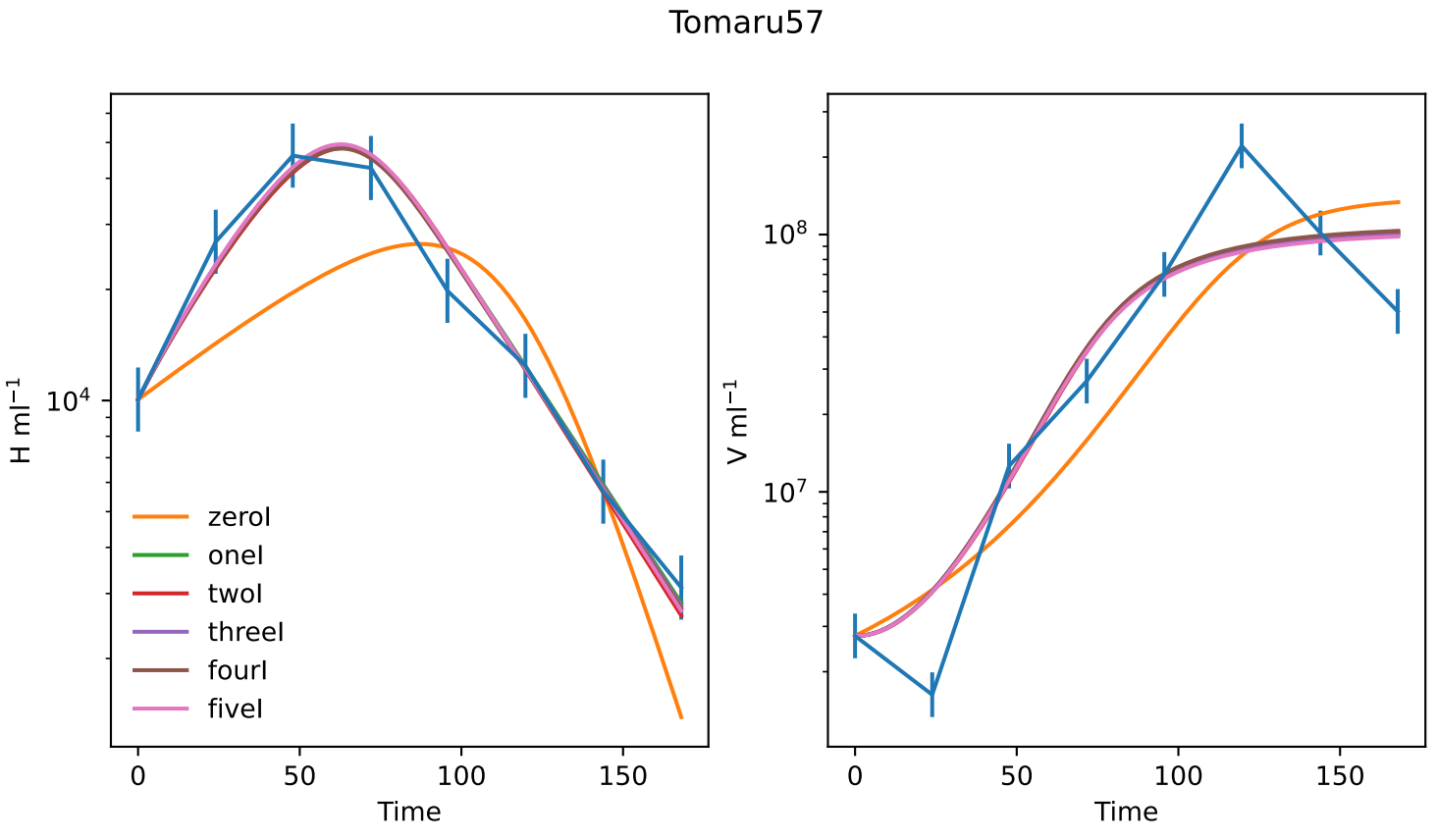
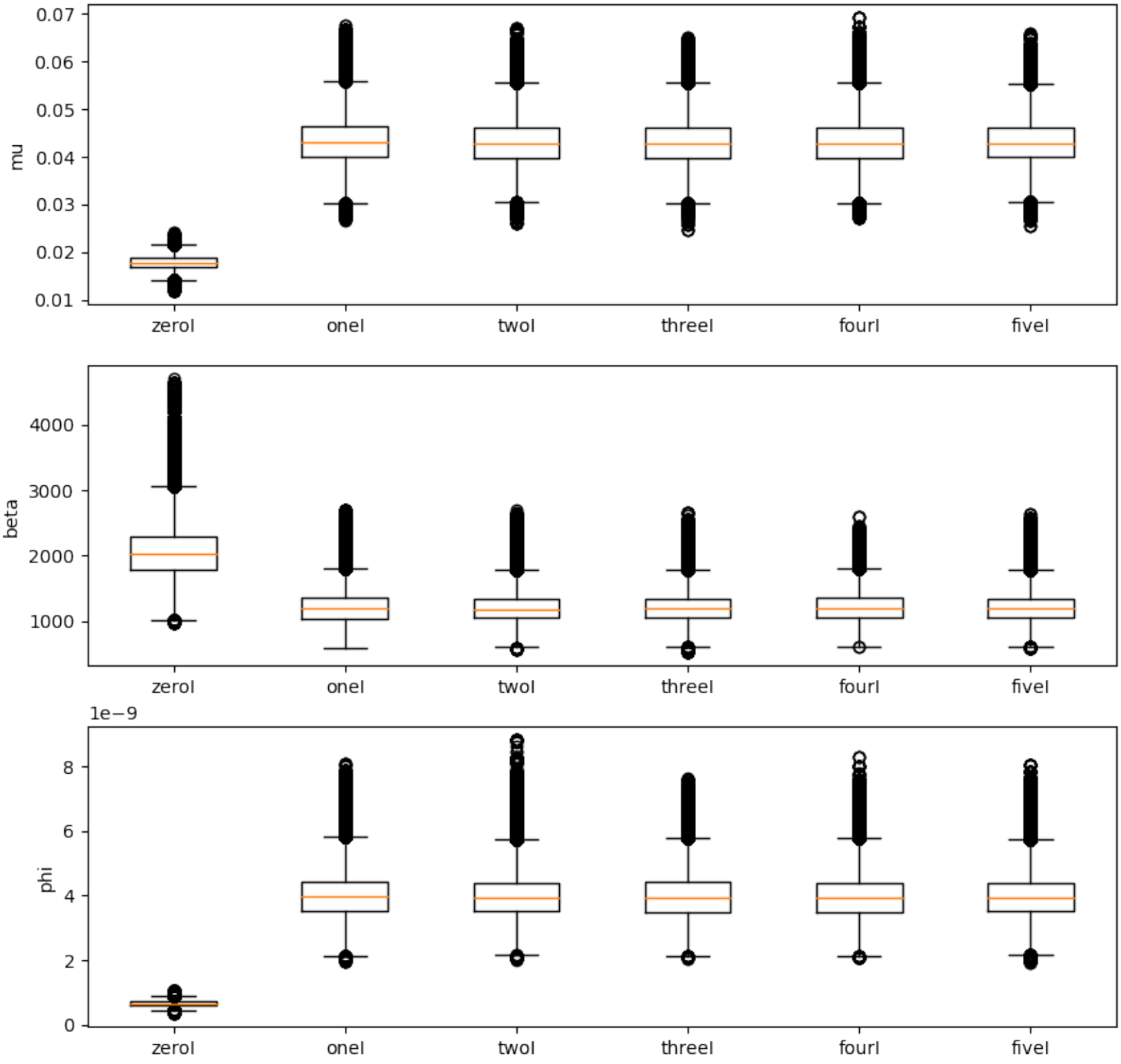
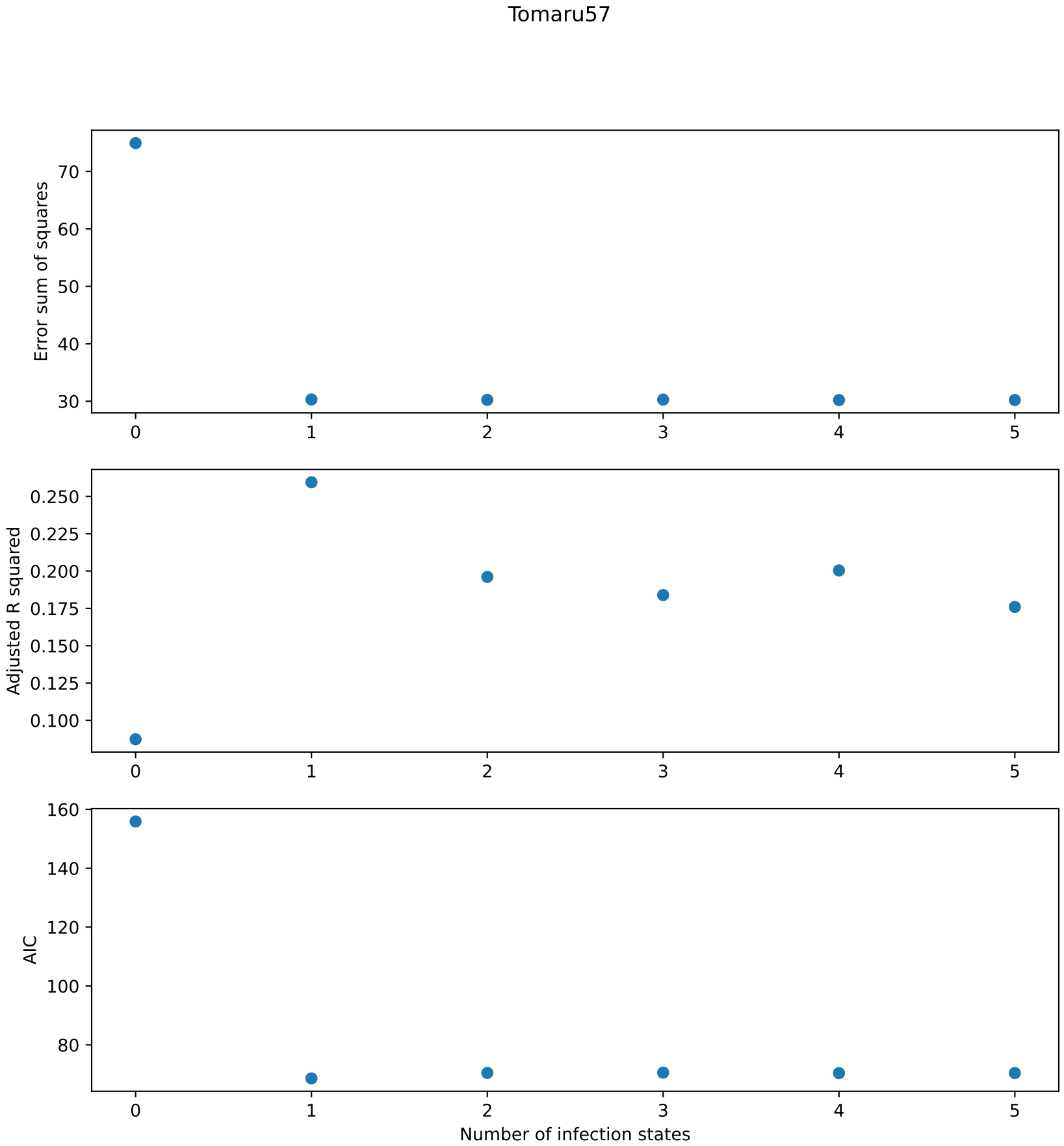
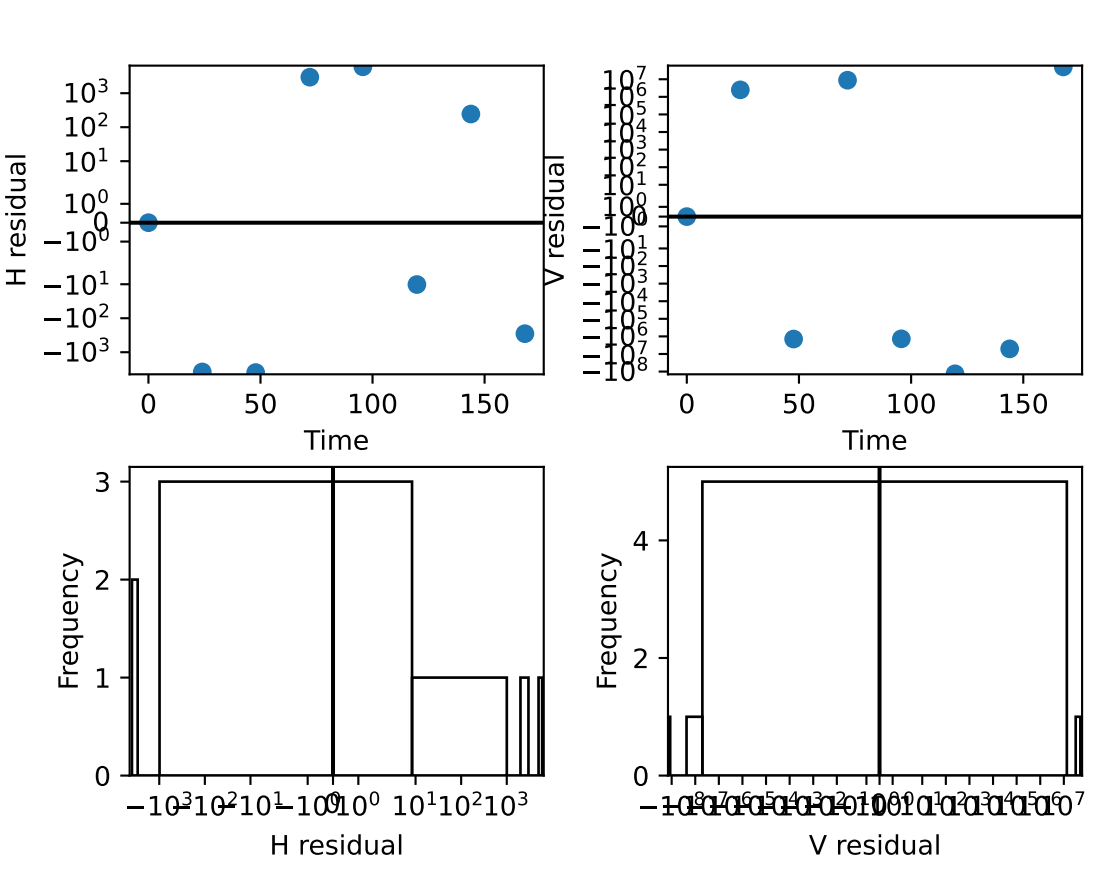

Tomaru57
H ml^{-1}
10^4
zerol
onel
twol
threel
fourl
fivel
0
50
100
150
Time
V ml^{-1}
10^8
10^7
0
50
100
150
Time

