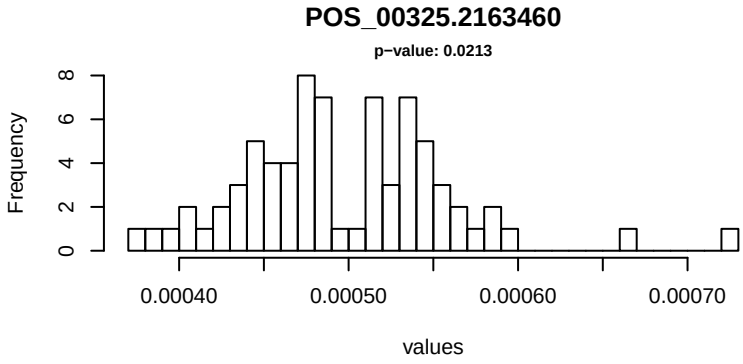


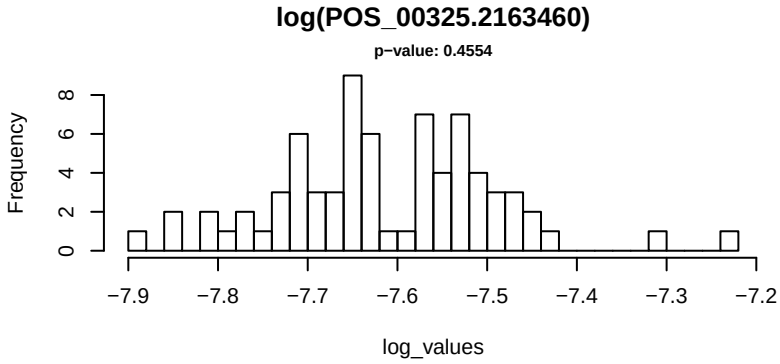

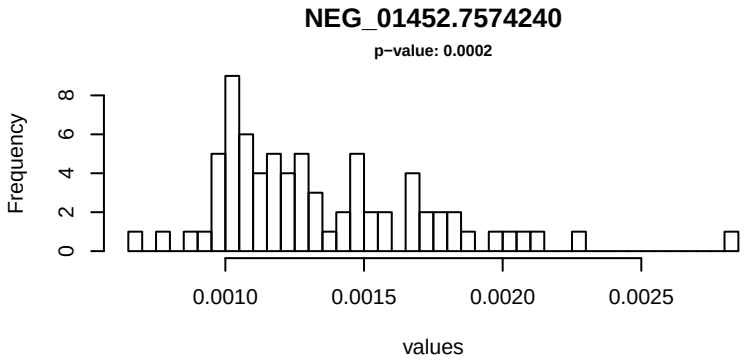


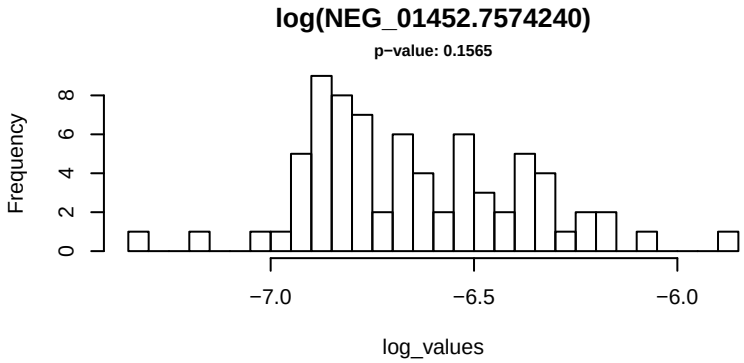


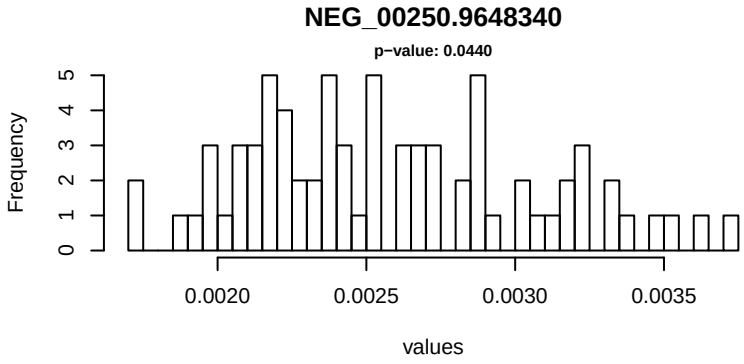


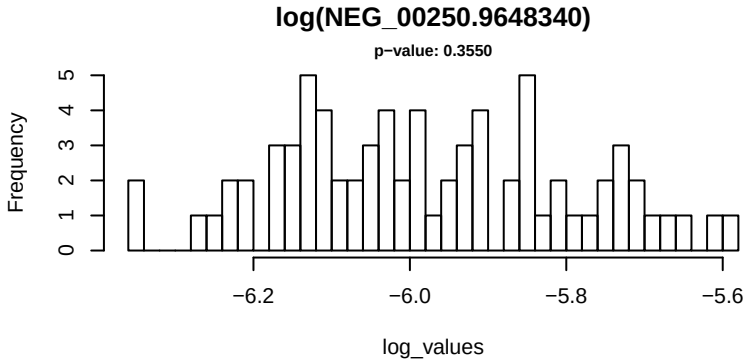


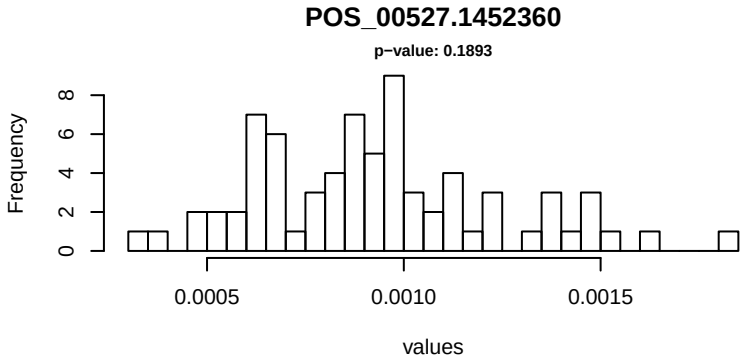


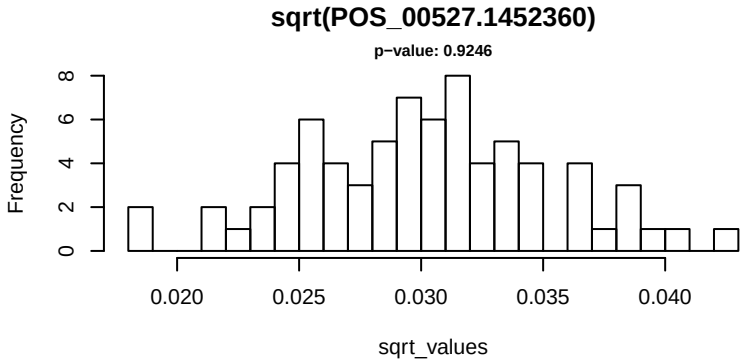


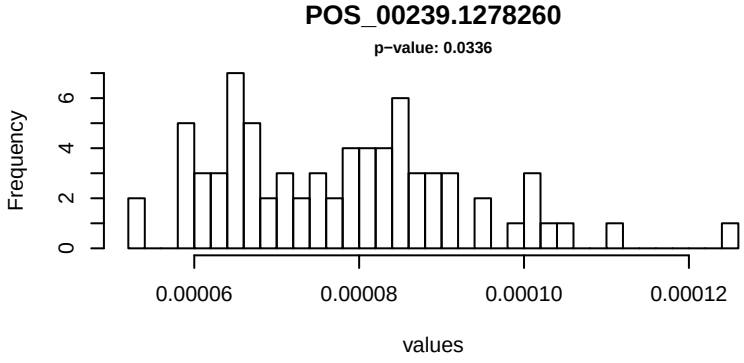


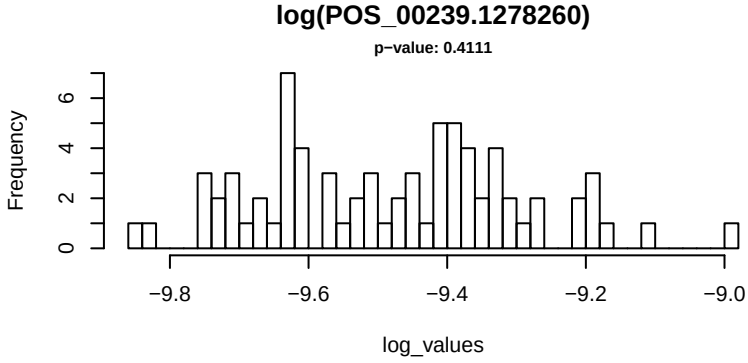


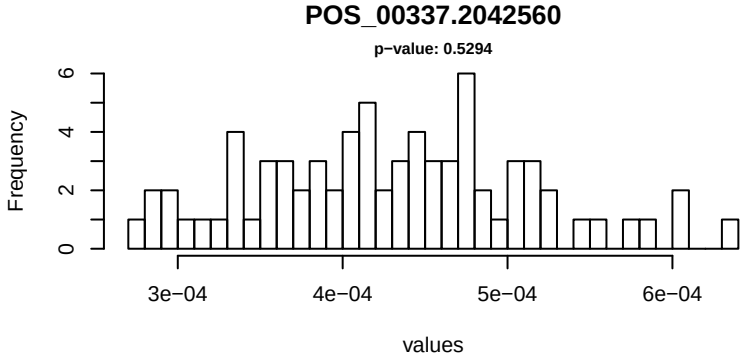


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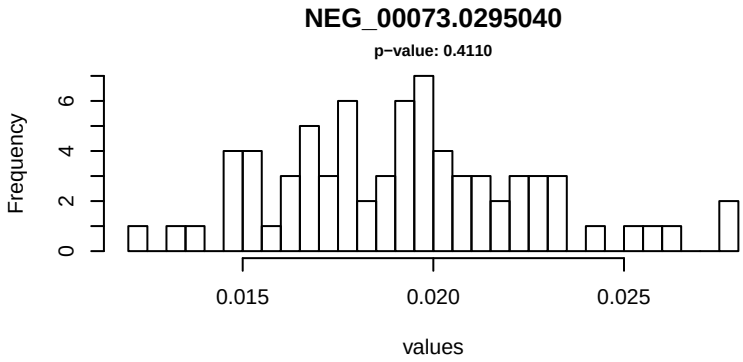


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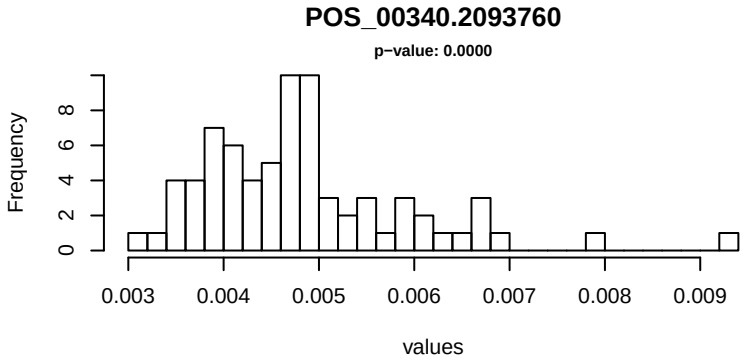


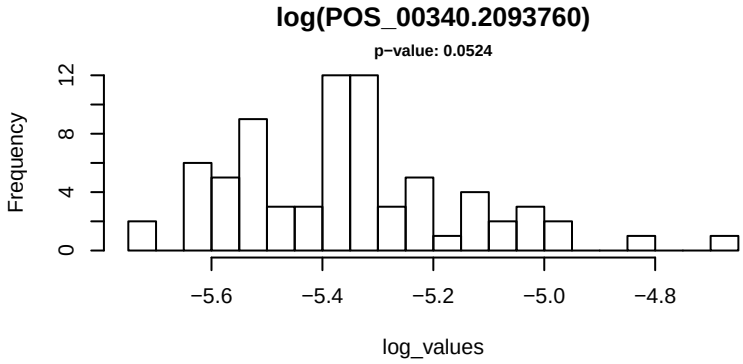


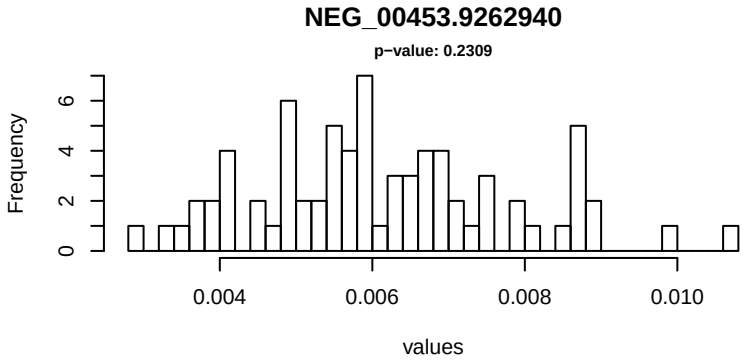


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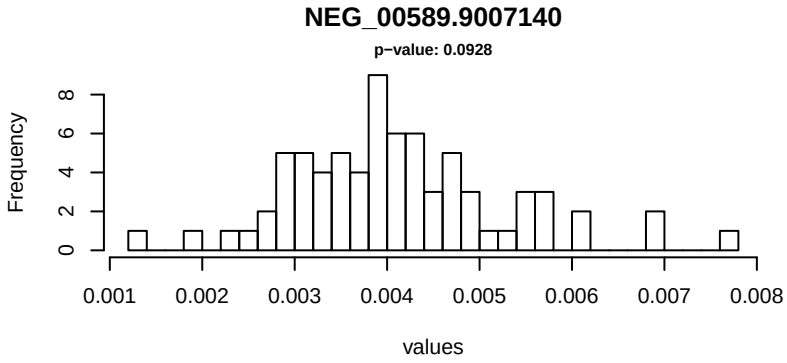


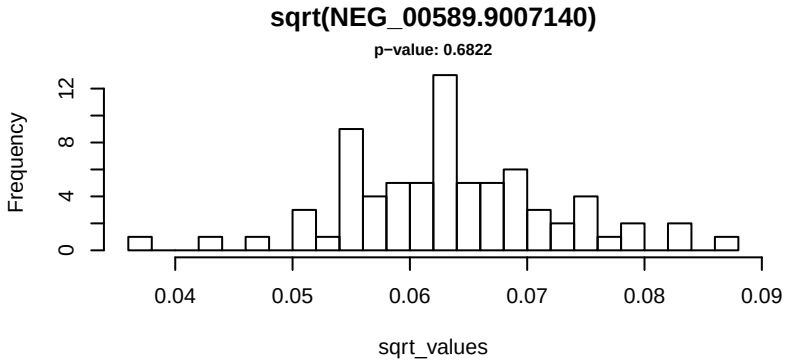


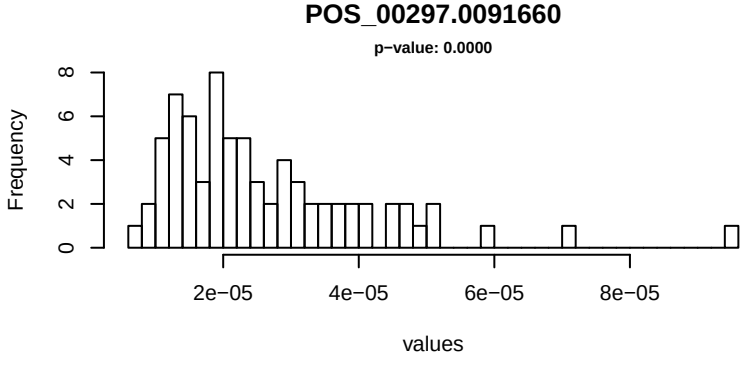


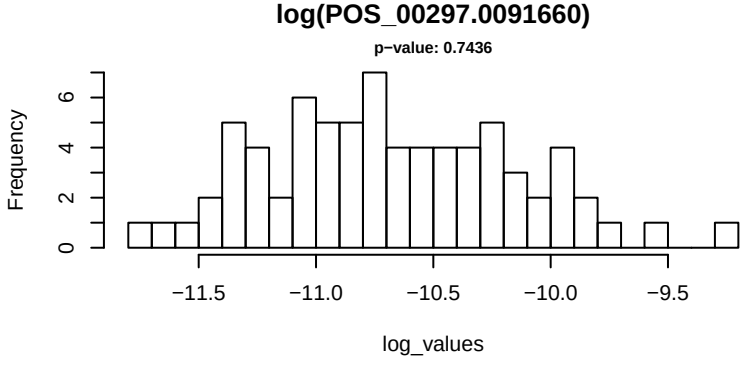

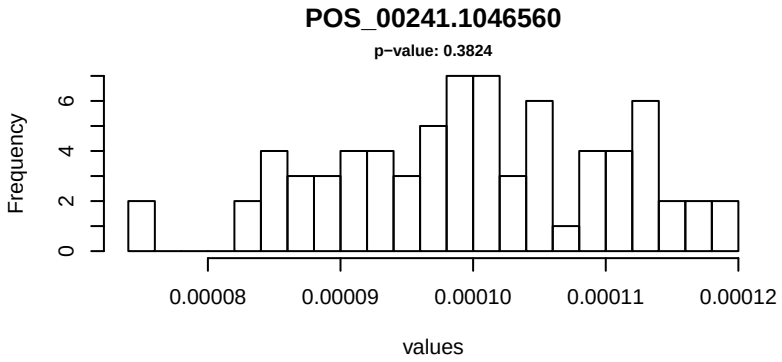


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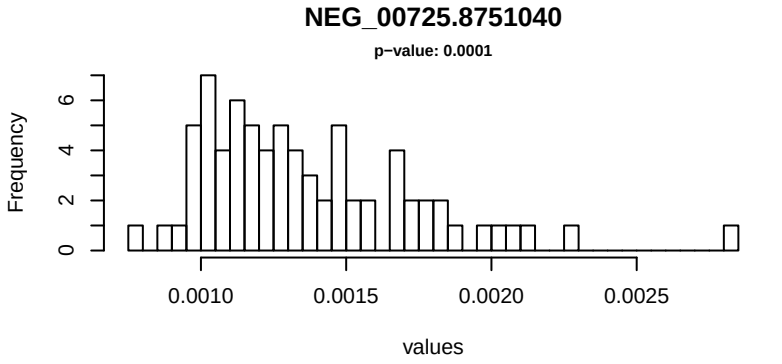


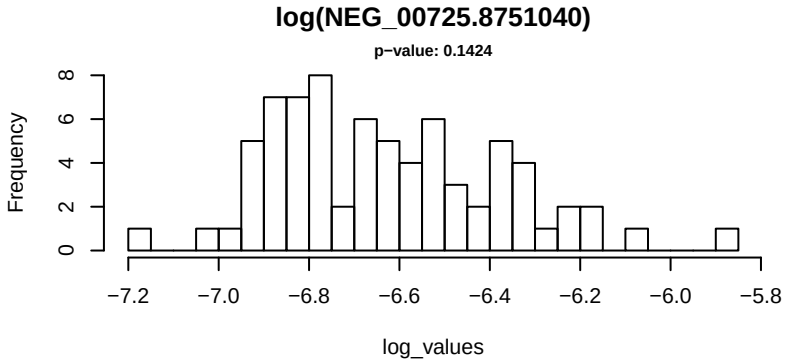


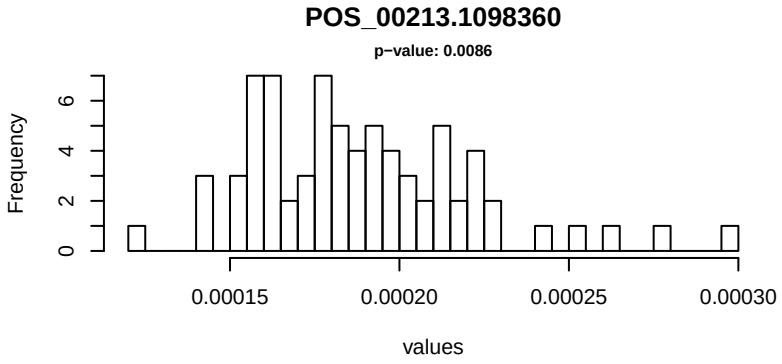


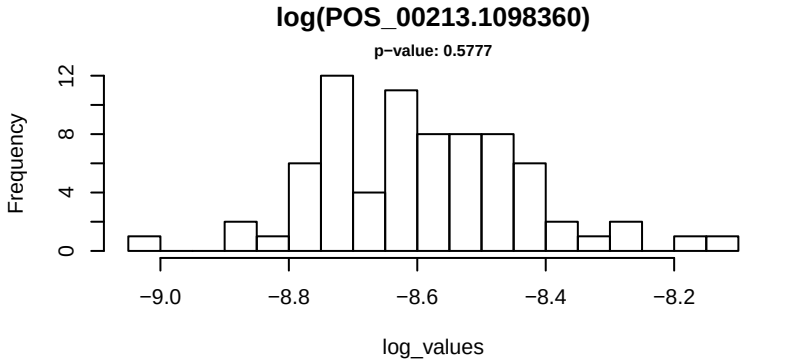


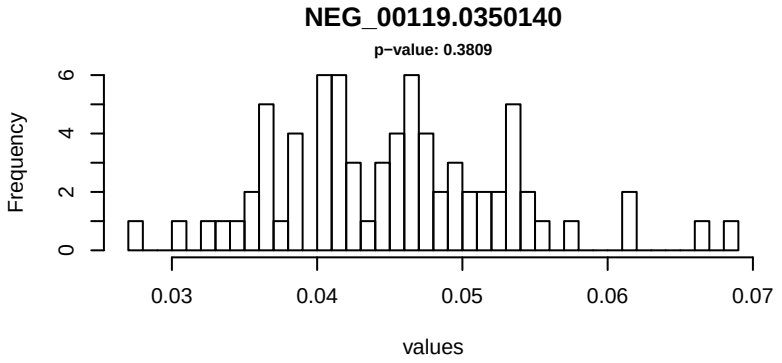


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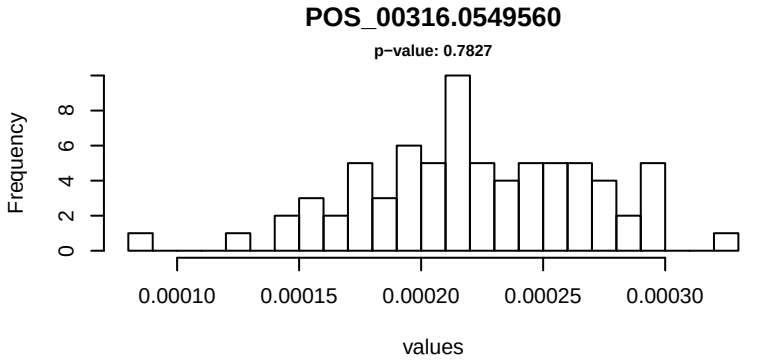


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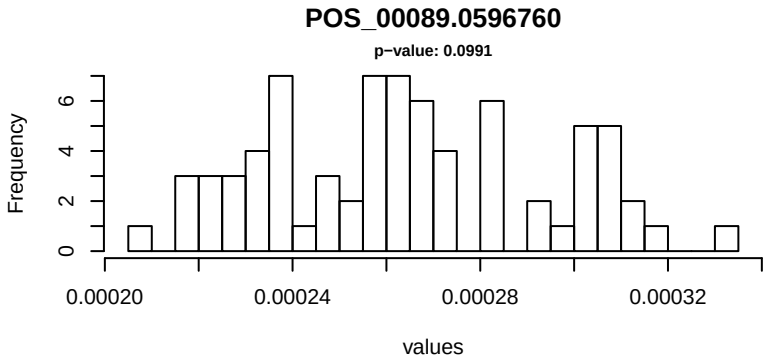
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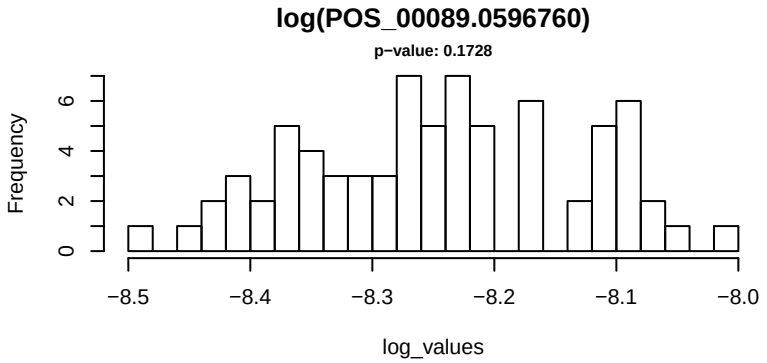
values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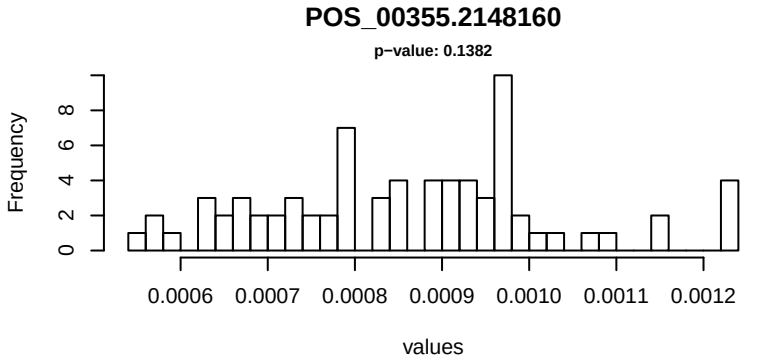
log_values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Frequency
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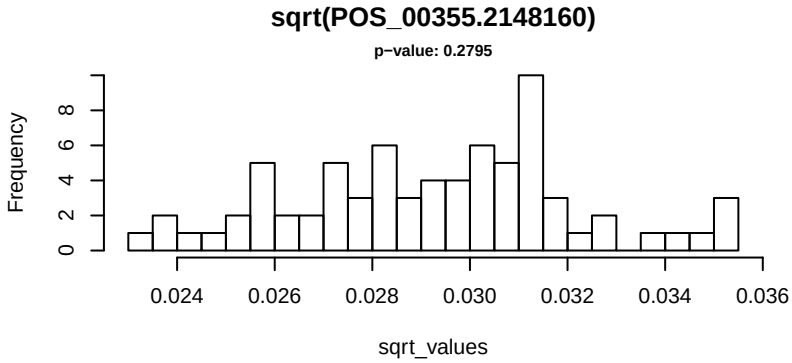
values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Frequency
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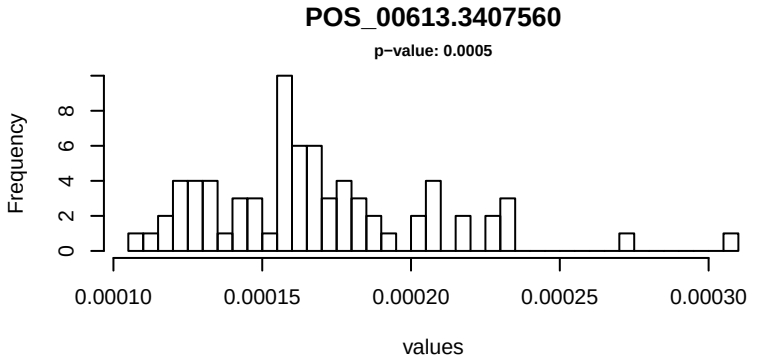
sqrt_values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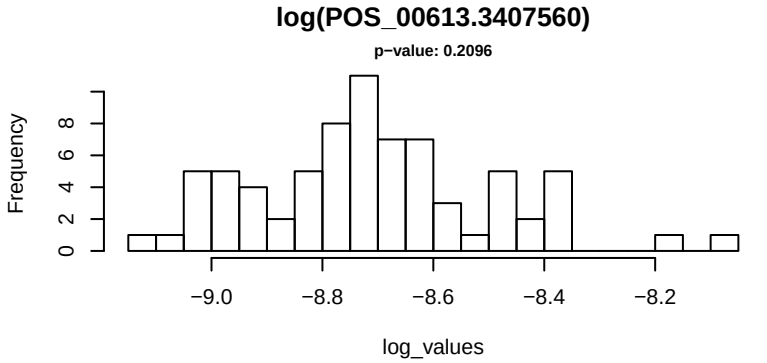
values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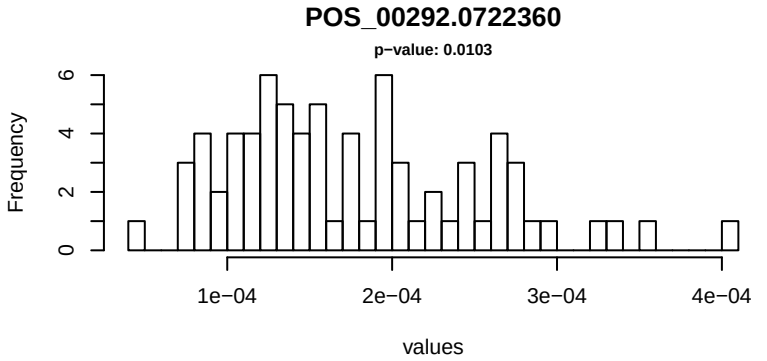
log_values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Frequency
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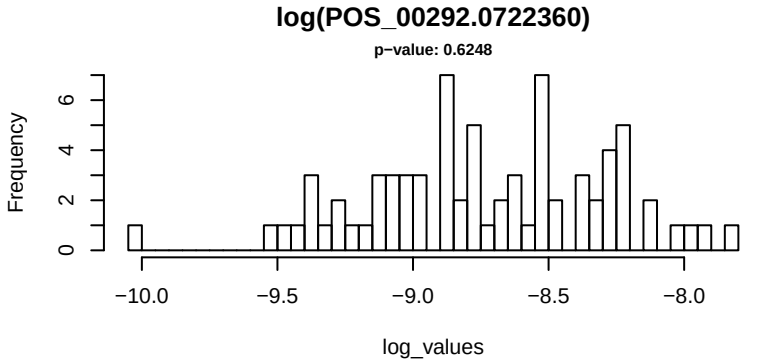
values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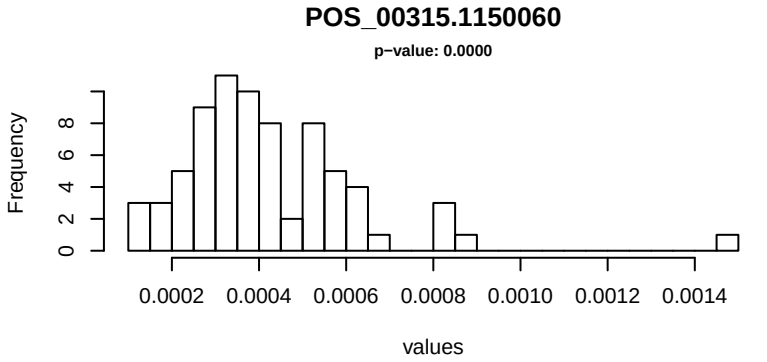
log_values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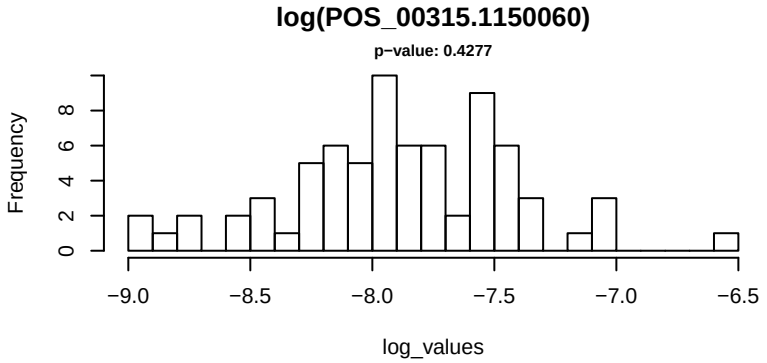
values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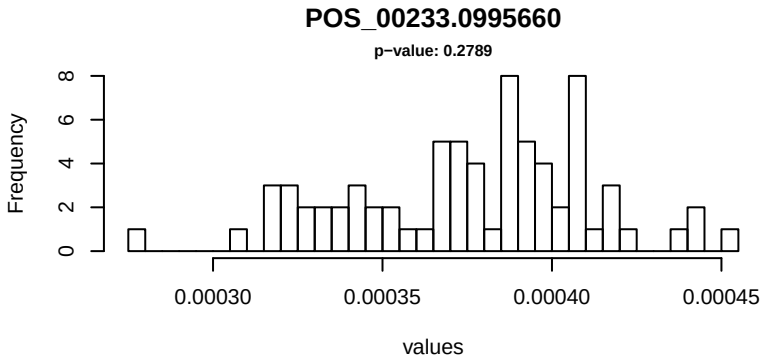


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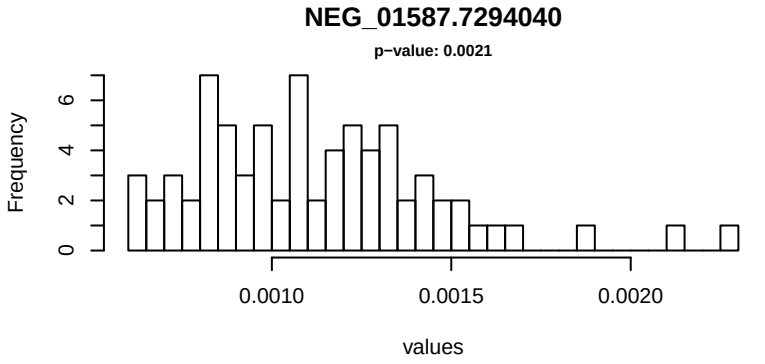


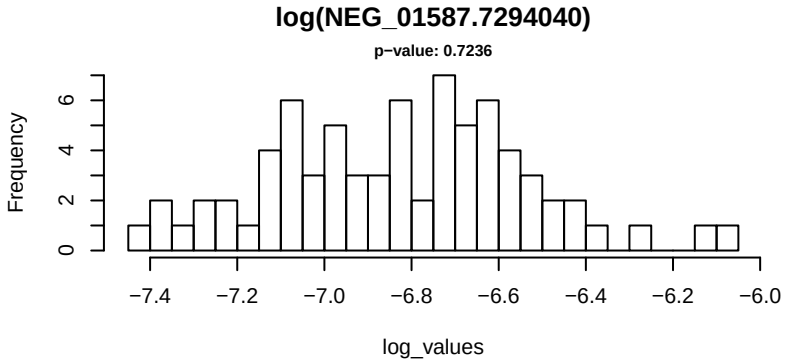


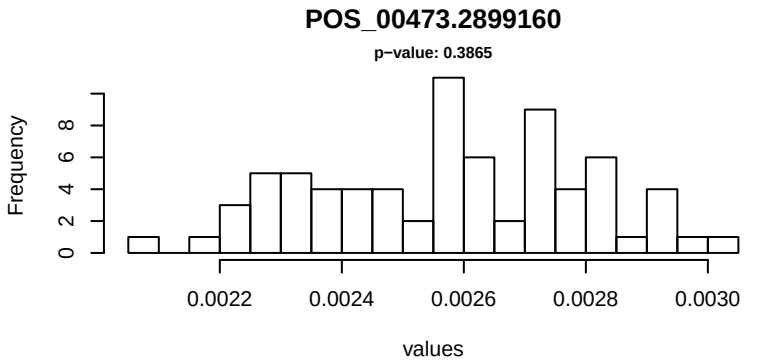


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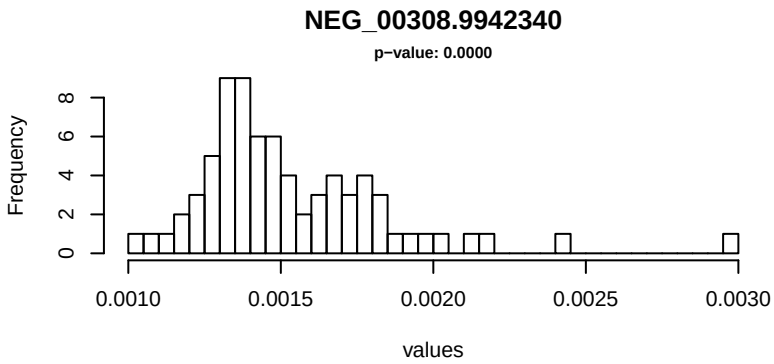


