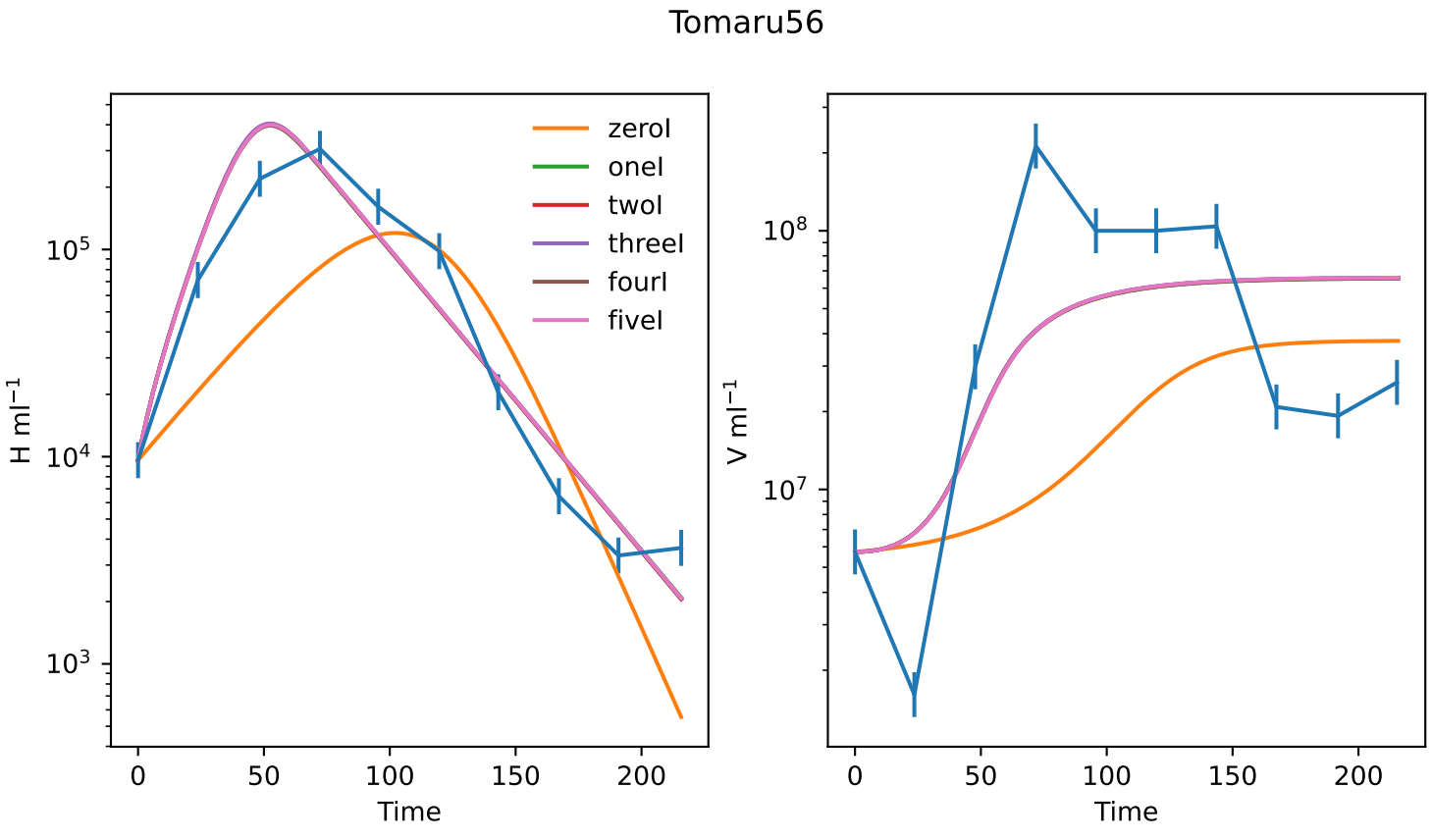