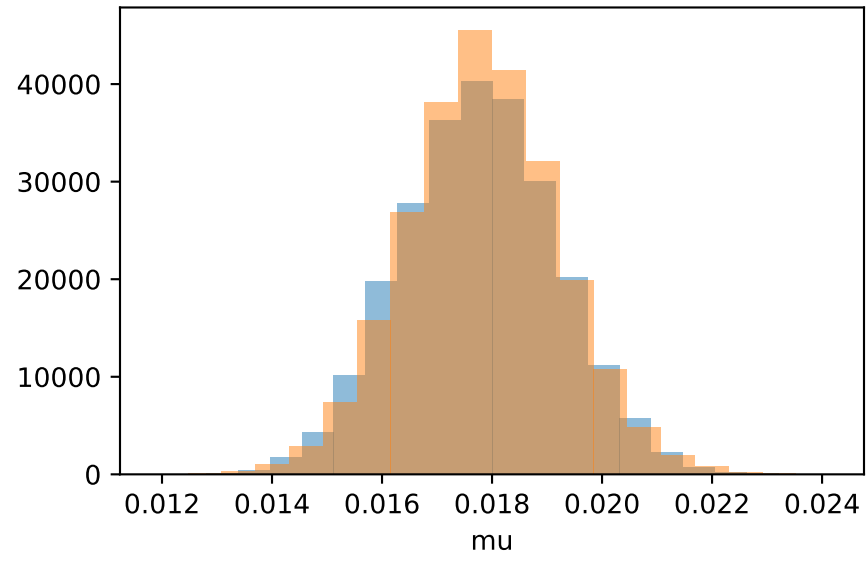
Tomaru57

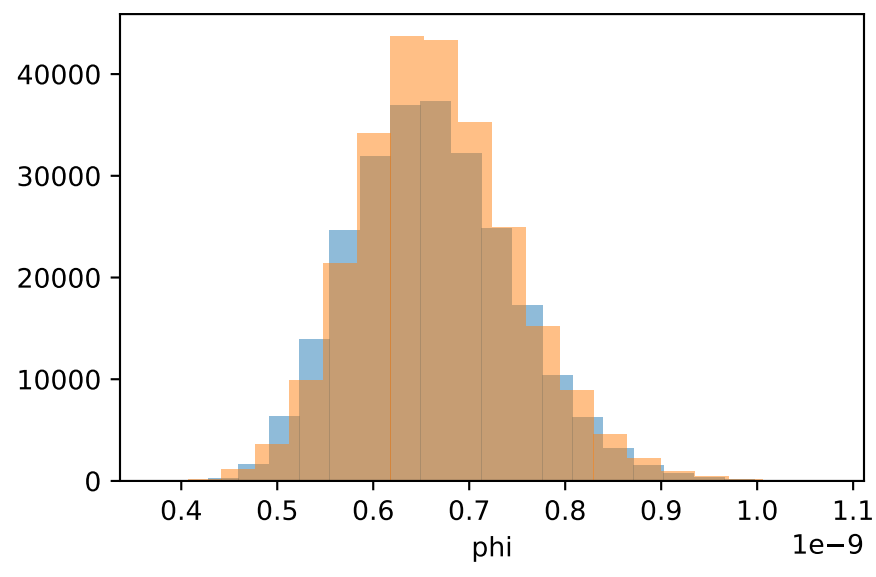

mu
0.07
0.06
0.05
0.04
0.03
0.02
0.01
zeroI
oneI
twoI
threeI
fourI
fiveI
beta
4000
3000
2000
1000
zeroI
oneI
twoI
threeI
fourI
fiveI
1e−9
phi
8
6
4
2
0
zeroI
oneI
twoI
threeI
fourI
fiveI

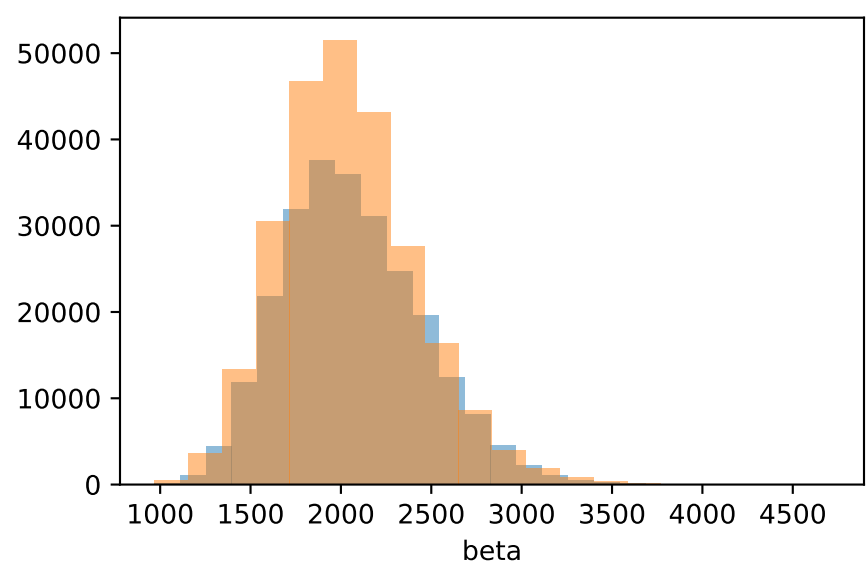

Tomaru57
Error sum of squares
70
60
50
40
30
0
1
2
3
4
5
Adjusted R squared
0.250
0.225
0.200
0.175
0.150
0.125
0.100
0
1
2
3
4
5
AIC
160
140
120
100
80
0
1
2
3
4
5
Number of infection states

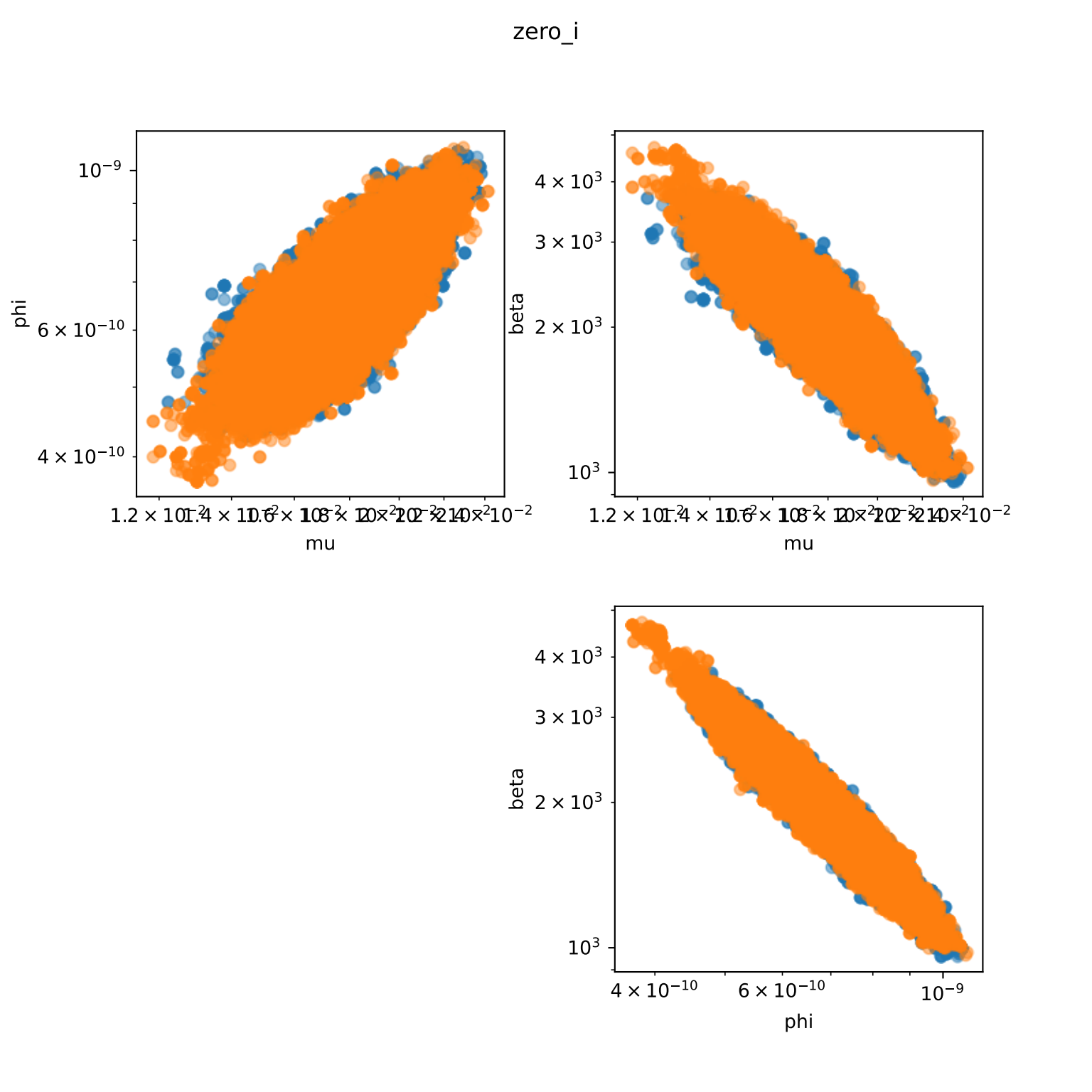

Residuals for model with lowest AIC
H residual
Time
V residual
Time
Frequency
H residual
Frequency
V residual