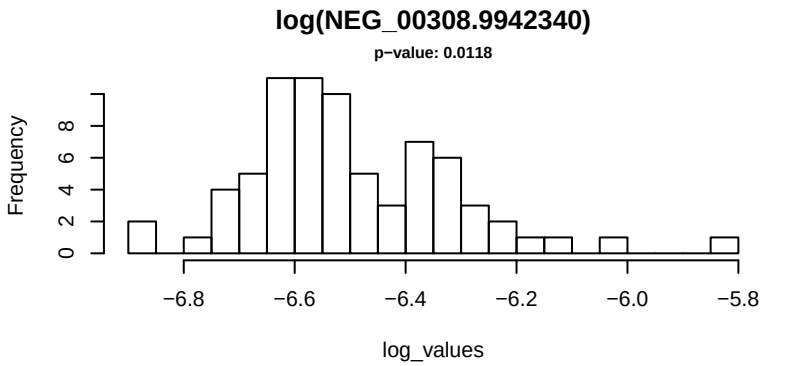


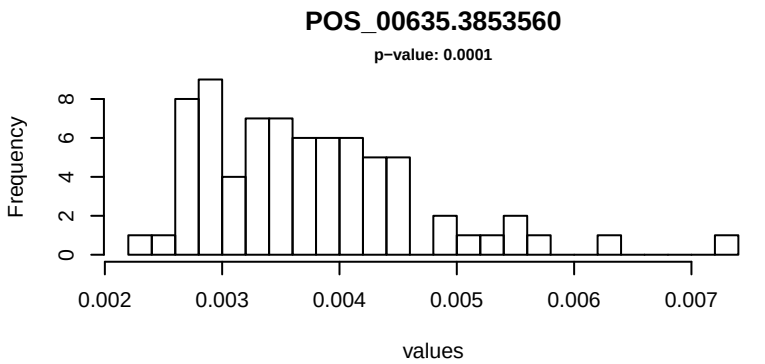


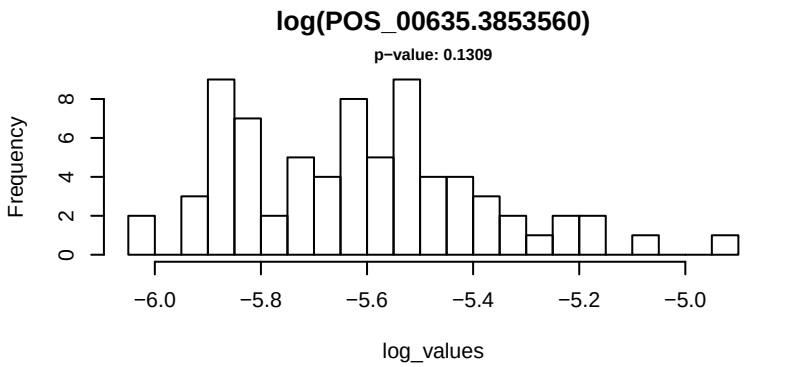

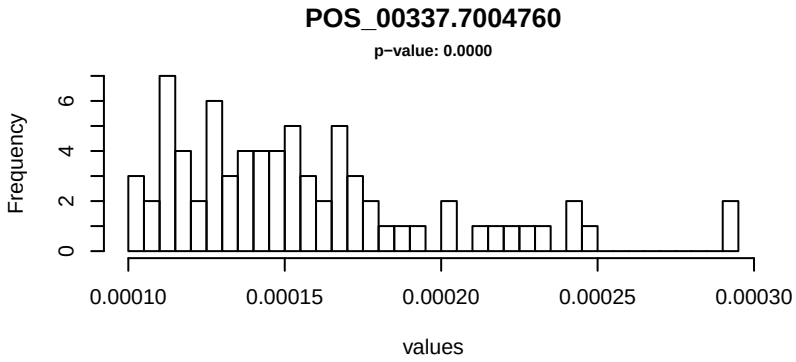
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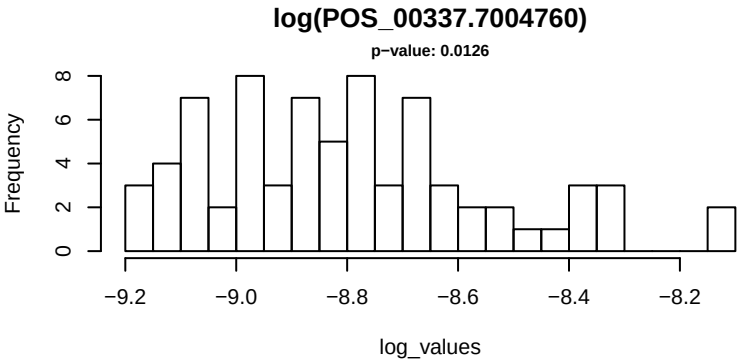
Frequency
values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Frequency
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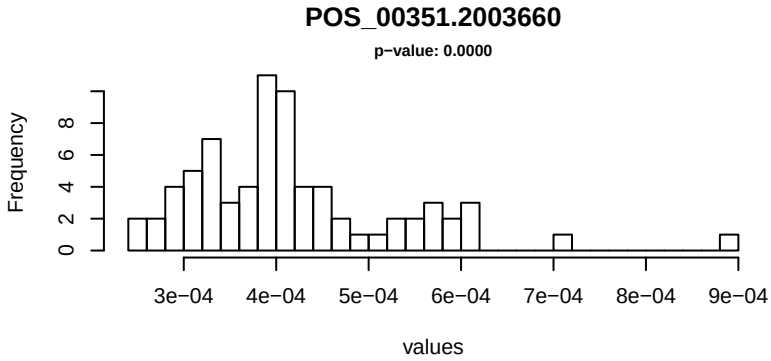
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Frequency
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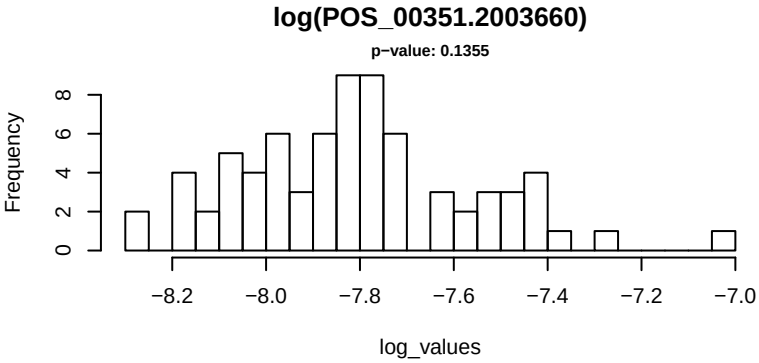
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Frequency
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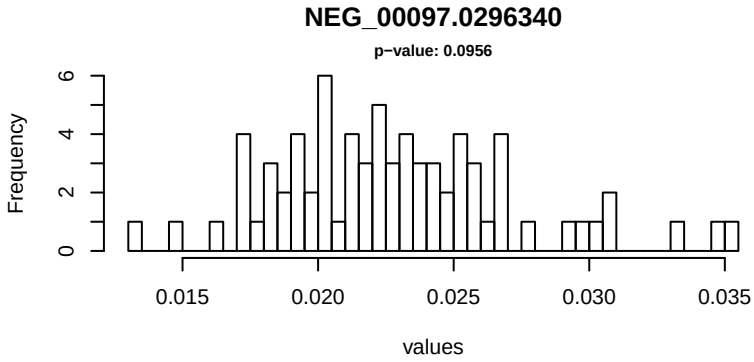
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Frequency
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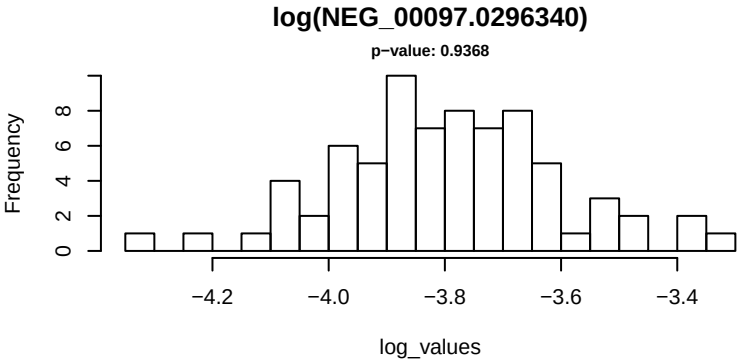
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Frequency
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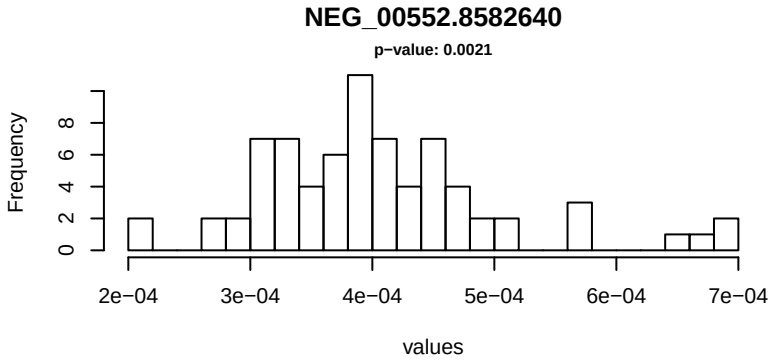
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Frequency
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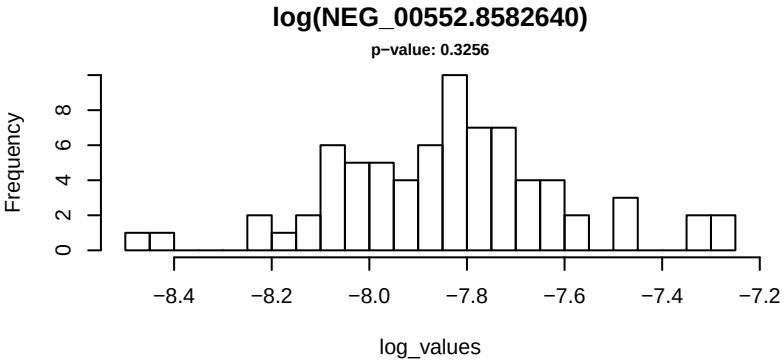
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Frequency
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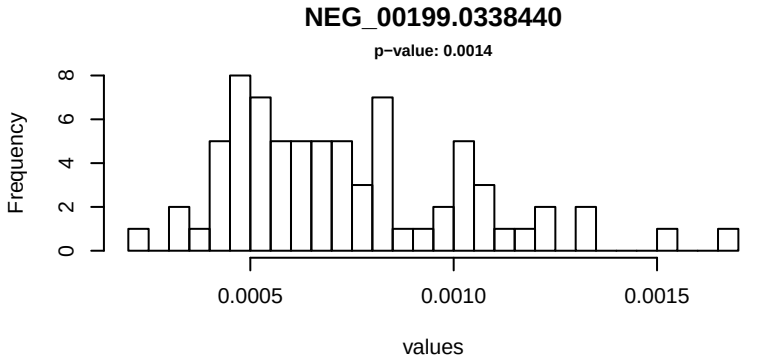
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Frequency
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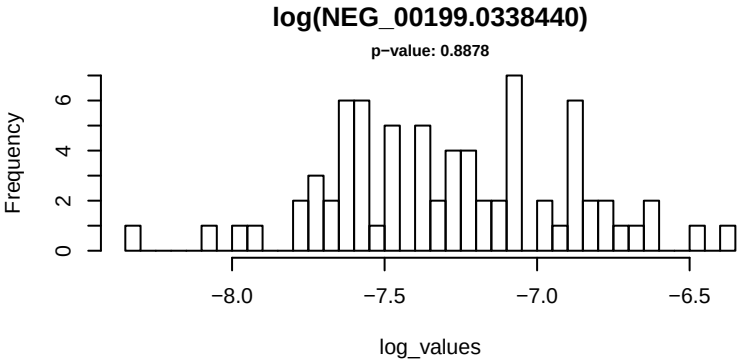
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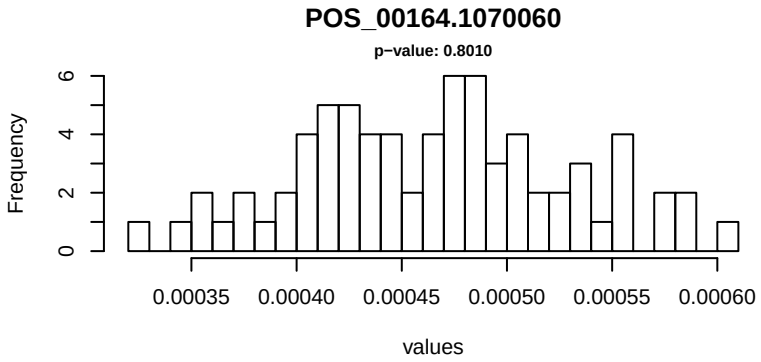
Frequency
log_values

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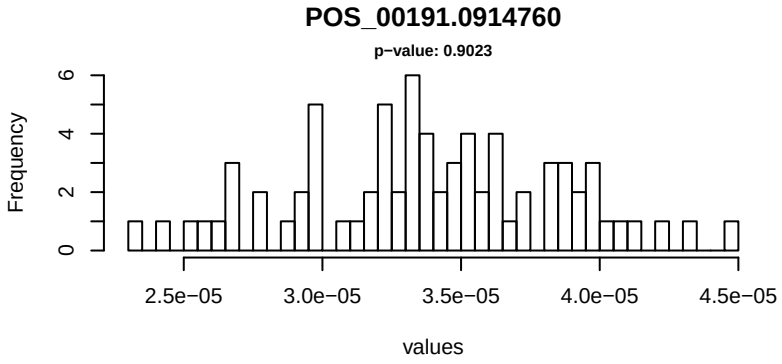


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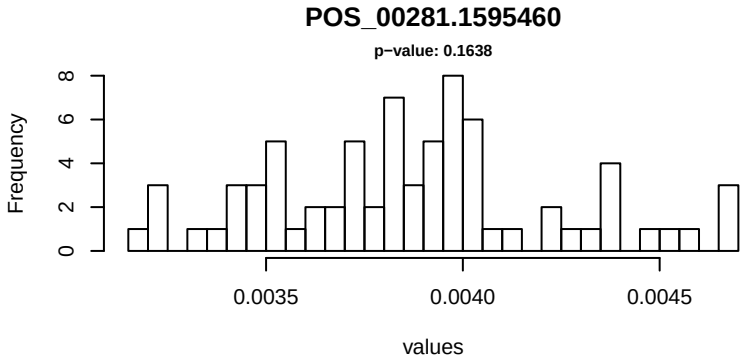
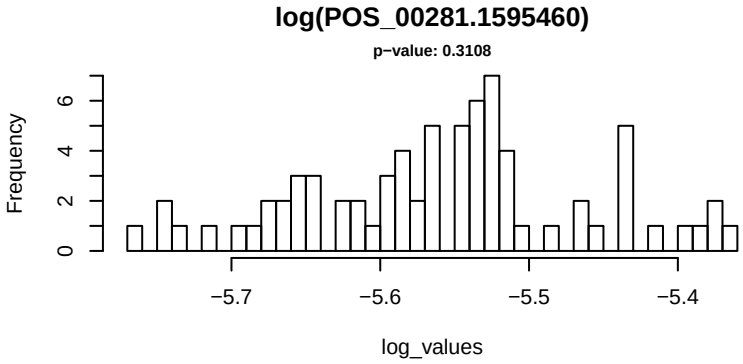
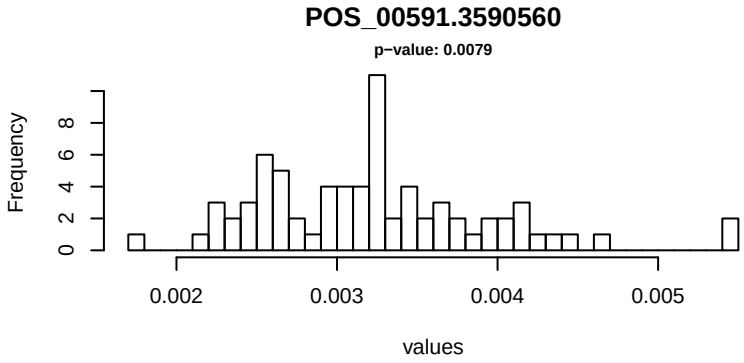
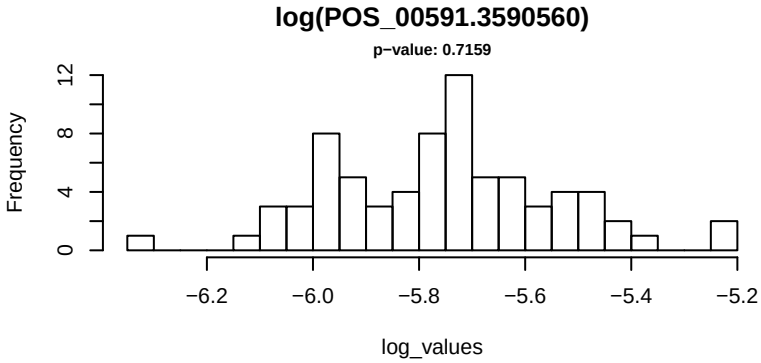
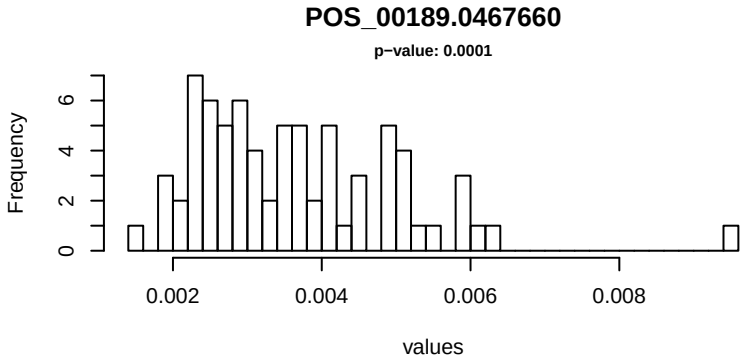
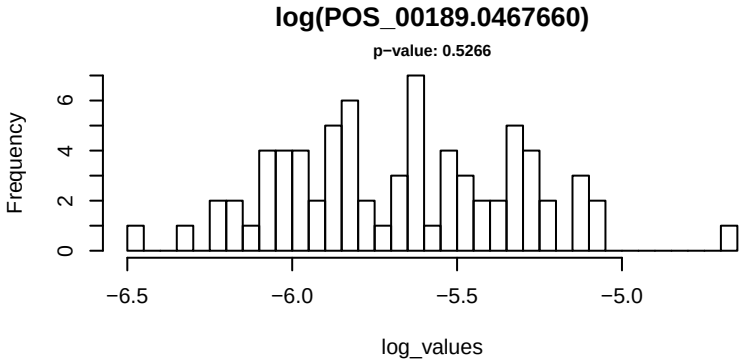


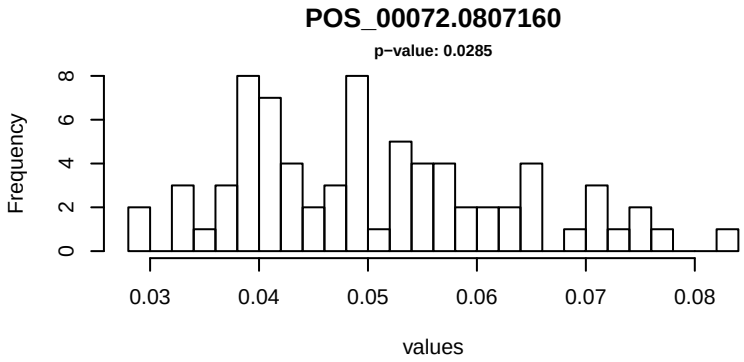



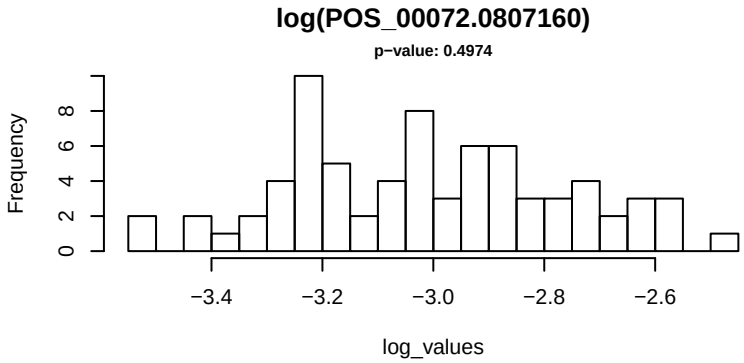



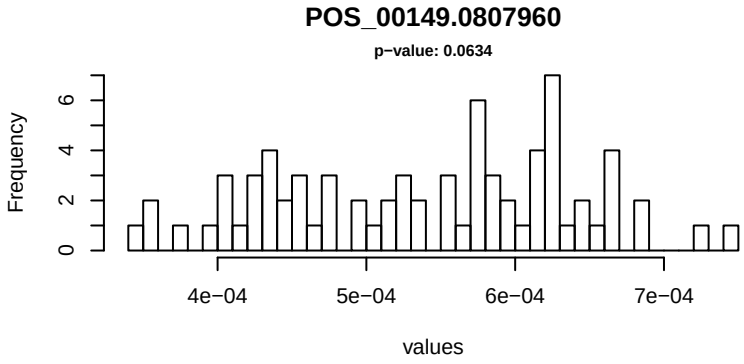



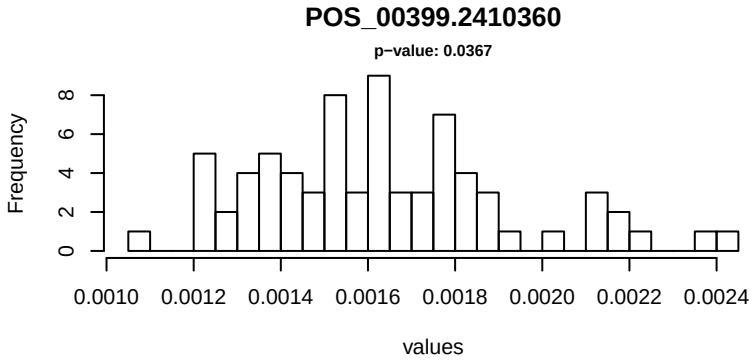



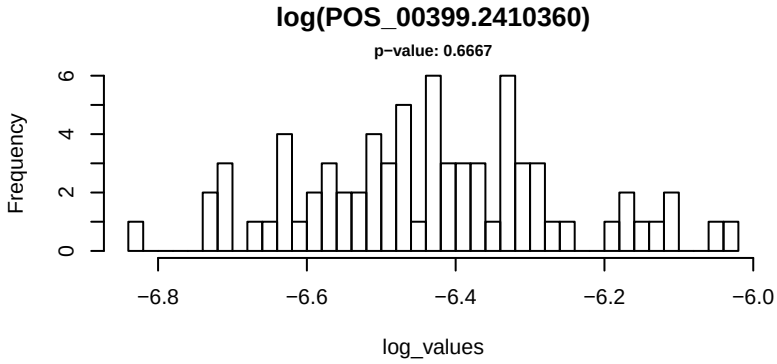


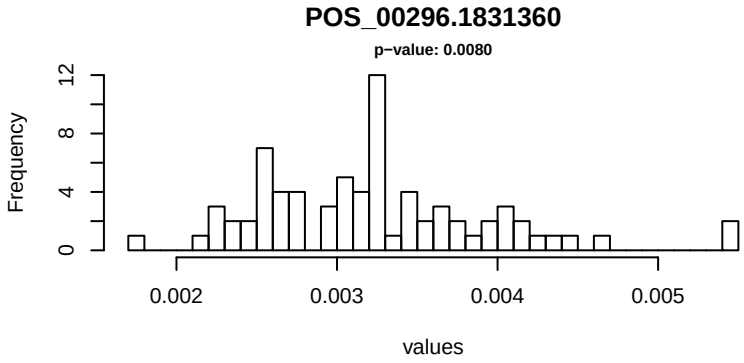



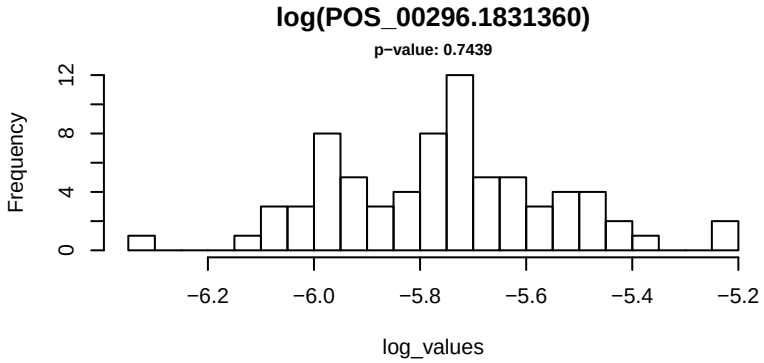



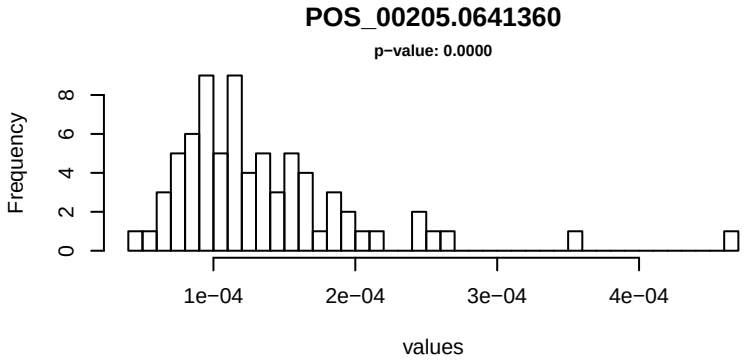

Transform not beneficial

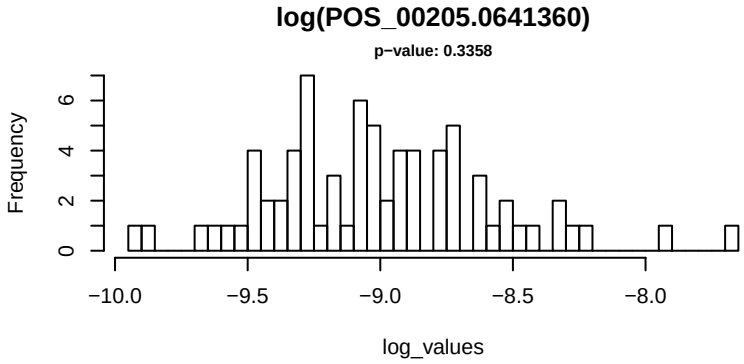


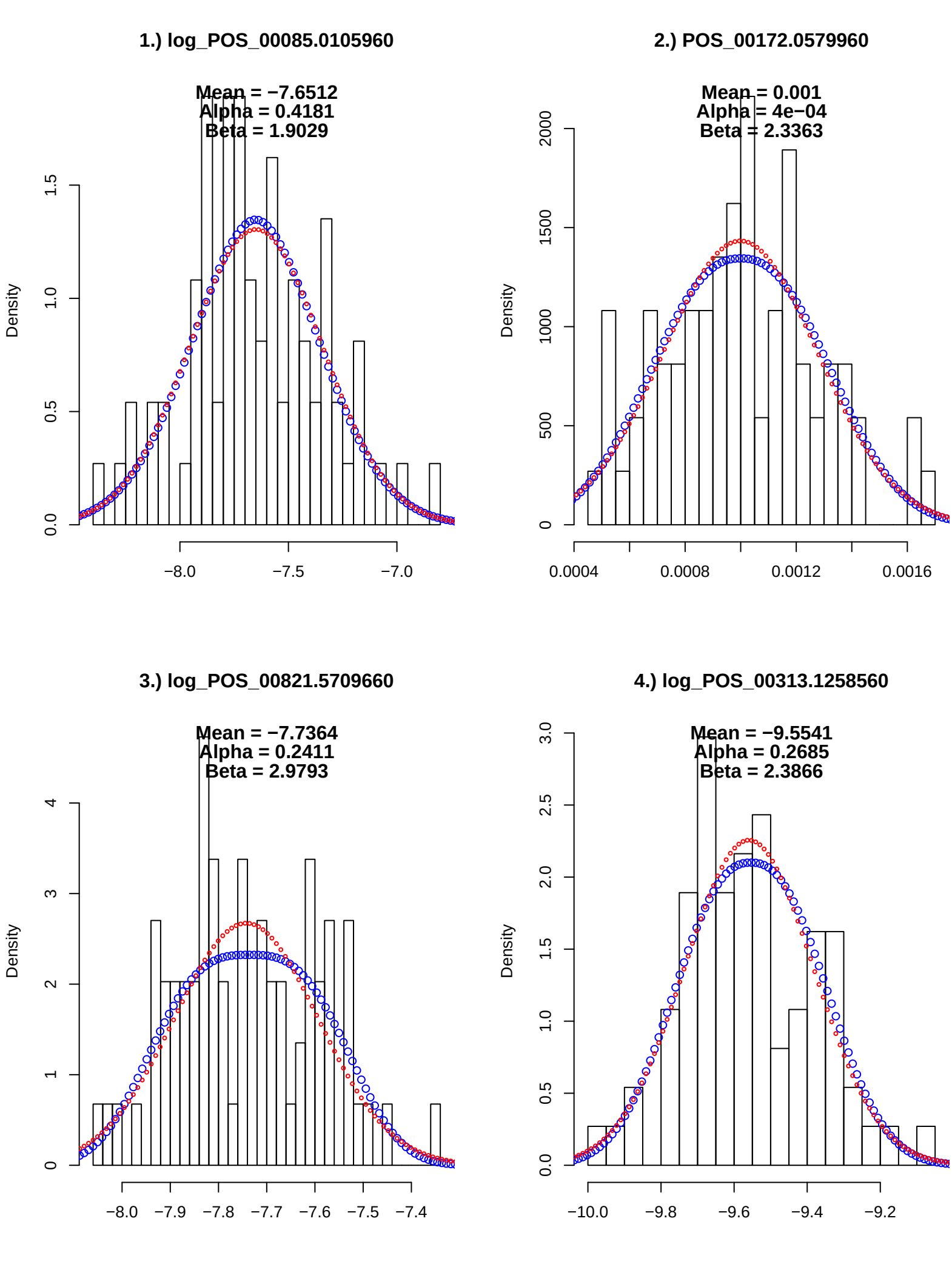



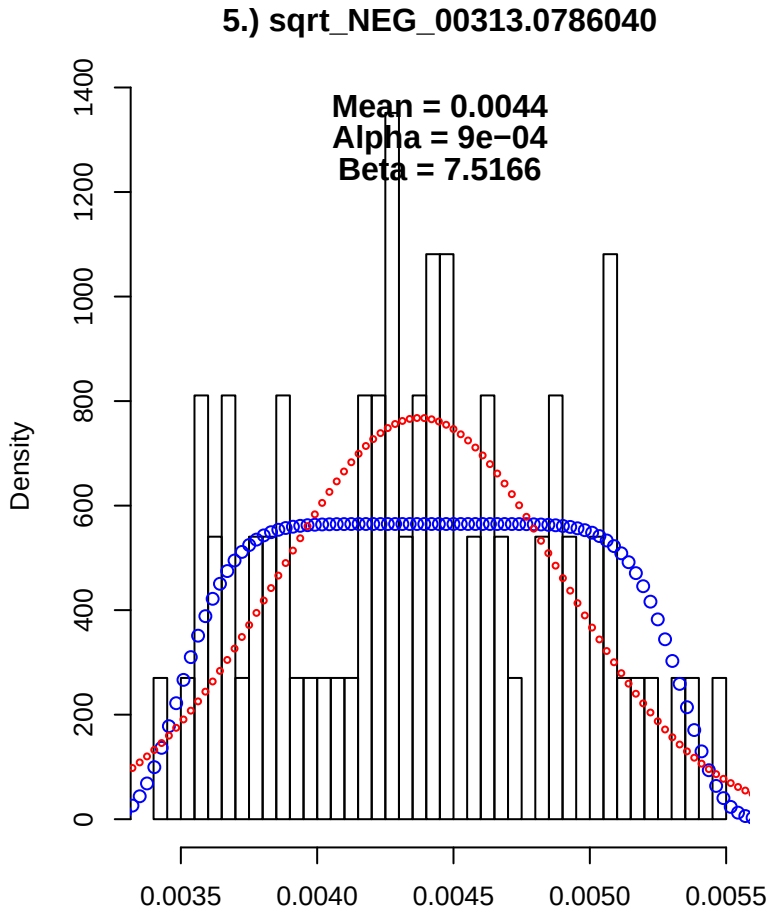



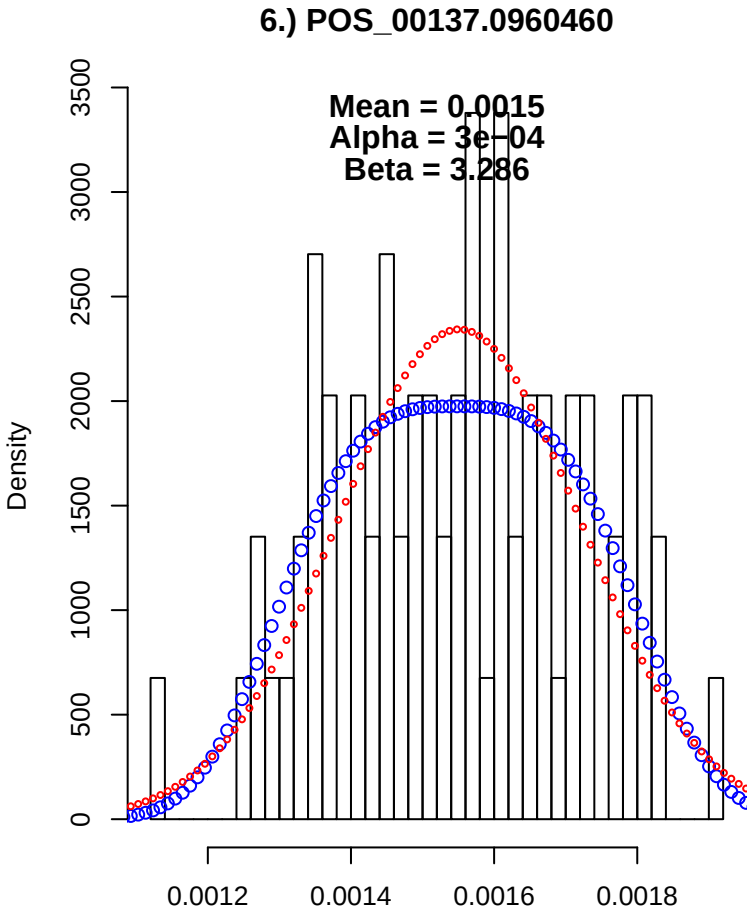



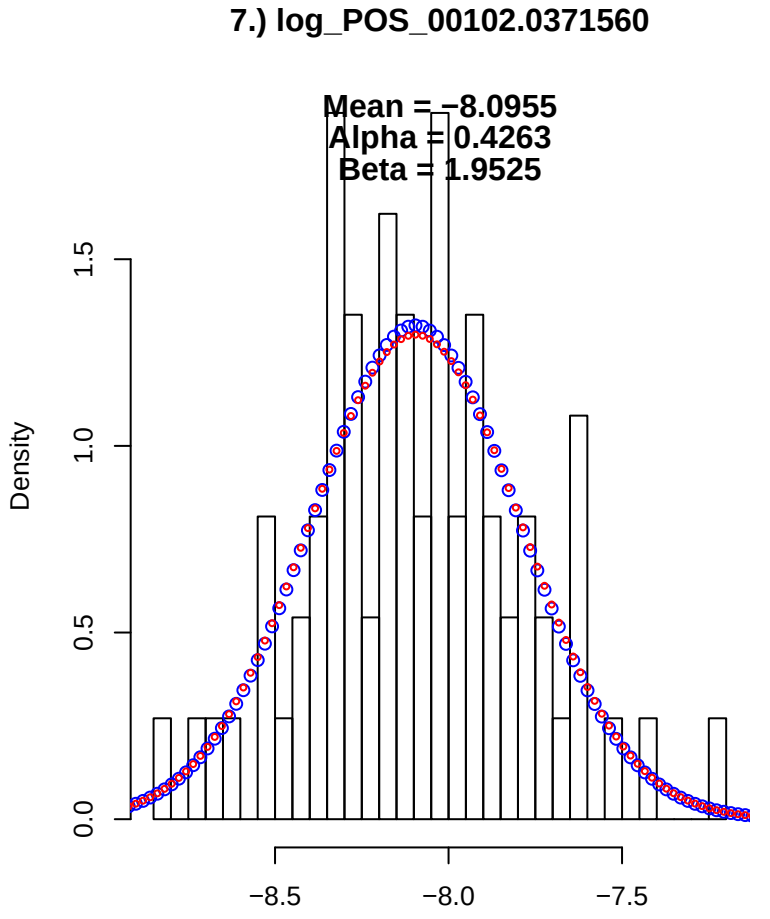



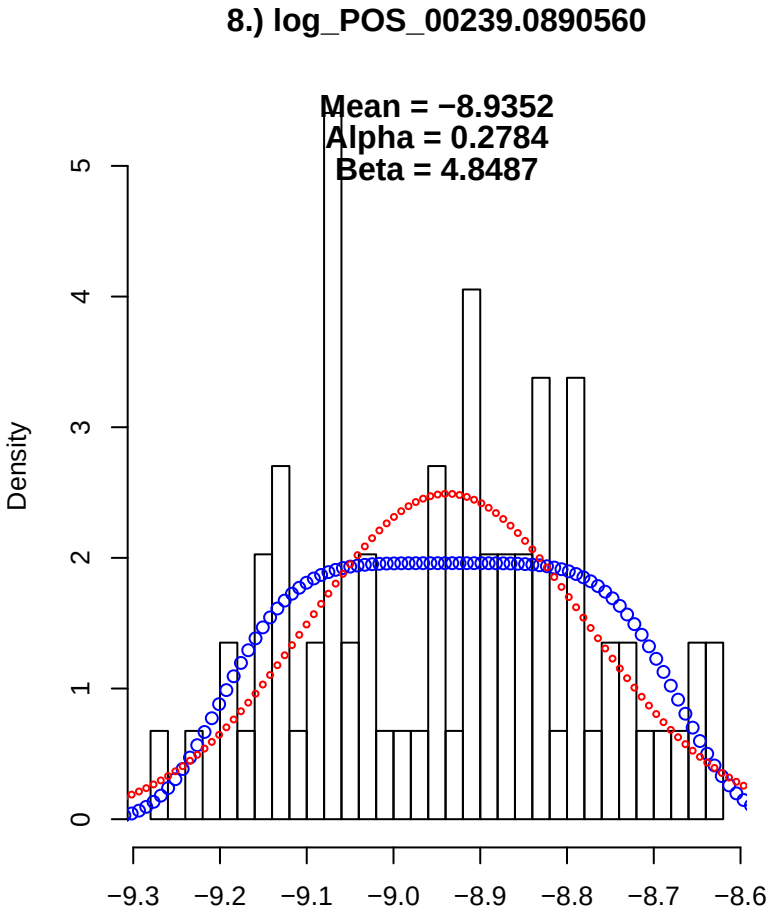




1.) log_POS_00085.0105960
Mean = −7.6512
Alpha = 0.4181
Beta = 1.9029
Density
0.0
0.5
1.0
1.5
−8.0
−7.5
−7.0
2.) POS_00172.0579960
Mean = 0.001
Alpha = 4e−04
Beta = 2.3363
Density
0
500
1000
1500
2000
0.0004
0.0008
0.0012
0.0016
3.) log_POS_00821.5709660
Mean = −7.7364
Alpha = 0.2411
Beta = 2.9793
Density
0
1
2
3
4
−8.0
−7.9
−7.8
−7.7
−7.6
−7.5
−7.4
4.) log_POS_00313.1258560
Mean = −9.5541
Alpha = 0.2685
Beta = 2.3866
Density
0.0
0.5
1.0
1.5
2.0
2.5
3.0
−10.0
−9.8
−9.6
−9.4
−9.2