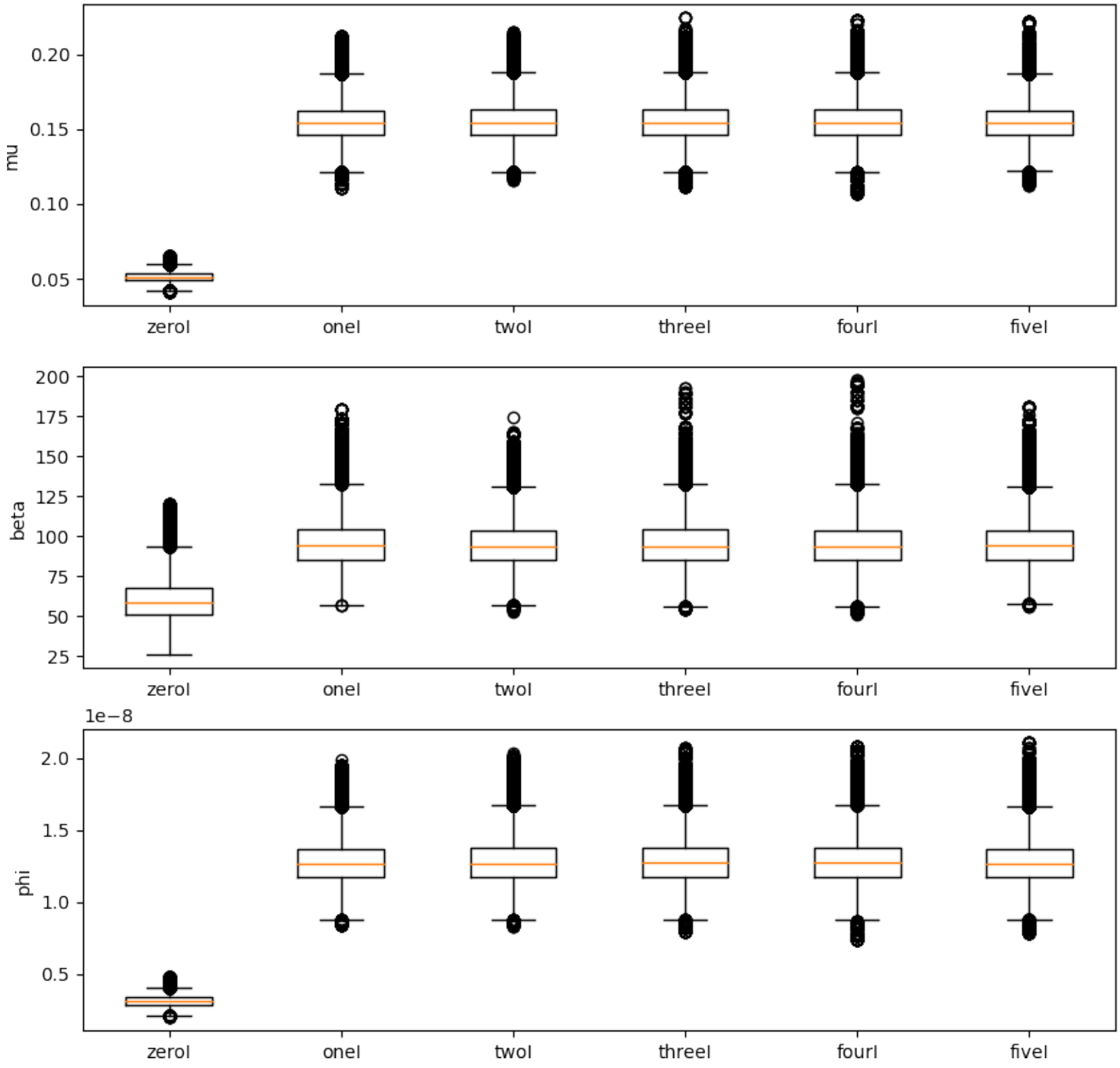
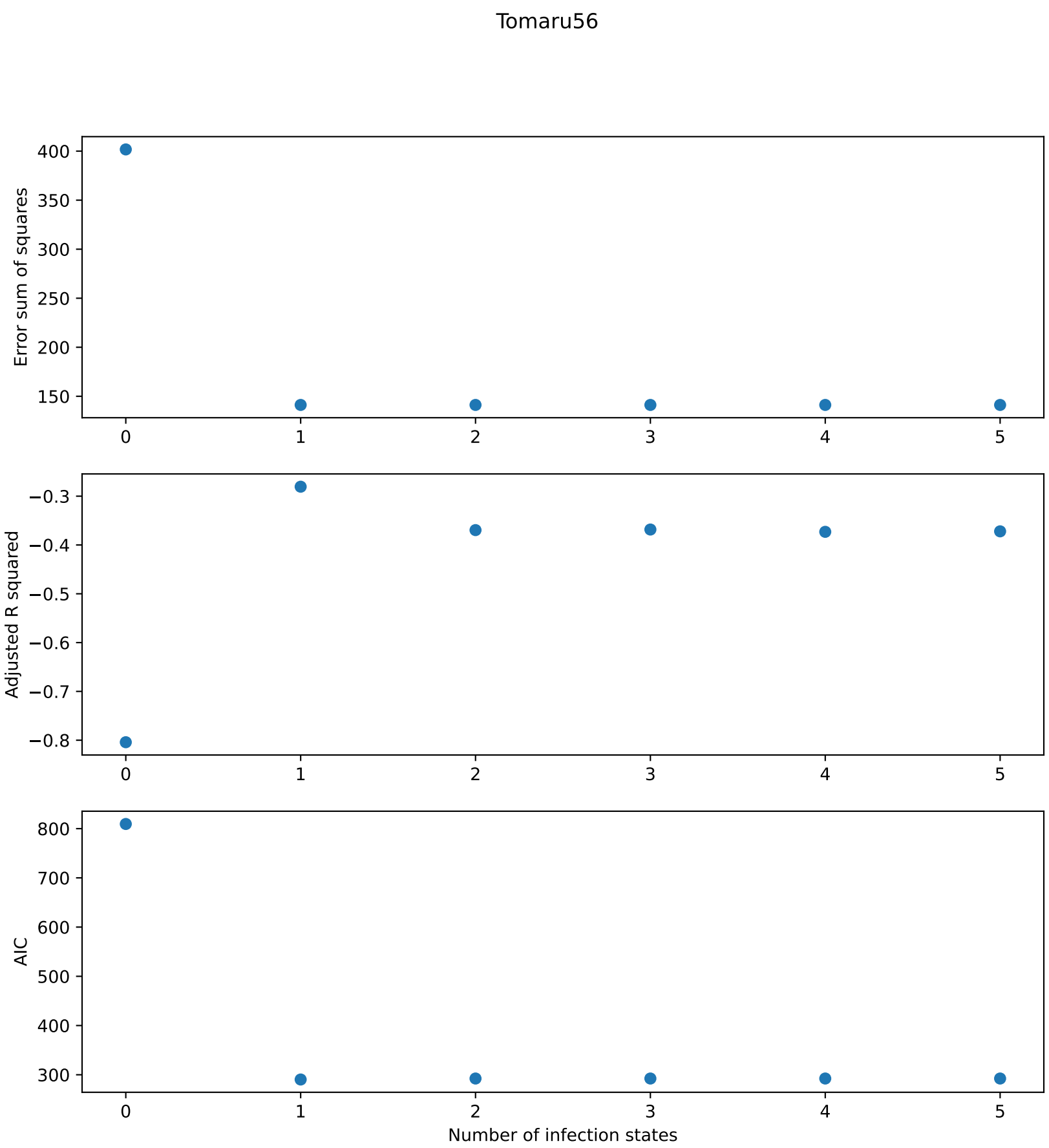