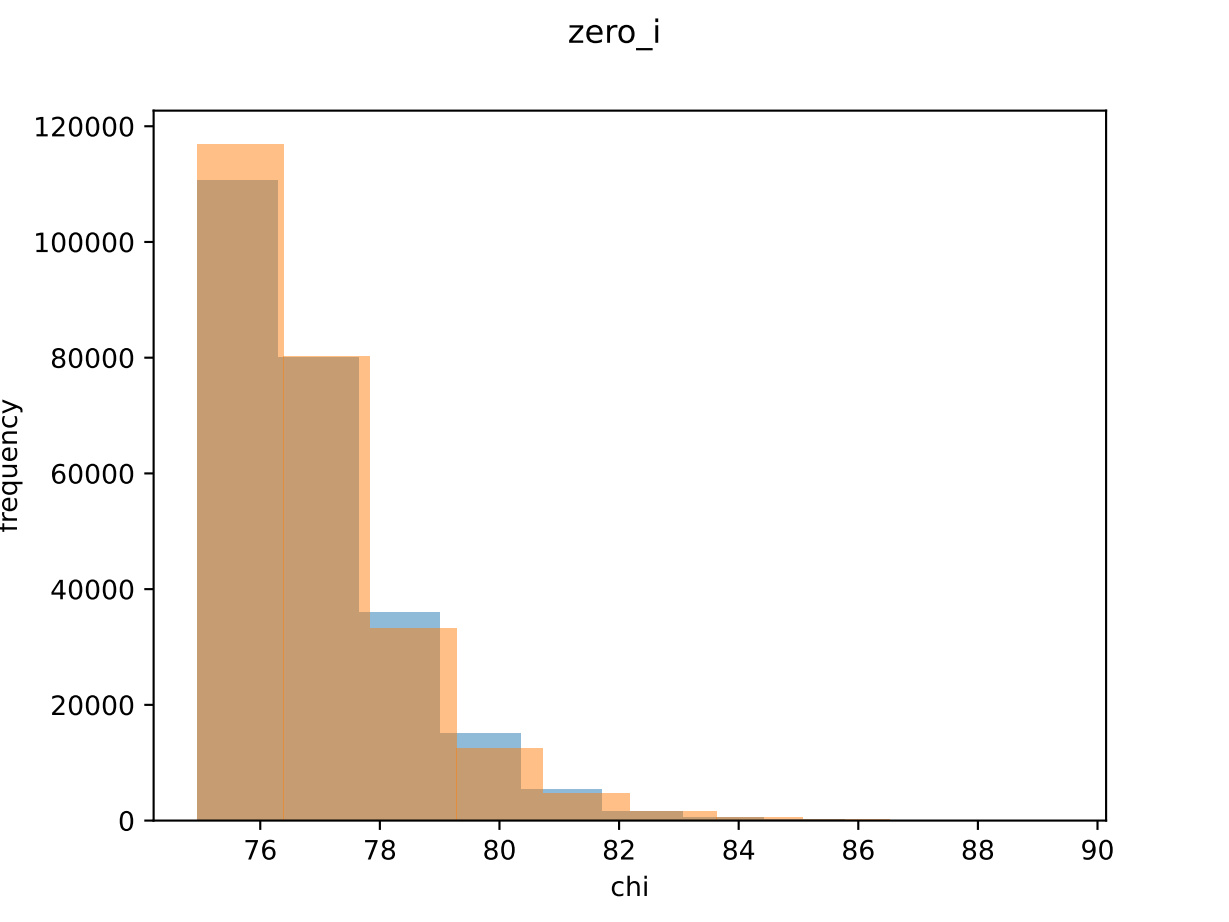
zero_i

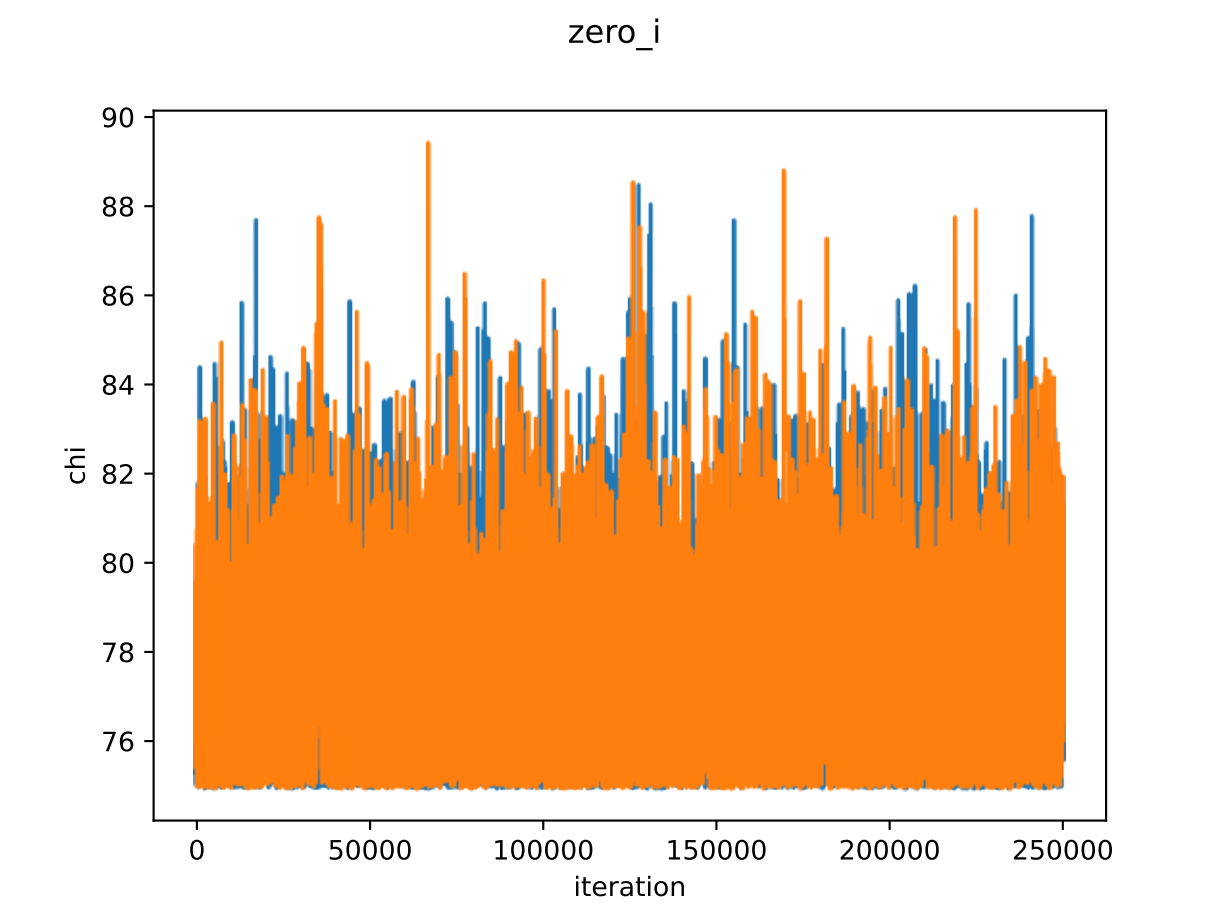

40000
30000
20000
10000
0
0.012
0.014
0.016
0.018
0.020
0.022
0.024
mu


40000
30000
20000
10000
0
0.4
0.5
0.6
0.7
0.8
0.9
1.0
1.1
phi
1e−9

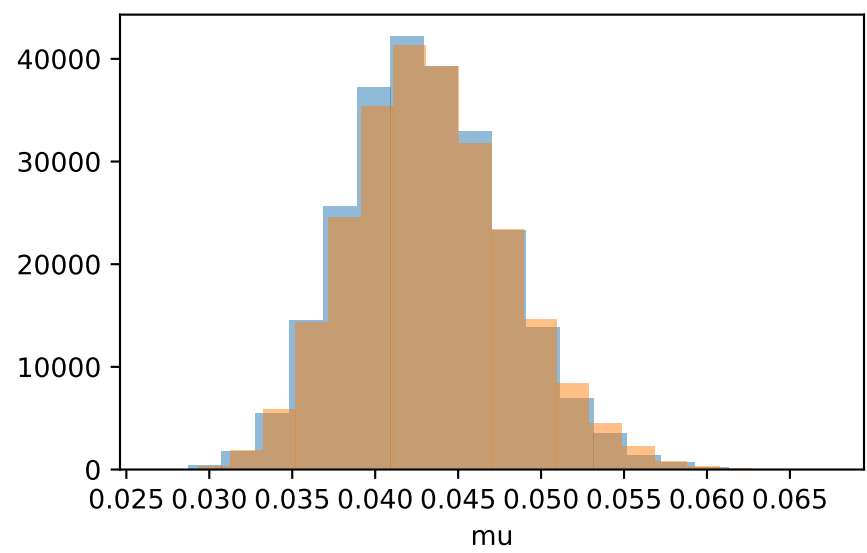

50000
40000
30000
20000
10000
0
1000
1500
2000
2500
3000
3500
4000
4500
beta

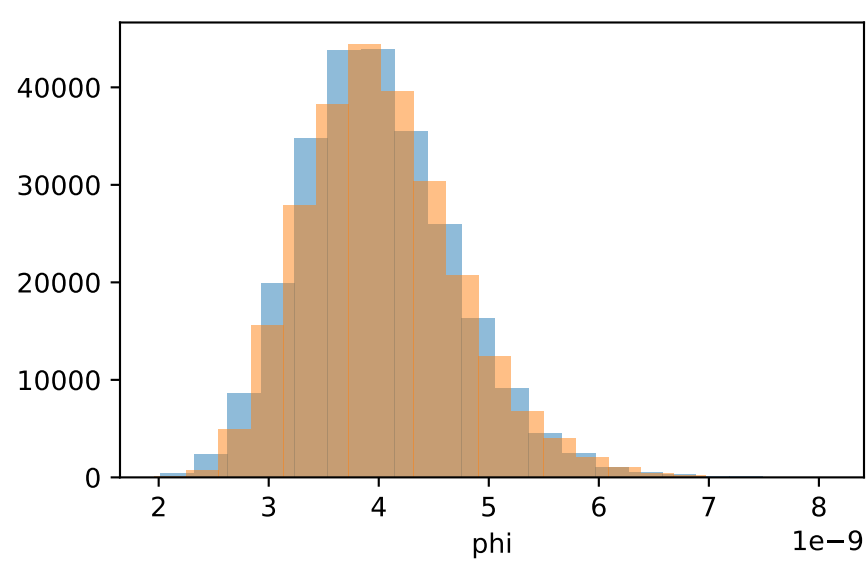

zero_i
phi
mu
beta
mu
beta
phi

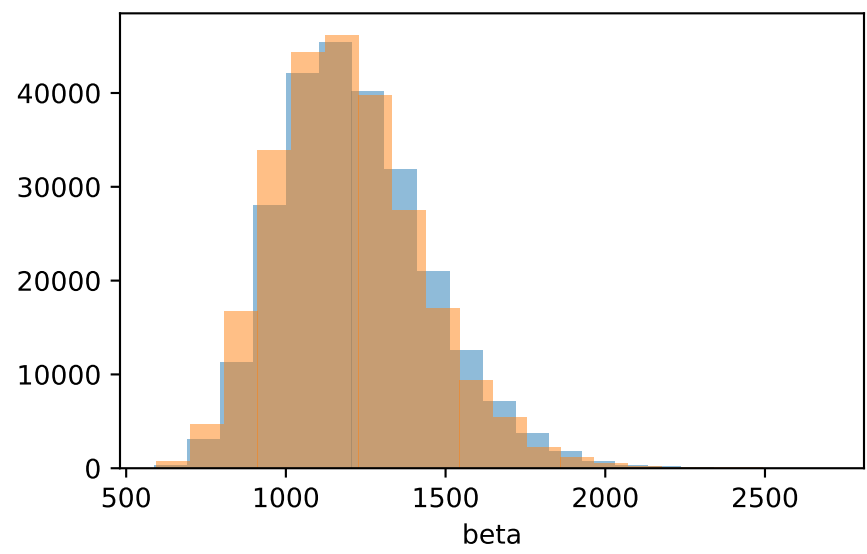

zero_i
120000
100000
80000
60000
40000
20000
0
frequency
76
78
80
82
84
86
88
90
chi

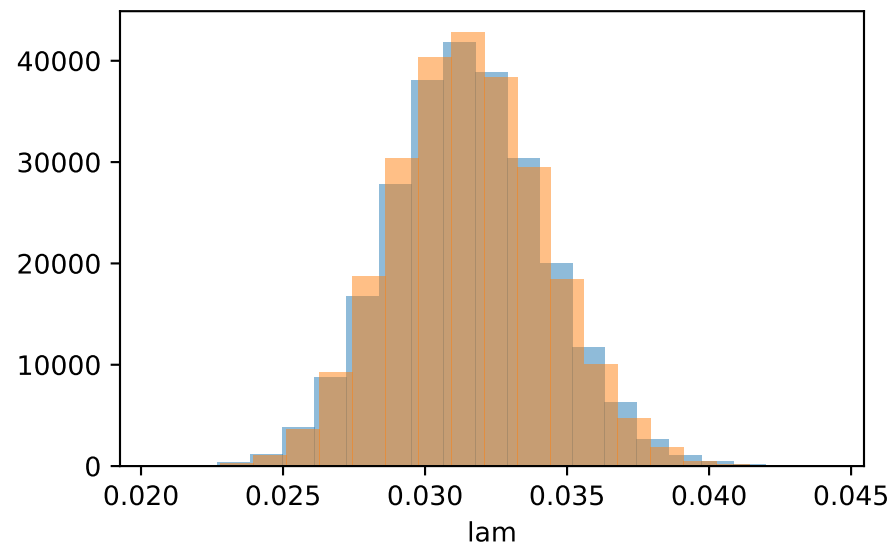

zero_i
90
88
86
84
82
80
78
76
chi
0
50000
100000
150000
200000
250000
iteration

one_i

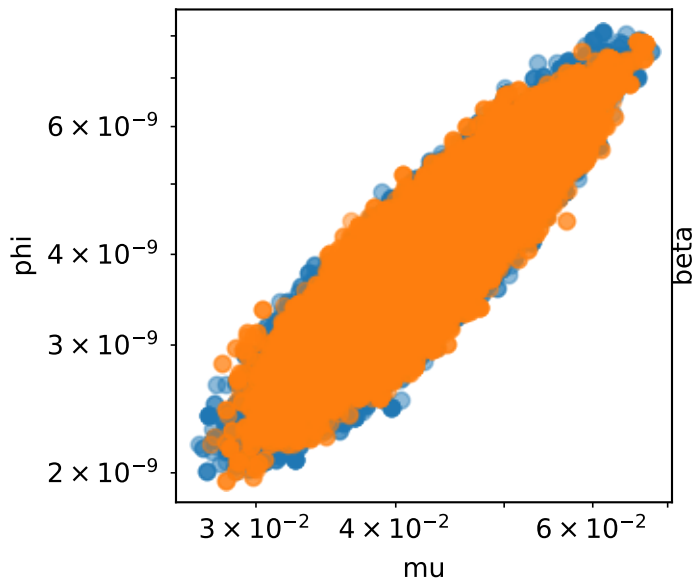

40000
30000
20000
10000
0
0.025 0.030 0.035 0.040 0.045 0.050 0.055 0.060 0.065
mu