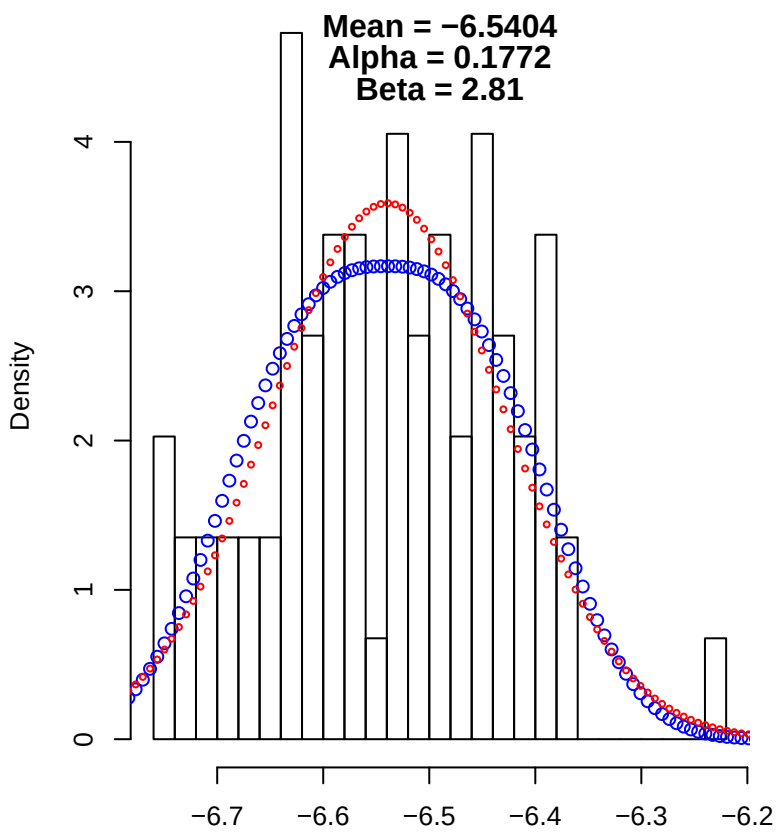

5.) sqrt_NEG_00313.0786040
Mean = 0.0044
Alpha = 9e−04
Beta = 7.5166
Density
0
200
400
600
800
1000
1200
1400
0.0035
0.0040
0.0045
0.0050
0.0055


6.) POS_00137.0960460
Mean = 0.0015
Alpha = 3e−04
Beta = 3.286
Density
0
500
1000
1500
2000
2500
3000
3500
0.0012
0.0014
0.0016
0.0018

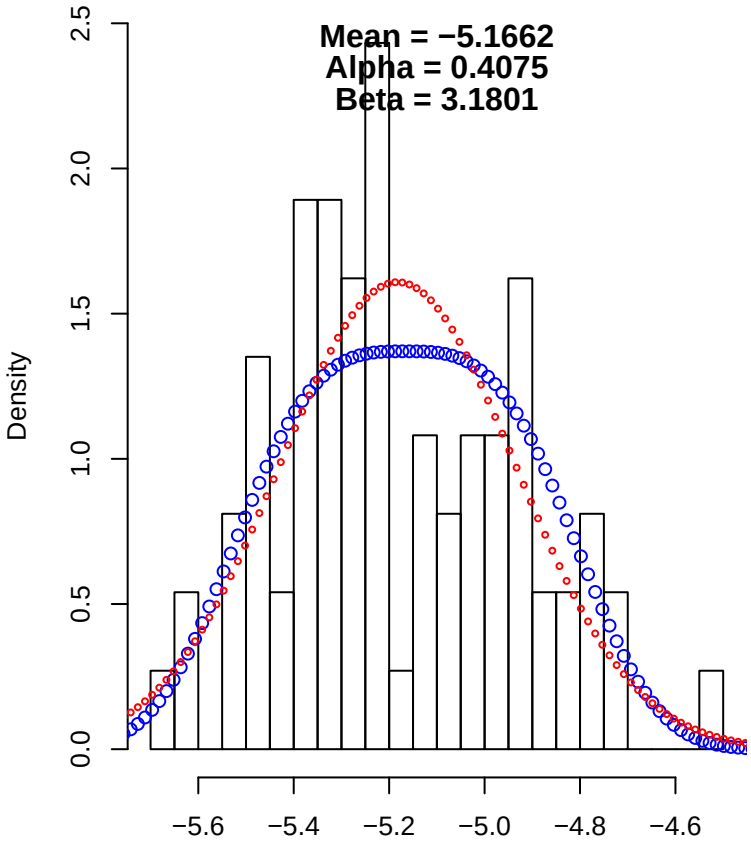

7.) log_POS_00102.0371560
Mean = −8.0955
Alpha = 0.4263
Beta = 1.9525
Density
0.0
0.5
1.0
1.5
−8.5
−8.0
−7.5


8.) log_POS_00239.0890560
Mean = −8.9352
Alpha = 0.2784
Beta = 4.8487
Density
0
1
2
3
4
5
−9.3
−9.2
−9.1
−9.0
−8.9
−8.8
−8.7
−8.6

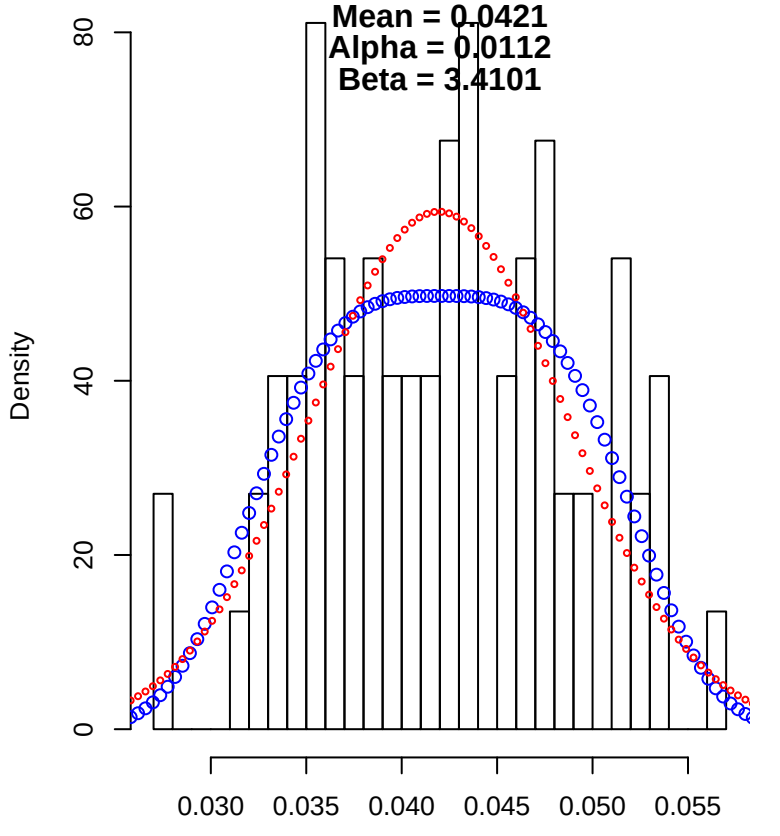
### 9.) log_POS_00147.0803860



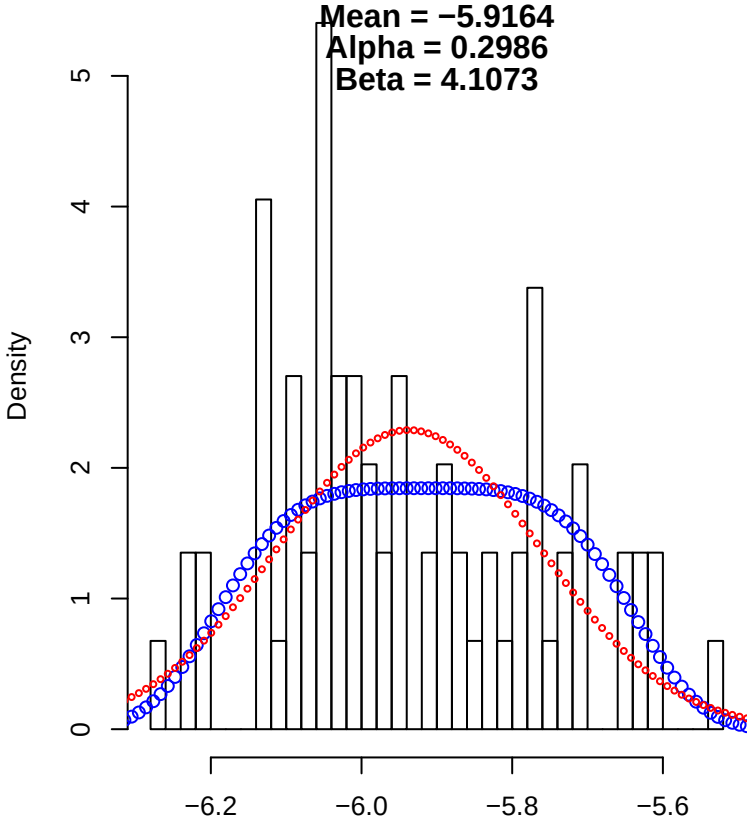

### 10.) log_NEG_00792.8592540



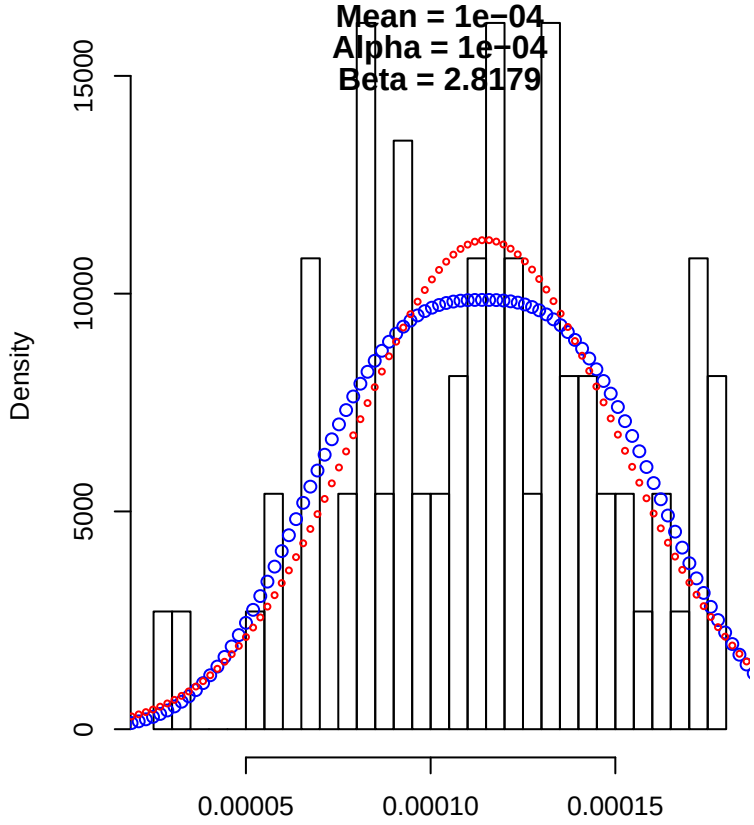

### 11.) sqrt_NEG_01518.7387440



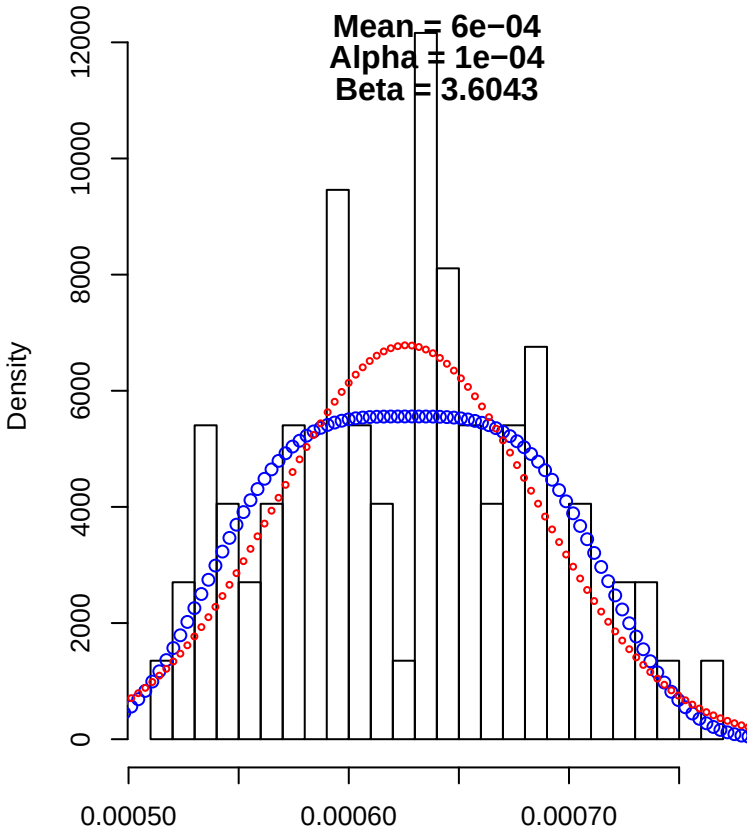

### 12.) log_POS_00329.1747860



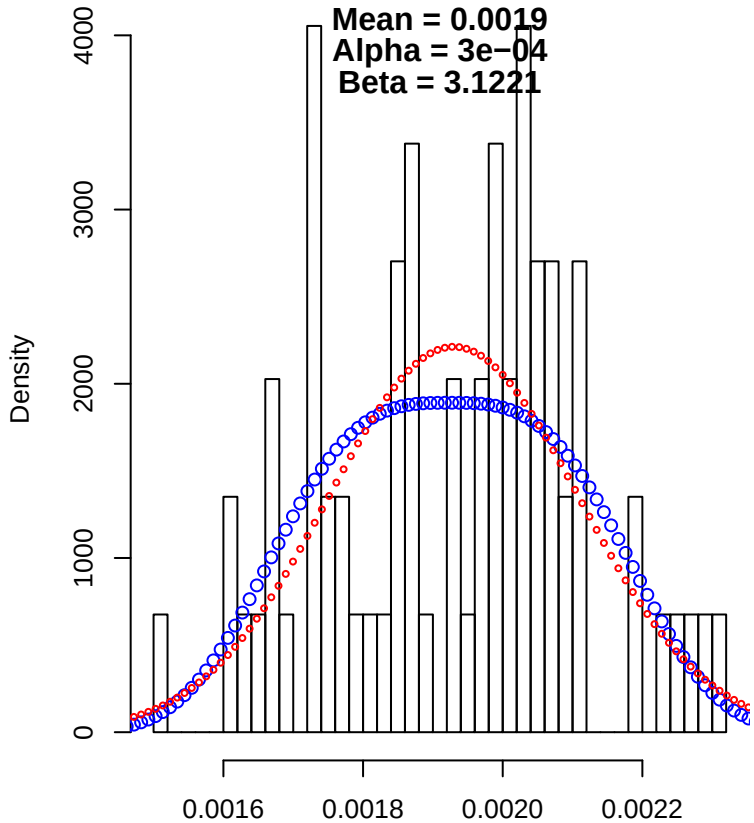
13.) POS_00261.6368360



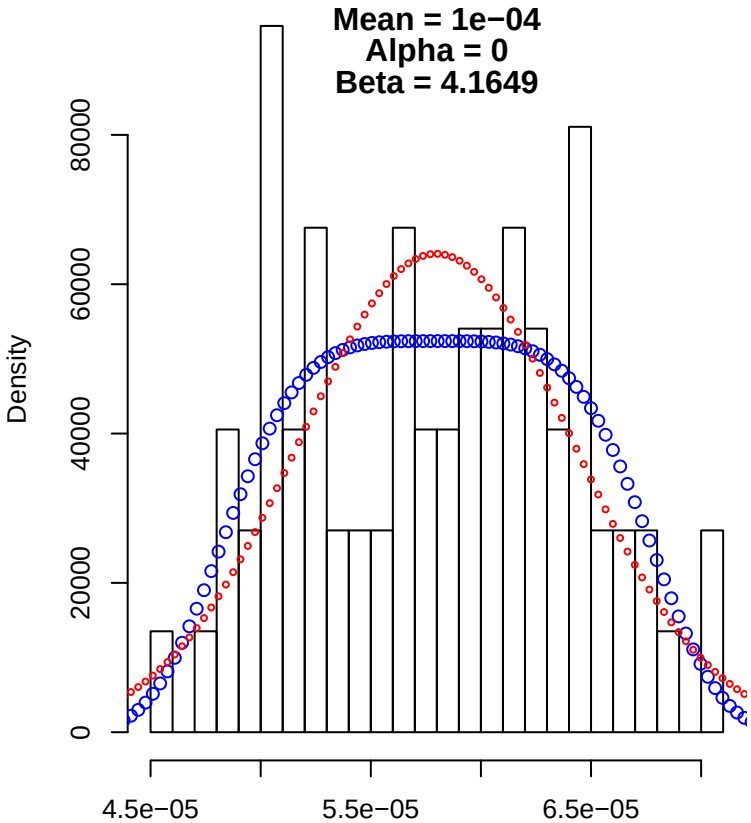

14.) POS_00131.0702260

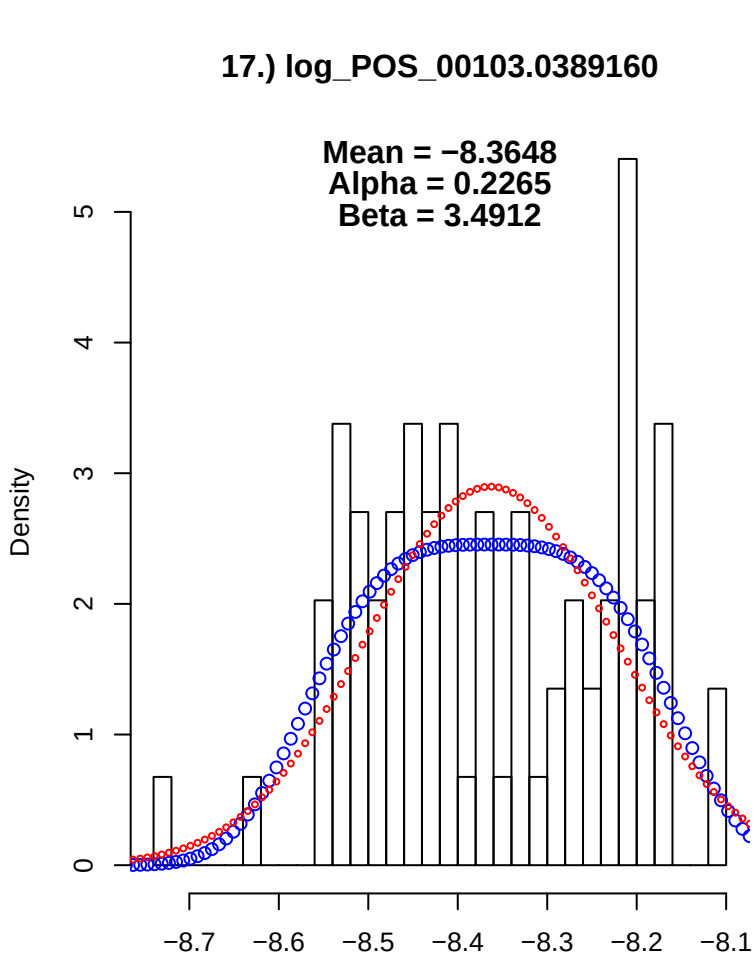


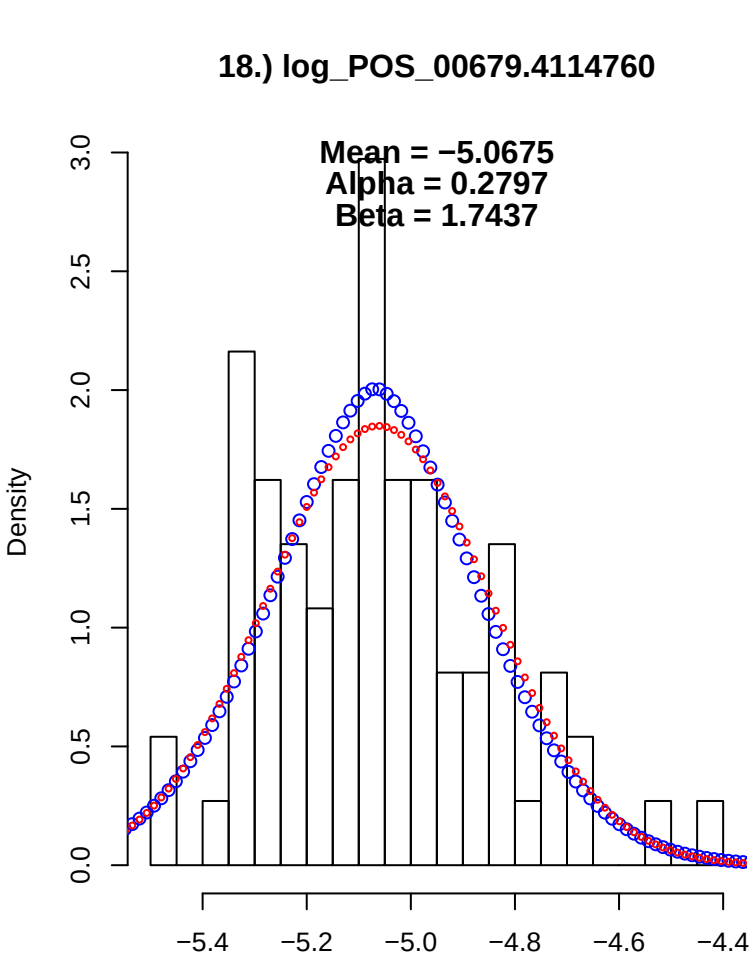

15.) POS_00193.1070560

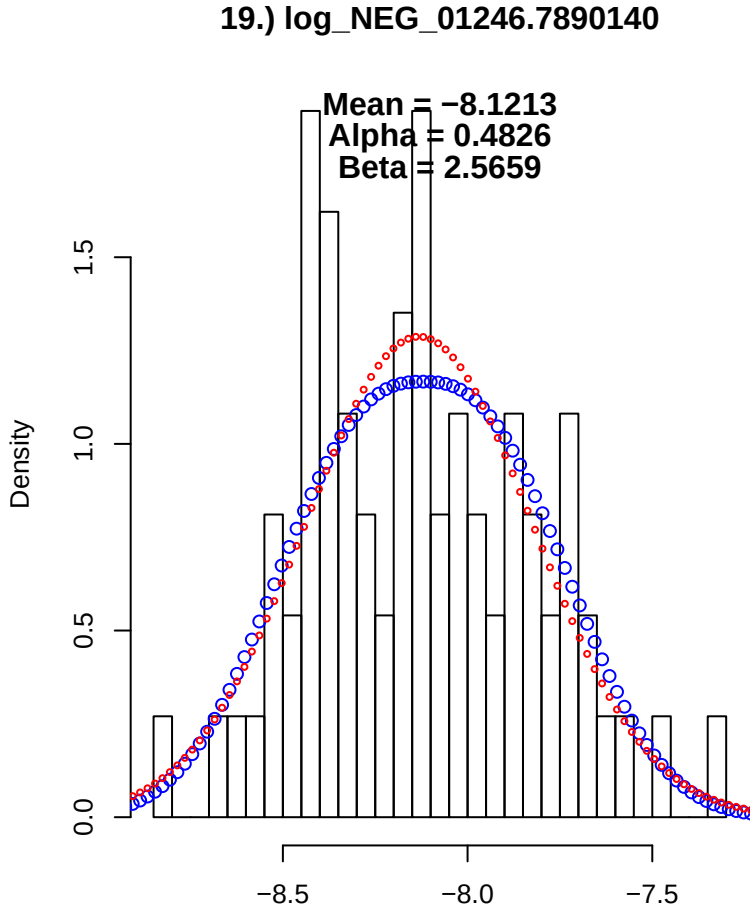


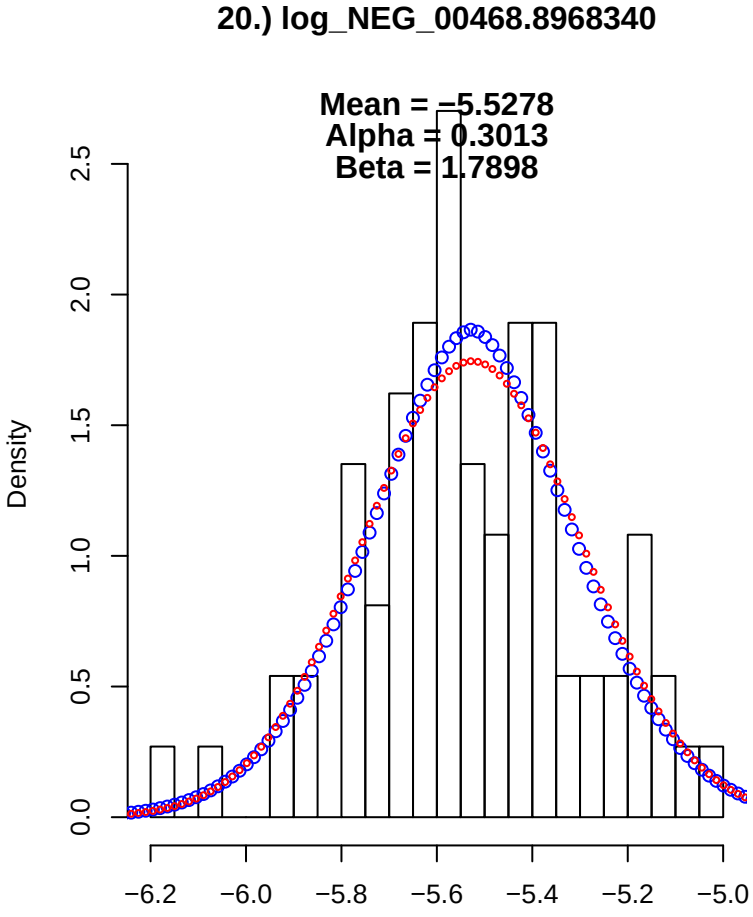

16.) orig_POS_00337.1470860

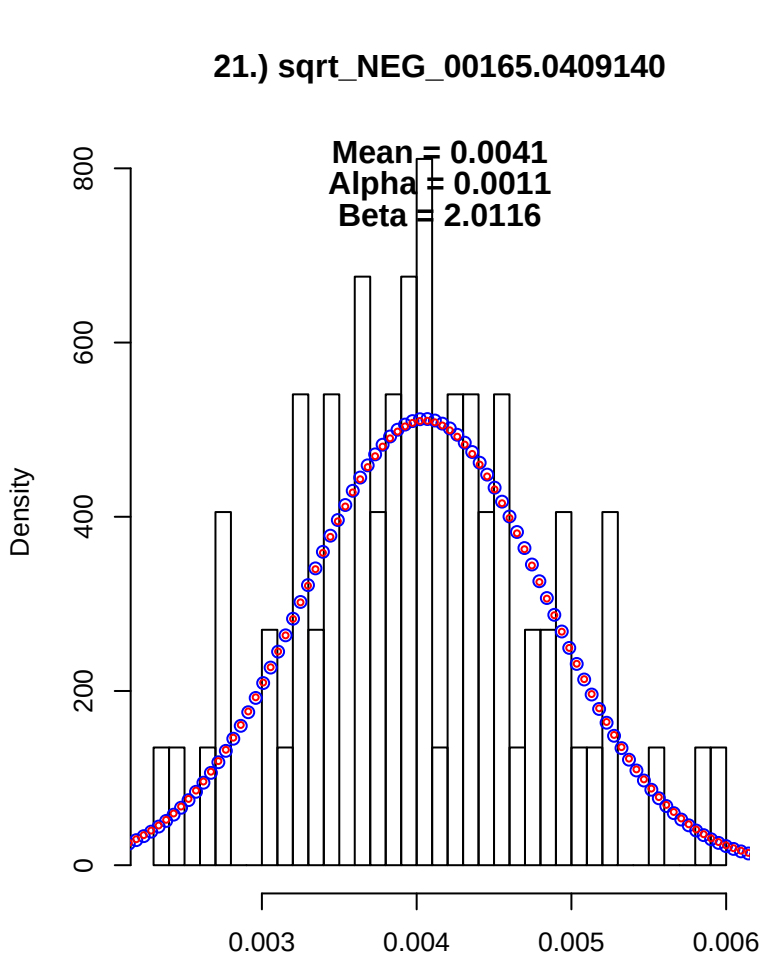


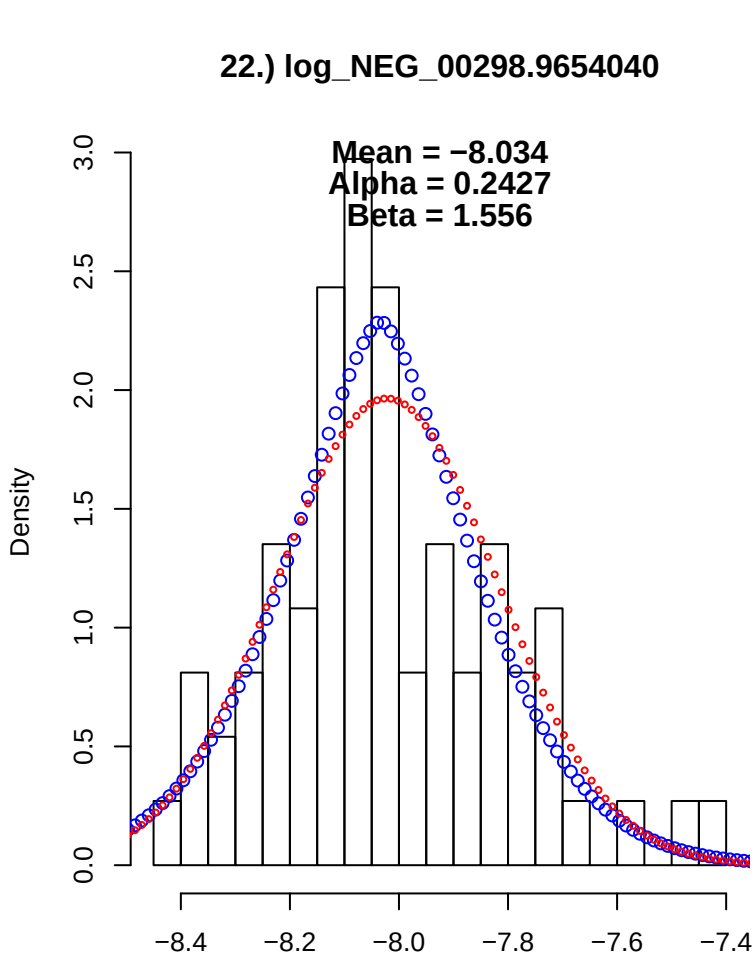

17.) log_POS_00103.0389160
Mean = −8.3648
Alpha = 0.2265
Beta = 3.4912
Density
0
1
2
3
4
5
−8.7
−8.6
−8.5
−8.4
−8.3
−8.2
−8.1

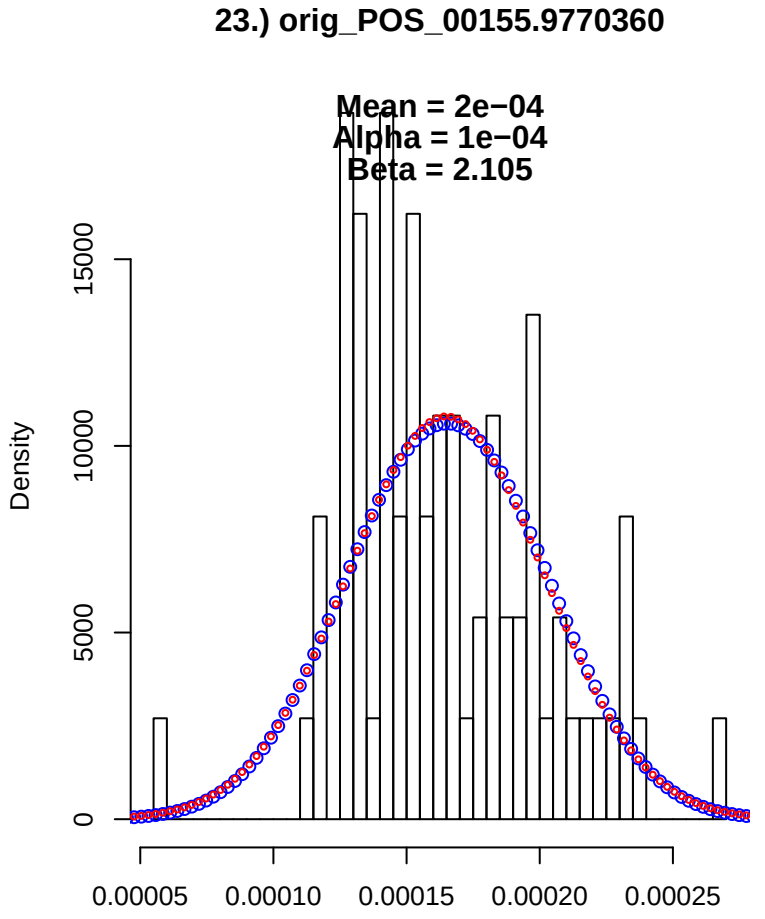

18.) log_POS_00679.4114760
Mean = −5.0675
Alpha = 0.2797
Beta = 1.7437
Density
0.0
0.5
1.0
1.5
2.0
2.5
3.0
−5.4
−5.2
−5.0
−4.8
−4.6
−4.4