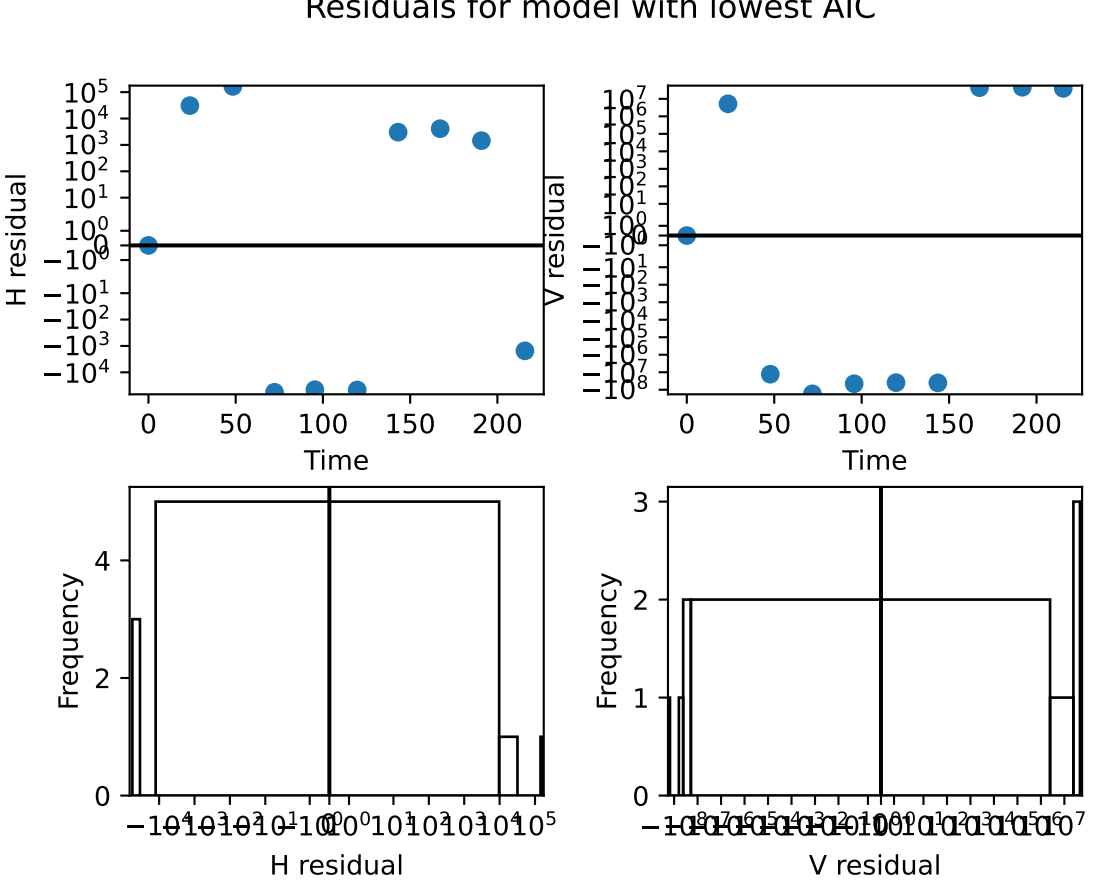