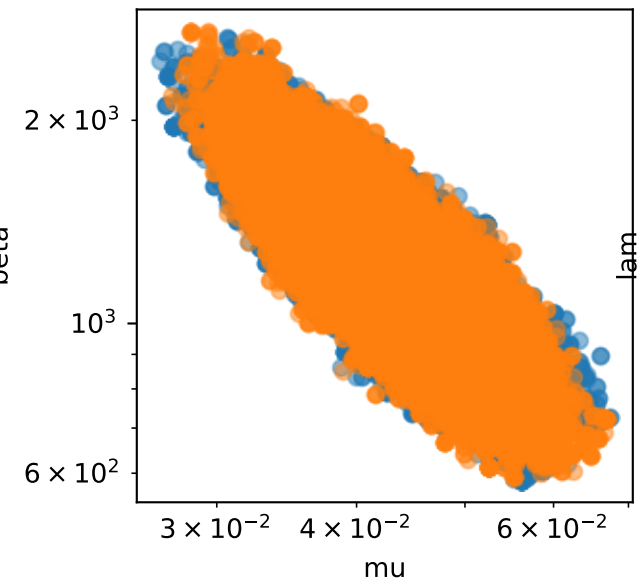

40000
30000
20000
10000
0
2
3
4
5
6
7
8
phi
1e−9

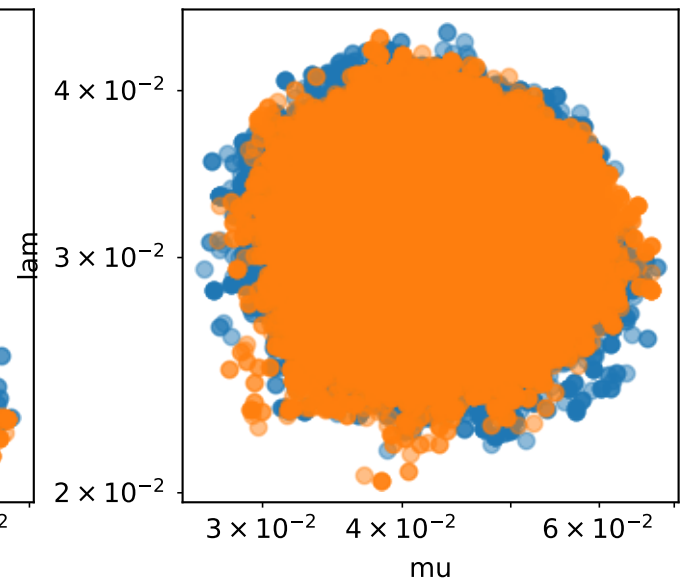

40000
30000
20000
10000
0
500
1000
1500
2000
2500
beta

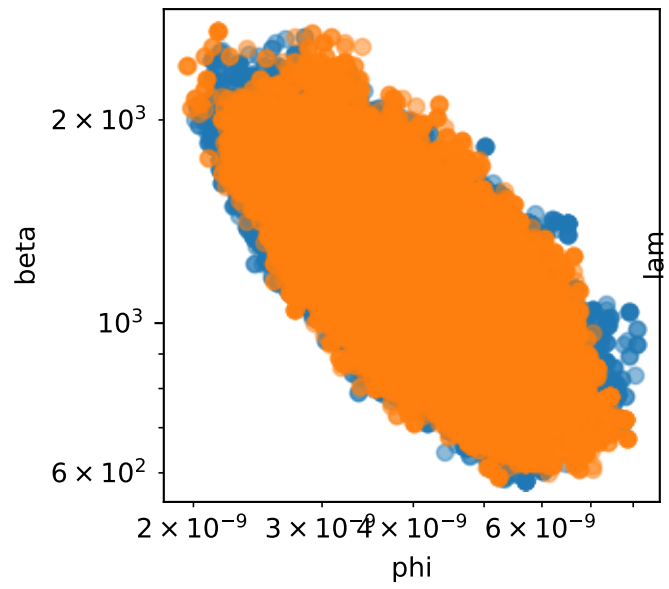

40000
30000
20000
10000
0
0.020
0.025
0.030
0.035
0.040
0.045
lam

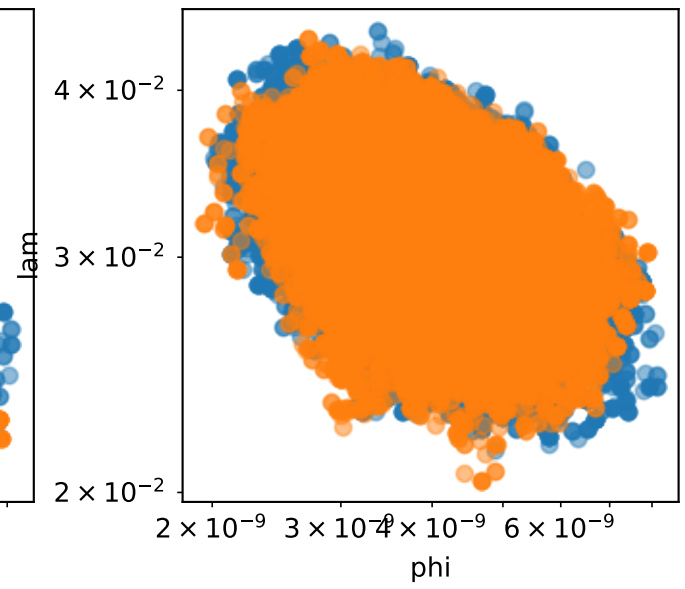
one_i

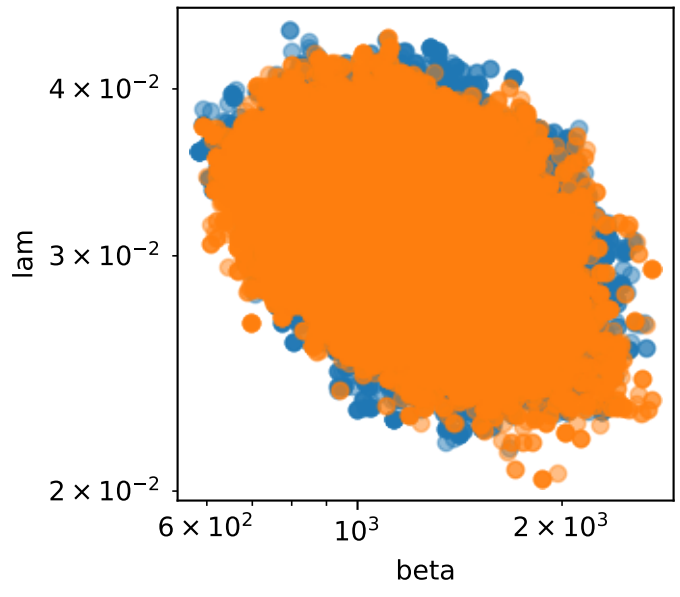

phi
6×10^{-9}
4×10^{-9}
3×10^{-9}
2×10^{-9}
3×10^{-2}
4×10^{-2}
6×10^{-2}
mu

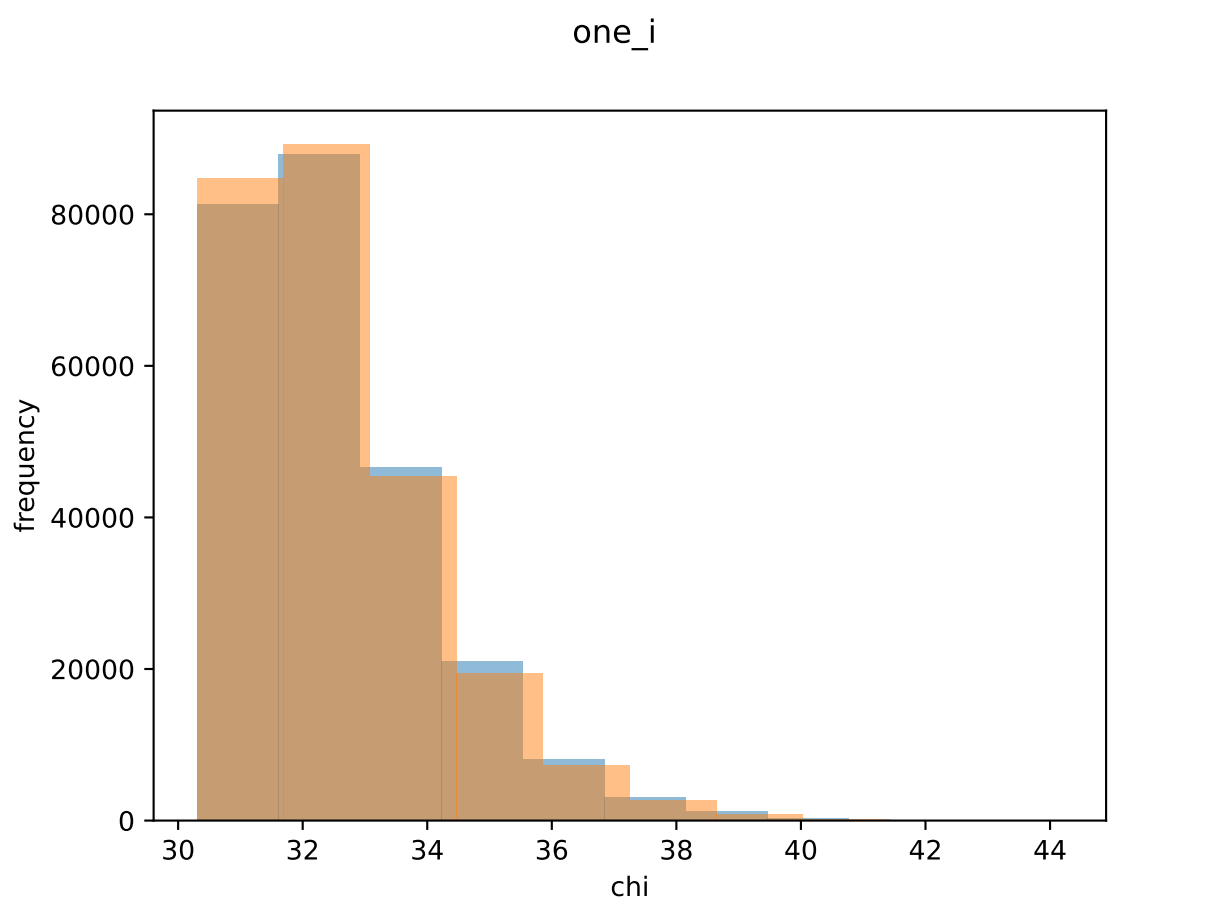

beta
2×10^{3}
10^{3}
6×10^{2}
3×10^{-2}
4×10^{-2}
6×10^{-2}
mu

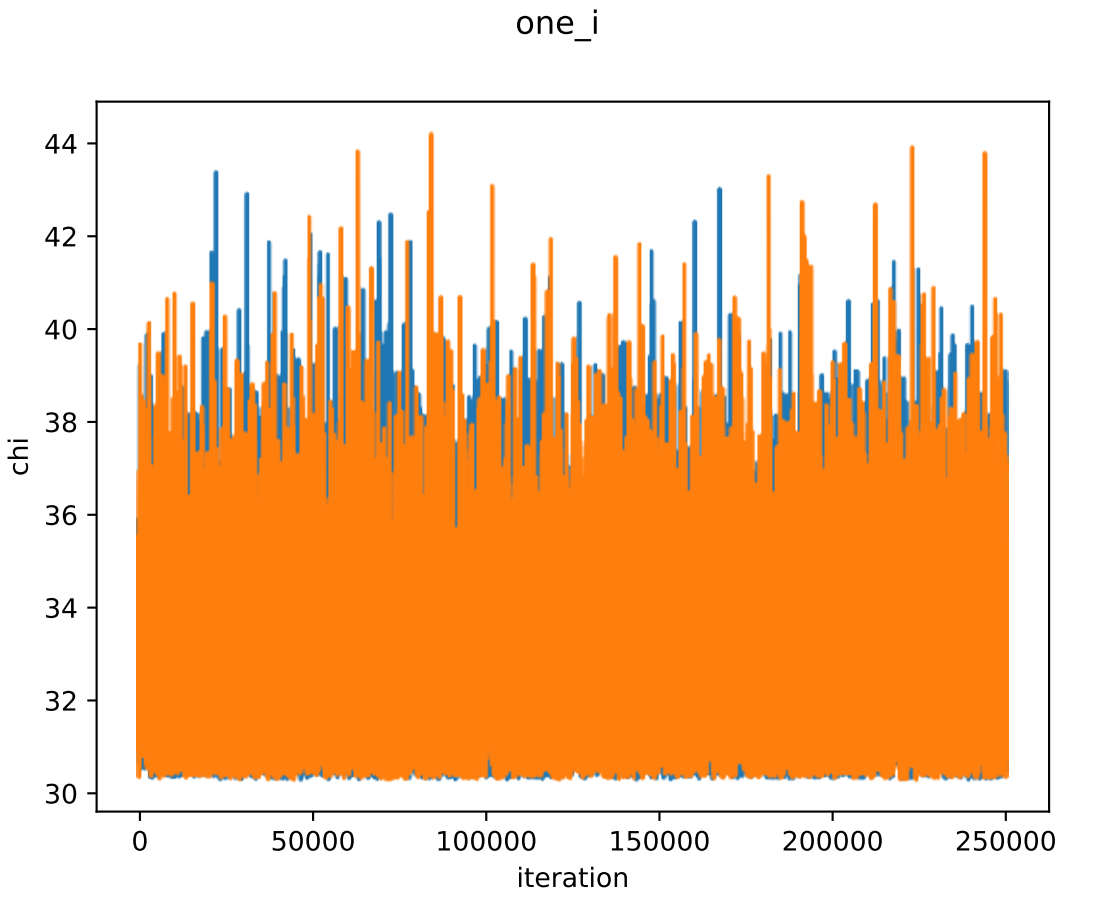

lam
4×10^{-2}
3×10^{-2}
2×10^{-2}
3×10^{-2}
4×10^{-2}
6×10^{-2}
mu


beta
2×10^{3}
10^{3}
6×10^{2}
2×10^{-9}
3×10^{-9}
4×10^{-9}
6×10^{-9}
phi

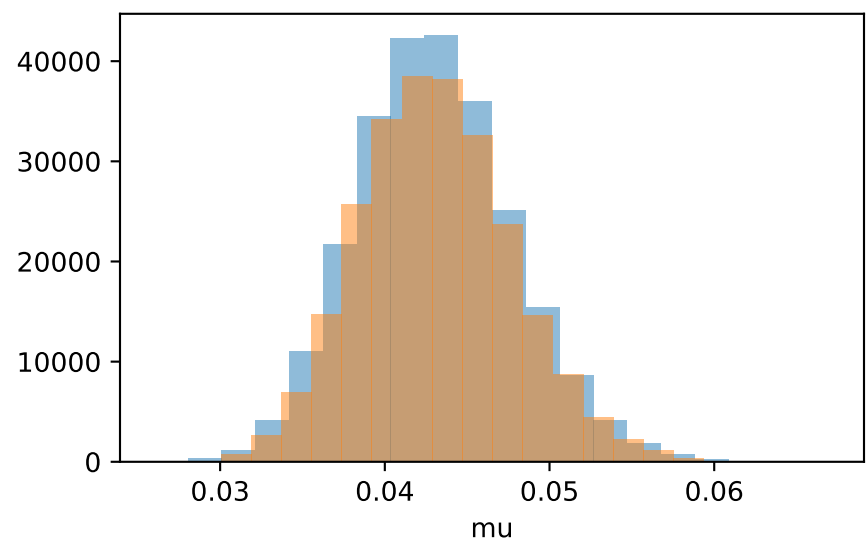

lam
4×10^{-2}
3×10^{-2}
2×10^{-2}
2×10^{-9}
3×10^{-9}
4×10^{-9}
6×10^{-9}
phi

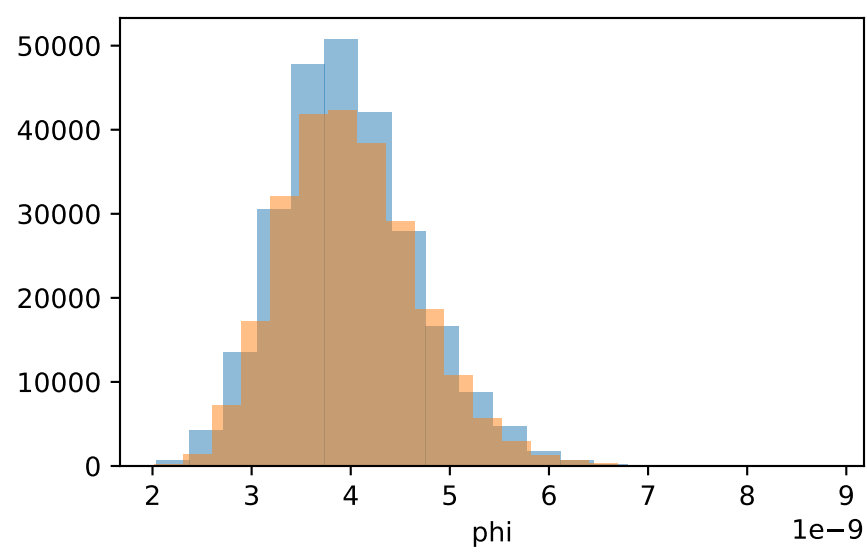

lam
4×10^{-2}
3×10^{-2}
2×10^{-2}
6×10^{2}
10^{3}
2×10^{3}
beta

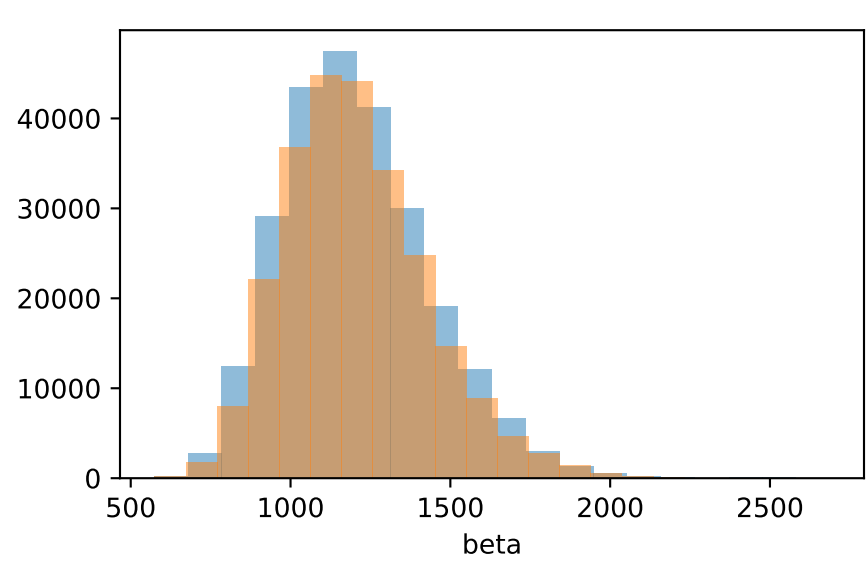

one_i
80000
60000
40000
20000
0
frequency
30
32
34
36