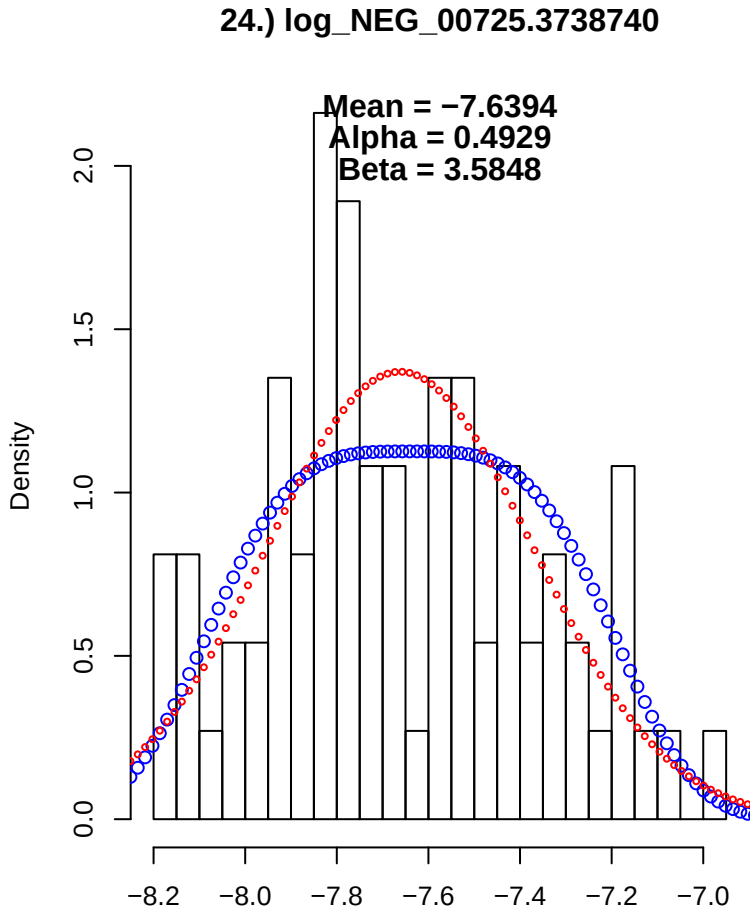

19.) log_NEG_01246.7890140
Mean = −8.1213
Alpha = 0.4826
Beta = 2.5659
Density
0.0
0.5
1.0
1.5
−8.5
−8.0
−7.5

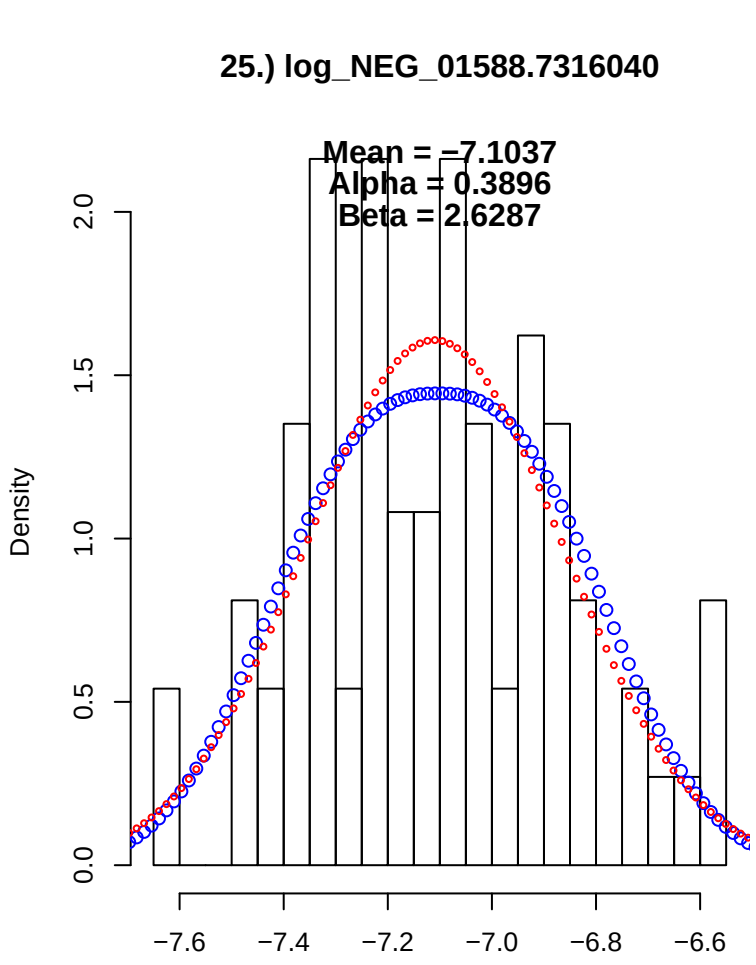

20.) log_NEG_00468.8968340
Mean = −5.5278
Alpha = 0.3013
Beta = 1.7898
Density
0.0
0.5
1.0
1.5
2.0
2.5
−6.2
−6.0
−5.8
−5.6
−5.4
−5.2
−5.0

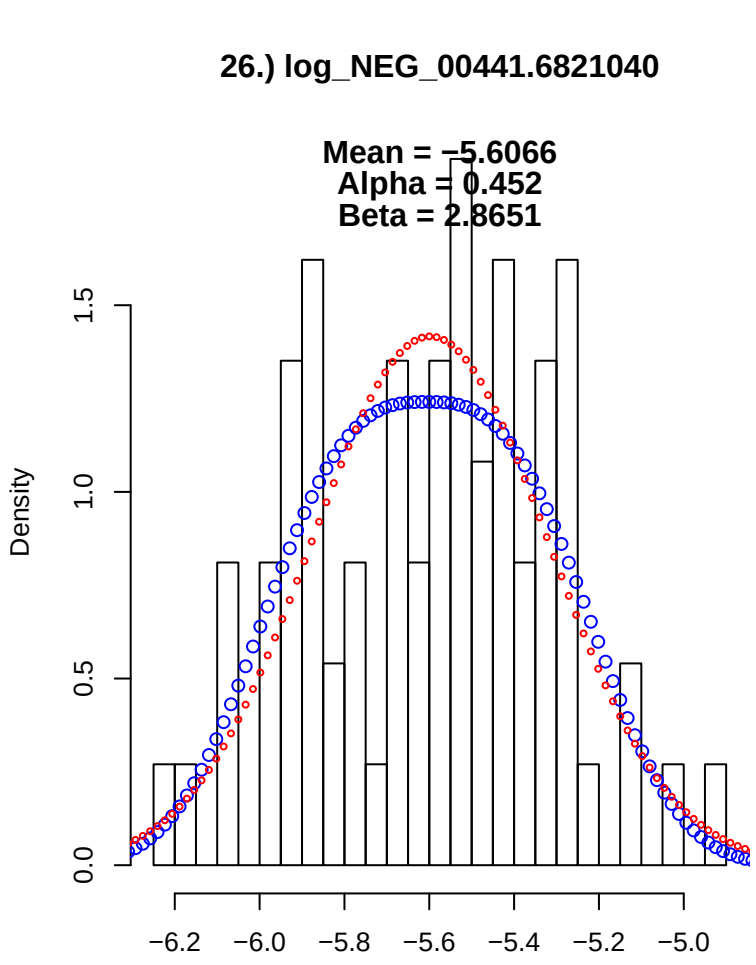

21.) sqrt_NEG_00165.0409140
Mean = 0.0041
Alpha = 0.0011
Beta = 2.0116
Density
0
200
400
600
800
0.003
0.004
0.005
0.006

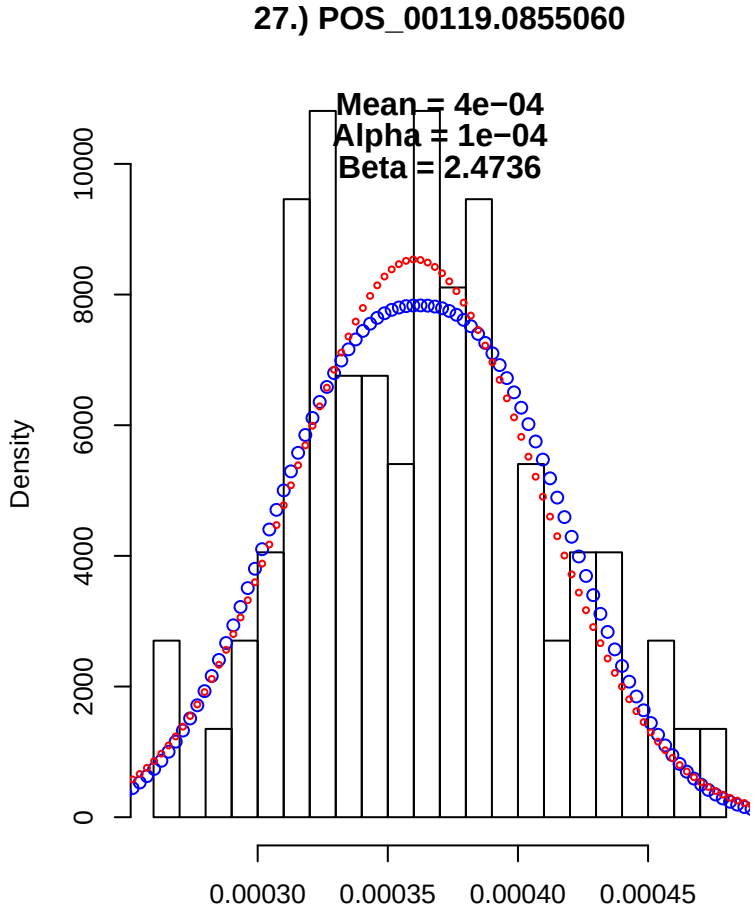

22.) log_NEG_00298.9654040
Mean = −8.034
Alpha = 0.2427
Beta = 1.556
Density
0.0
0.5
1.0
1.5
2.0
2.5
3.0
−8.4
−8.2
−8.0
−7.8
−7.6
−7.4

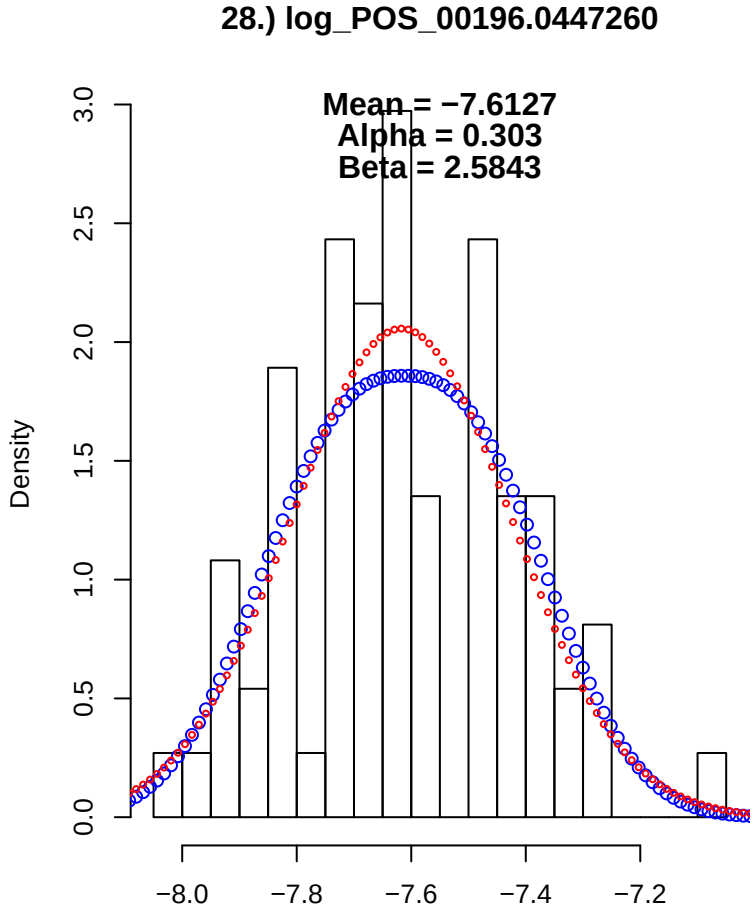

23.) orig_POS_00155.9770360
Mean = 2e−04
Alpha = 1e−04
Beta = 2.105
Density
0
5000
10000
15000
0.00005
0.00010
0.00015
0.00020
0.00025

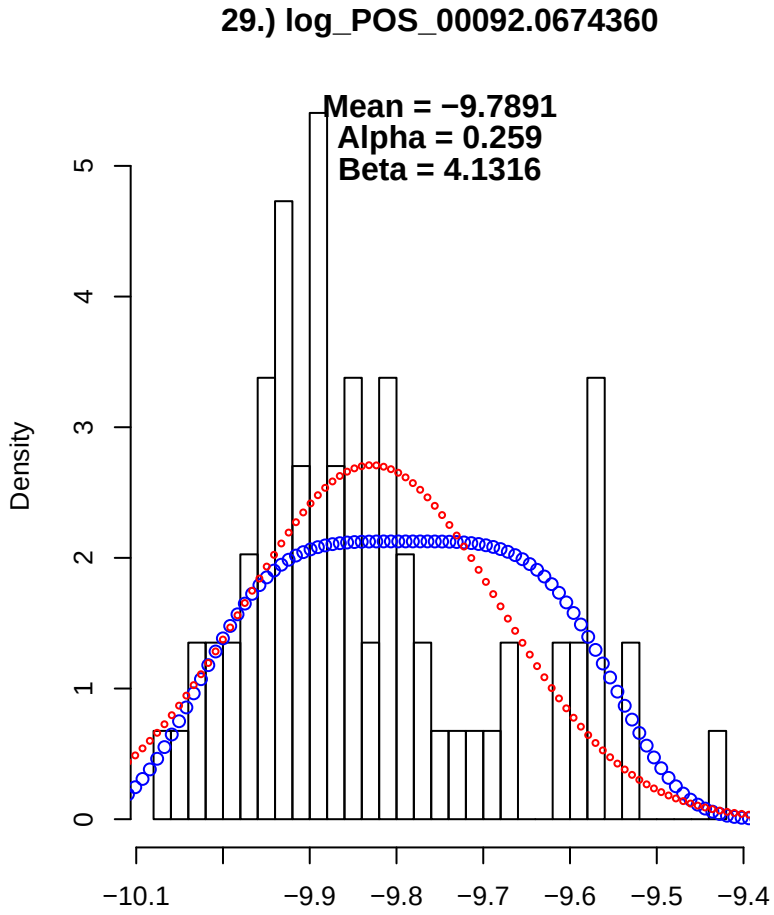

24.) log_NEG_00725.3738740
Mean = −7.6394
Alpha = 0.4929
Beta = 3.5848
Density
0.0
0.5
1.0
1.5
2.0
−8.2
−8.0
−7.8
−7.6
−7.4
−7.2
−7.0

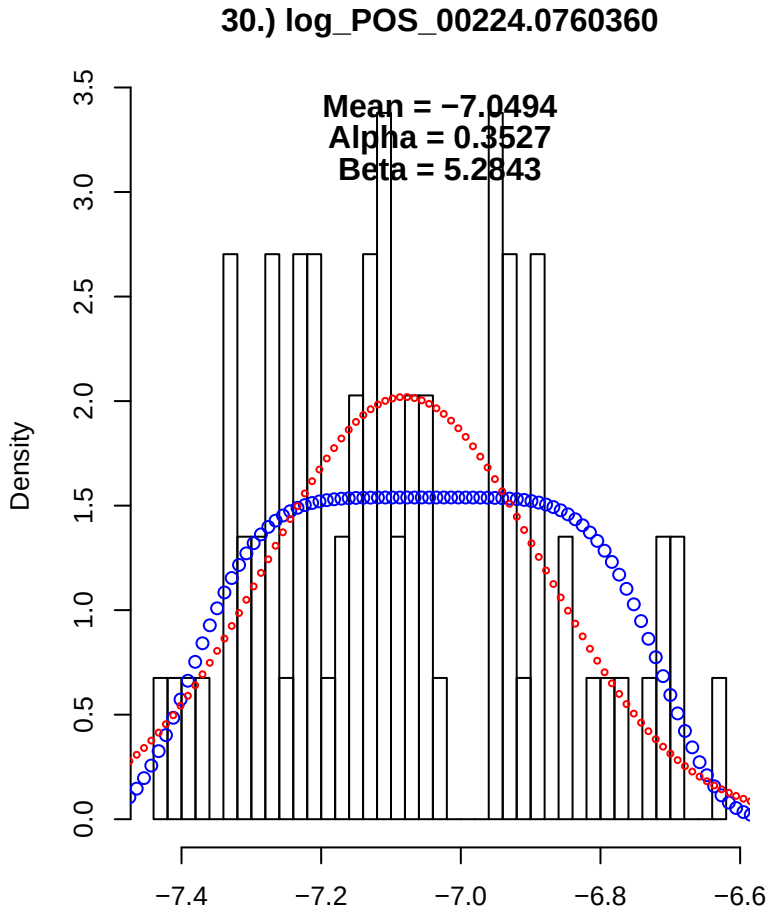

25.) log_NEG_01588.7316040
Mean = −7.1037
Alpha = 0.3896
Beta = 2.6287
Density
0.0
0.5
1.0
1.5
2.0
−7.6
−7.4
−7.2
−7.0
−6.8
−6.6

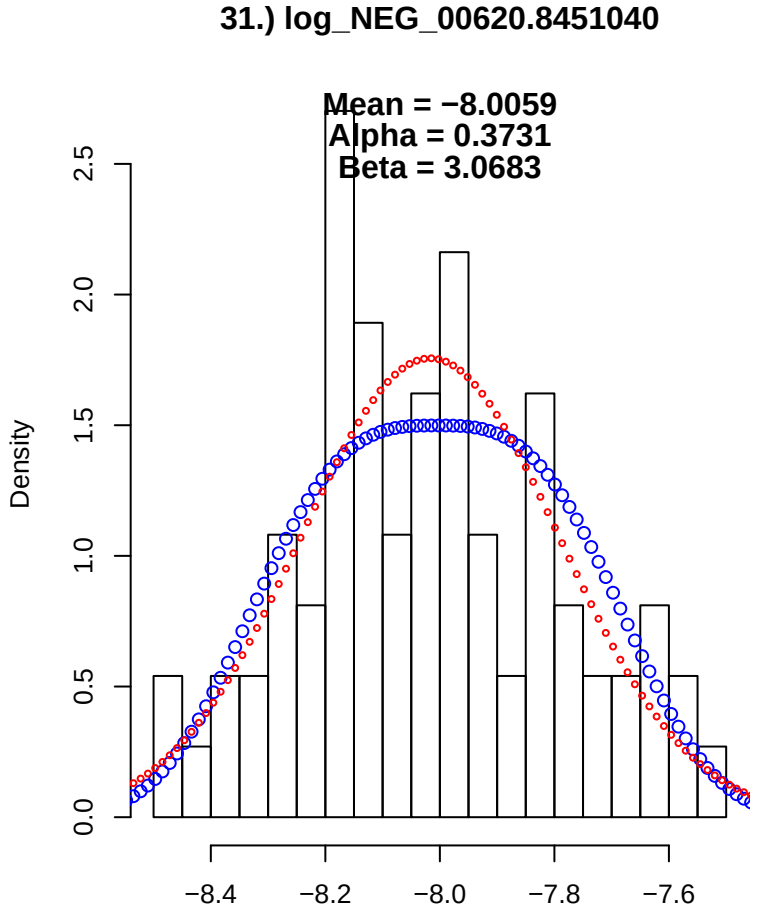

26.) log_NEG_00441.6821040
Mean = −5.6066
Alpha = 0.452
Beta = 2.8651
Density
0.0
0.5
1.0
1.5
−6.2
−6.0
−5.8
−5.6
−5.4
−5.2
−5.0

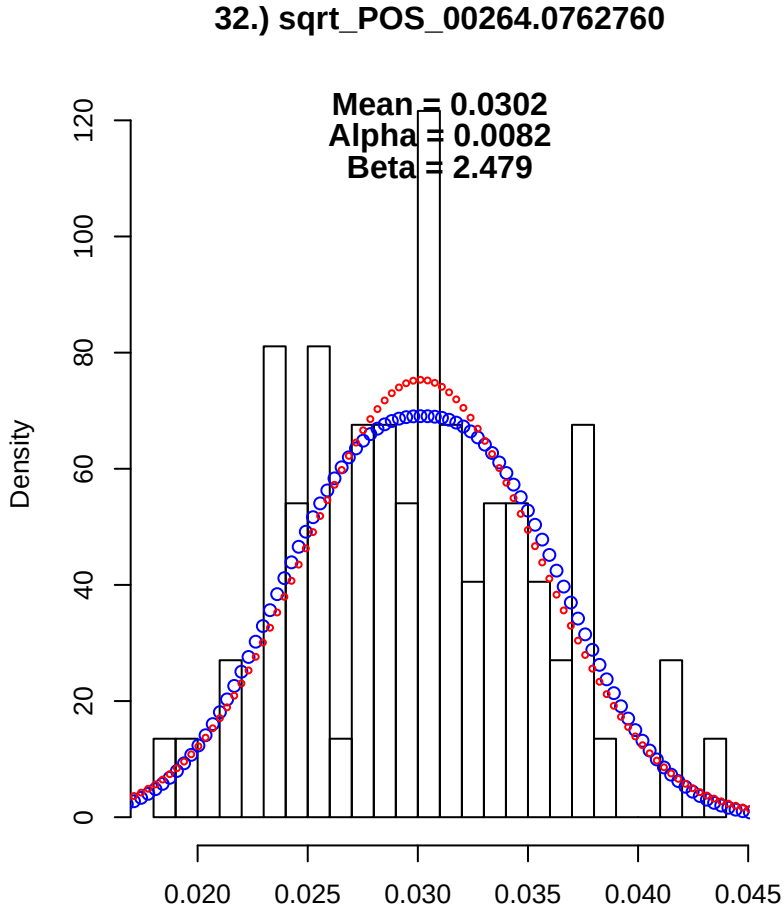

27.) POS_00119.0855060
Mean = 4e−04
Alpha = 1e−04
Beta = 2.4736
Density
0
2000
4000
6000
8000
10000
0.00030
0.00035
0.00040
0.00045

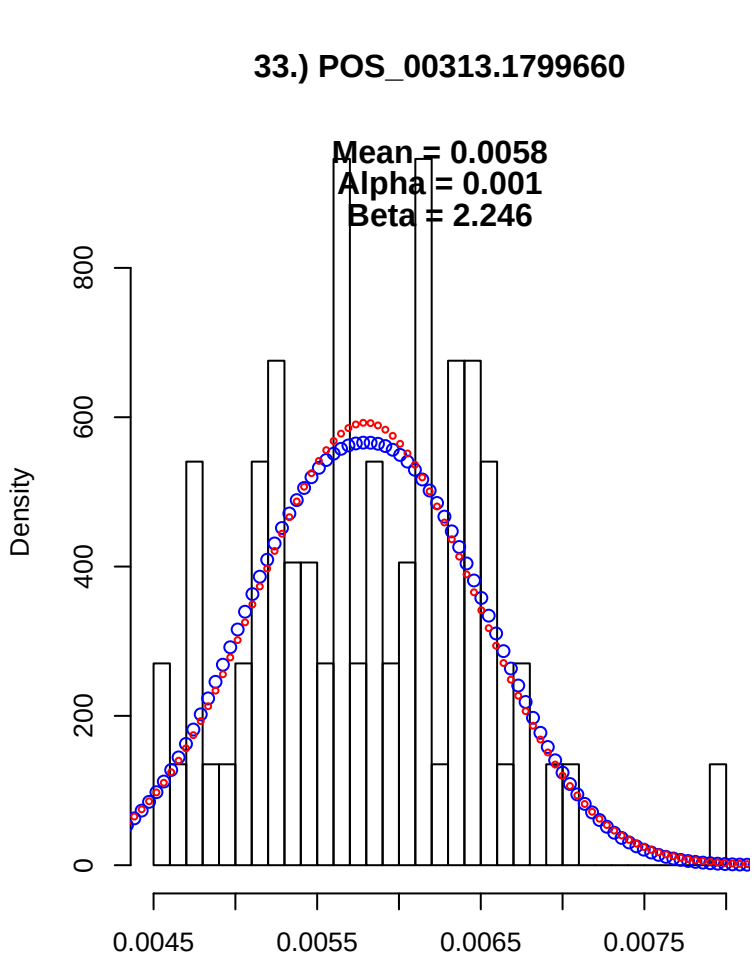

28.) log_POS_00196.0447260
Mean = −7.6127
Alpha = 0.303
Beta = 2.5843
Density
0.0
0.5
1.0
1.5
2.0
2.5
3.0
−8.0
−7.8
−7.6
−7.4
−7.2

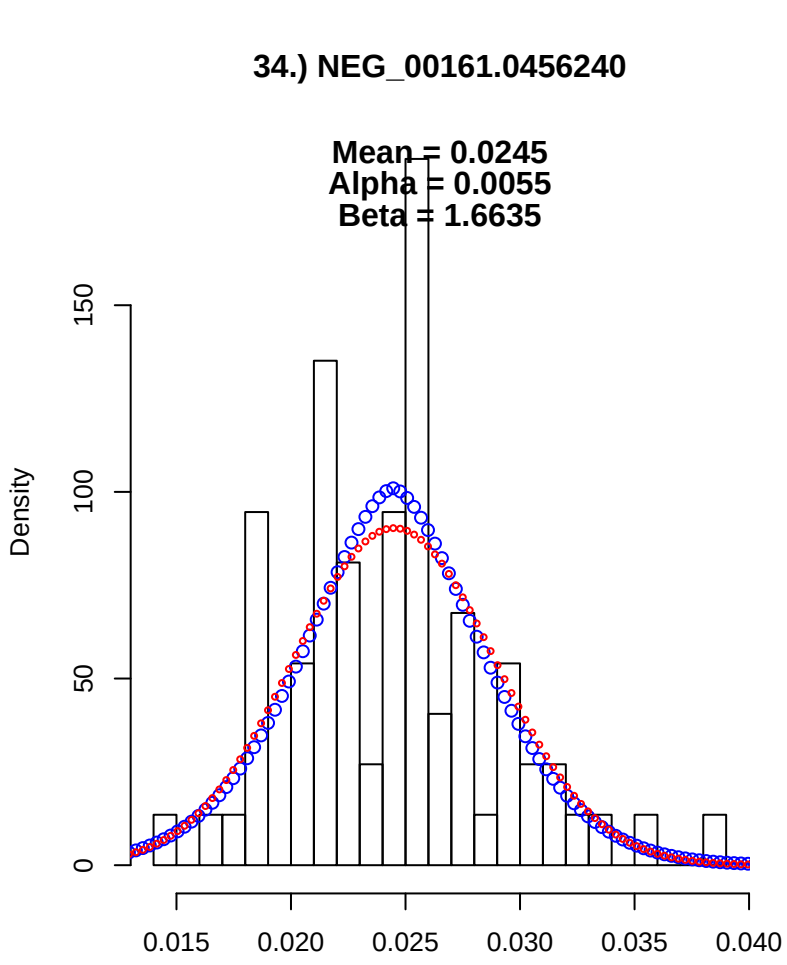

29.) log_POS_00092.0674360
Mean = −9.7891
Alpha = 0.259
Beta = 4.1316
Density
0
1
2
3
4
5
−10.1
−9.9
−9.8
−9.7
−9.6
−9.5
−9.4

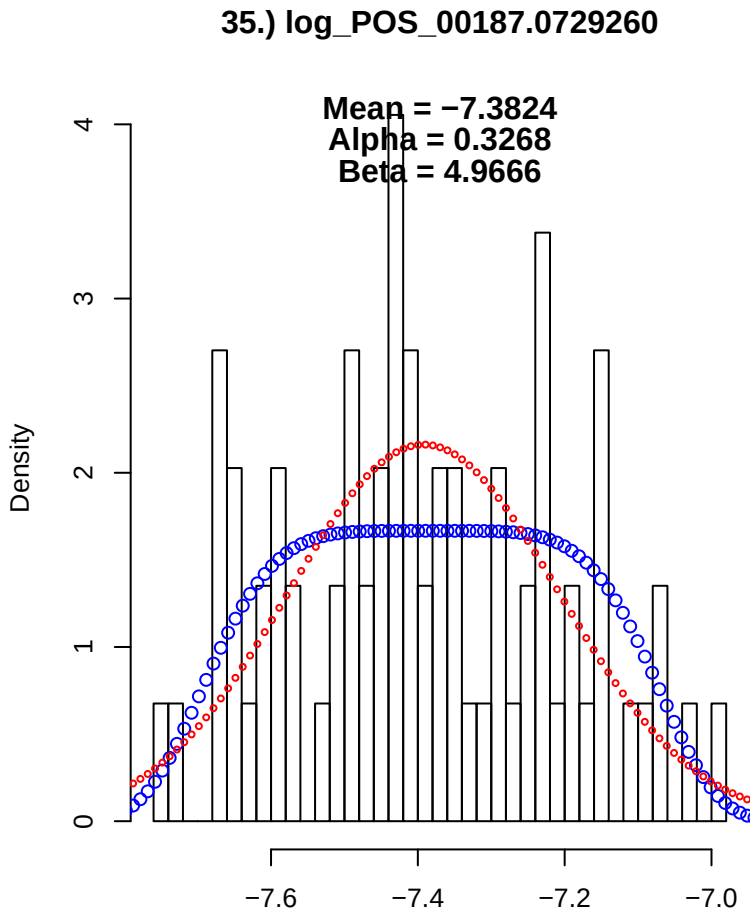

30.) log_POS_00224.0760360
Mean = −7.0494
Alpha = 0.3527
Beta = 5.2843
Density
0.0
0.5
1.0
1.5
2.0
2.5
3.0
3.5
−7.4
−7.2
−7.0
−6.8
−6.6

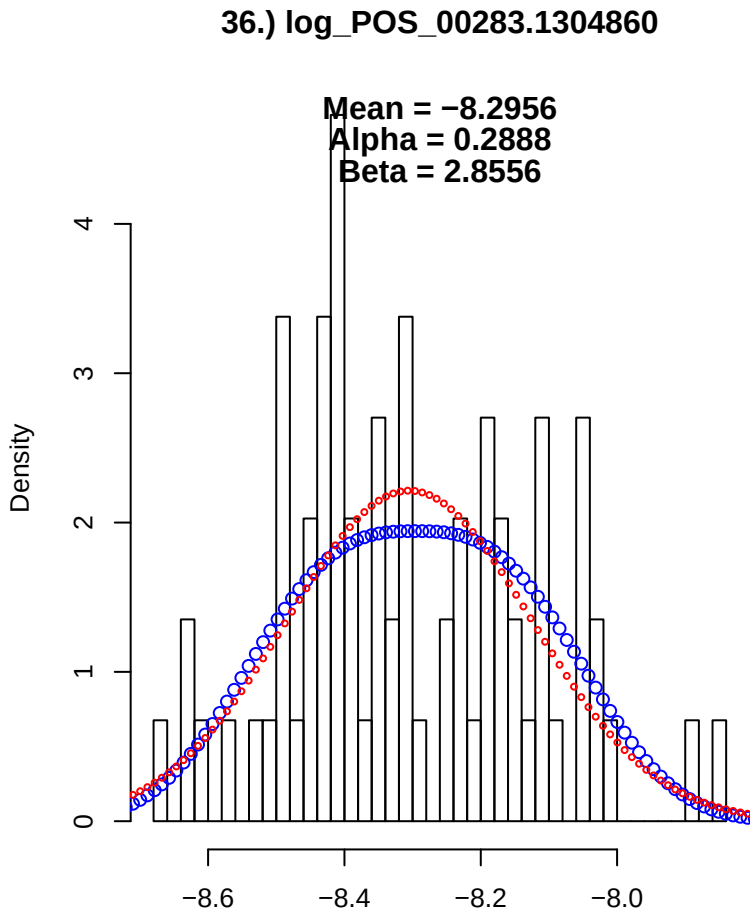

31.) log_NEG_00620.8451040
Mean = −8.0059
Alpha = 0.3731
Beta = 3.0683
Density
0.0
0.5
1.0
1.5
2.0
2.5
−8.4
−8.2
−8.0
−7.8
−7.6

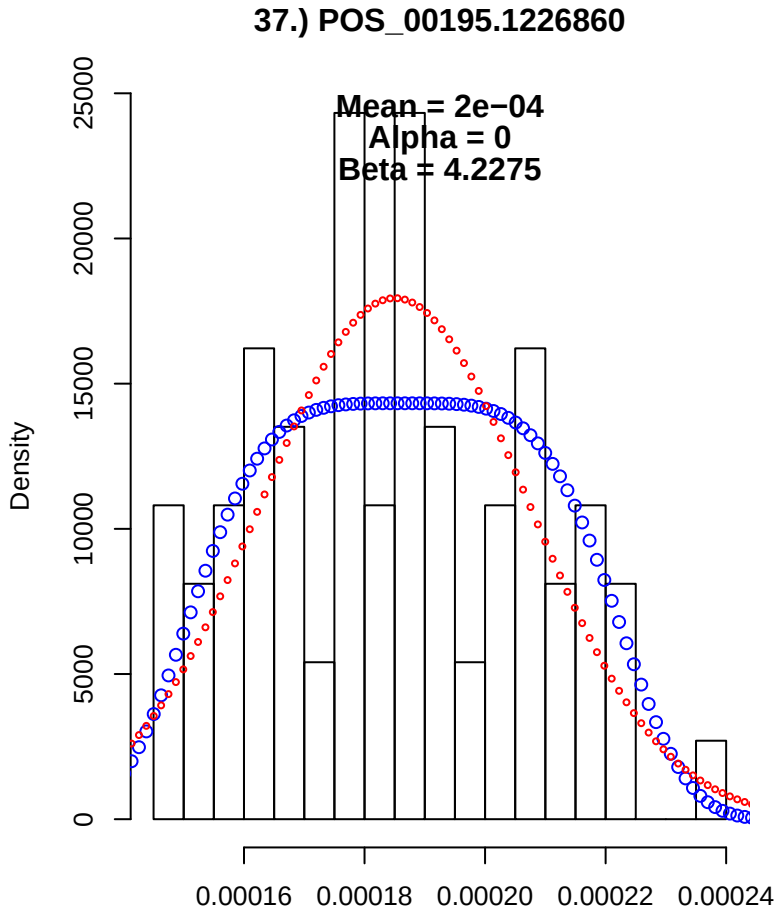

32.) sqrt_POS_00264.0762760
Mean = 0.0302
Alpha = 0.0082
Beta = 2.479
Density
0
20
40
60
80
100
120
0.020
0.025
0.030
0.035
0.040
0.045

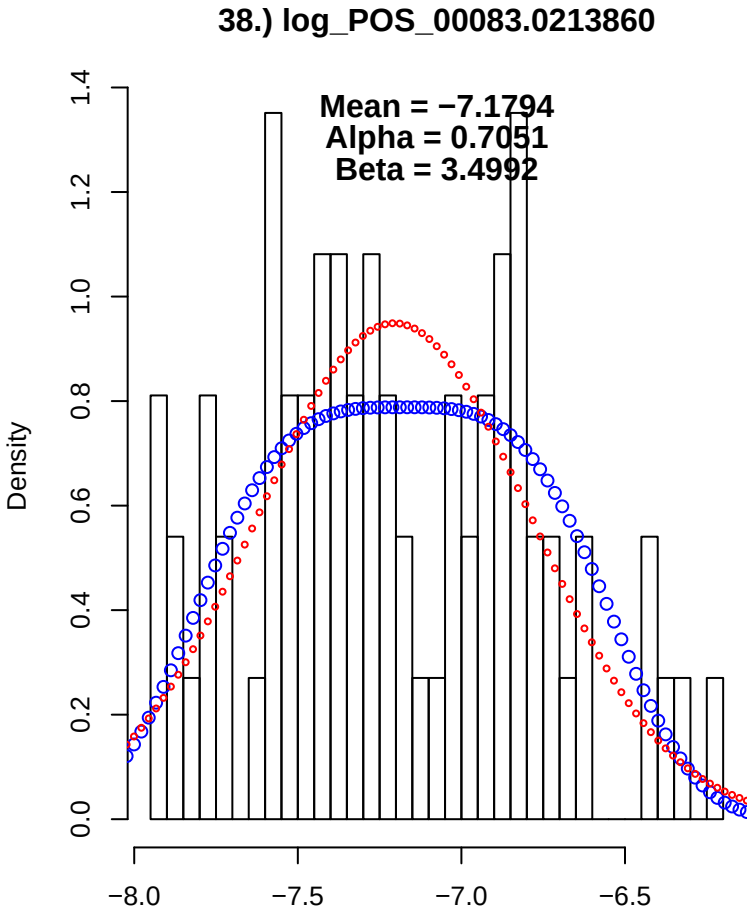

33.) POS_00313.1799660
Mean = 0.0058
Alpha = 0.001
Beta = 2.246
Density
0
200
400
600
800
0.0045
0.0055
0.0065
0.0075