Tomaru56
zerol
onel
twol
threel
fourl
fivel
H ml^{-1}
10^5
10^4
10^3
0
50
100
150
200
Time
V ml^{-1}
10^8
10^7
0
50
100
150
200
Time

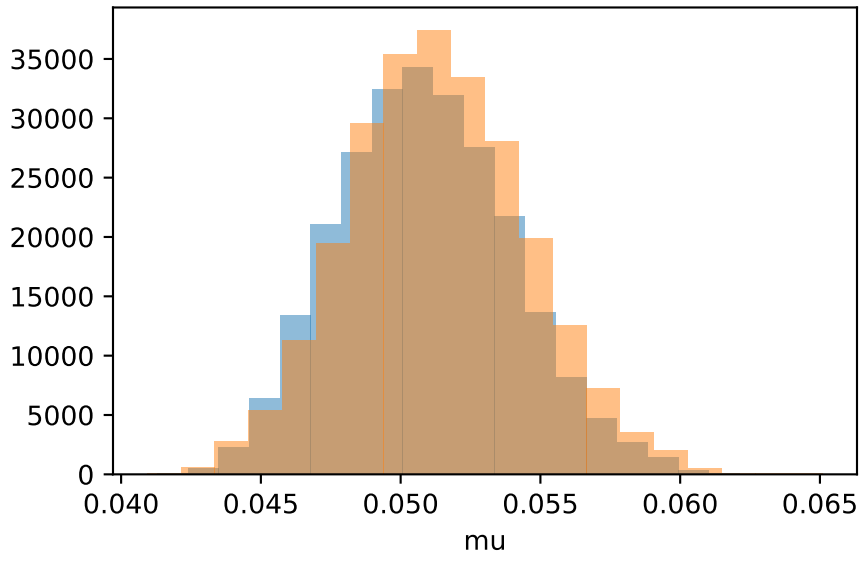
Tomaru56

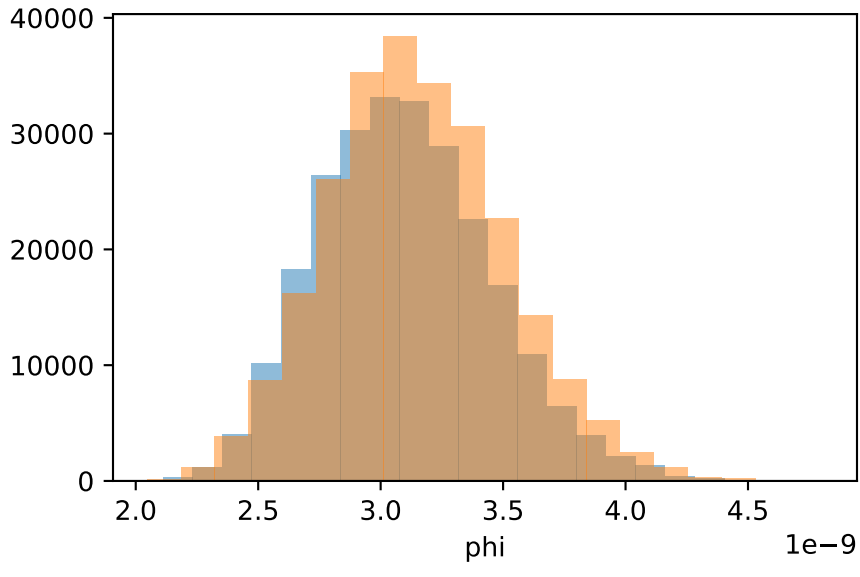

mu
0.20
0.15
0.10
0.05
zeroI
oneI
twoI
threeI
fourI
fiveI
beta
200
175
150
125
100
75
50
25
zeroI
oneI
twoI
threeI
fourI
fiveI
1e−8
phi
2.0
1.5
1.0
0.5
zeroI
oneI
twoI
threeI
fourI
fiveI