38
40
42
44
chi

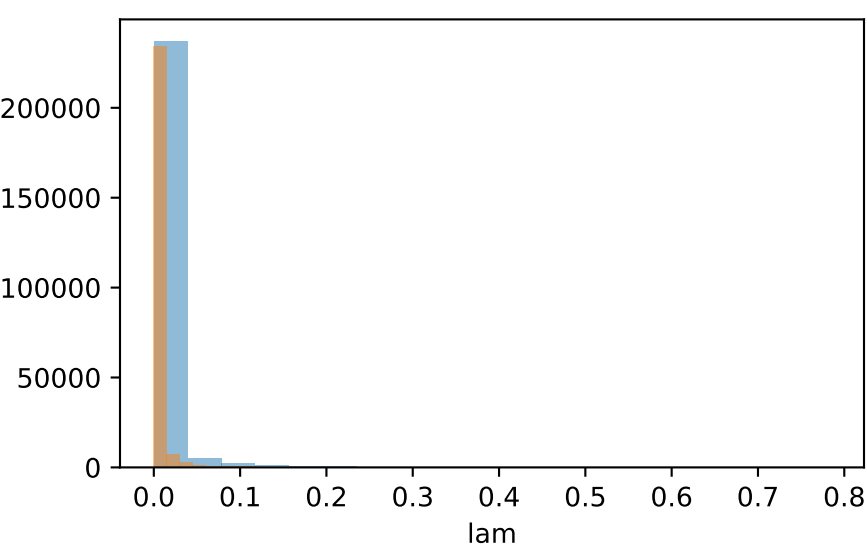

one_i
chi
iteration
44
42
40
38
36
34
32
30
0
50000
100000
150000
200000
250000

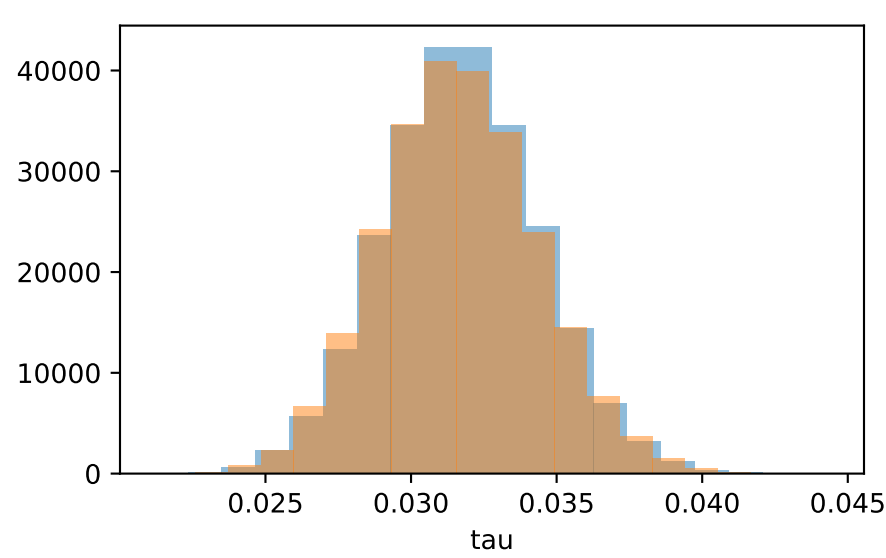
two_i


40000
30000
20000
10000
0
0.03
0.04
0.05
0.06
mu

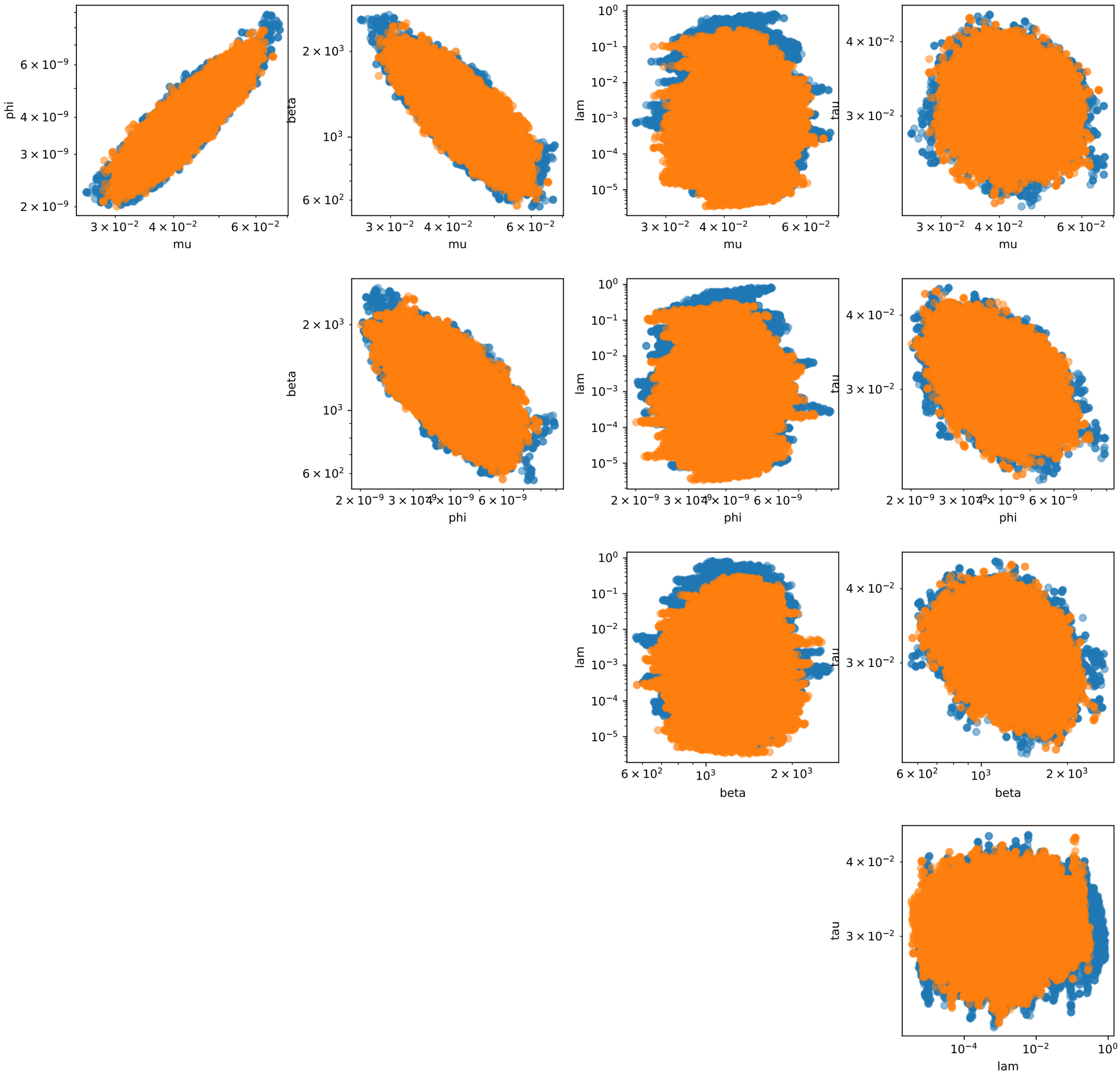

50000
40000
30000
20000
10000
0
2
3
4
5
6
7
8
9
phi
1e−9

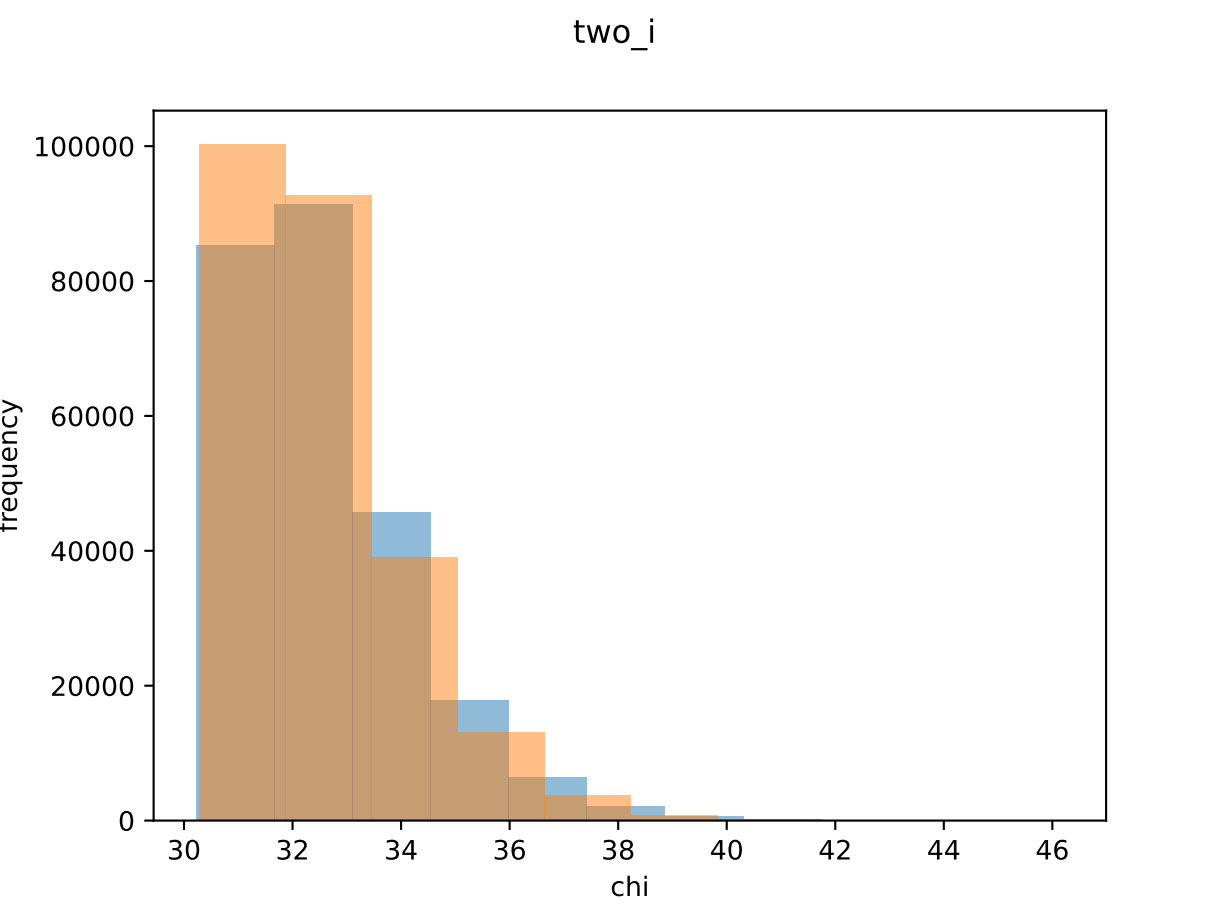

40000
30000
20000
10000
0
500
1000
1500
2000
2500
beta

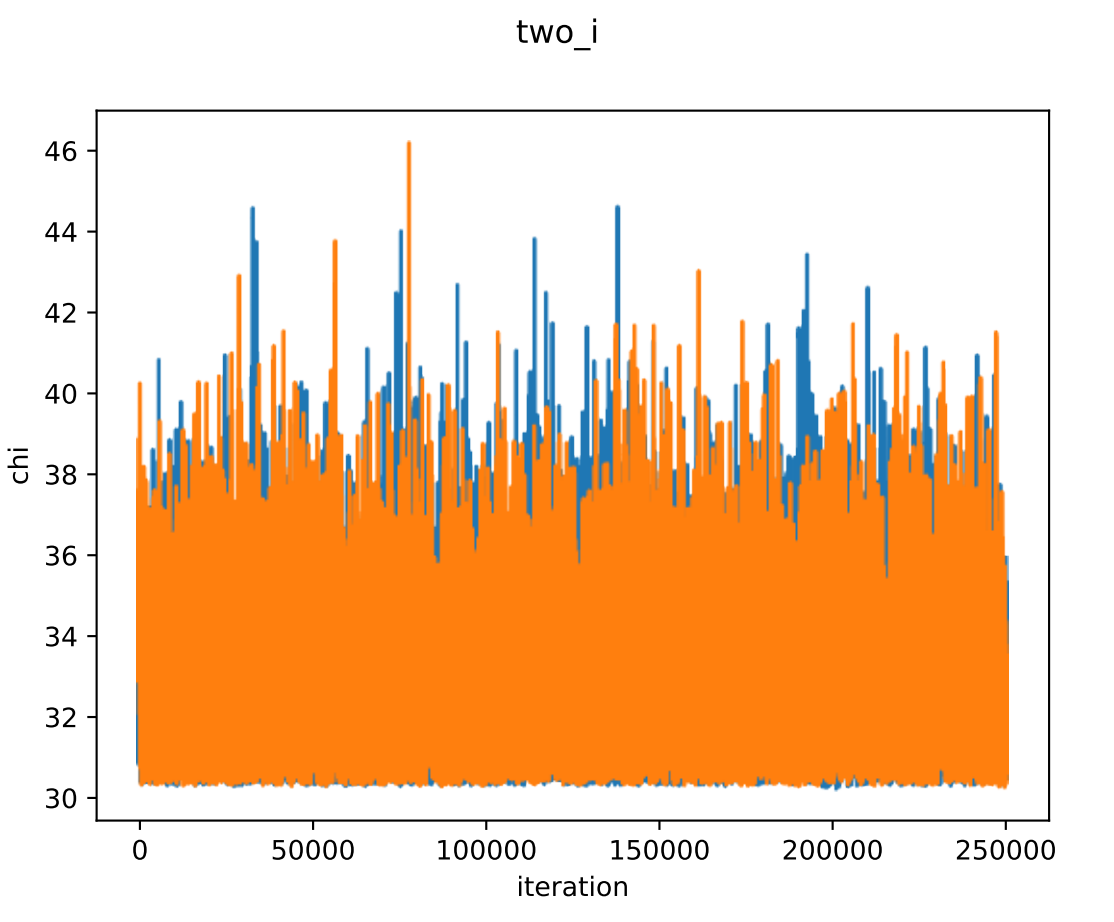

200000
150000
100000
50000
0
0.0
0.1
0.2
0.3
0.4
0.5
0.6
0.7
0.8
lam


40000
30000
20000
10000
0
0.025
0.030
0.035
0.040
0.045
tau

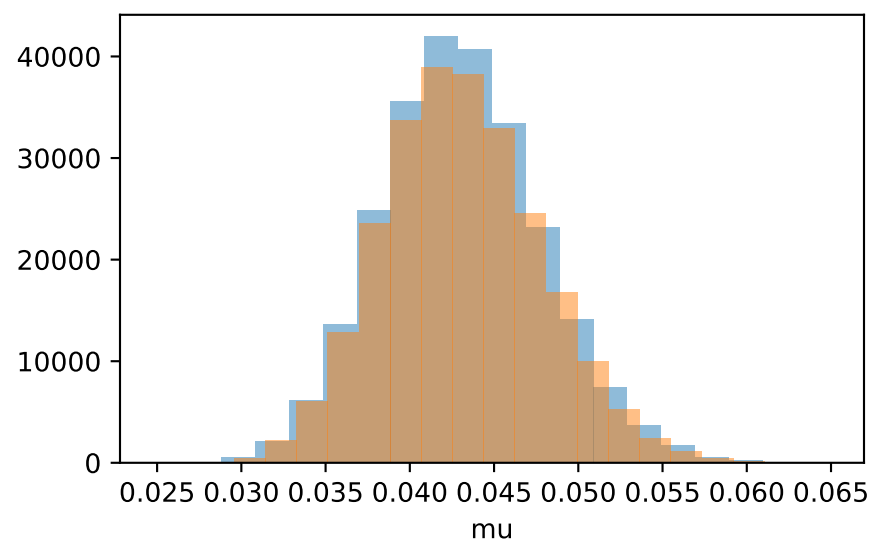
two_i

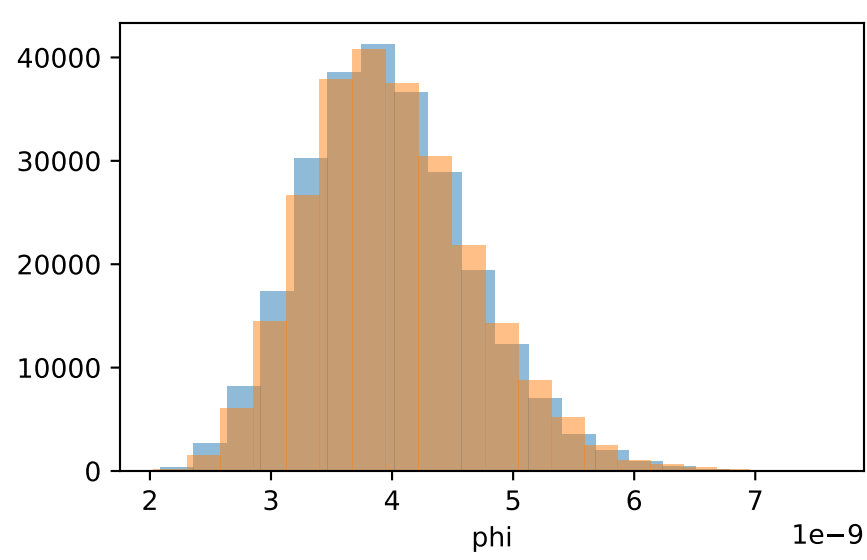


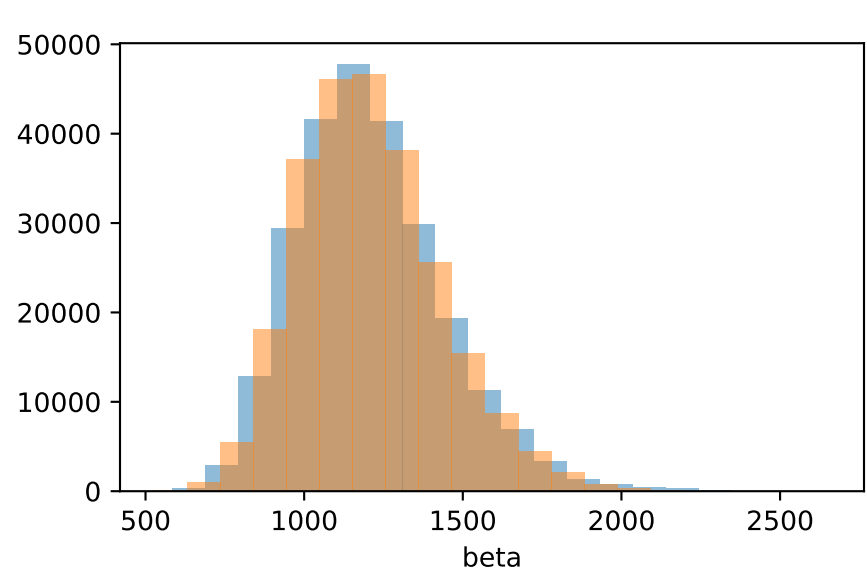

two_i
100000
80000
60000
40000
20000
0
frequency
30
32
34
36
38
40
42
44
46
chi

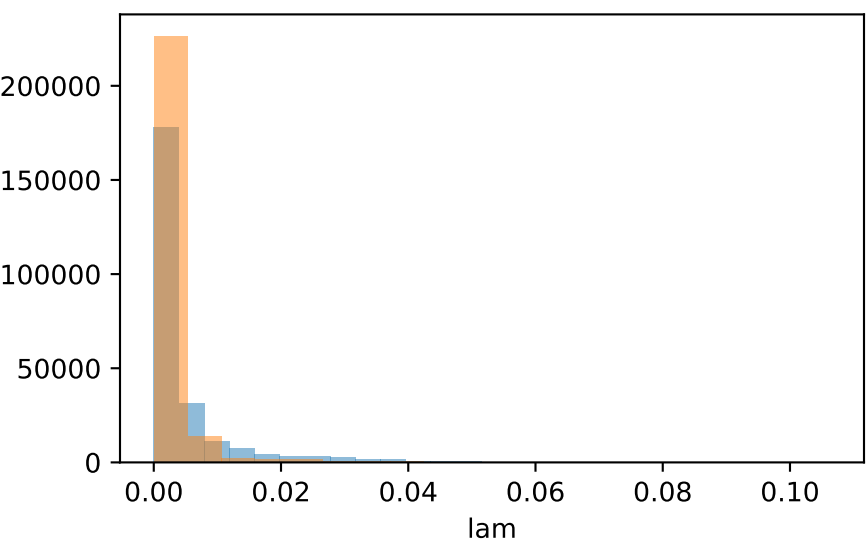

two_i
chi
iteration
46
44
42
40
38
36
34
32
30
0
50000
100000
150000
200000
250000

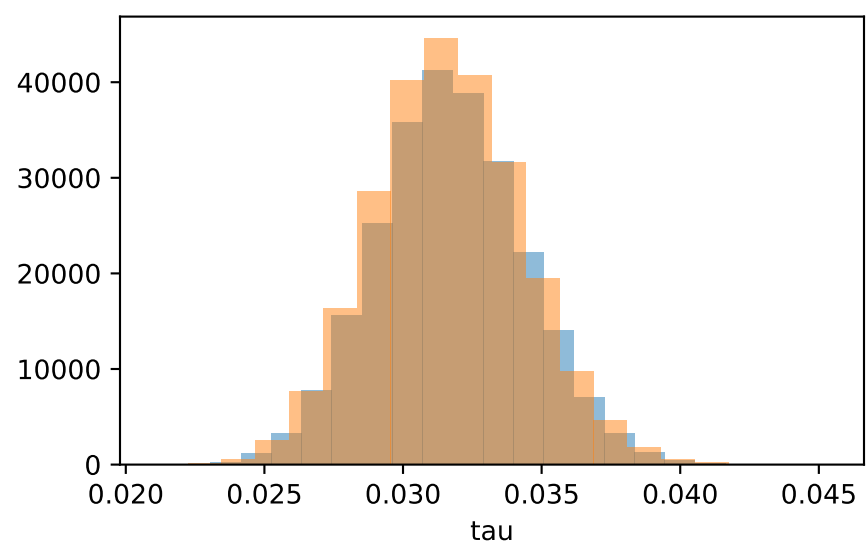
three_i


40000
30000
20000
10000
0
0.025 0.030 0.035 0.040 0.045 0.050 0.055 0.060 0.065
mu