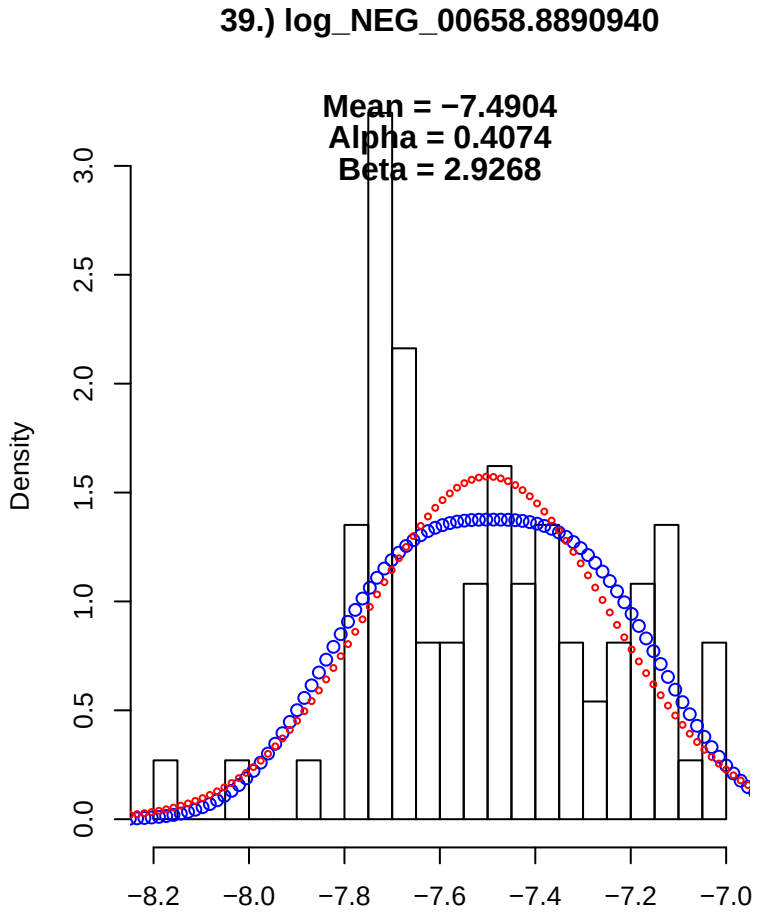

34.) NEG_00161.0456240
Mean = 0.0245
Alpha = 0.0055
Beta = 1.6635
Density
0
50
100
150
0.015
0.020
0.025
0.030
0.035
0.040

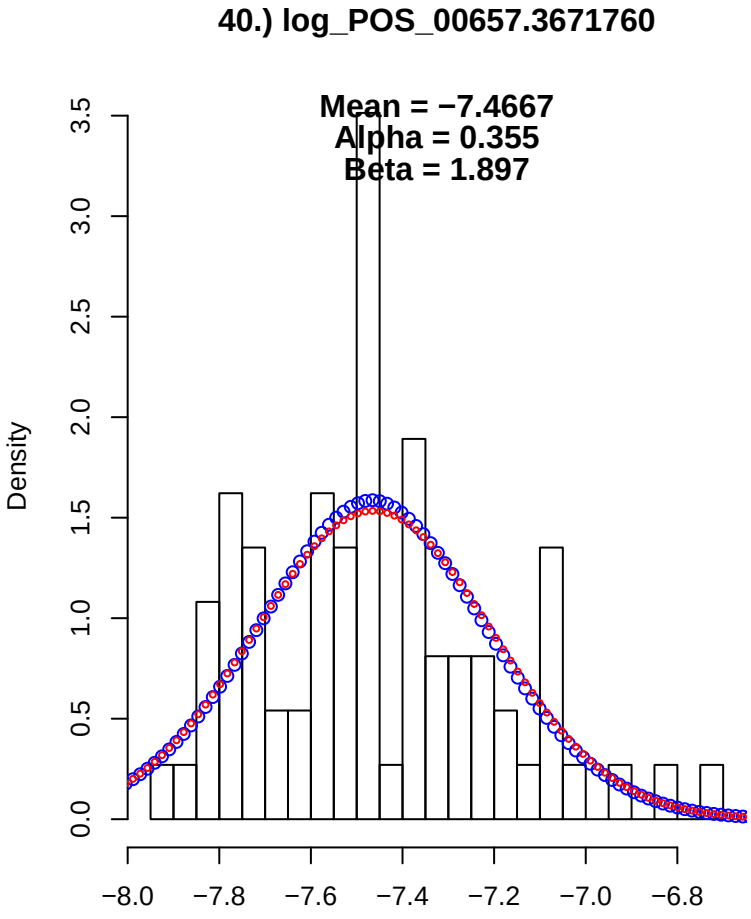

35.) log_POS_00187.0729260
Mean = −7.3824
Alpha = 0.3268
Beta = 4.9666
Density
0
1
2
3
4
−7.6
−7.4
−7.2
−7.0

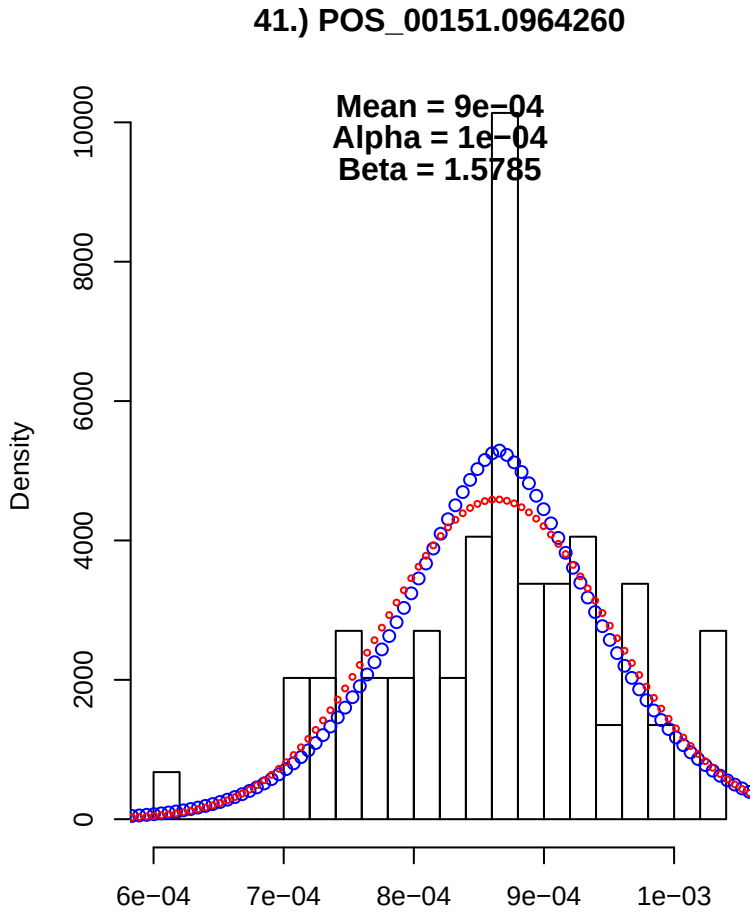

36.) log_POS_00283.1304860
Mean = −8.2956
Alpha = 0.2888
Beta = 2.8556
Density
0
1
2
3
4
−8.6
−8.4
−8.2
−8.0

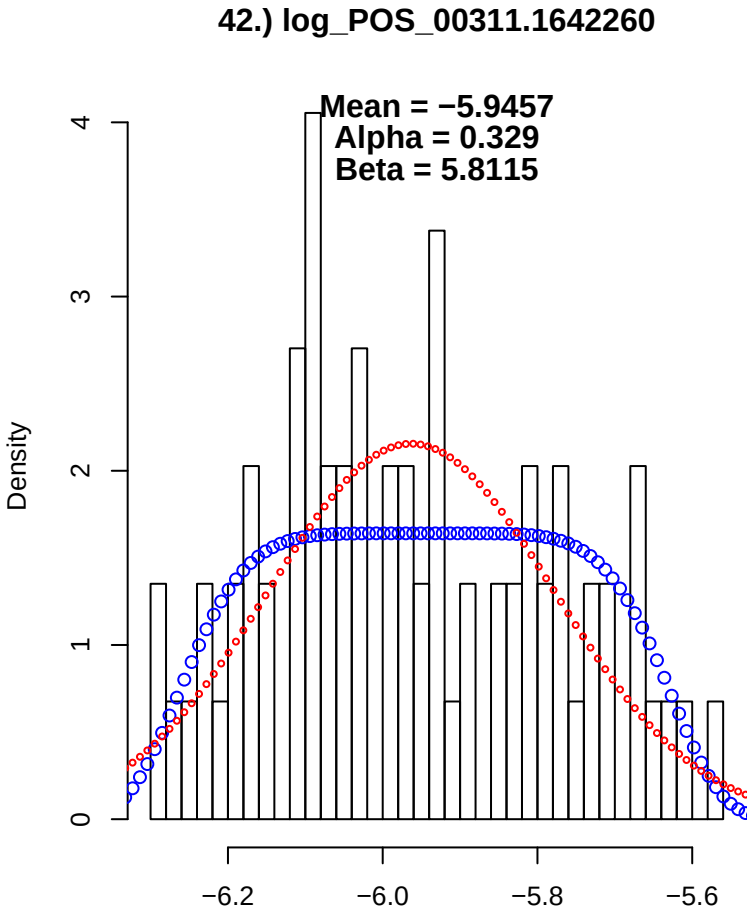

37.) POS_00195.1226860
Mean = 2e−04
Alpha = 0
Beta = 4.2275
Density
0
5000
10000
15000
20000
25000
0.00016
0.00018
0.00020
0.00022
0.00024

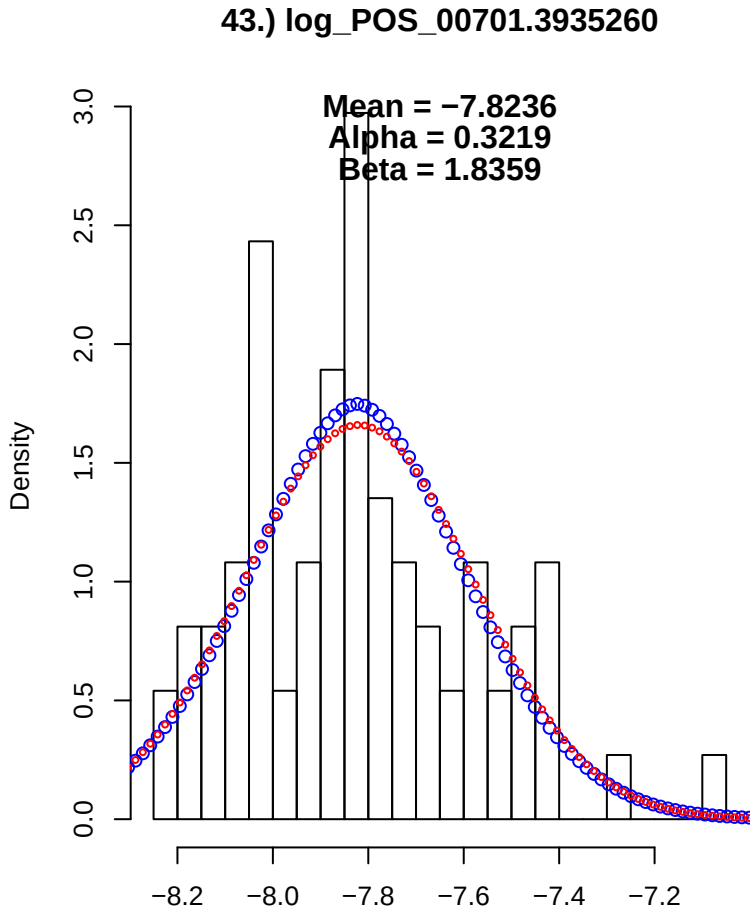

38.) log_POS_00083.0213860
Mean = −7.1794
Alpha = 0.7051
Beta = 3.4992
Density
0.0
0.2
0.4
0.6
0.8
1.0
1.2
1.4
−8.0
−7.5
−7.0
−6.5

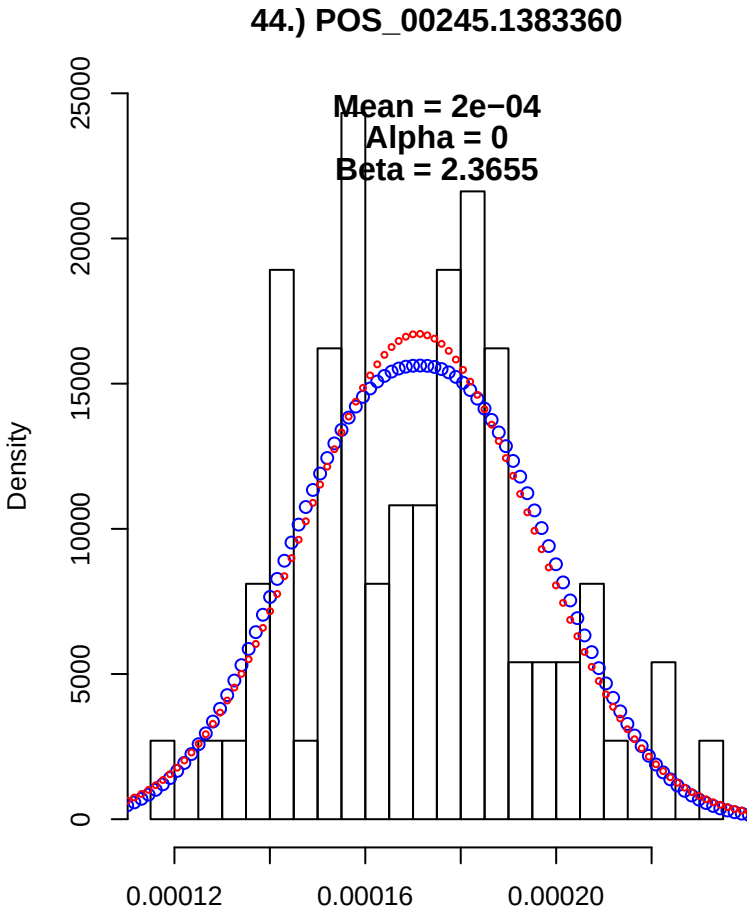

39.) log_NEG_00658.8890940
Mean = −7.4904
Alpha = 0.4074
Beta = 2.9268
Density
0.0
0.5
1.0
1.5
2.0
2.5
3.0
−8.2
−8.0
−7.8
−7.6
−7.4
−7.2
−7.0

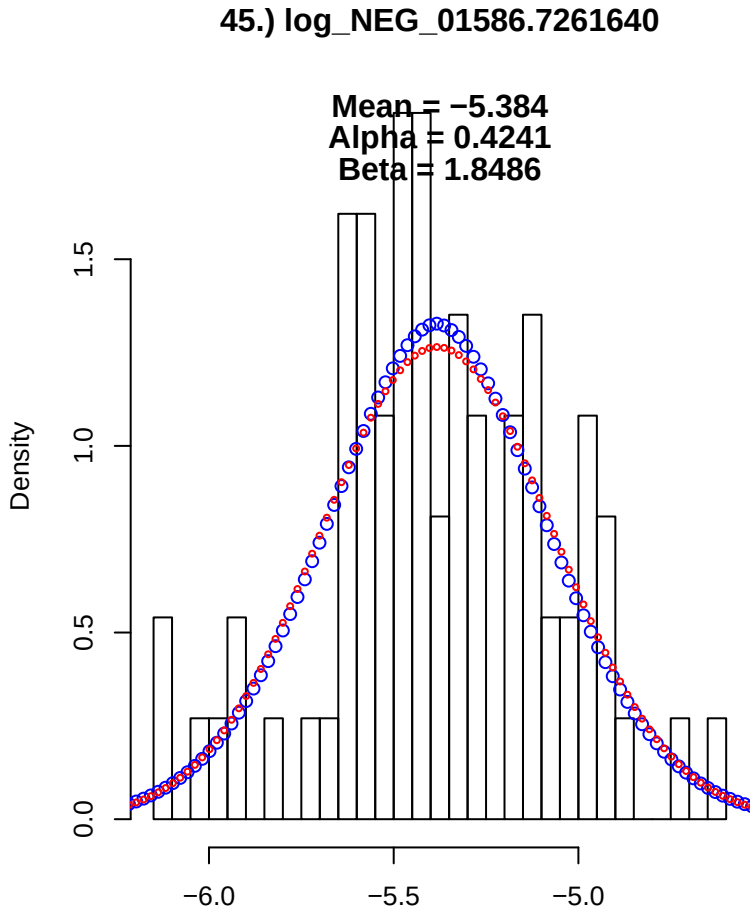

40.) log_POS_00657.3671760
Mean = −7.4667
Alpha = 0.355
Beta = 1.897
Density
0.0
0.5
1.0
1.5
2.0
2.5
3.0
3.5
−8.0
−7.8
−7.6
−7.4
−7.2
−7.0
−6.8

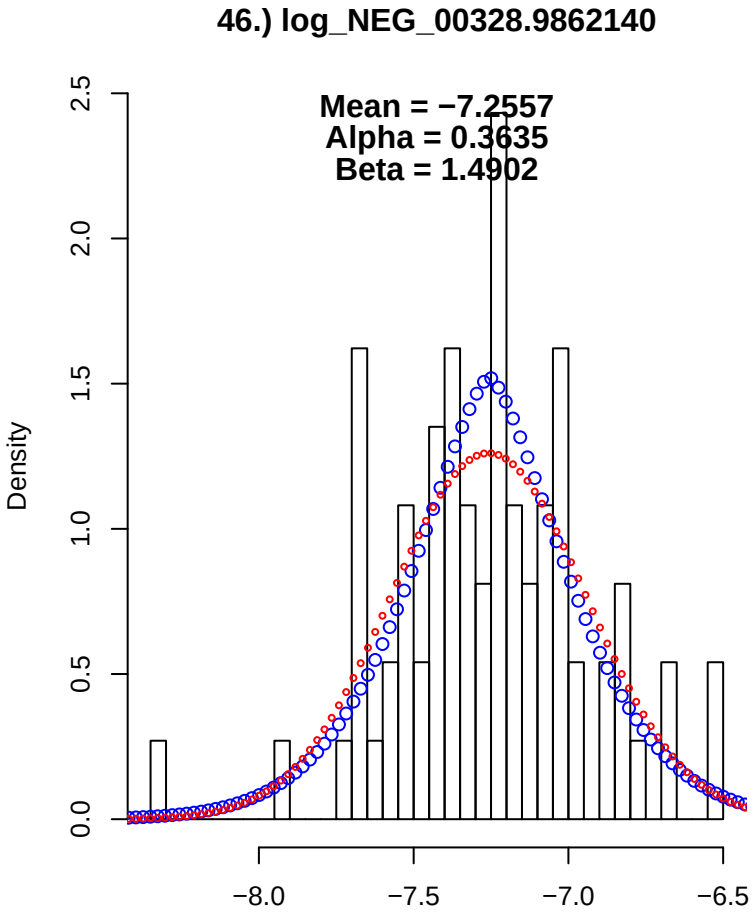

41.) POS_00151.0964260
Mean = 9e−04
Alpha = 1e−04
Beta = 1.5785
Density
0
2000
4000
6000
8000
10000
6e−04
7e−04
8e−04
9e−04
1e−03

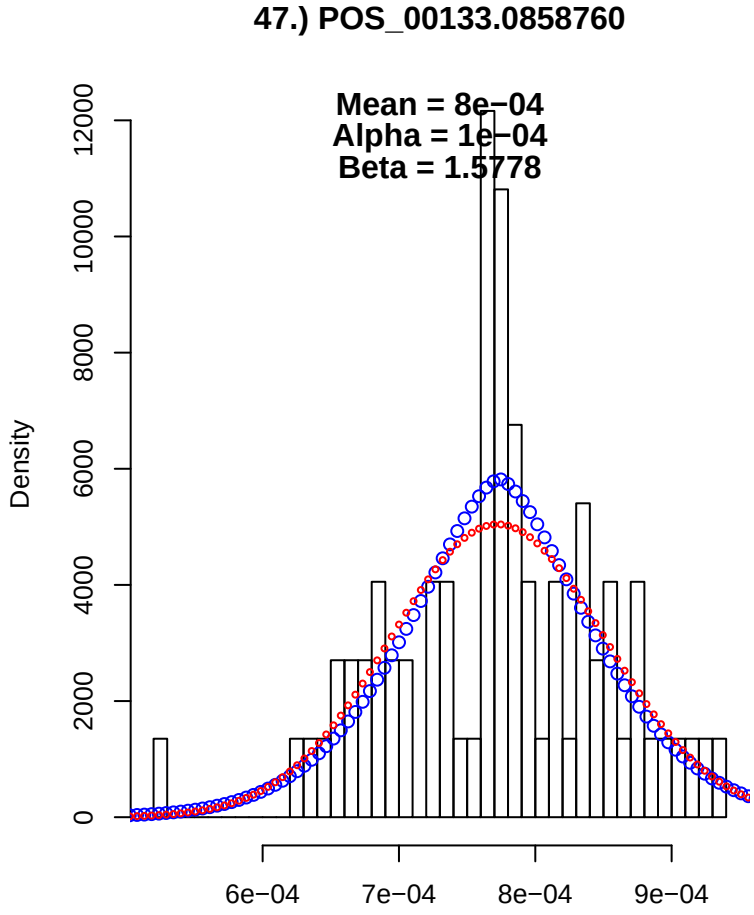

42.) log_POS_00311.1642260
Mean = −5.9457
Alpha = 0.329
Beta = 5.8115
Density
0
1
2
3
4
−6.2
−6.0
−5.8
−5.6

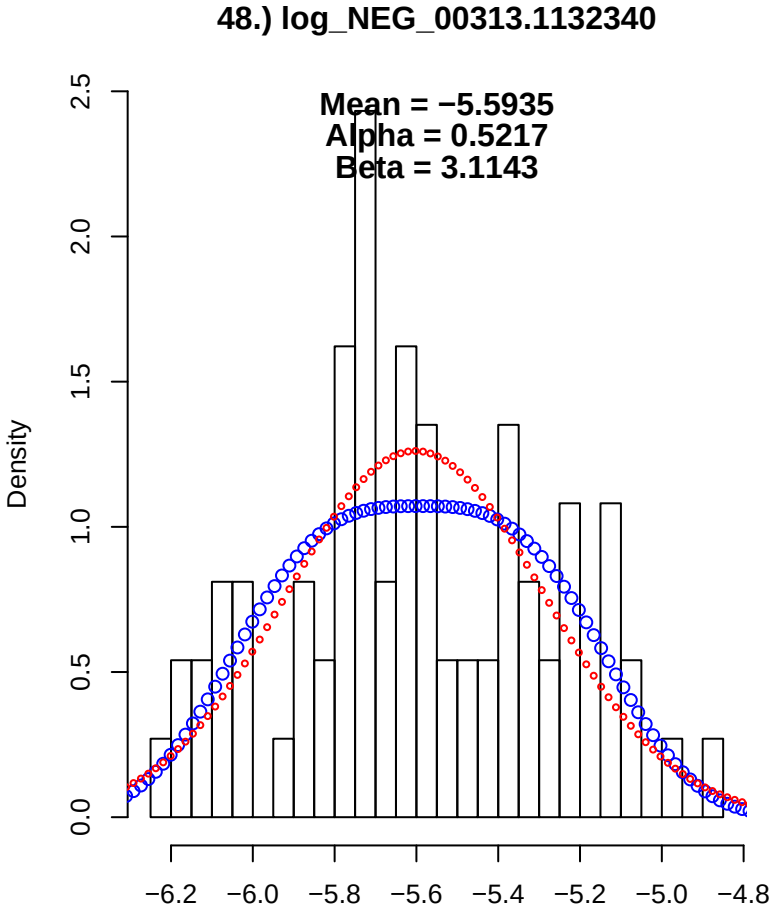

43.) log_POS_00701.3935260
Mean = −7.8236
Alpha = 0.3219
Beta = 1.8359
Density
0.0
0.5
1.0
1.5
2.0
2.5
3.0
−8.2
−8.0
−7.8
−7.6
−7.4
−7.2

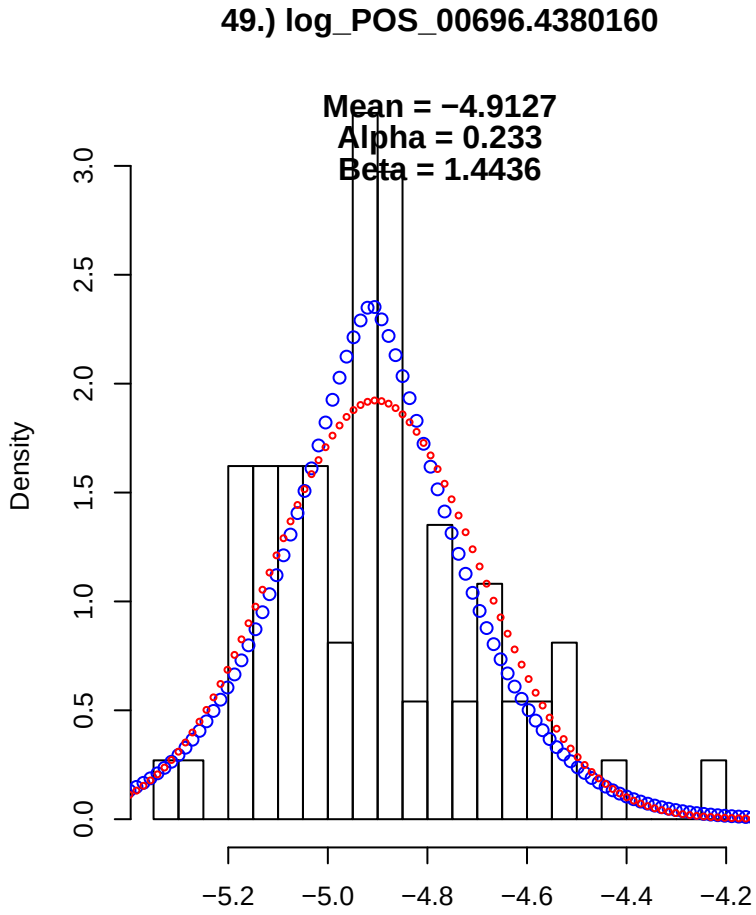

44.) POS_00245.1383360
Mean = 2e−04
Alpha = 0
Beta = 2.3655
Density
0
5000
10000
15000
20000
25000
0.00012
0.00016
0.00020

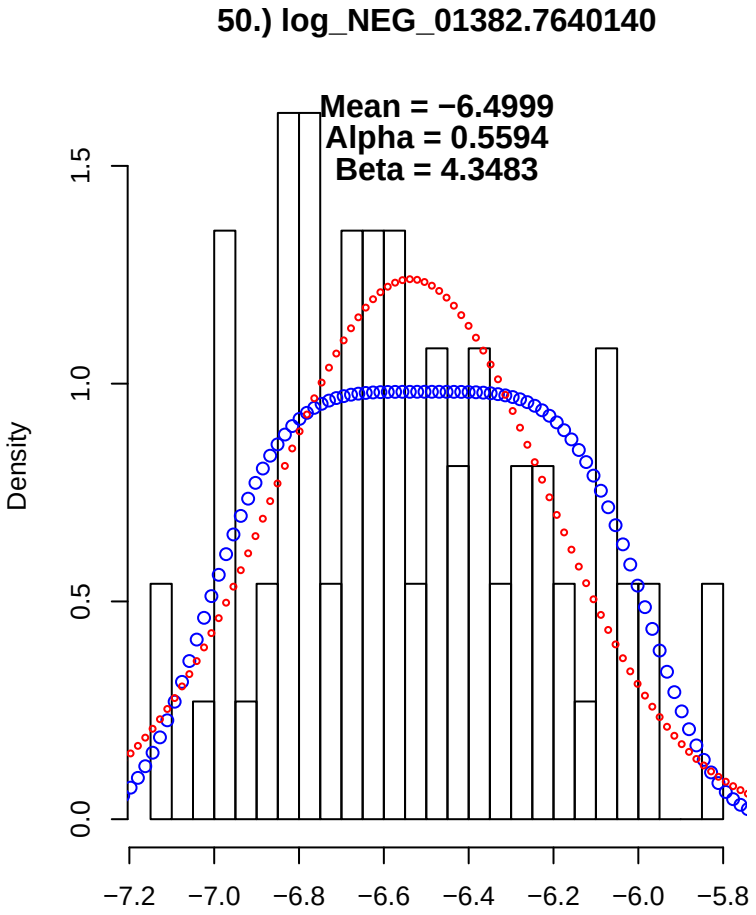

45.) log_NEG_01586.7261640
Mean = −5.384
Alpha = 0.4241
Beta = 1.8486
Density
0.0
0.5
1.0
1.5
−6.0
−5.5
−5.0

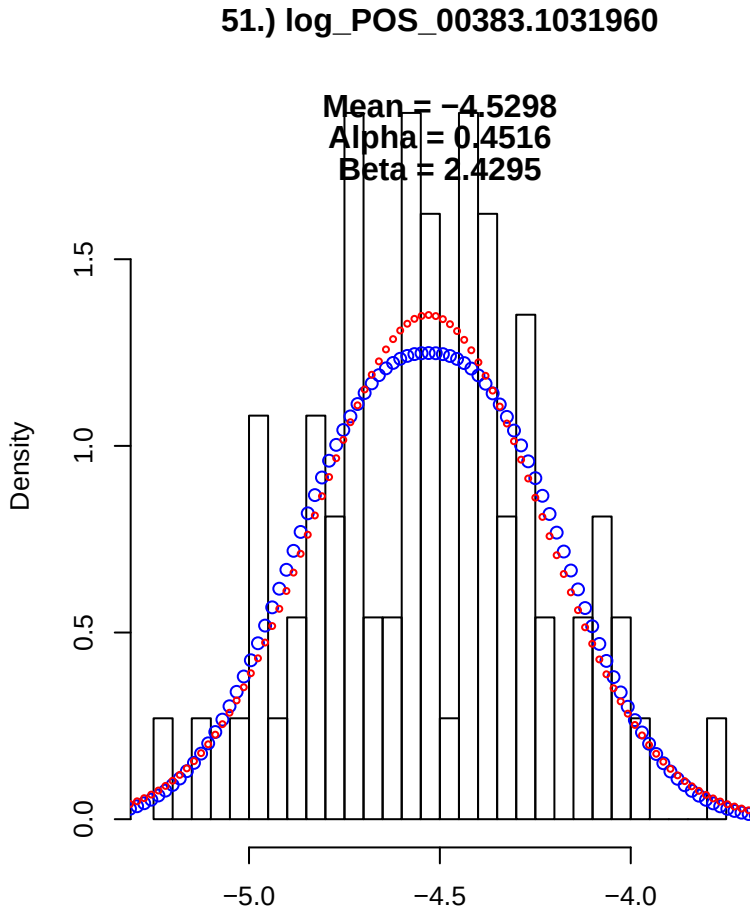

46.) log_NEG_00328.9862140
Mean = −7.2557
Alpha = 0.3635
Beta = 1.4902
Density
0.0
0.5
1.0
1.5
2.0
2.5
−8.0
−7.5
−7.0
−6.5

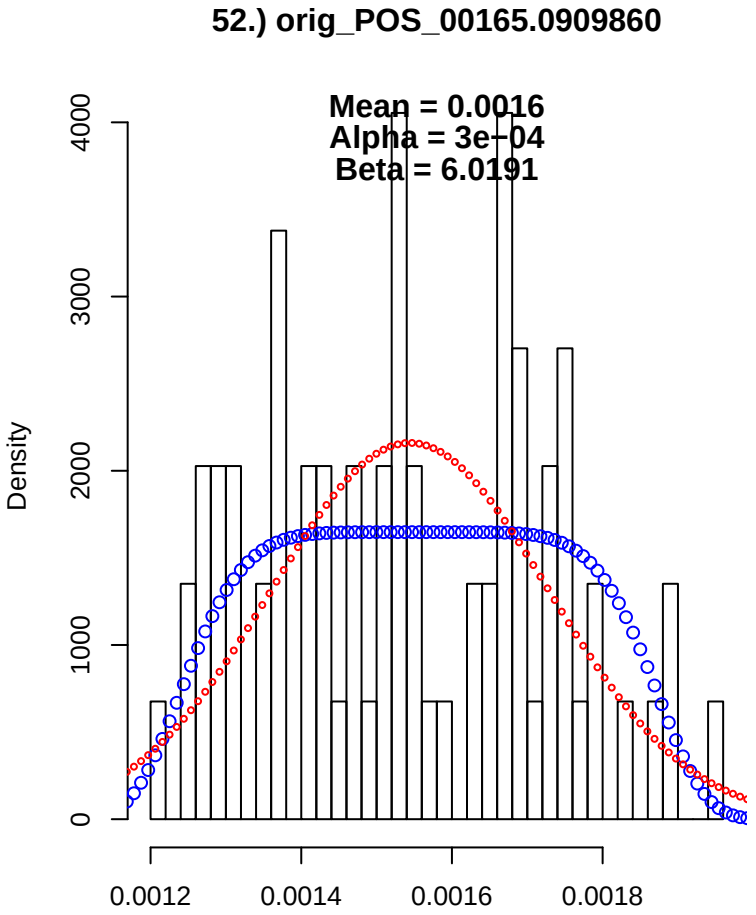

47.) POS_00133.0858760
Mean = 8e−04
Alpha = 1e−04
Beta = 1.5778
Density
0
2000
4000
6000
8000
10000
12000
6e−04
7e−04
8e−04
9e−04

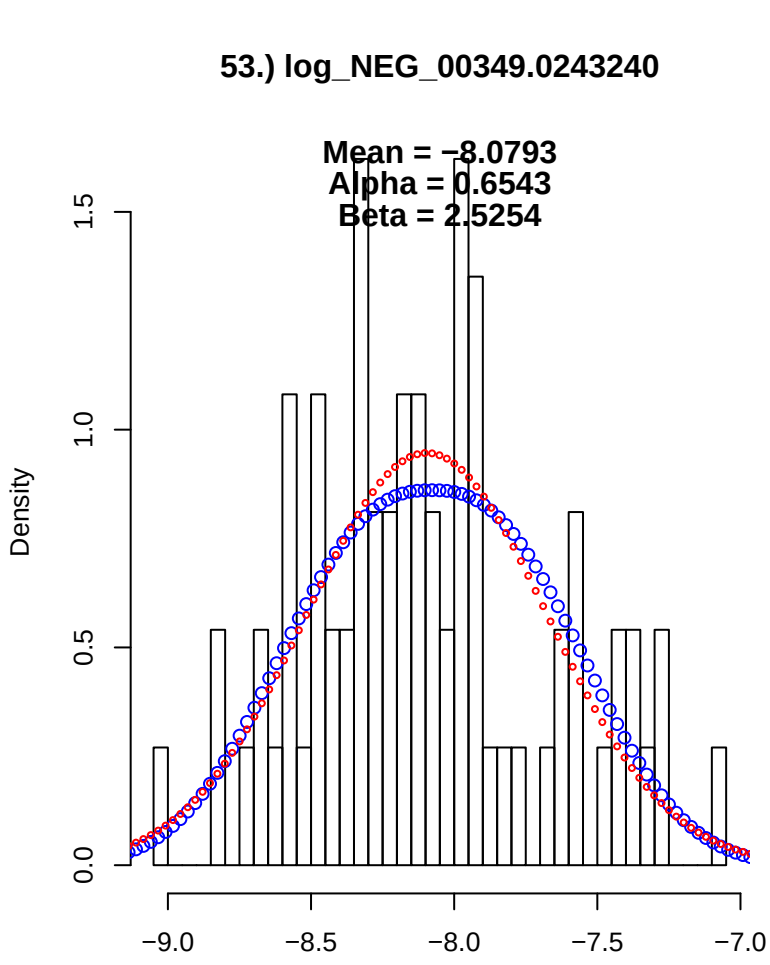

48.) log_NEG_00313.1132340
Mean = −5.5935
Alpha = 0.5217
Beta = 3.1143
Density
0.0
0.5
1.0
1.5
2.0
2.5
−6.2
−6.0
−5.8
−5.6
−5.4
−5.2
−5.0
−4.8