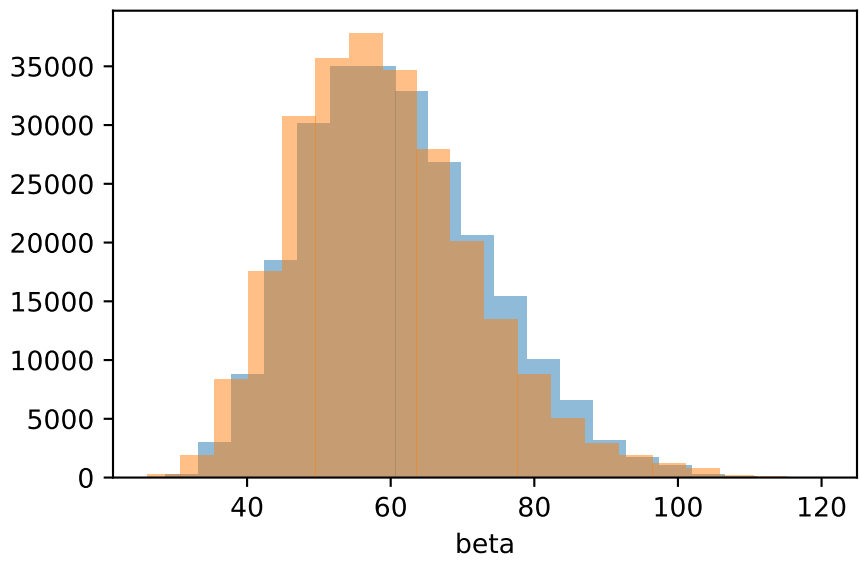

Tomaru56
Error sum of squares
400
350
300
250
200
150
0
1
2
3
4
5
Adjusted R squared
−0.3
−0.4
−0.5
−0.6
−0.7
−0.8
0
1
2
3
4
5
AIC
800
700
600
500
400
300
0
1
2
3
4
5
Number of infection states