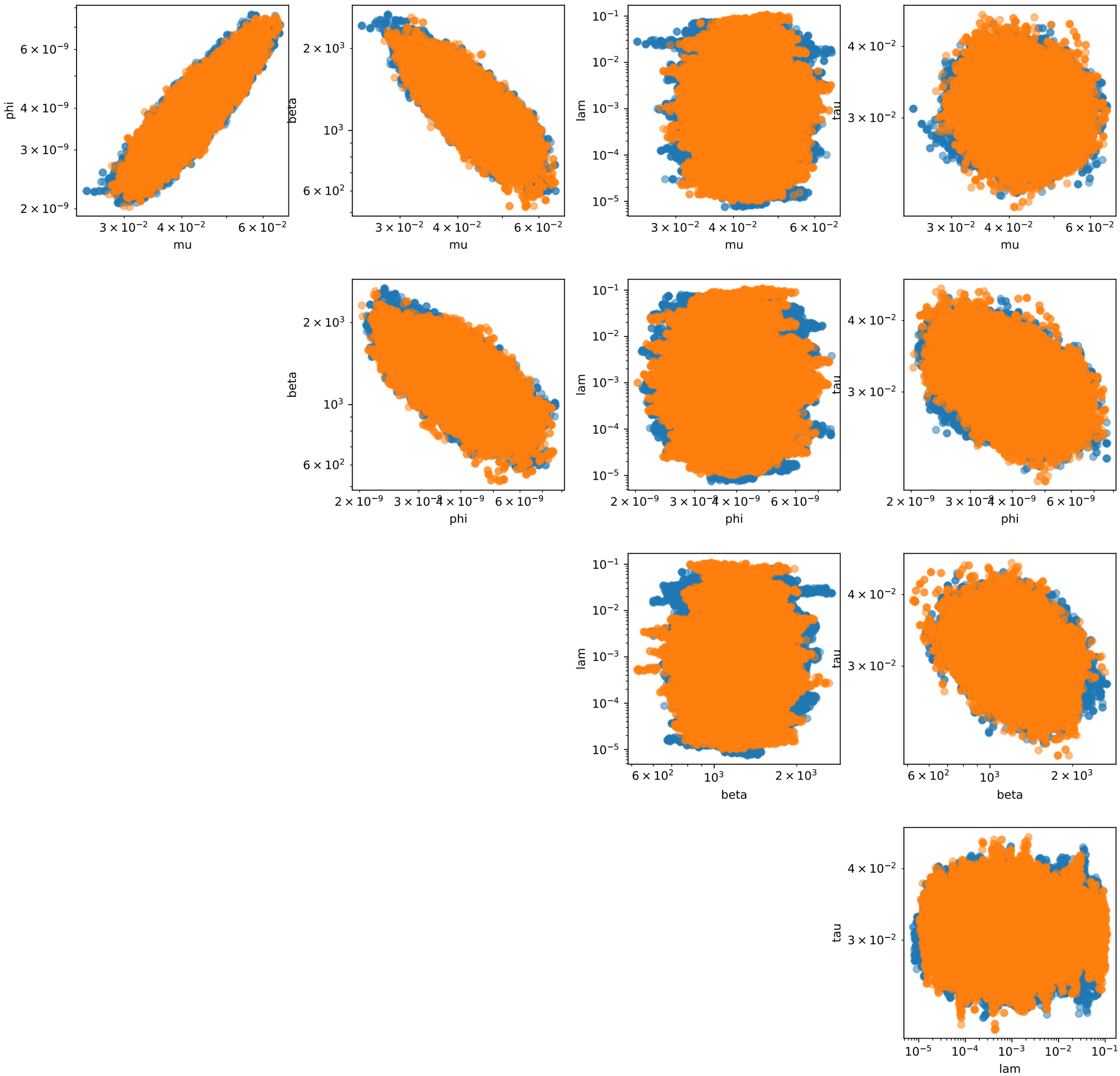

40000
30000
20000
10000
0
2
3
4
5
6
7
phi
1e−9

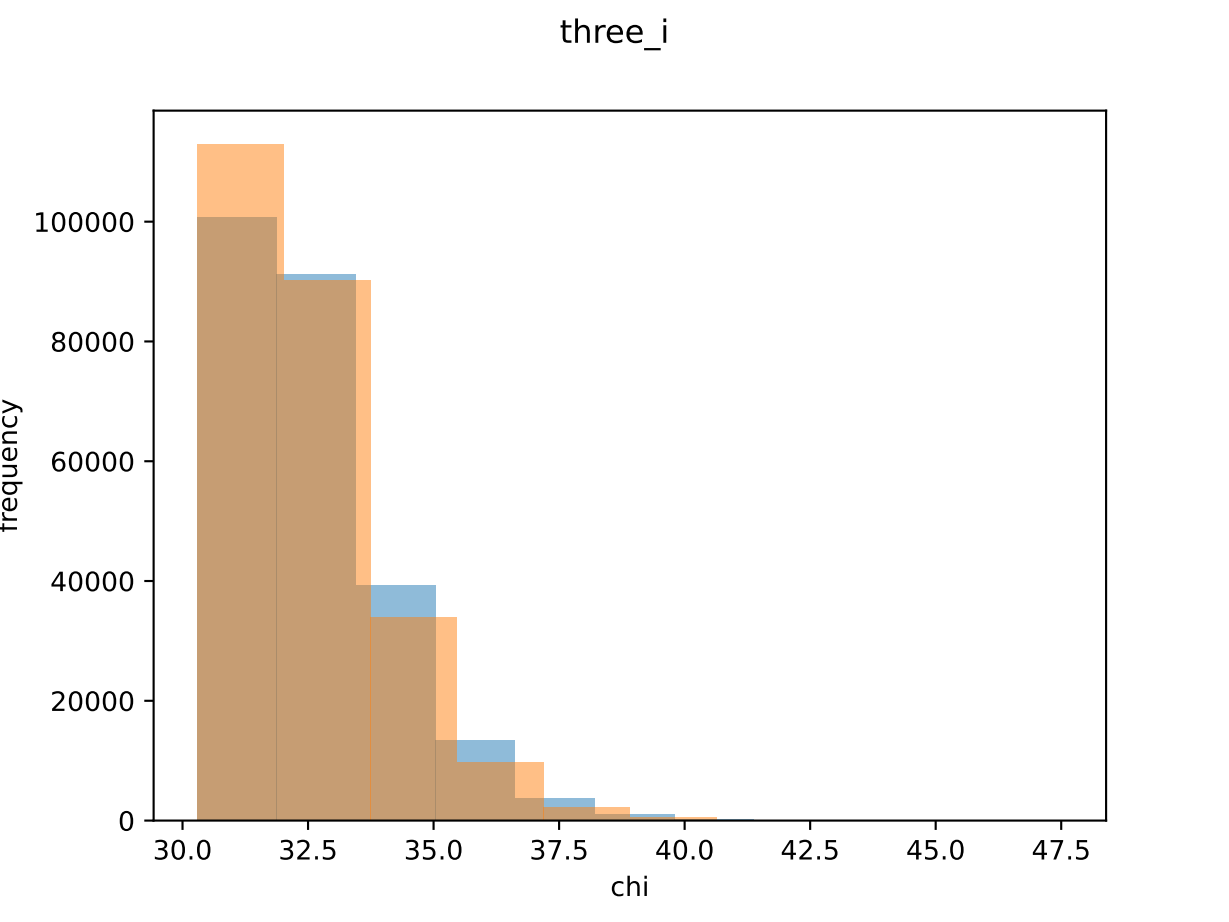

50000
40000
30000
20000
10000
0
500
1000
1500
2000
2500
beta

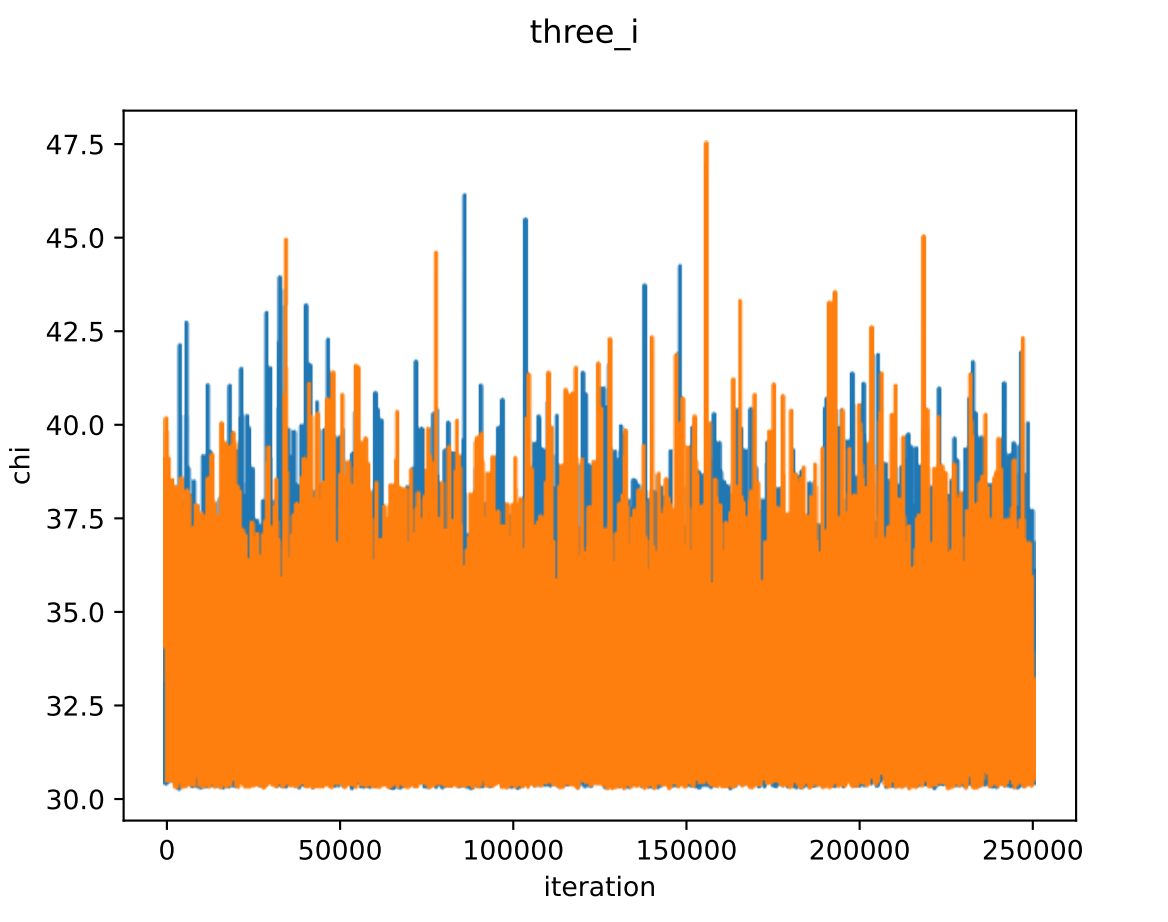

200000
150000
100000
50000
0
0.00
0.02
0.04
0.06
0.08
0.10
lam


40000
30000
20000
10000
0
0.020
0.025
0.030
0.035
0.040
0.045
tau

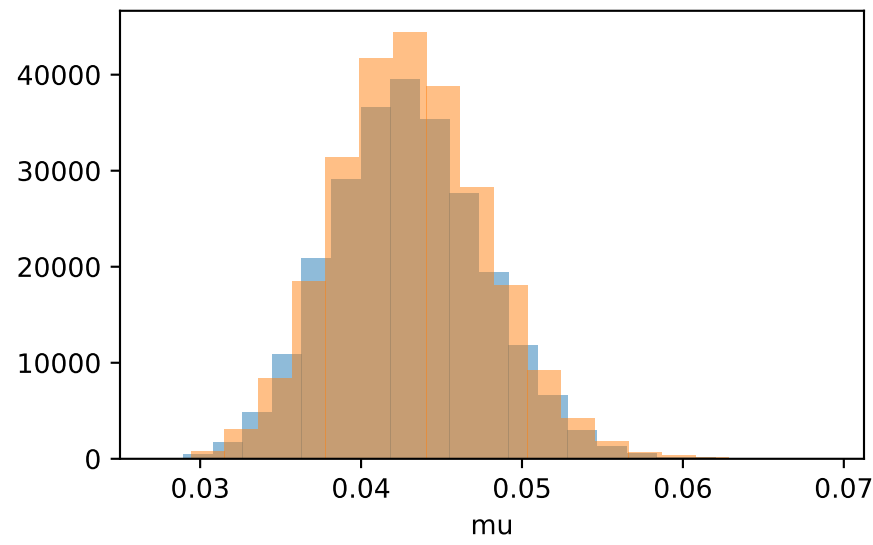
three_i

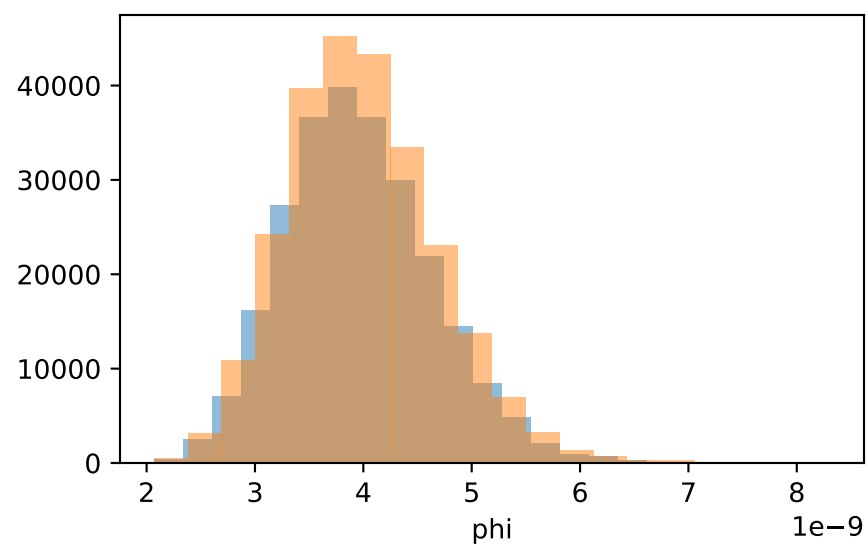


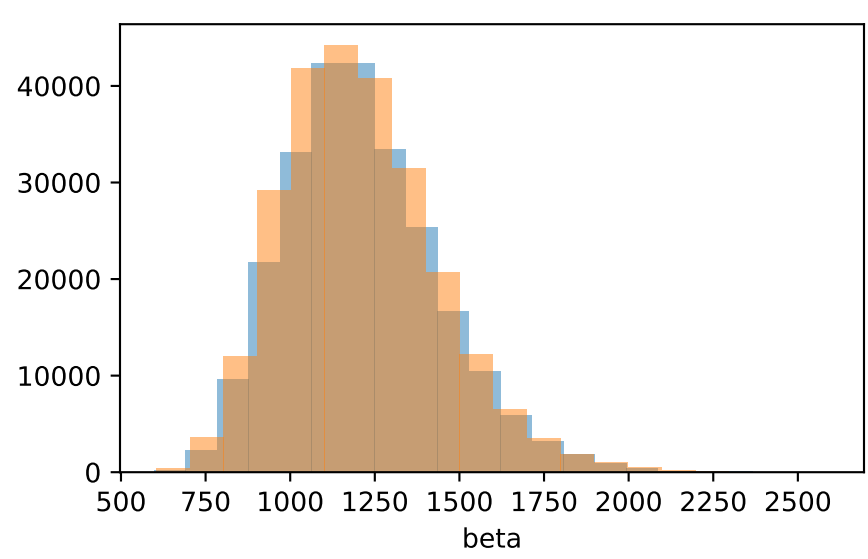

three_i
100000
80000
60000
40000
20000
0
frequency
30.0
32.5
35.0
37.5
40.0
42.5
45.0
47.5
chi