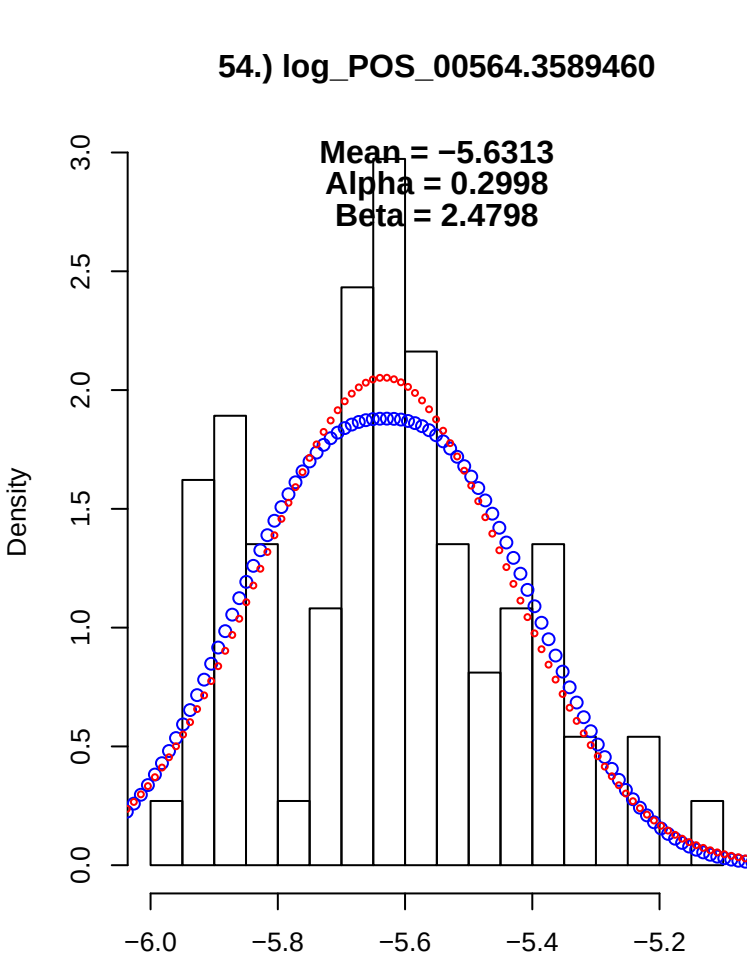

49.) log_POS_00696.4380160
Mean = −4.9127
Alpha = 0.233
Beta = 1.4436
Density
0.0
0.5
1.0
1.5
2.0
2.5
3.0
−5.2
−5.0
−4.8
−4.6
−4.4
−4.2

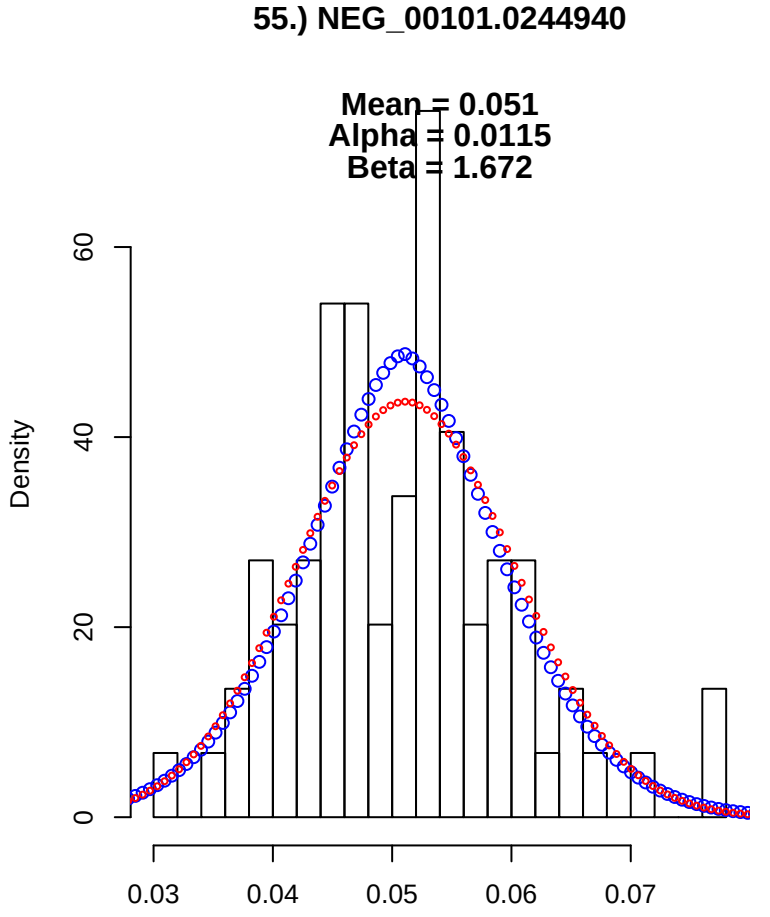

50.) log_NEG_01382.7640140
Mean = −6.4999
Alpha = 0.5594
Beta = 4.3483
Density
0.0
0.5
1.0
1.5
−7.2
−7.0
−6.8
−6.6
−6.4
−6.2
−6.0
−5.8

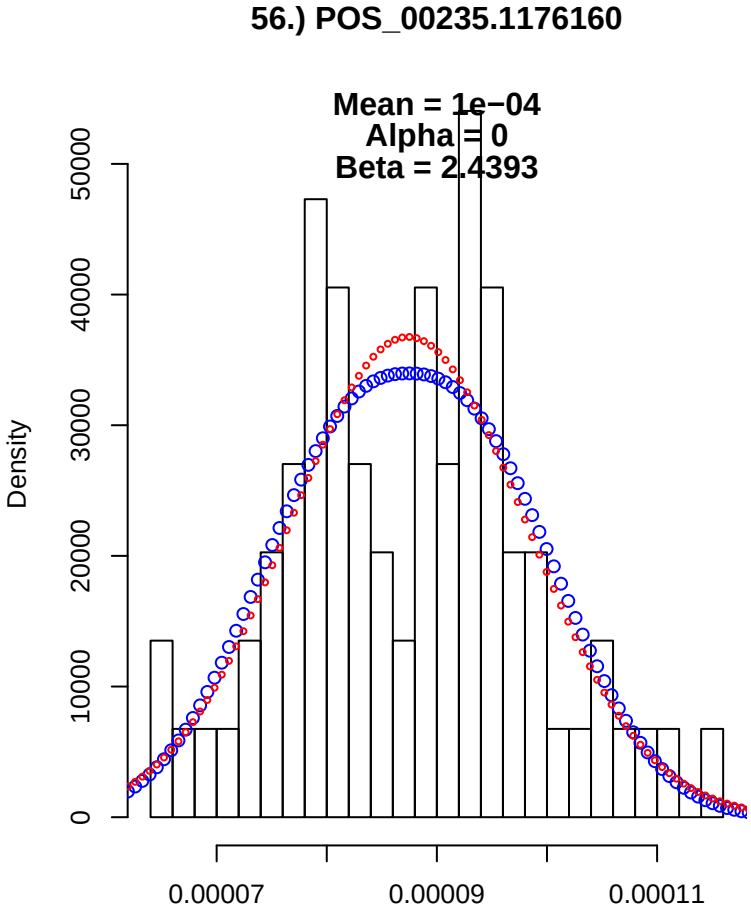

51.) log_POS_00383.1031960
Mean = −4.5298
Alpha = 0.4516
Beta = 2.4295
Density
0.0
0.5
1.0
1.5
−5.0
−4.5
−4.0

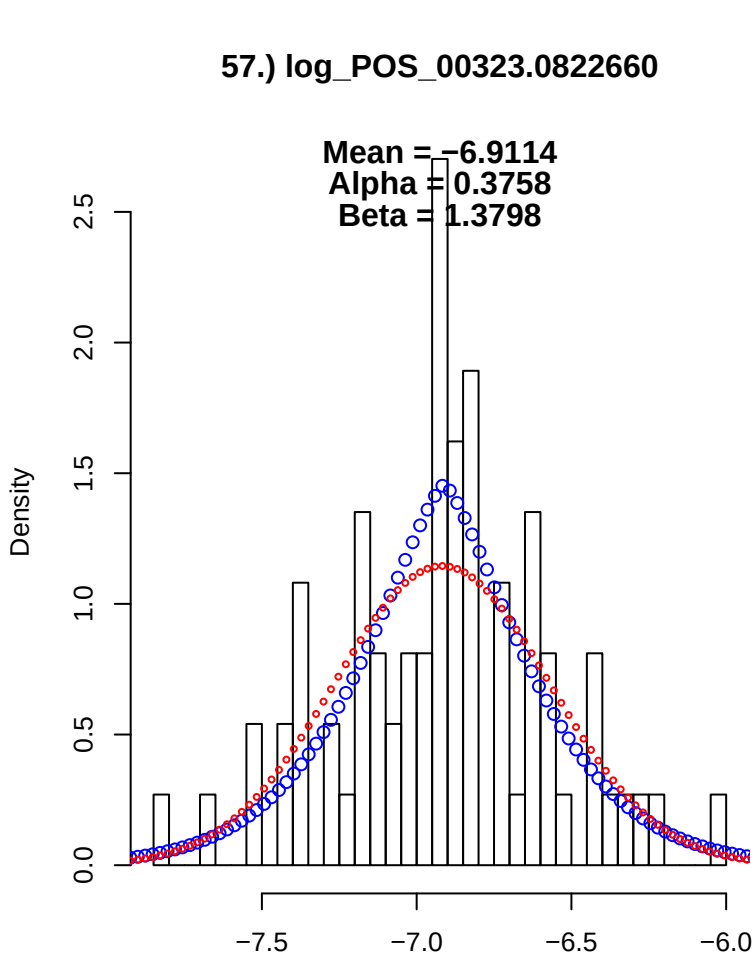

52.) orig_POS_00165.0909860
Mean = 0.0016
Alpha = 3e−04
Beta = 6.0191
Density
0
1000
2000
3000
4000
0.0012
0.0014
0.0016
0.0018

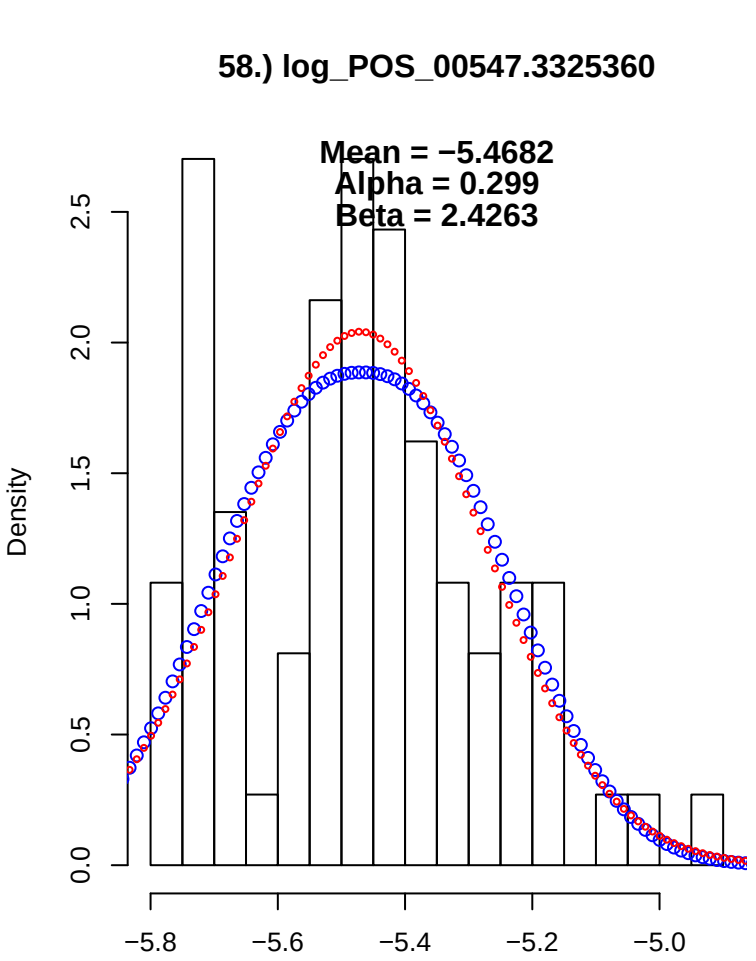

53.) log_NEG_00349.0243240
Mean = −8.0793
Alpha = 0.6543
Beta = 2.5254
Density
0.0
0.5
1.0
1.5
−9.0
−8.5
−8.0
−7.5
−7.0

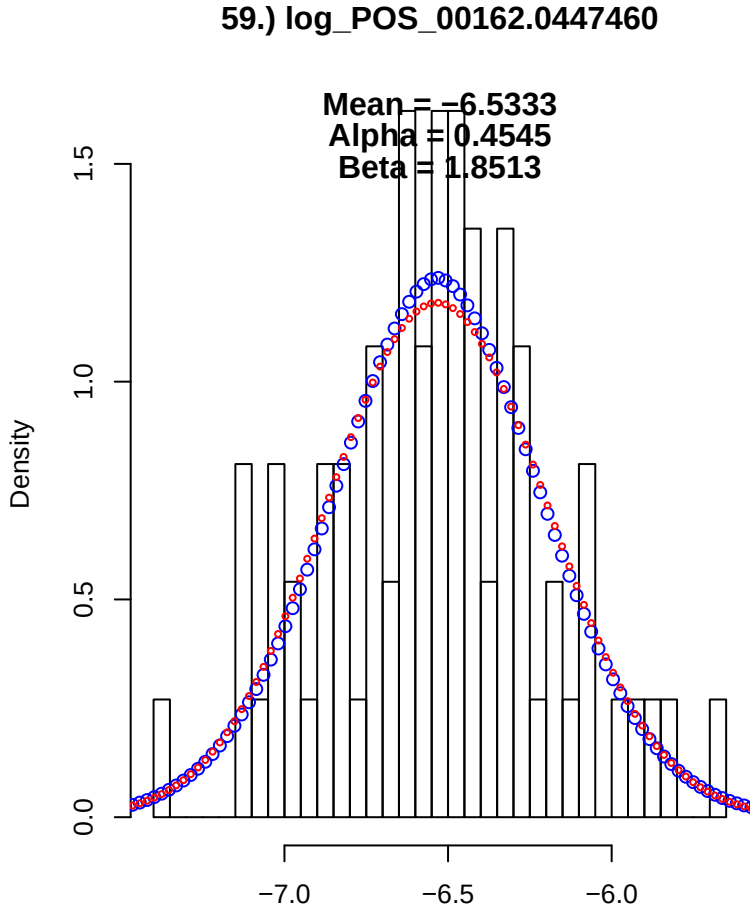

54.) log_POS_00564.3589460
Mean = −5.6313
Alpha = 0.2998
Beta = 2.4798
Density
0.0
0.5
1.0
1.5
2.0
2.5
3.0
−6.0
−5.8
−5.6
−5.4
−5.2

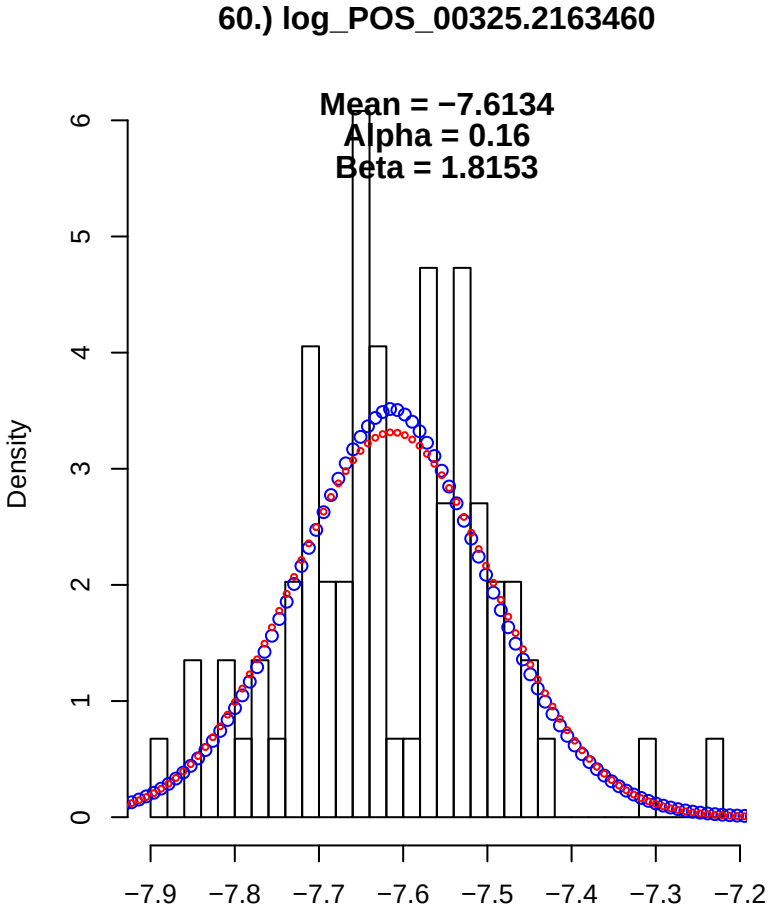

55.) NEG_00101.0244940
Mean = 0.051
Alpha = 0.0115
Beta = 1.672
Density
0
20
40
60
0.03
0.04
0.05
0.06
0.07

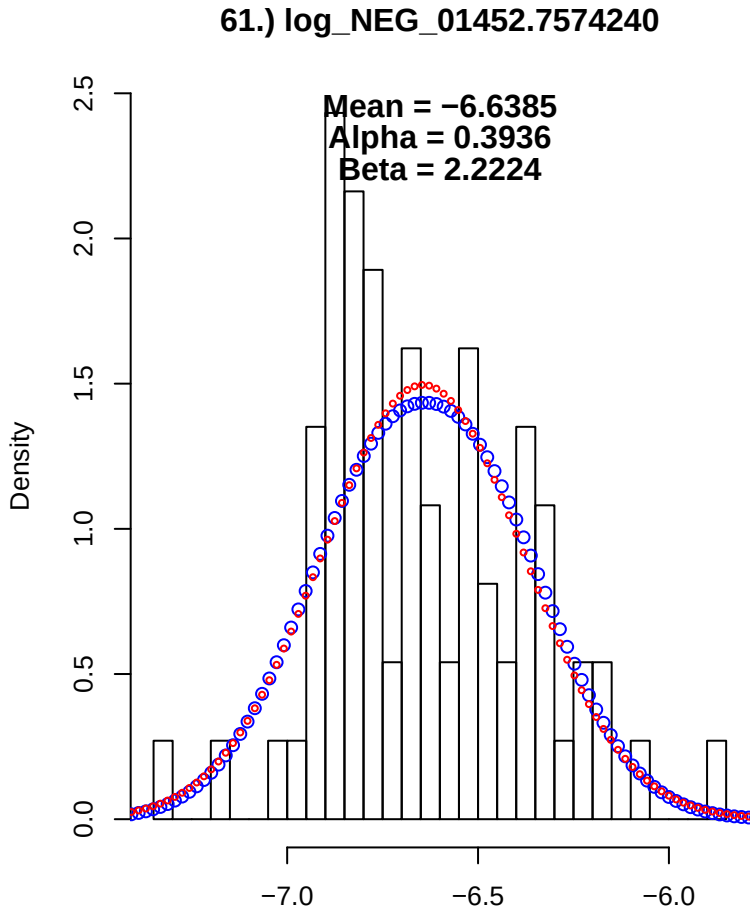

56.) POS_00235.1176160
Mean = 1e−04
Alpha = 0
Beta = 2.4393
Density
0
10000
20000
30000
40000
50000
0.00007
0.00009
0.00011

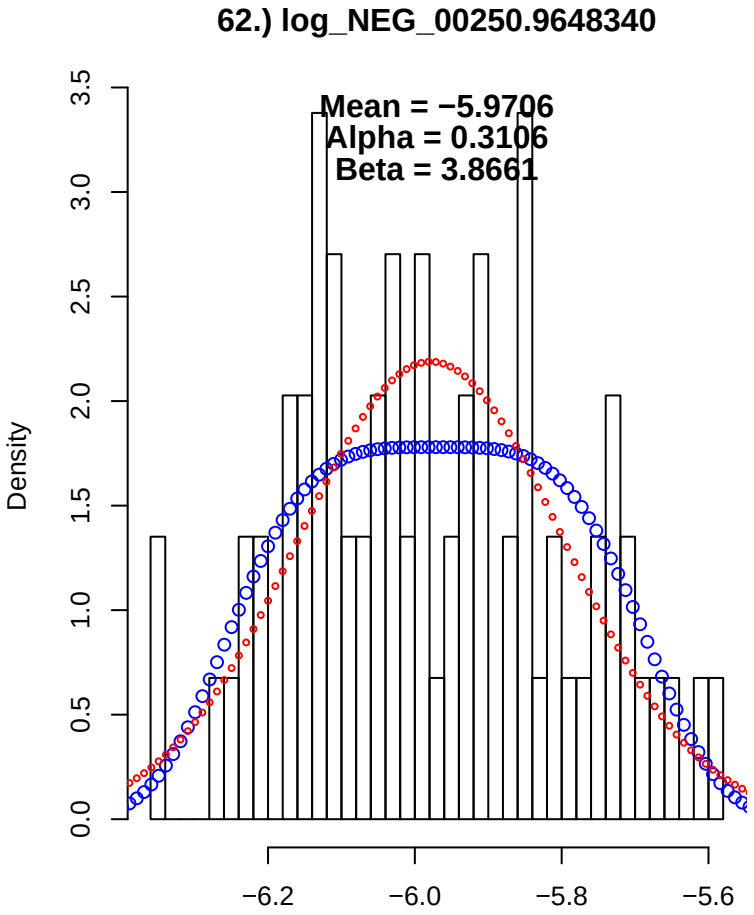

57.) log_POS_00323.0822660
Mean = −6.9114
Alpha = 0.3758
Beta = 1.3798
Density
0.0
0.5
1.0
1.5
2.0
2.5
−7.5
−7.0
−6.5
−6.0

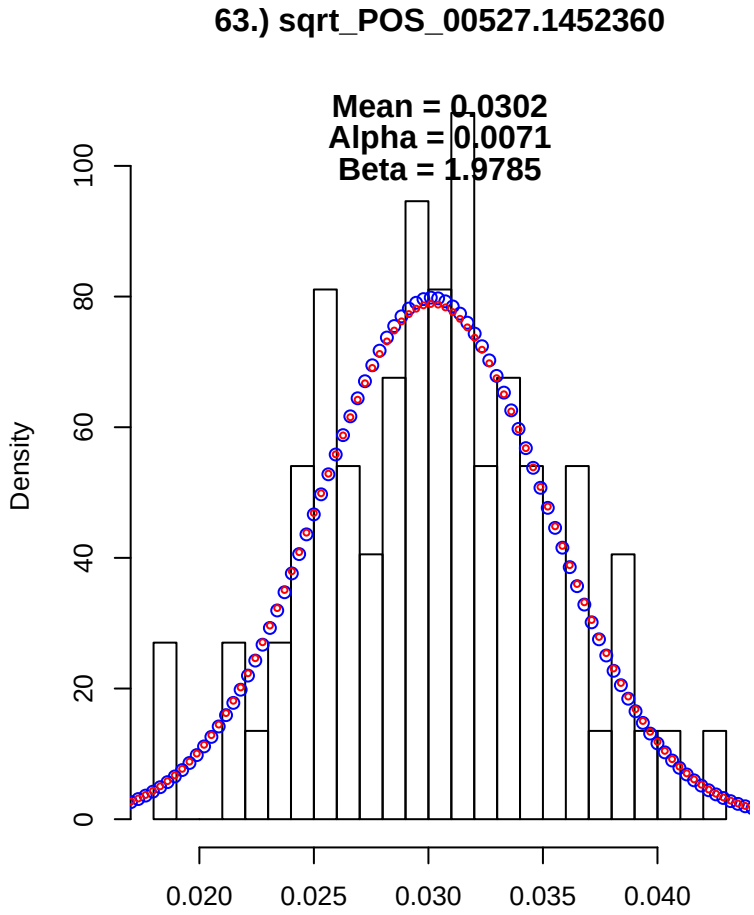

58.) log_POS_00547.3325360
Mean = −5.4682
Alpha = 0.299
Beta = 2.4263
Density
0.0
0.5
1.0
1.5
2.0
2.5
−5.8
−5.6
−5.4
−5.2
−5.0

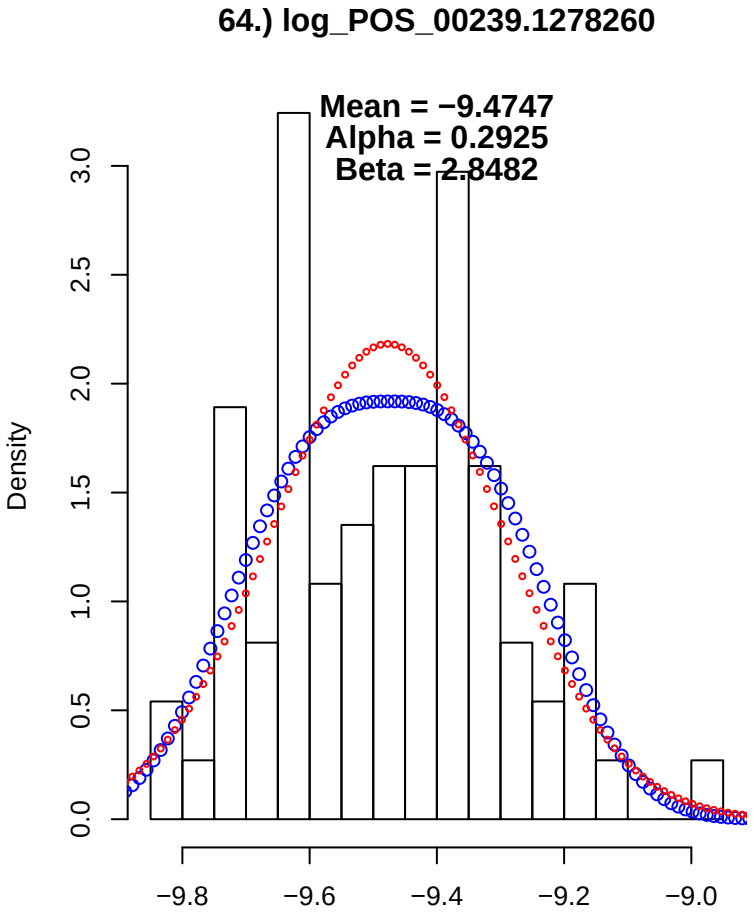

59.) log_POS_00162.0447460
Mean = −6.5333
Alpha = 0.4545
Beta = 1.8513
Density
0.0
0.5
1.0
1.5
−7.0
−6.5
−6.0


60.) log_POS_00325.2163460
Mean = −7.6134
Alpha = 0.16
Beta = 1.8153
Density
0
1
2
3
4
5
6
−7.9
−7.8
−7.7
−7.6
−7.5
−7.4
−7.3
−7.2

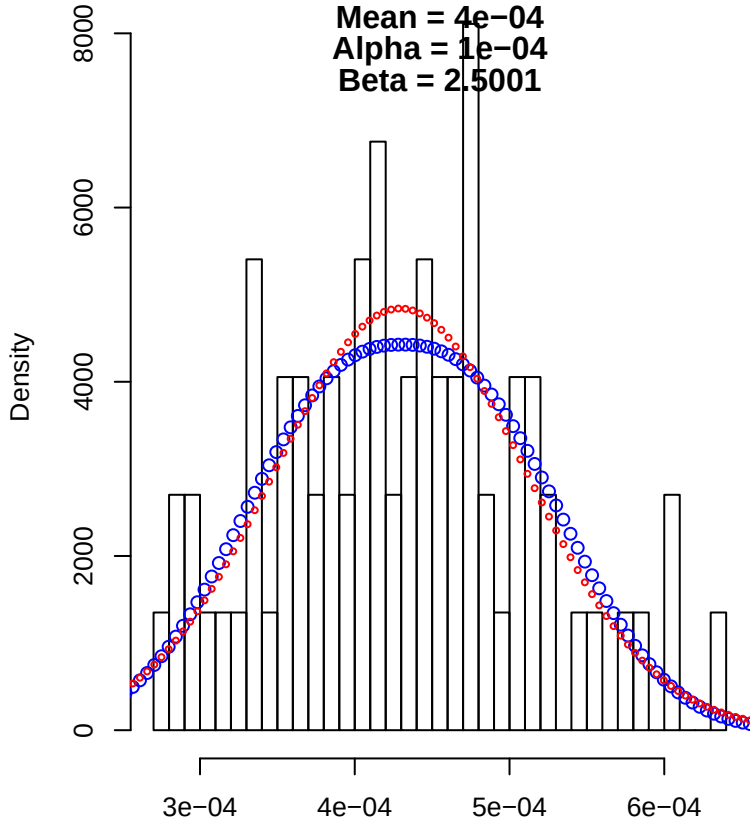

61.) log_NEG_01452.7574240
Mean = −6.6385
Alpha = 0.3936
Beta = 2.2224
Density
0.0
0.5
1.0
1.5
2.0
2.5
−7.0
−6.5
−6.0


62.) log_NEG_00250.9648340
Mean = −5.9706
Alpha = 0.3106
Beta = 3.8661
Density
0.0
0.5
1.0
1.5
2.0
2.5
3.0
3.5
−6.2
−6.0
−5.8
−5.6

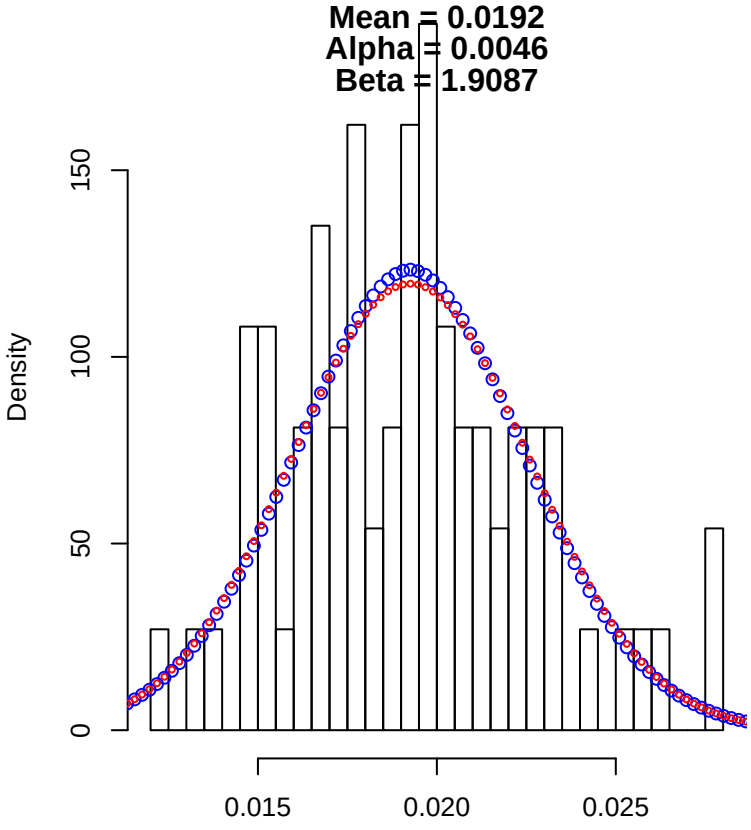

63.) sqrt_POS_00527.1452360
Mean = 0.0302
Alpha = 0.0071
Beta = 1.9785
Density
0
20
40
60
80
100
0.020
0.025
0.030
0.035
0.040


64.) log_POS_00239.1278260
Mean = −9.4747
Alpha = 0.2925
Beta = 2.8482
Density
0.0
0.5
1.0
1.5
2.0
2.5
3.0
−9.8
−9.6
−9.4
−9.2
−9.0