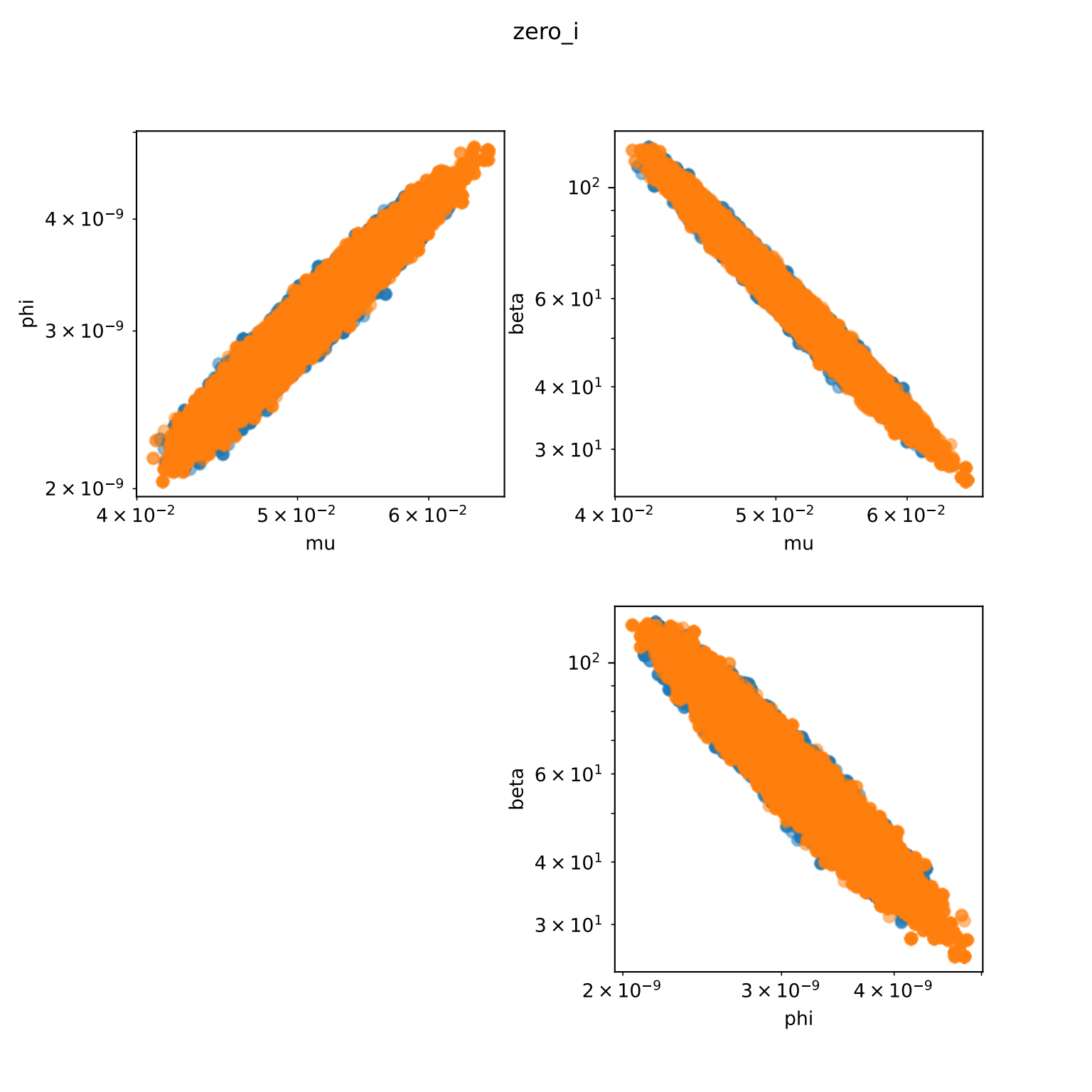

Residuals for model with lowest AIC
H residual
Time
V residual
Time
Frequency
H residual
Frequency
V residual