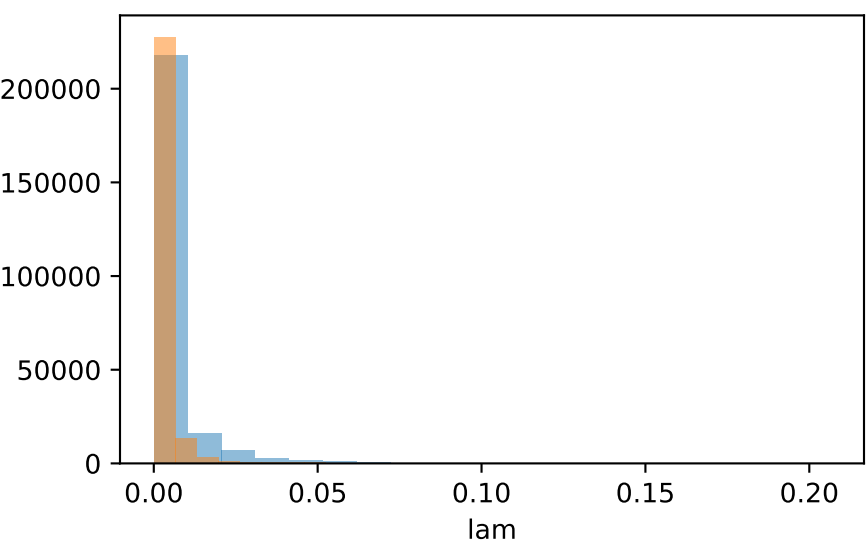

three_i
chi
iteration
47.5
45.0
42.5
40.0
37.5
35.0
32.5
30.0
0
50000
100000
150000
200000
250000

four_i


40000
30000
20000
10000
0
0.03
0.04
0.05
0.06
0.07
mu


40000
30000
20000
10000
0
2
3
4
5
6
7
8
phi
1e−9


40000
30000
20000
10000
0
500
750
1000
1250
1500
1750
2000
2250
2500
beta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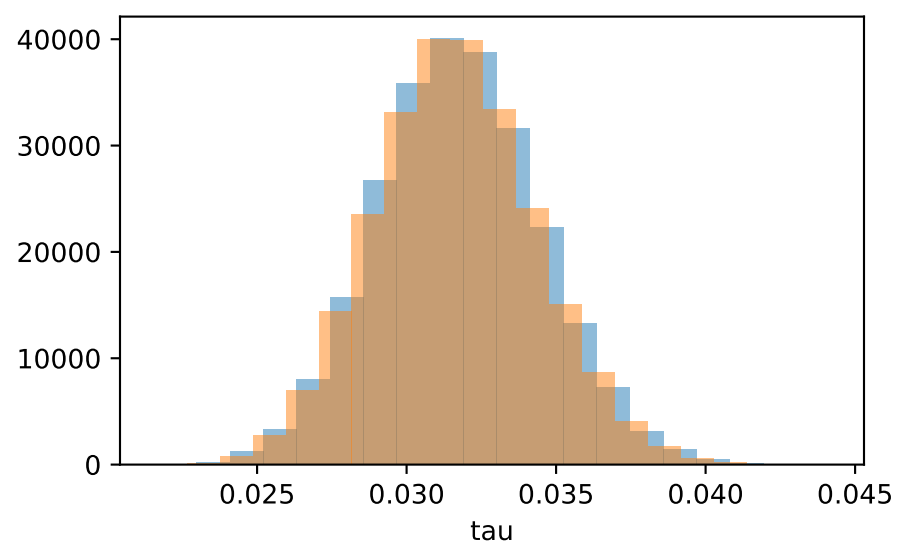
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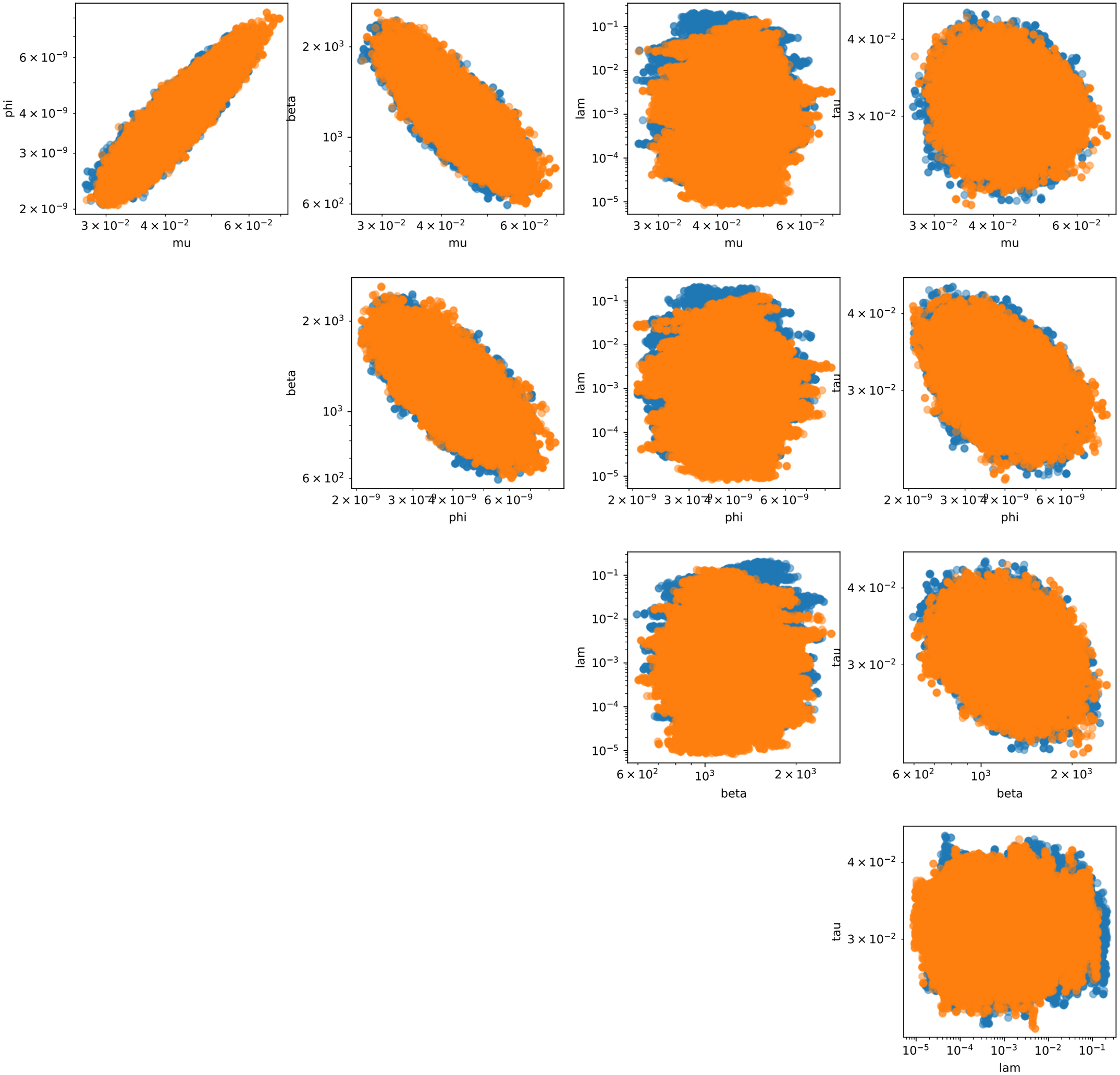