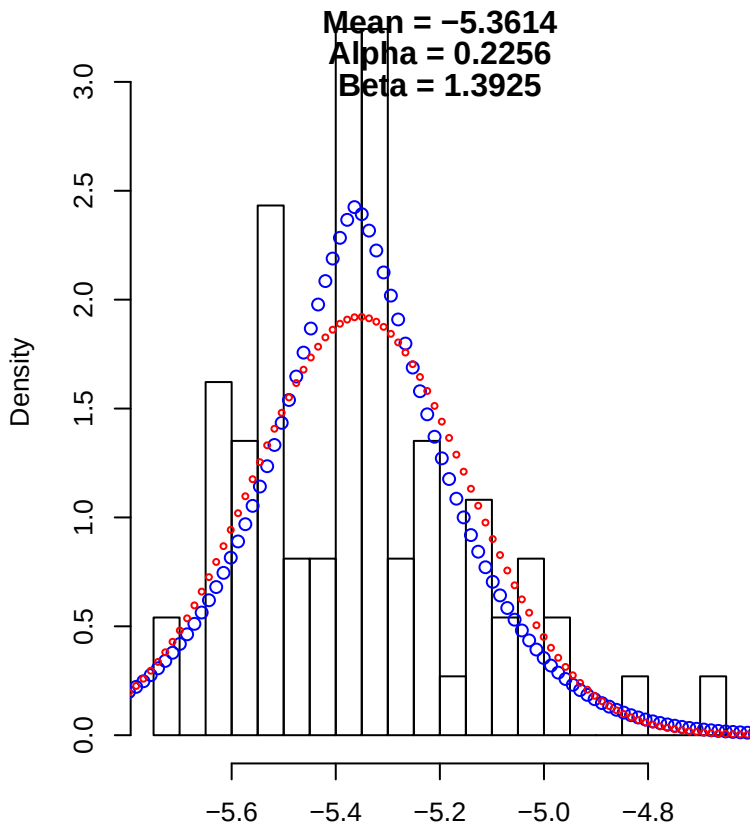
## 65.) POS_00337.2042560



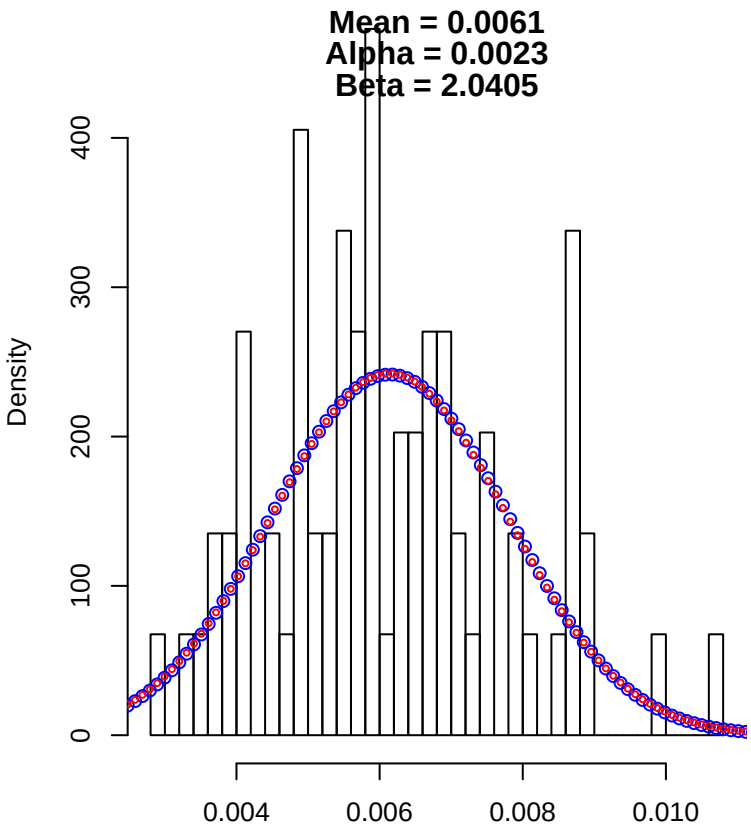

## 66.) NEG_00073.0295040

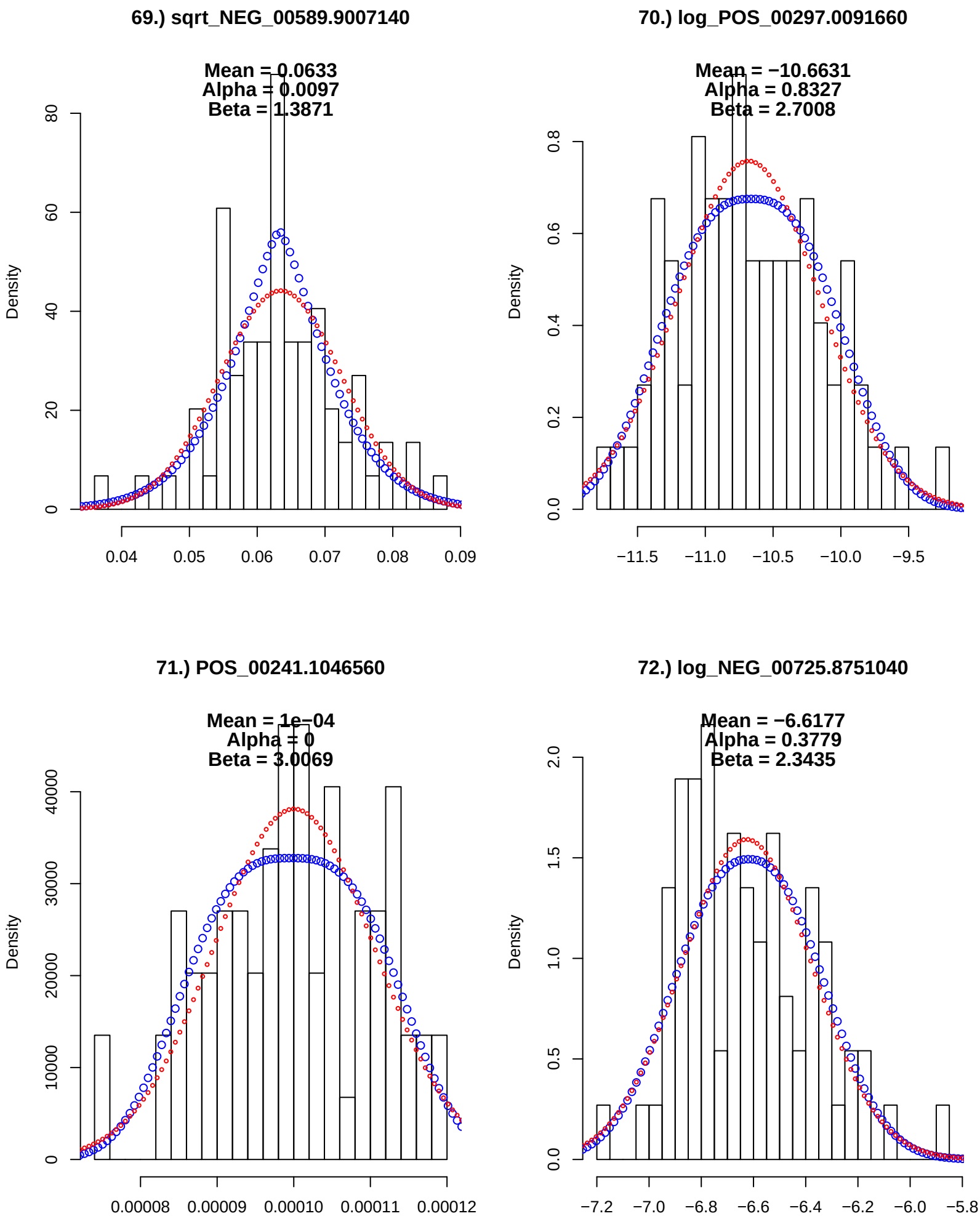


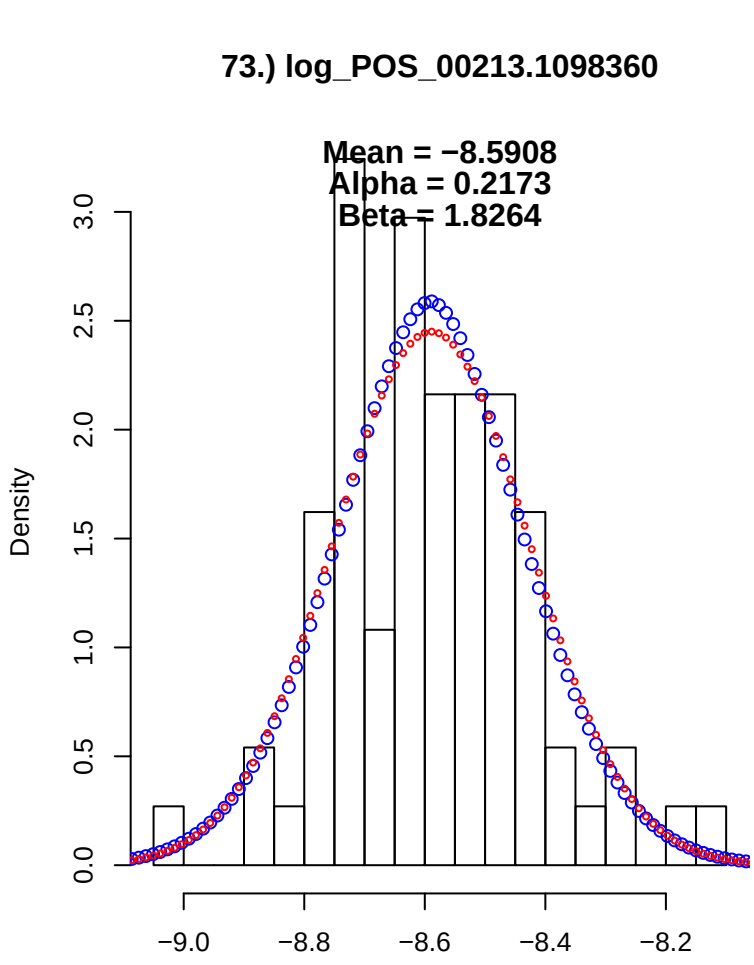

## 67.) log_POS_00340.2093760

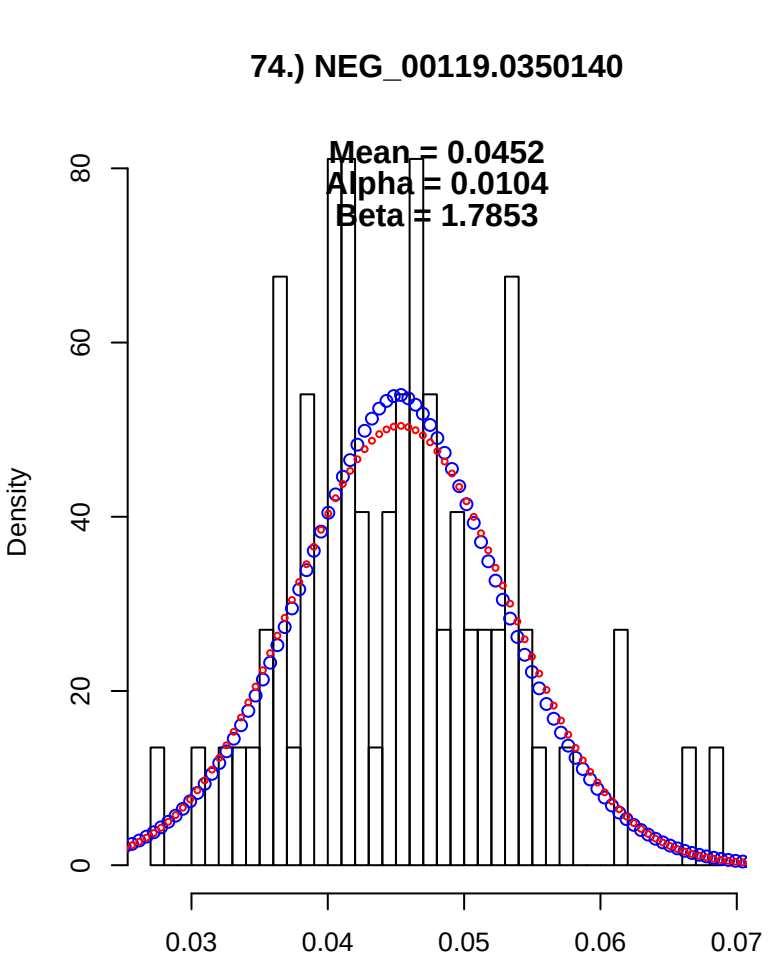


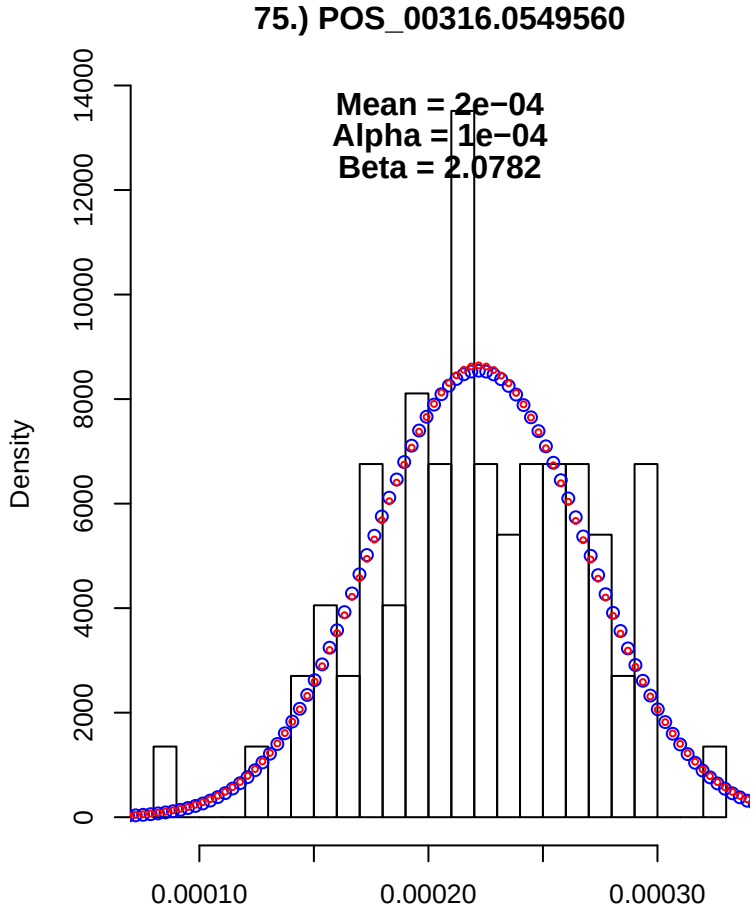

## 68.) NEG_00453.9262940

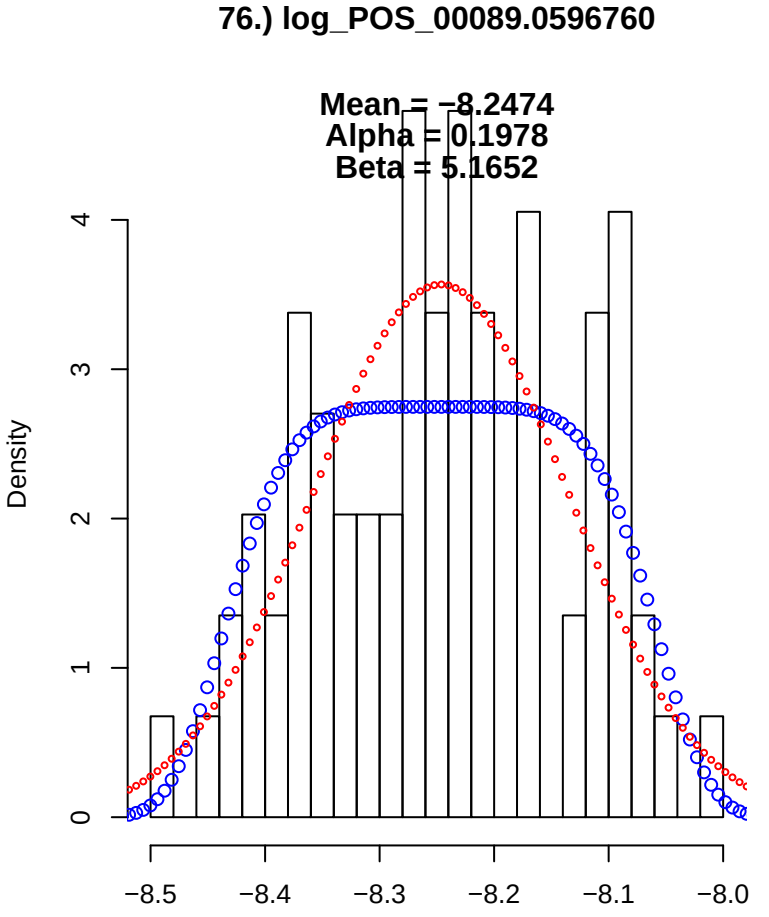


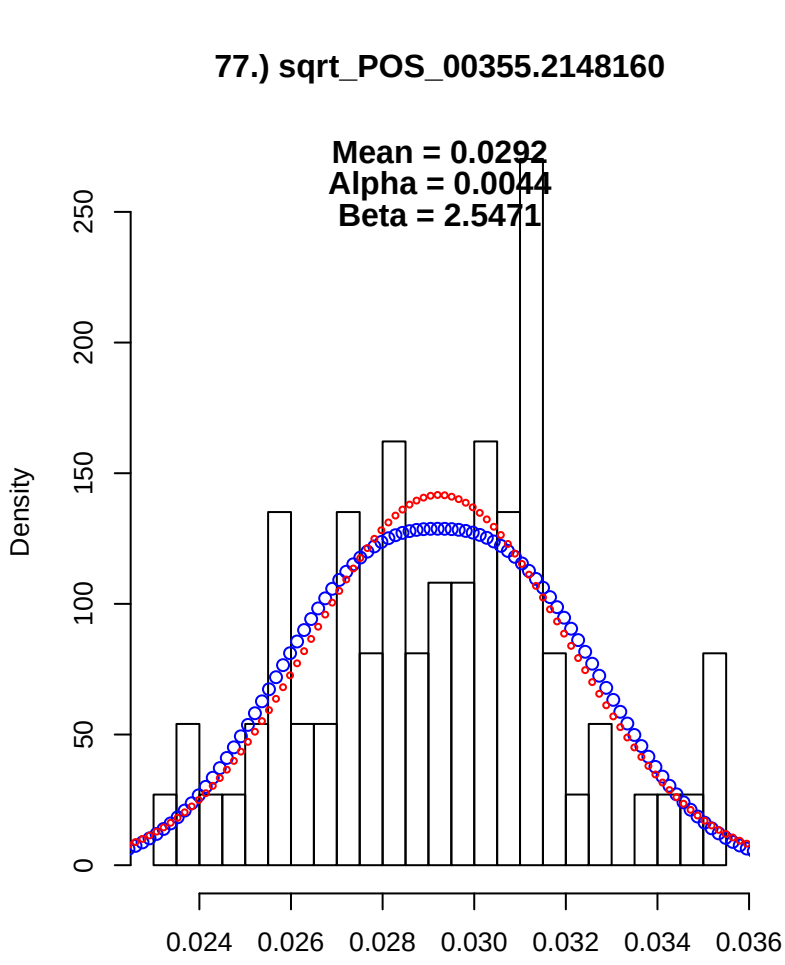

69.) sqrt_NEG_00589.9007140
Mean = 0.0633
Alpha = 0.0097
Beta = 1.3871
Density
0
20
40
60
80
0.04
0.05
0.06
0.07
0.08
0.09
70.) log_POS_00297.0091660
Mean = −10.6631
Alpha = 0.8327
Beta = 2.7008
Density
0.0
0.2
0.4
0.6
0.8
−11.5
−11.0
−10.5
−10.0
−9.5
71.) POS_00241.1046560
Mean = 1e−04
Alpha = 0
Beta = 3.0069
Density
0
10000
20000
30000
40000
0.00008
0.00009
0.00010
0.00011
0.00012
72.) log_NEG_00725.8751040
Mean = −6.6177
Alpha = 0.3779
Beta = 2.3435
Density
0.0
0.5
1.0
1.5
2.0
−7.2
−7.0
−6.8
−6.6
−6.4
−6.2
−6.0
−5.8

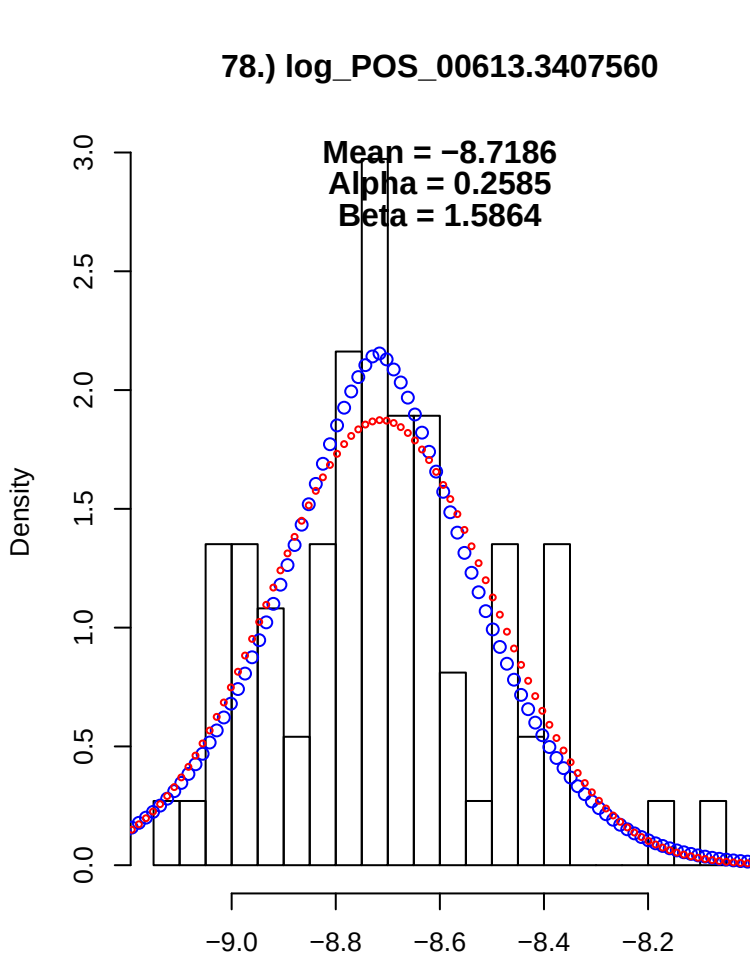

73.) log_POS_00213.1098360
Mean = −8.5908
Alpha = 0.2173
Beta = 1.8264
Density
0.0
0.5
1.0
1.5
2.0
2.5
3.0
−9.0
−8.8
−8.6
−8.4
−8.2

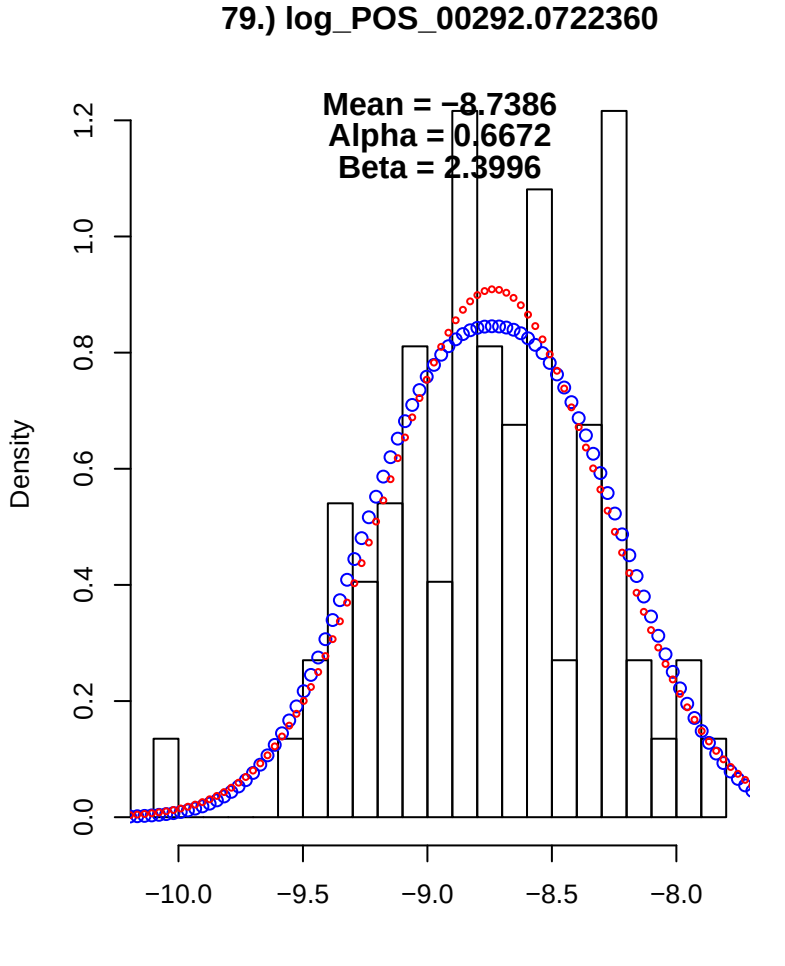

74.) NEG_00119.0350140
Mean = 0.0452
Alpha = 0.0104
Beta = 1.7853
Density
0
20
40
60
80
0.03
0.04
0.05
0.06
0.07

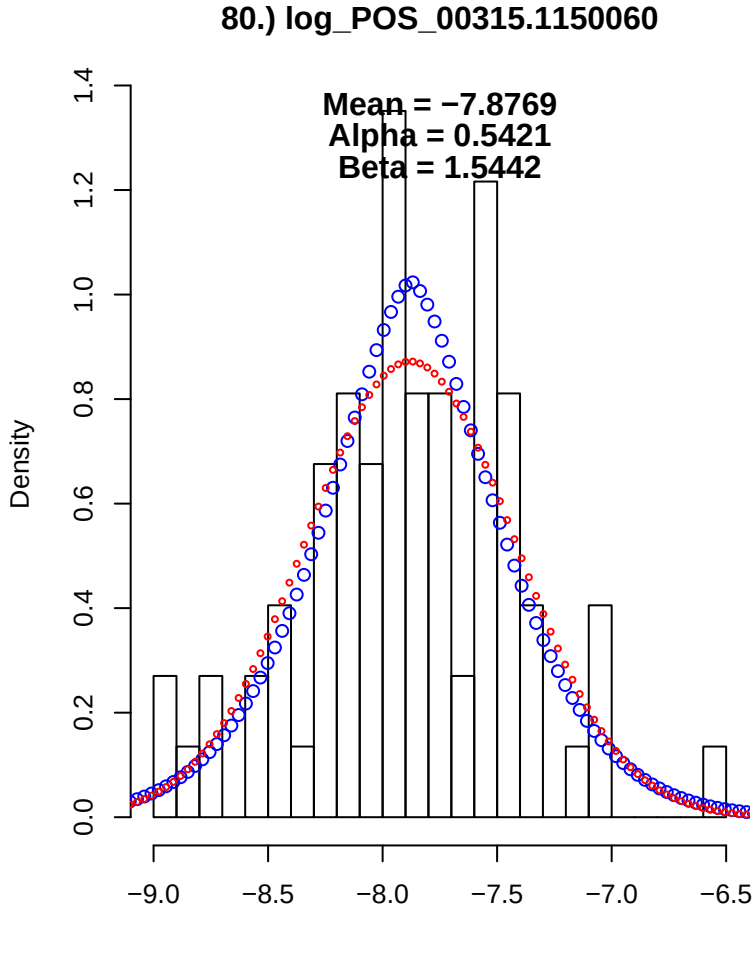

75.) POS_00316.0549560
Mean = 2e−04
Alpha = 1e−04
Beta = 2.0782
Density
0
2000
4000
6000
8000
10000
12000
14000
0.00010
0.00020
0.00030

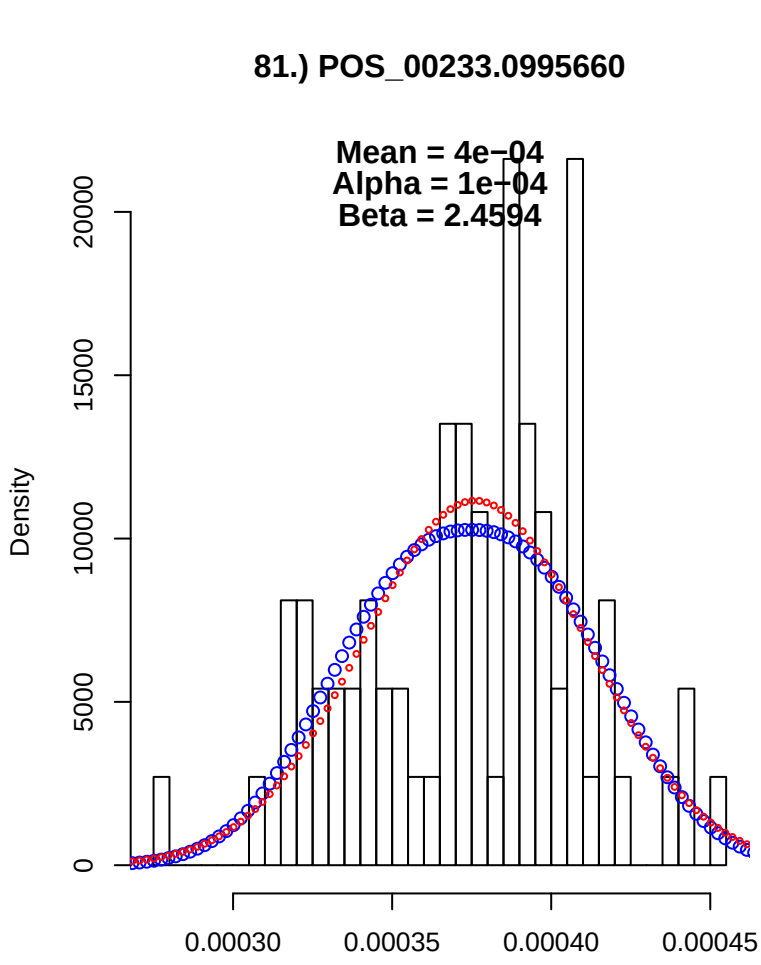

76.) log_POS_00089.0596760
Mean = −8.2474
Alpha = 0.1978
Beta = 5.1652
Density
0
1
2
3
4
−8.5
−8.4
−8.3
−8.2
−8.1
−8.0

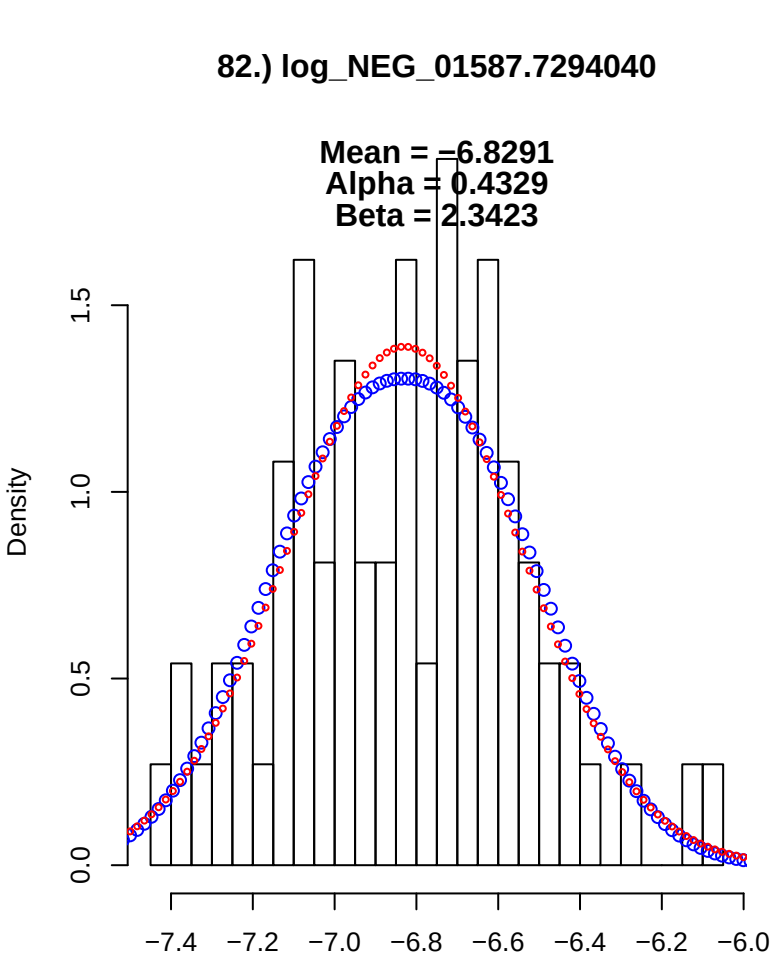

77.) sqrt_POS_00355.2148160
Mean = 0.0292
Alpha = 0.0044
Beta = 2.5471
Density
0
50
100
150
200
250
0.024
0.026
0.028
0.030
0.032
0.034
0.036

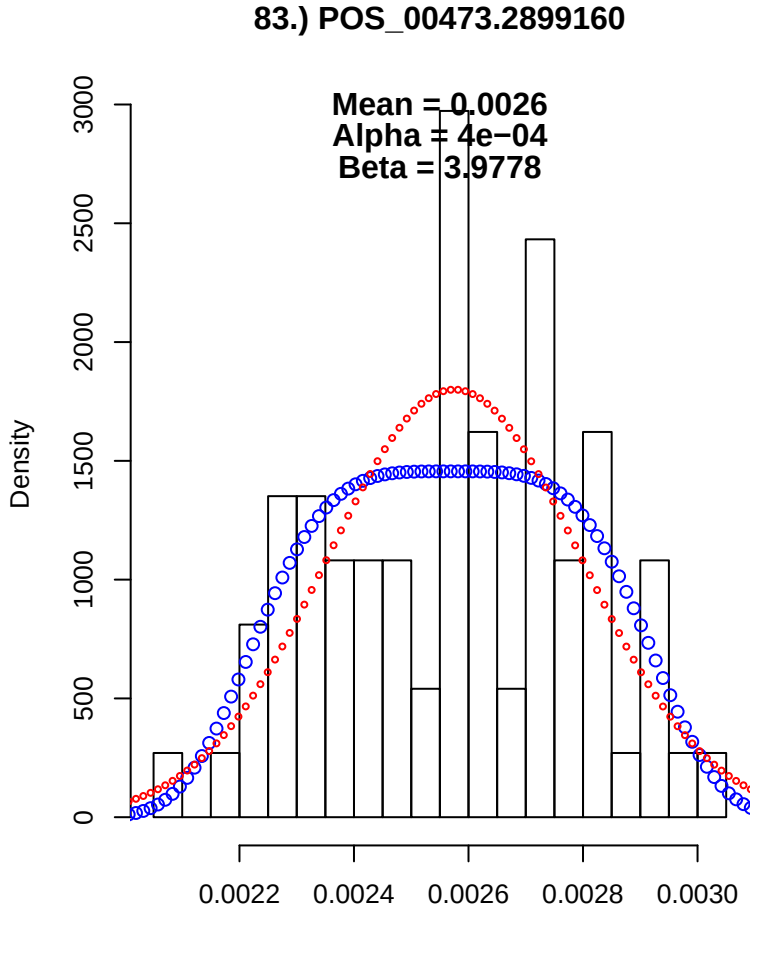

78.) log_POS_00613.3407560
Mean = −8.7186
Alpha = 0.2585
Beta = 1.5864
Density
0.0
0.5
1.0
1.5
2.0
2.5
3.0
−9.0
−8.8
−8.6
−8.4
−8.2

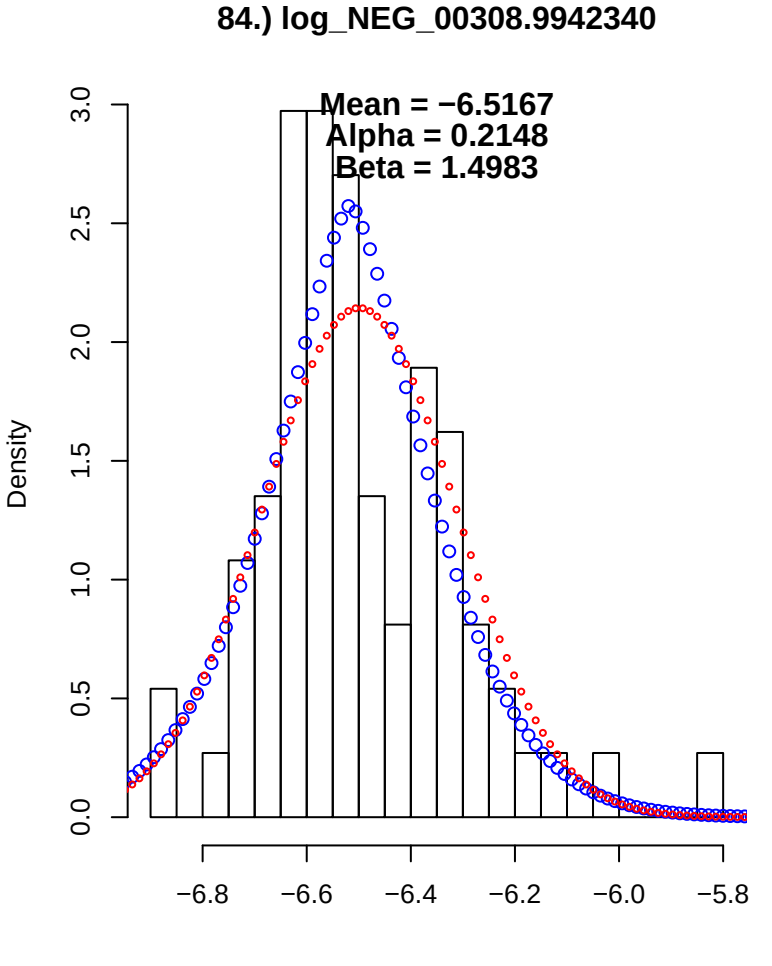

79.) log_POS_00292.0722360
Mean = −8.7386
Alpha = 0.6672
Beta = 2.3996
Density
0.0
0.2
0.4
0.6
0.8
1.0
1.2
−10.0
−9.5
−9.0
−8.5
−8.0

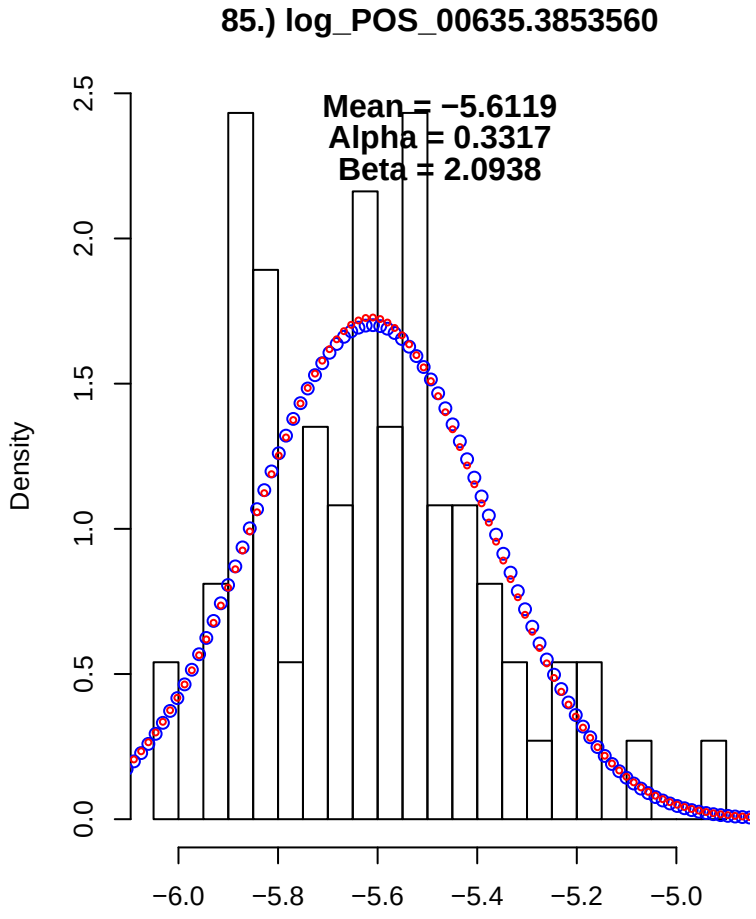

80.) log_POS_00315.1150060
Mean = −7.8769
Alpha = 0.5421
Beta = 1.5442
Density
0.0
0.2
0.4
0.6
0.8
1.0
1.2
1.4
−9.0
−8.5
−8.0
−7.5
−7.0
−6.5

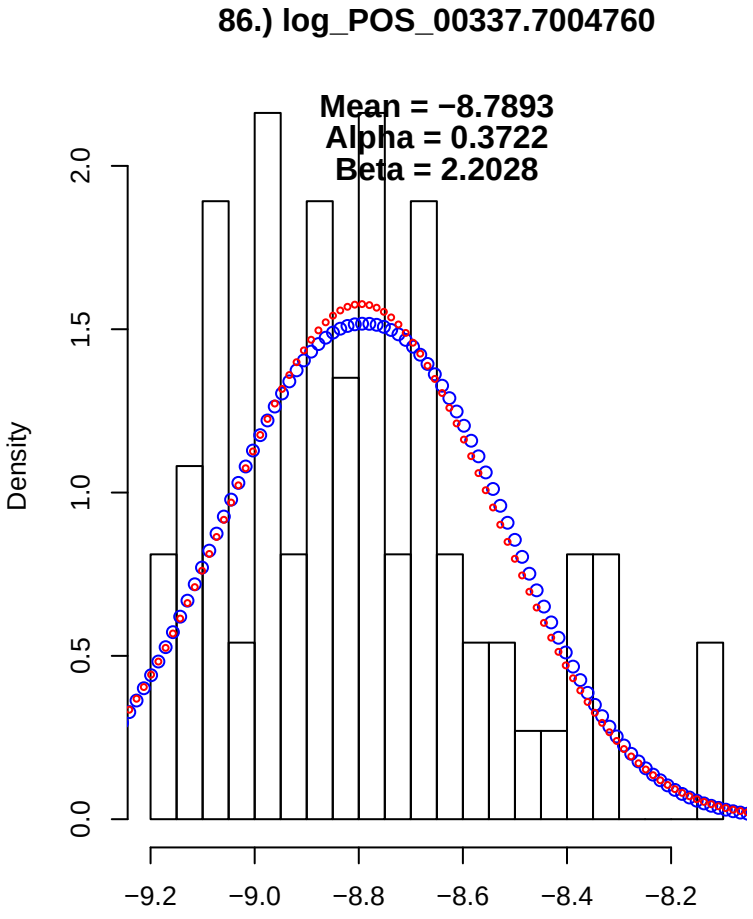

81.) POS_00233.0995660
Mean = 4e−04
Alpha = 1e−04
Beta = 2.4594
Density
0
5000
10000
15000
20000
0.00030
0.00035
0.00040
0.00045