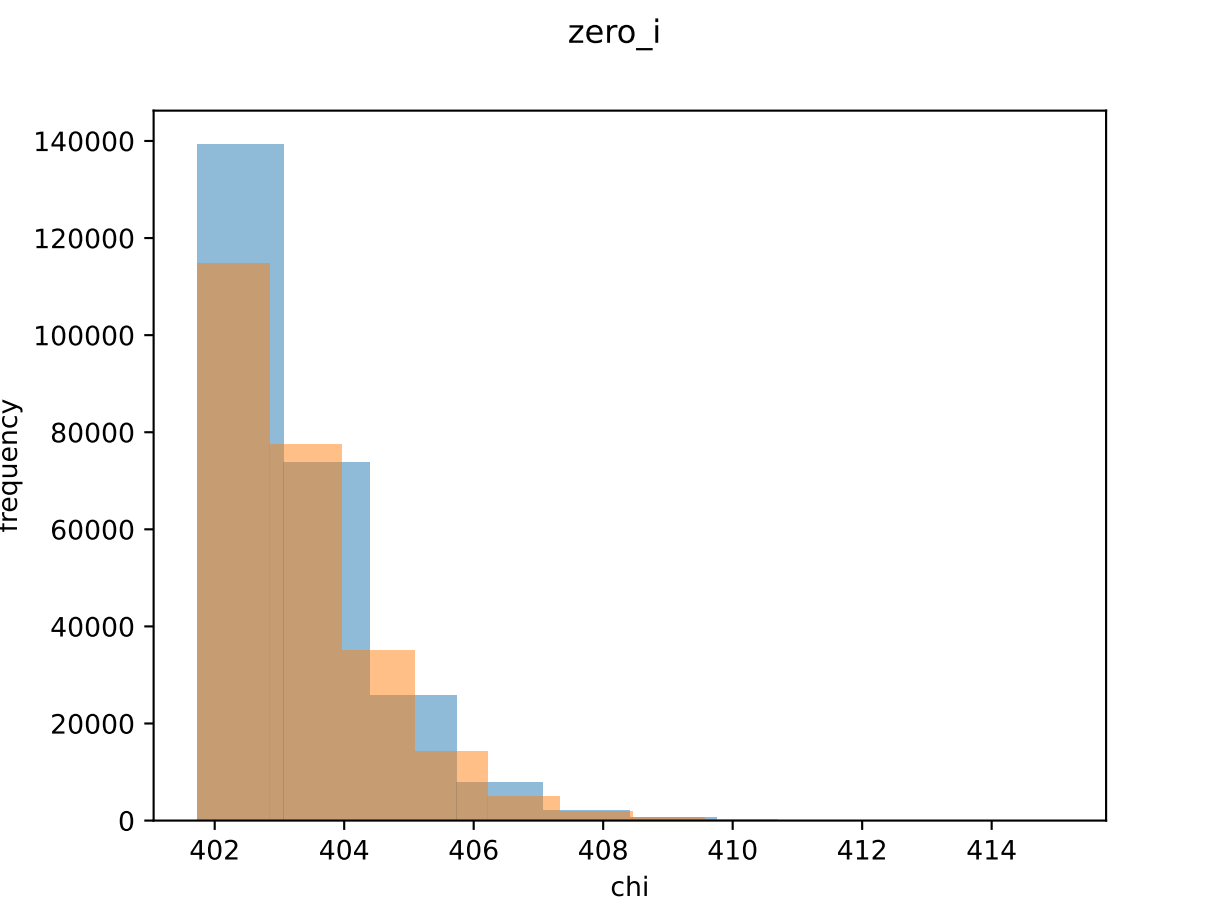
zero_i

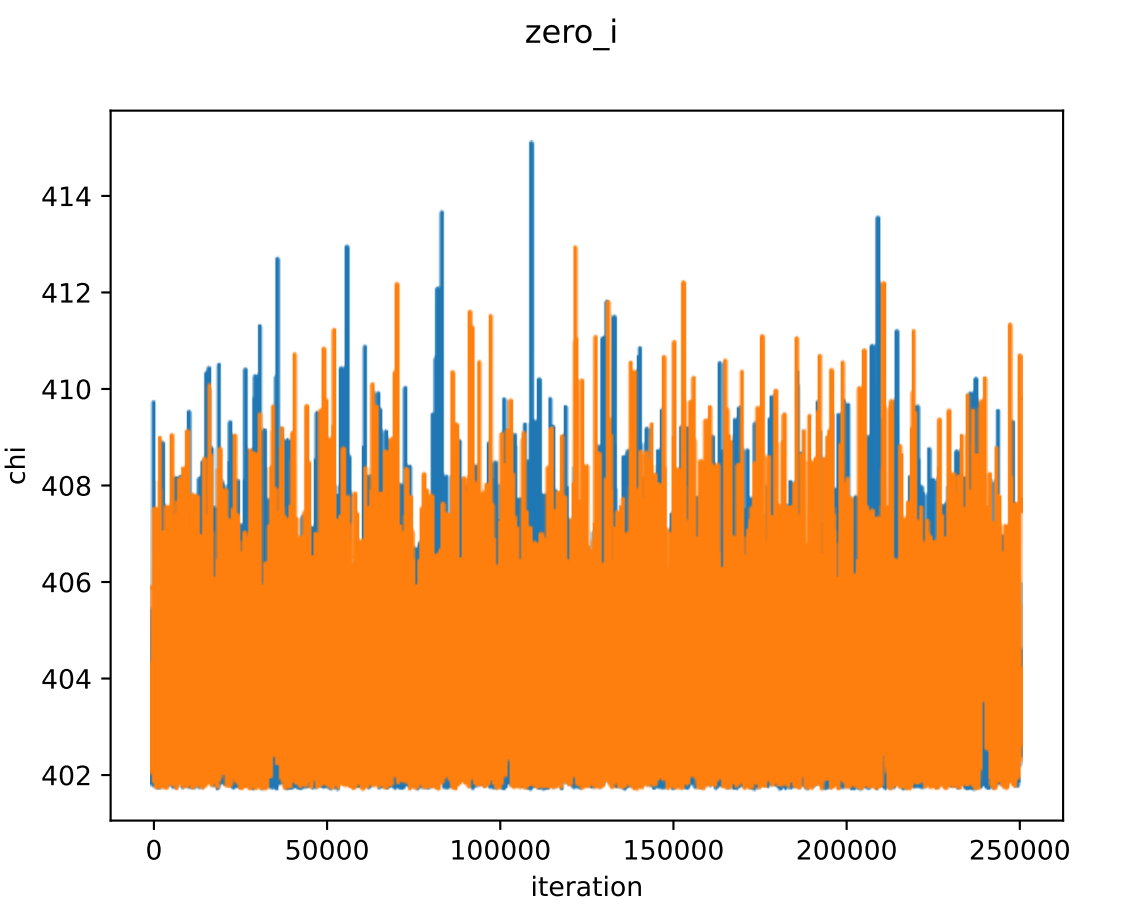

35000
30000
25000
20000
15000
10000
5000
0
0.040
0.045
0.050
0.055
0.060
0.065
mu