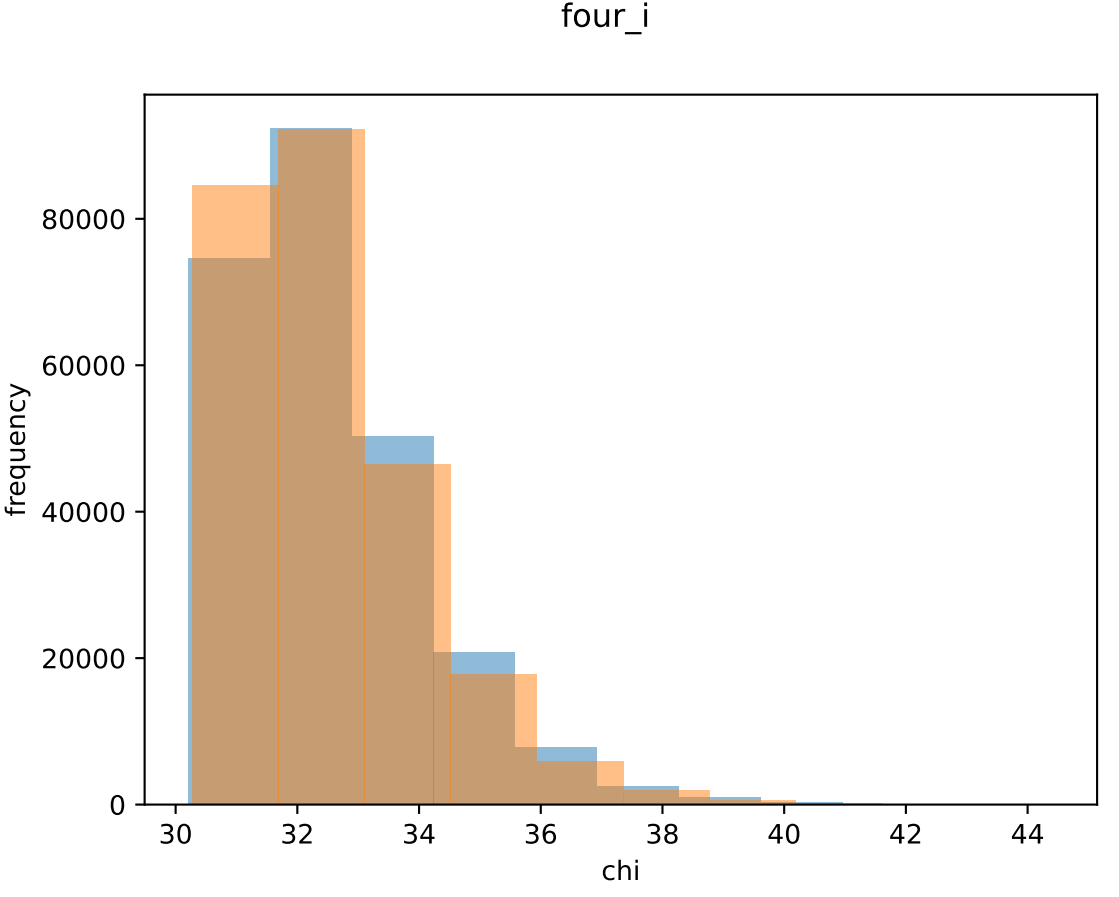
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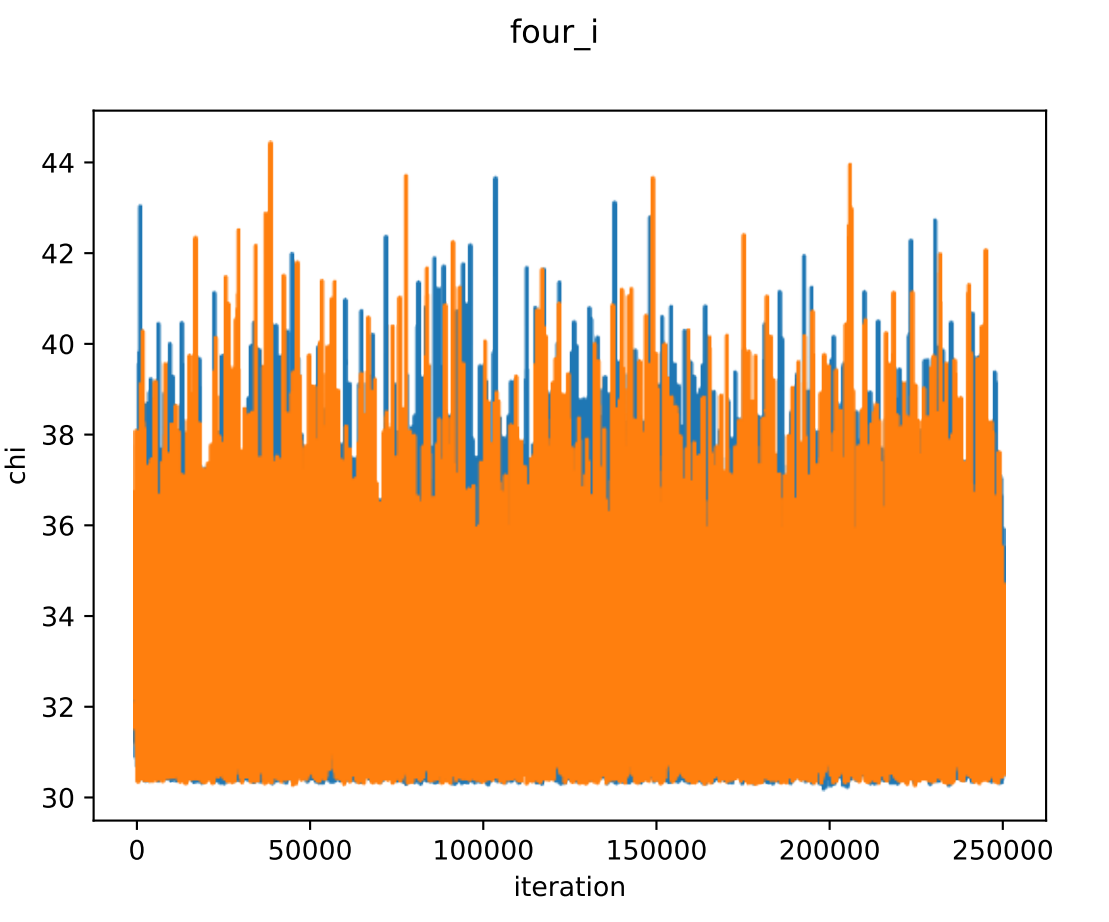
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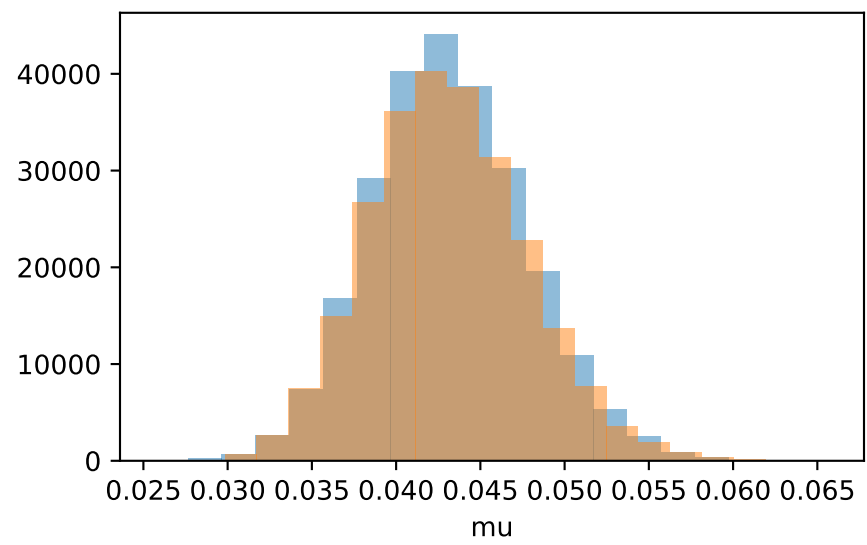
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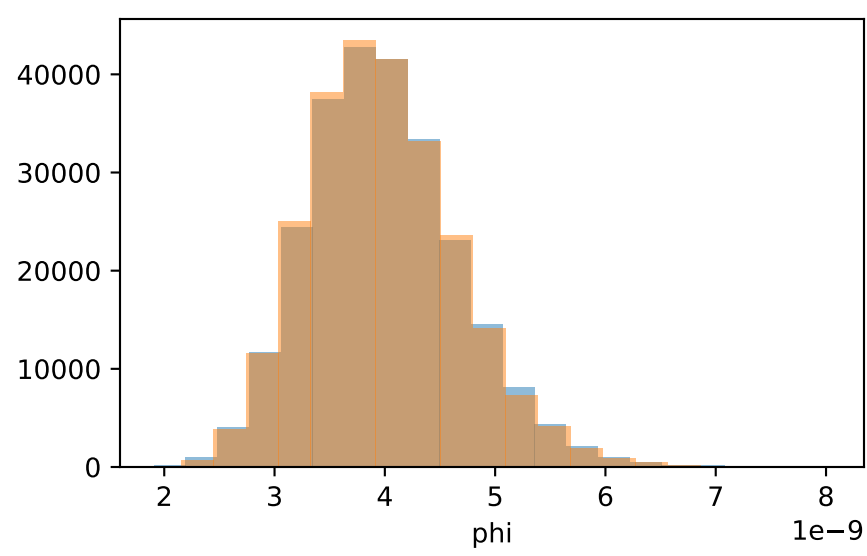
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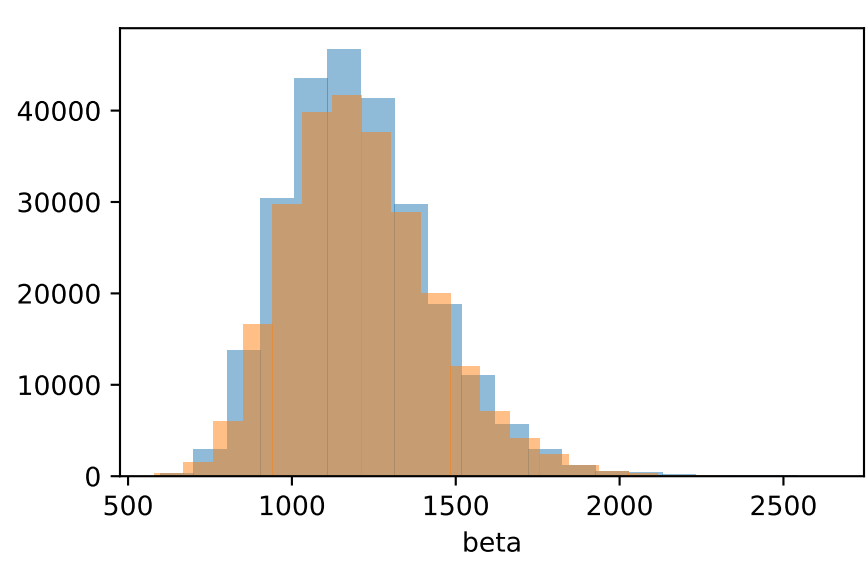
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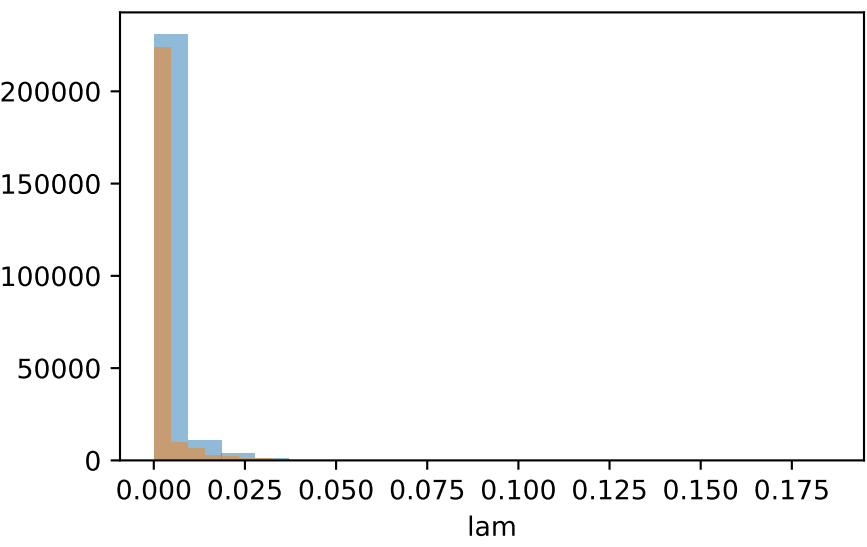
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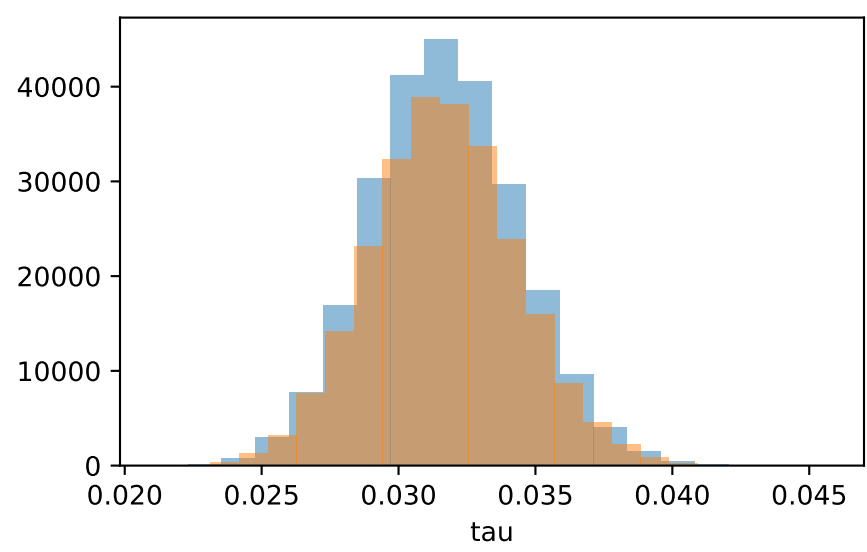
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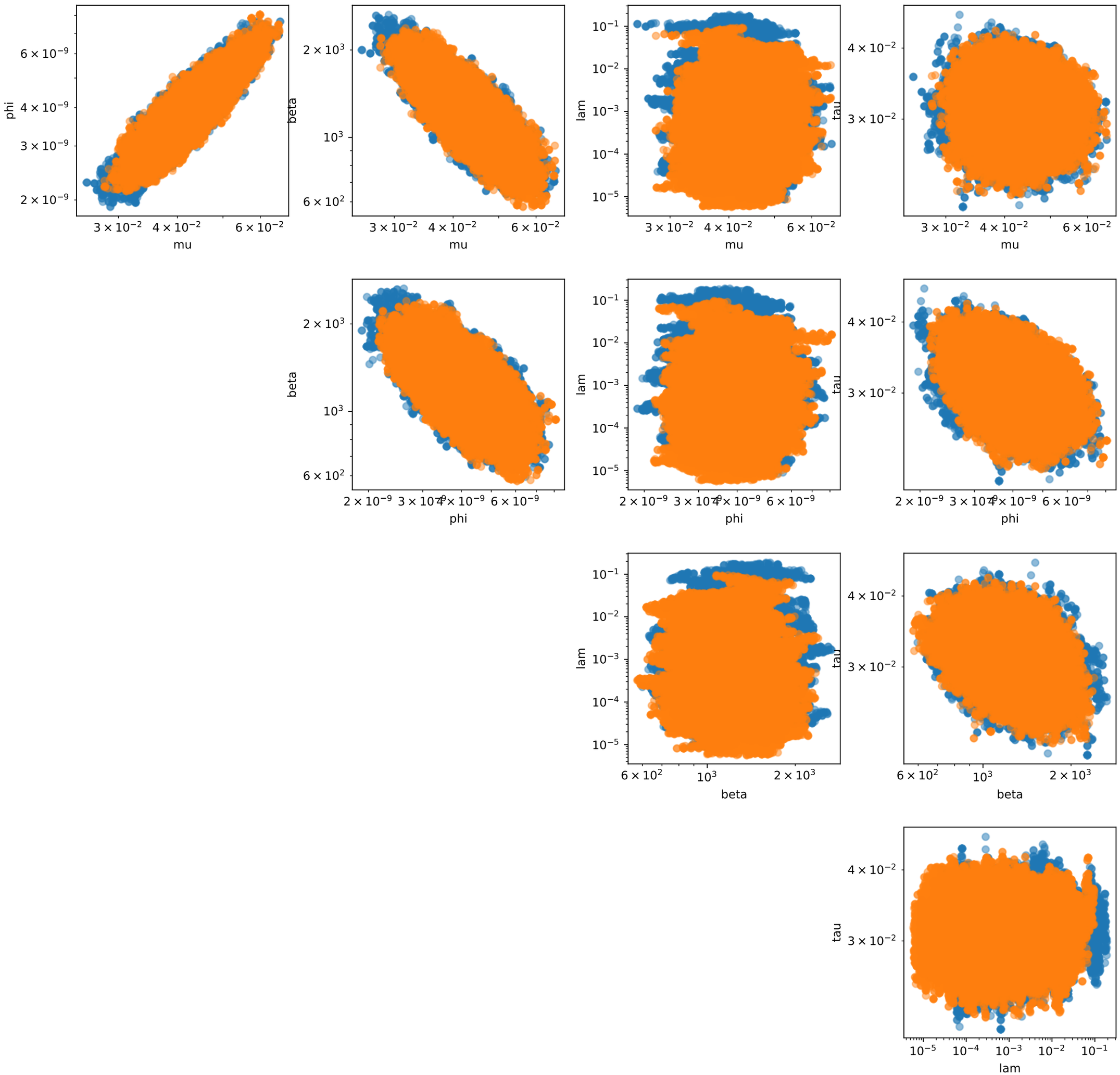

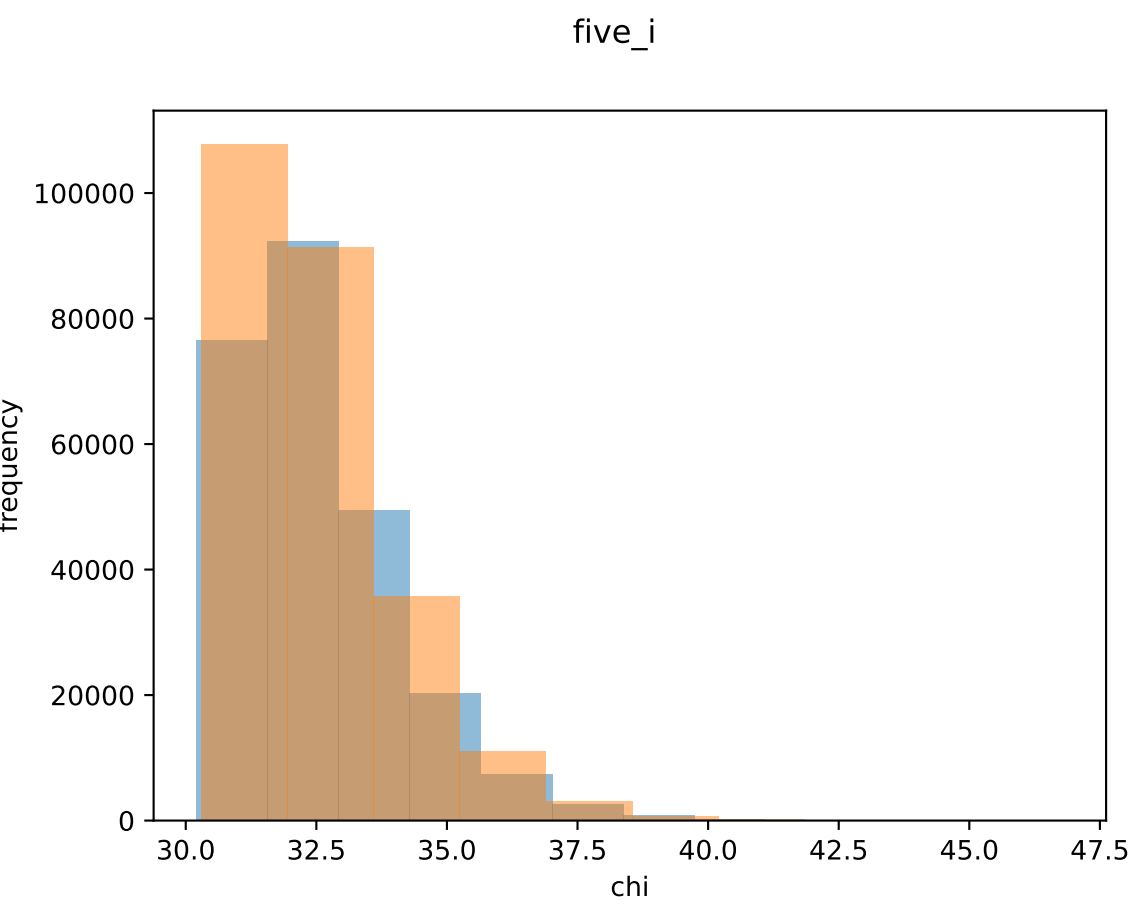
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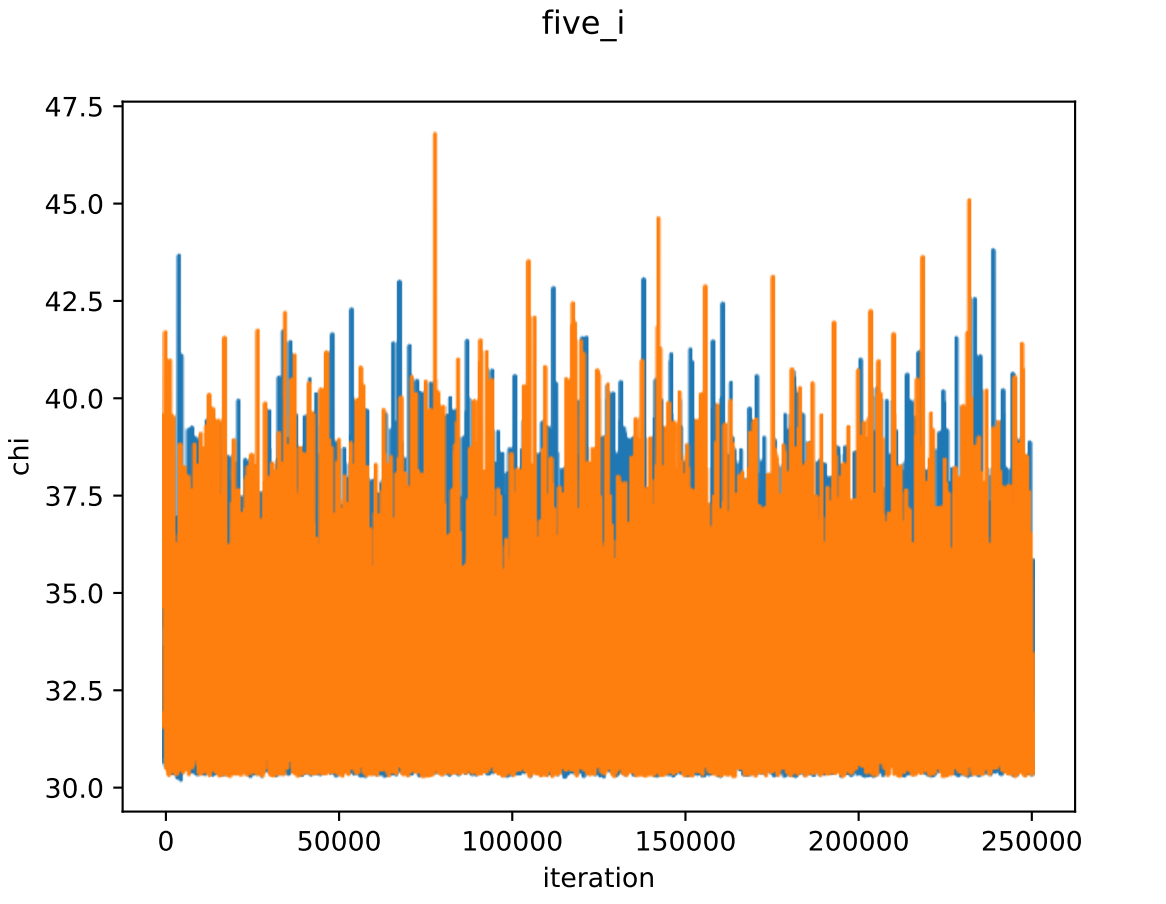
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