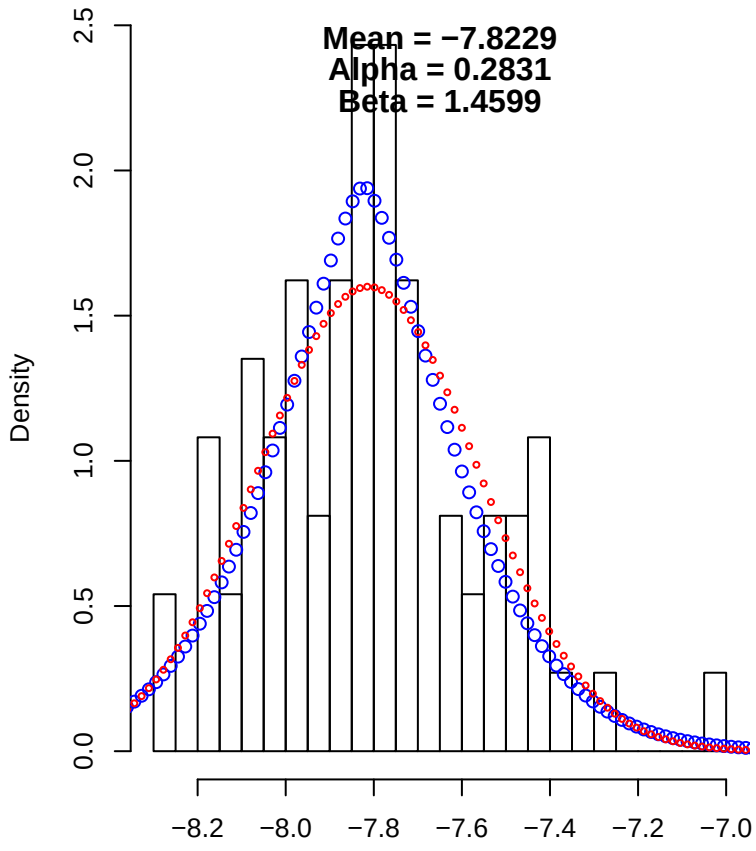

82.) log_NEG_01587.7294040
Mean = −6.8291
Alpha = 0.4329
Beta = 2.3423
Density
0.0
0.5
1.0
1.5
−7.4
−7.2
−7.0
−6.8
−6.6
−6.4
−6.2
−6.0

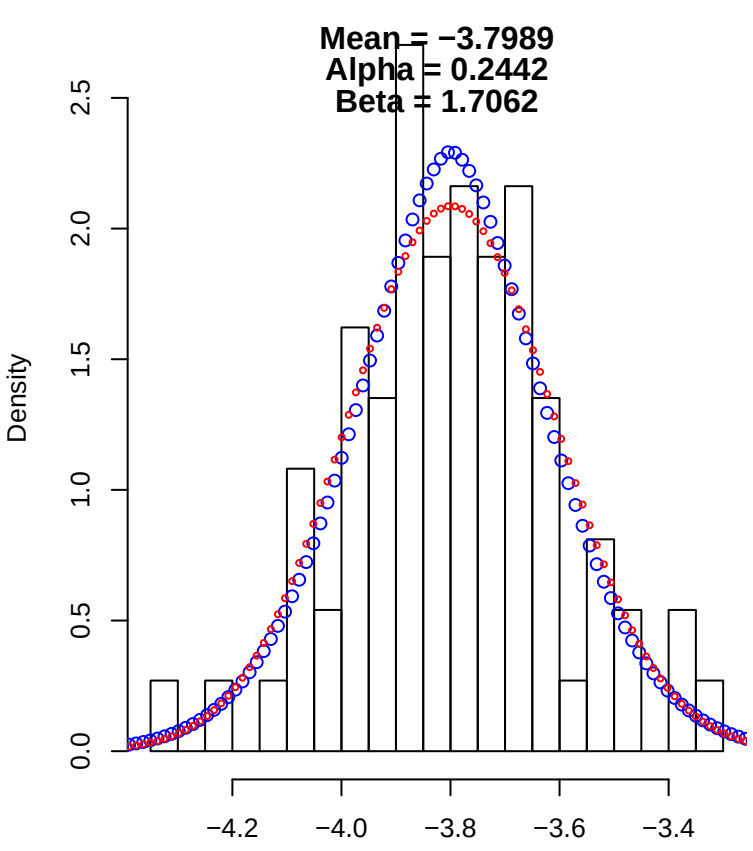

83.) POS_00473.2899160
Mean = 0.0026
Alpha = 4e−04
Beta = 3.9778
Density
0
500
1000
1500
2000
2500
3000
0.0022
0.0024
0.0026
0.0028
0.0030

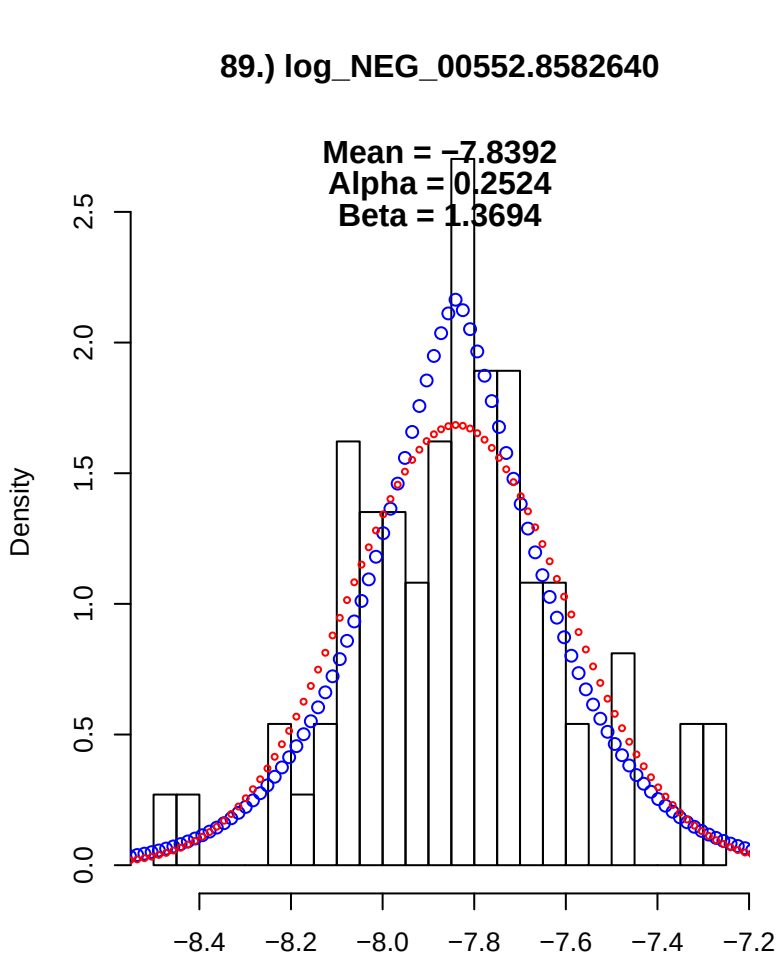

84.) log_NEG_00308.9942340
Mean = −6.5167
Alpha = 0.2148
Beta = 1.4983
Density
0.0
0.5
1.0
1.5
2.0
2.5
3.0
−6.8
−6.6
−6.4
−6.2
−6.0
−5.8

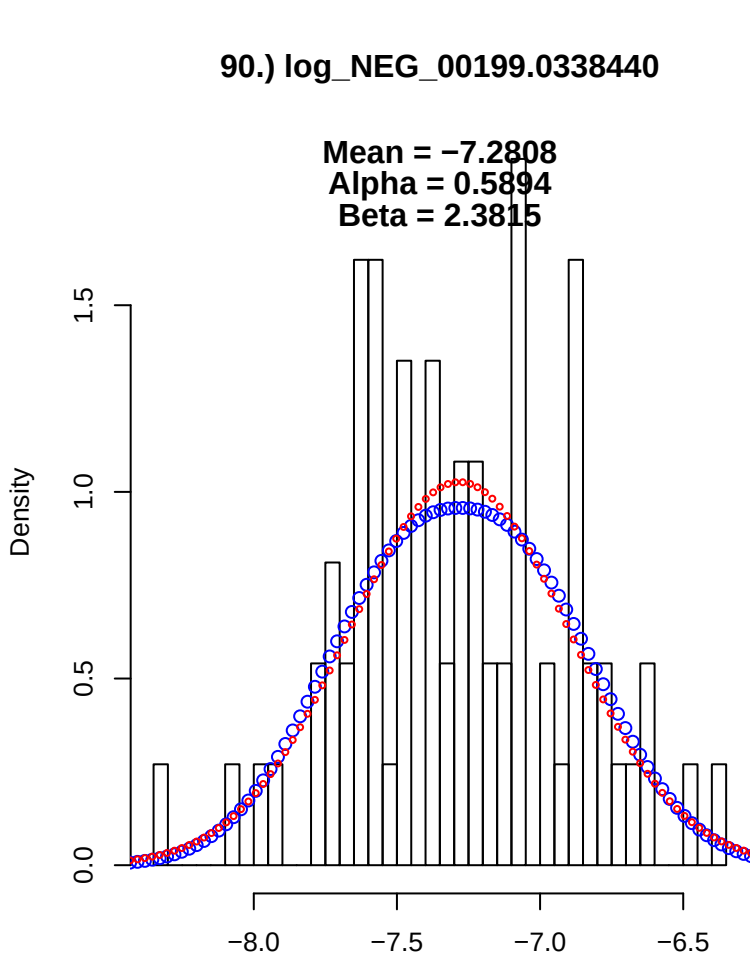

85.) log_POS_00635.3853560
Mean = −5.6119
Alpha = 0.3317
Beta = 2.0938
Density
0.0
0.5
1.0
1.5
2.0
2.5
−6.0
−5.8
−5.6
−5.4
−5.2
−5.0

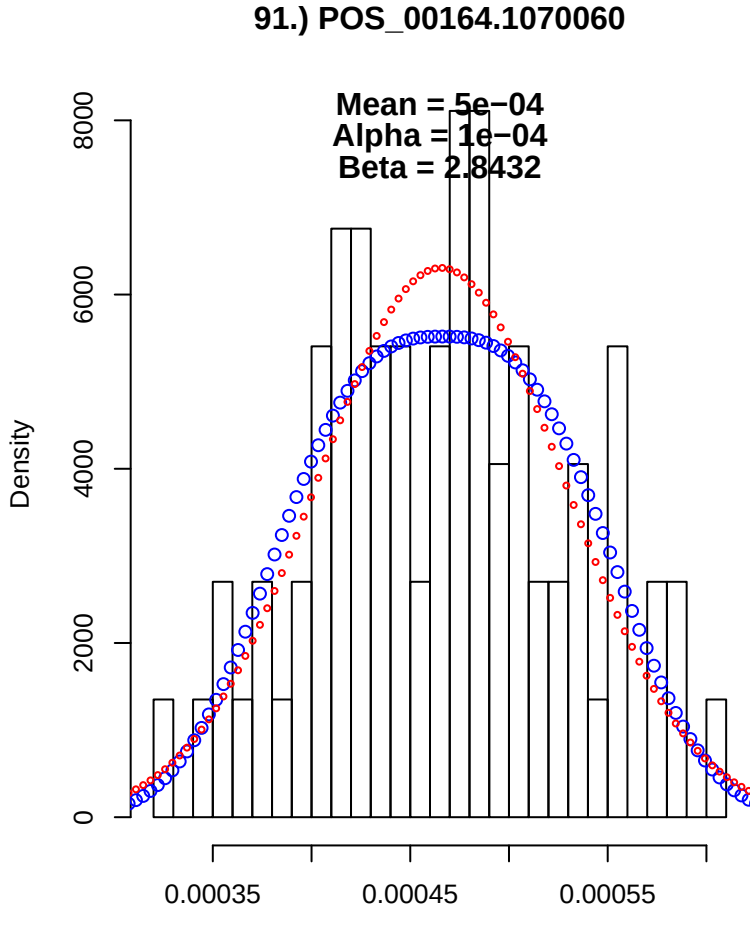

86.) log_POS_00337.7004760
Mean = −8.7893
Alpha = 0.3722
Beta = 2.2028
Density
0.0
0.5
1.0
1.5
2.0
−9.2
−9.0
−8.8
−8.6
−8.4
−8.2

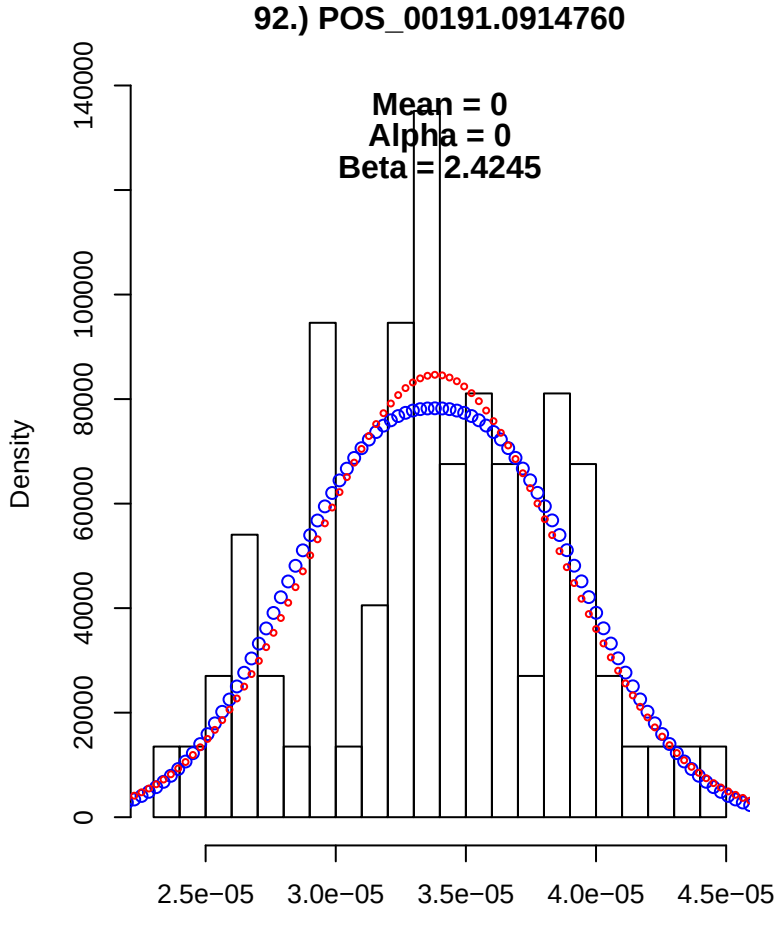

87.) log_POS_00351.2003660
Mean = −7.8229
Alpha = 0.2831
Beta = 1.4599
Density
0.0
0.5
1.0
1.5
2.0
2.5
−8.2
−8.0
−7.8
−7.6
−7.4
−7.2
−7.0

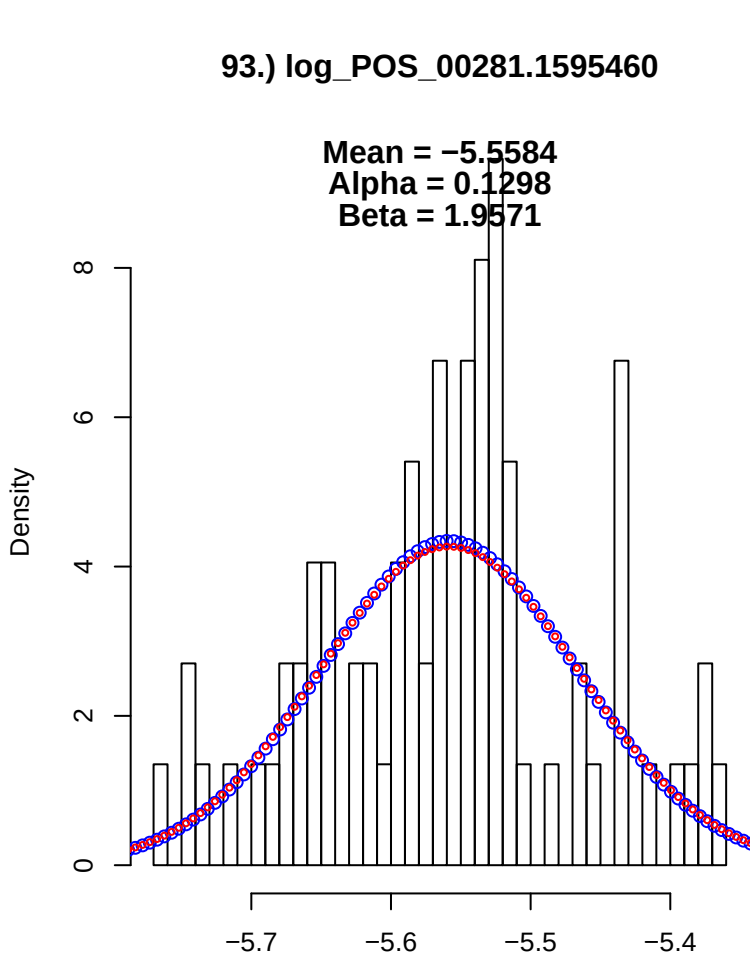

88.) log_NEG_00097.0296340
Mean = −3.7989
Alpha = 0.2442
Beta = 1.7062
Density
0.0
0.5
1.0
1.5
2.0
2.5
−4.2
−4.0
−3.8
−3.6
−3.4

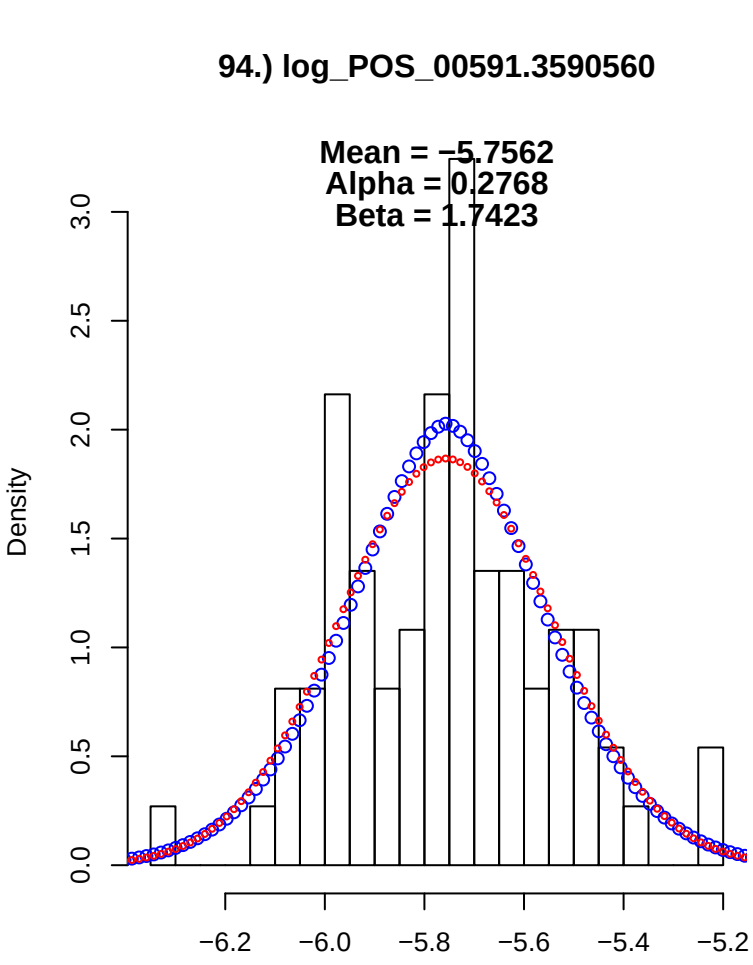

89.) log_NEG_00552.8582640
Mean = −7.8392
Alpha = 0.2524
Beta = 1.3694
Density
0.0
0.5
1.0
1.5
2.0
2.5
−8.4
−8.2
−8.0
−7.8
−7.6
−7.4
−7.2

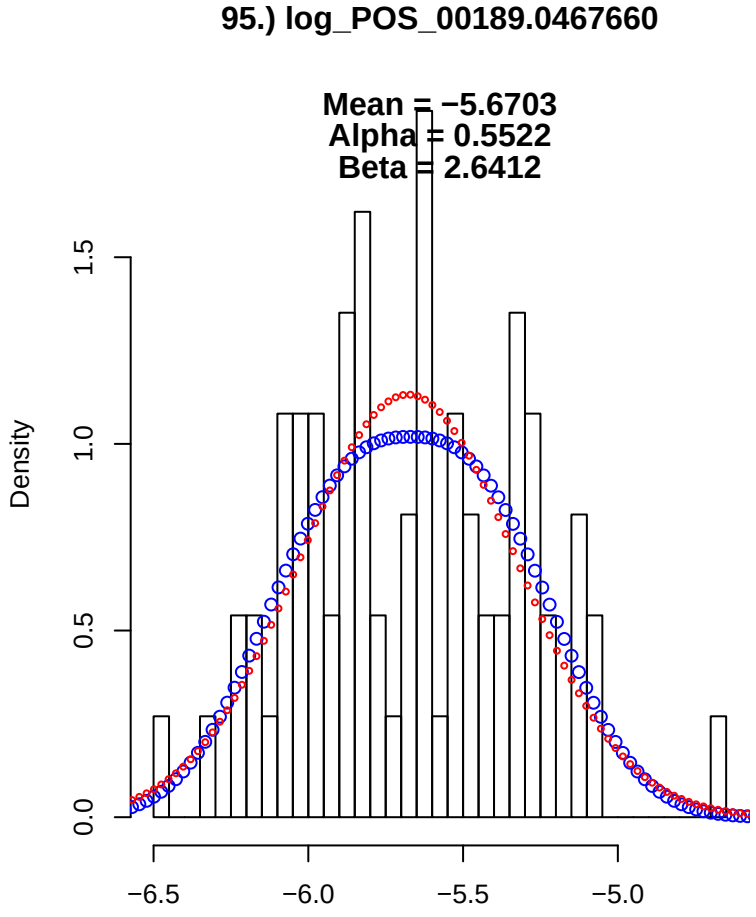

90.) log_NEG_00199.0338440
Mean = −7.2808
Alpha = 0.5894
Beta = 2.3815
Density
0.0
0.5
1.0
1.5
−8.0
−7.5
−7.0
−6.5

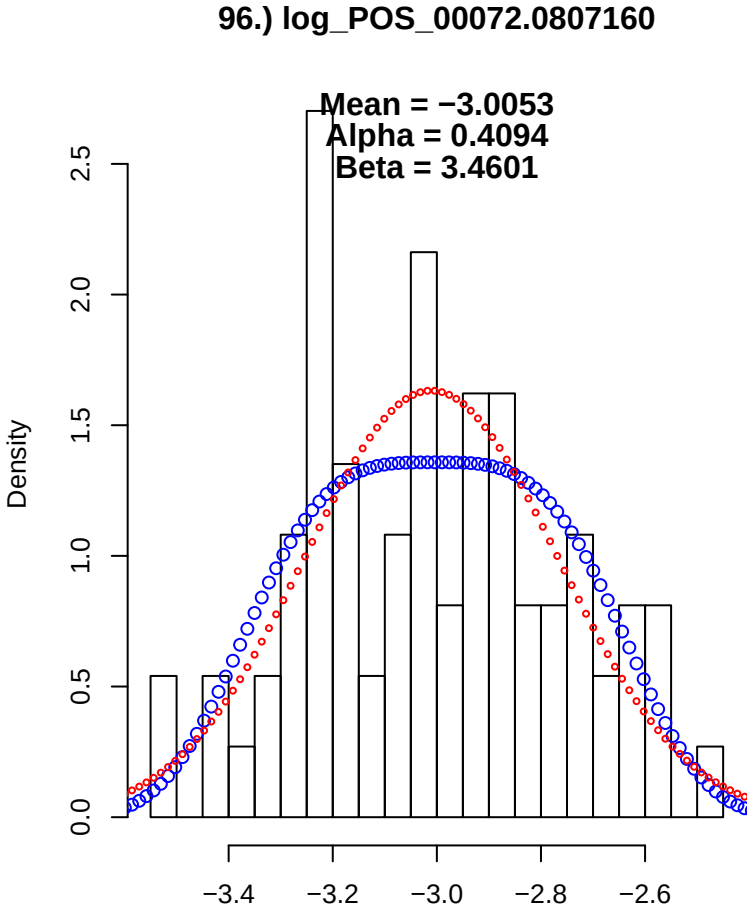

91.) POS_00164.1070060
Mean = 5e−04
Alpha = 1e−04
Beta = 2.8432
Density
0
2000
4000
6000
8000
0.00035
0.00045
0.00055

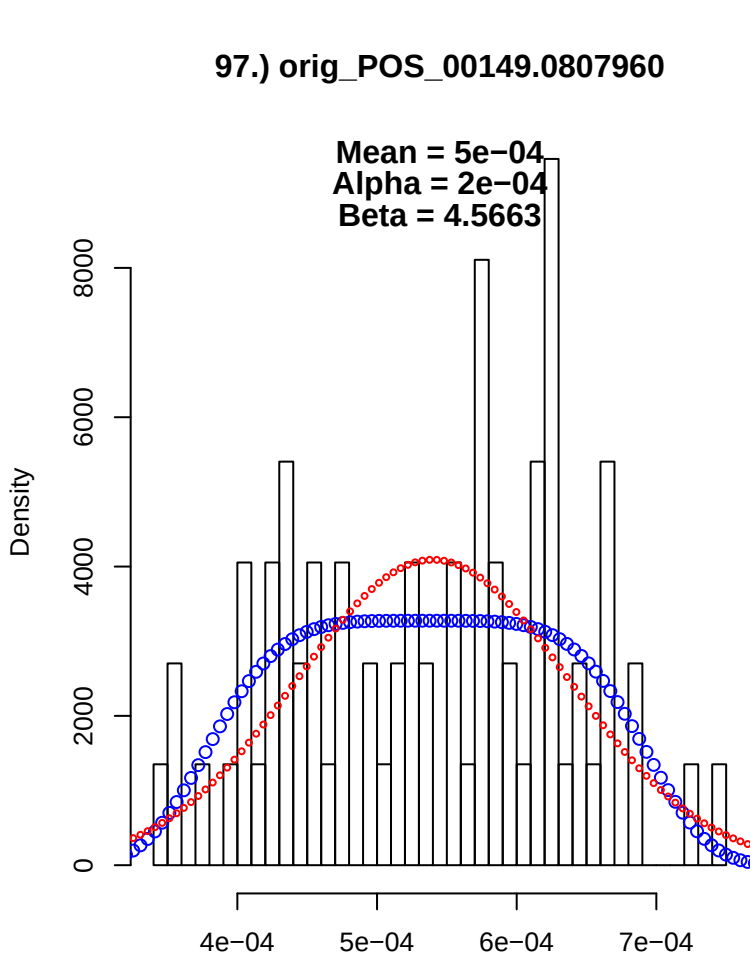

92.) POS_00191.0914760
Mean = 0
Alpha = 0
Beta = 2.4245
Density
0
20000
40000
60000
80000
100000
140000
2.5e−05
3.0e−05
3.5e−05
4.0e−05
4.5e−05

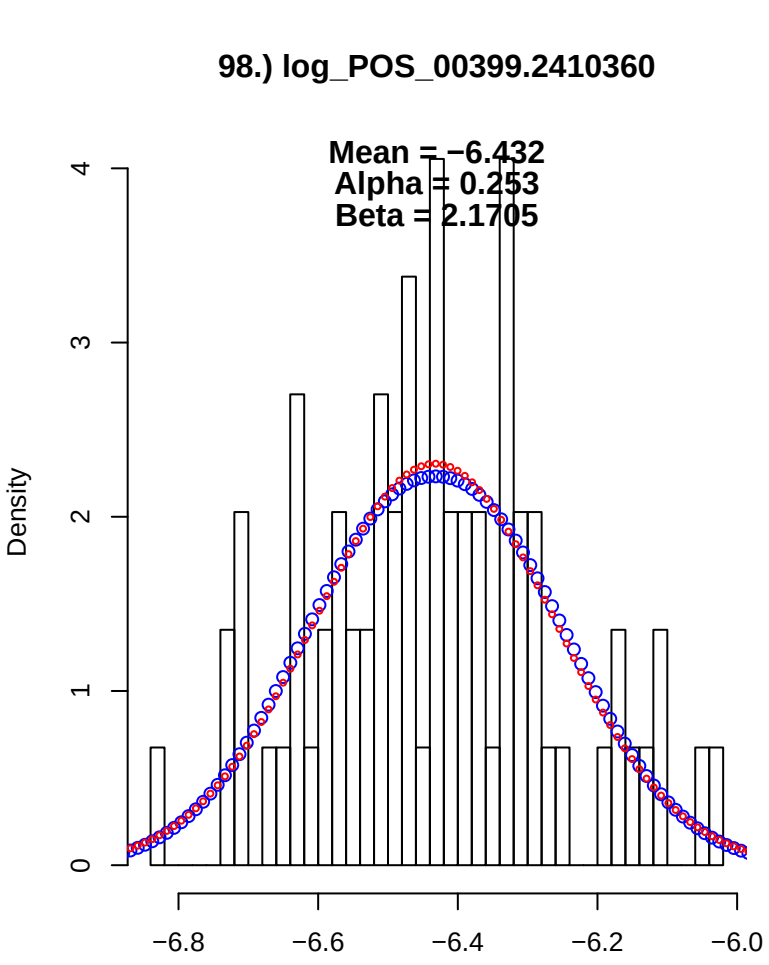

93.) log_POS_00281.1595460
Mean = −5.5584
Alpha = 0.1298
Beta = 1.9571
Density
0
2
4
6
8
−5.7
−5.6
−5.5
−5.4

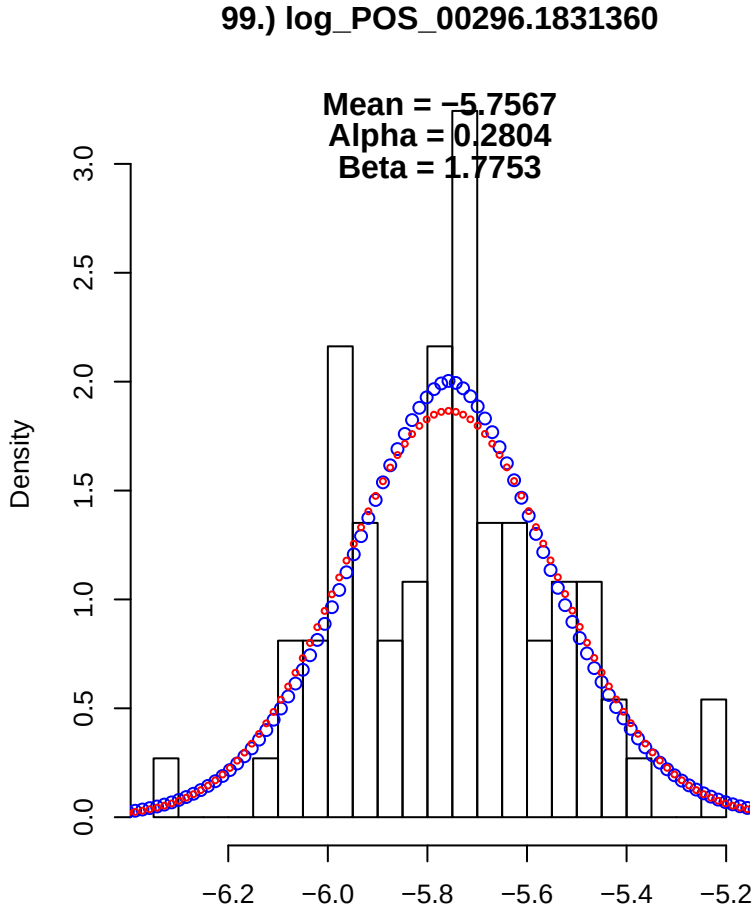

94.) log_POS_00591.3590560
Mean = −5.7562
Alpha = 0.2768
Beta = 1.7423
Density
0.0
0.5
1.0
1.5
2.0
2.5
3.0
−6.2
−6.0
−5.8
−5.6
−5.4
−5.2

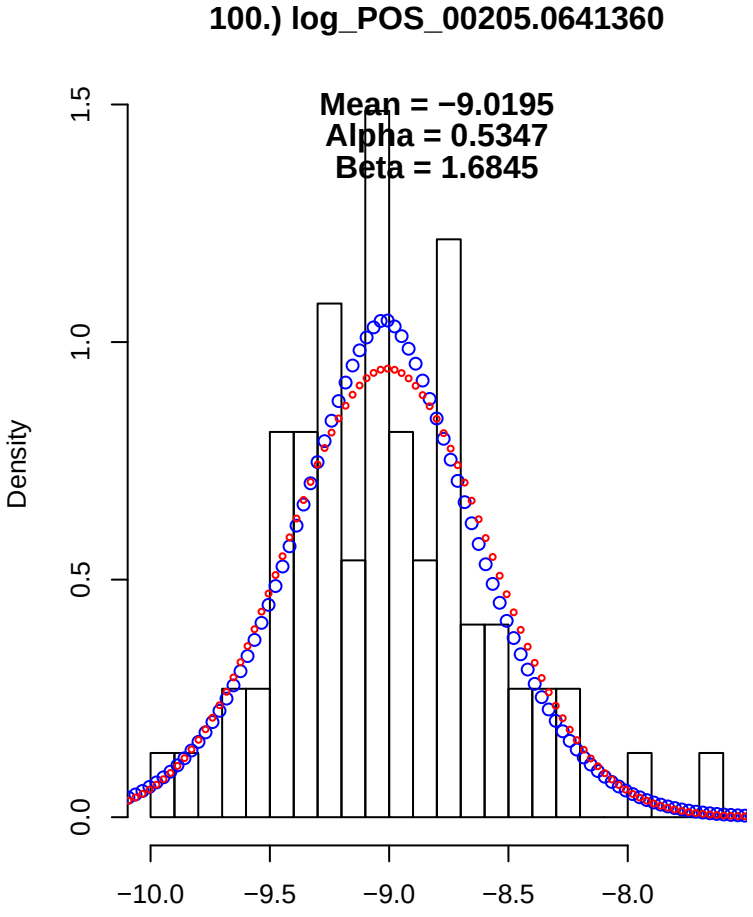

95.) log_POS_00189.0467660
Mean = −5.6703
Alpha = 0.5522
Beta = 2.6412
Density
0.0
0.5
1.0
1.5
−6.5
−6.0
−5.5
−5.0


96.) log_POS_00072.0807160
Mean = −3.0053
Alpha = 0.4094
Beta = 3.4601
Density
0.0
0.5
1.0
1.5
2.0
2.5
−3.4
−3.2
−3.0
−2.8
−2.6


97.) orig_POS_00149.0807960
Mean = 5e−04
Alpha = 2e−04
Beta = 4.5663
Density
0
2000
4000
6000
8000
4e−04
5e−04
6e−04
7e−04


98.) log_POS_00399.2410360
Mean = −6.432
Alpha = 0.253
Beta = 2.1705
Density
0
1
2
3
4
−6.8
−6.6
−6.4
−6.2
−6.0


99.) log_POS_00296.1831360
Mean = −5.7567
Alpha = 0.2804
Beta = 1.7753
Density
0.0
0.5
1.0
1.5
2.0
2.5
3.0
−6.2
−6.0
−5.8
−5.6
−5.4
−5.2


100.) log_POS_00205.0641360
Mean = −9.0195
Alpha = 0.5347
Beta = 1.6845
Density
0.0
0.5
1.0
1.5
−10.0
−9.5
−9.0
−8.5
−8.0