40000
30000
20000
10000
0
2.0
2.5
3.0
3.5
4.0
4.5
phi
1e−9

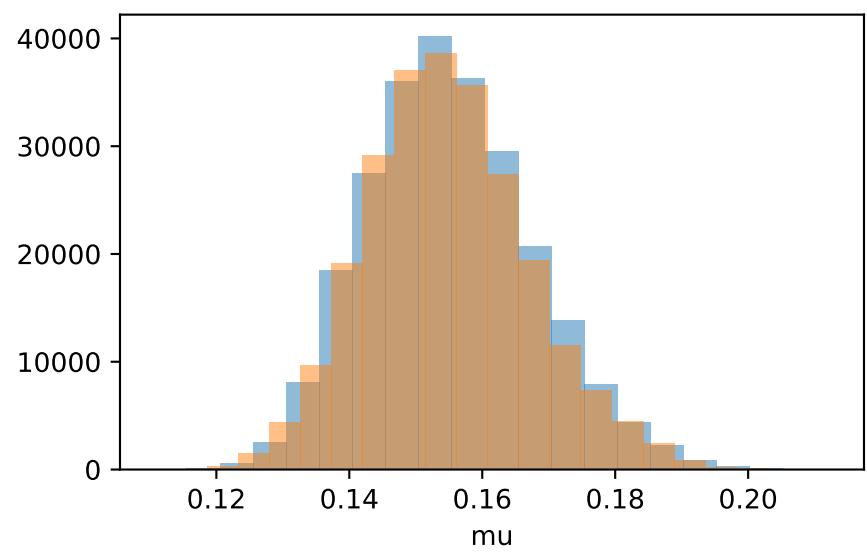

35000
30000
25000
20000
15000
10000
5000
0
40
60
80
100
120
beta

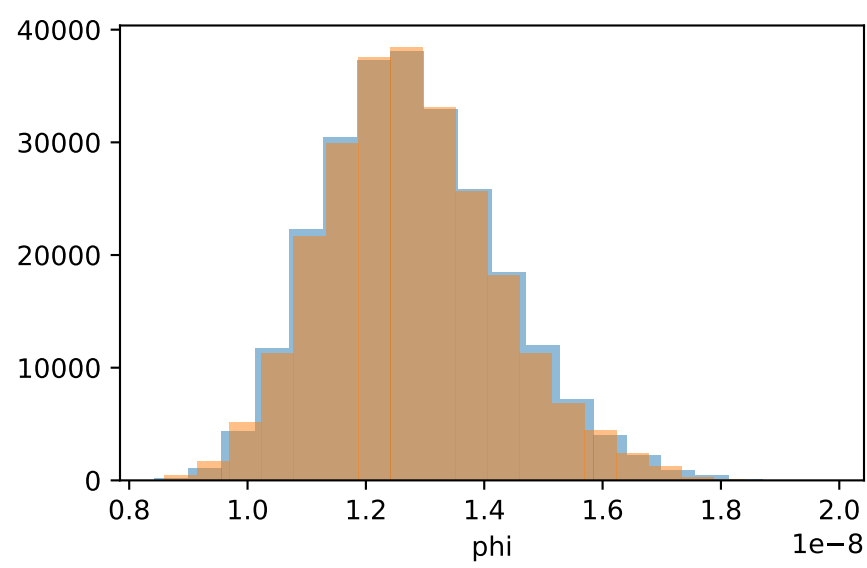

zero_i
phi
mu
beta
mu
beta
phi

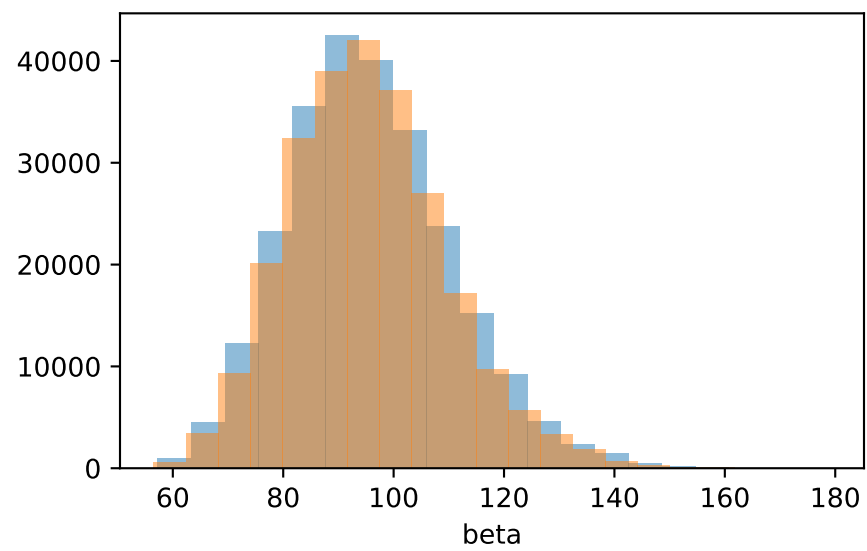

zero_i
140000
120000
100000
80000
60000
40000
20000
0
frequency
402
404
406
408
410
412
414
chi

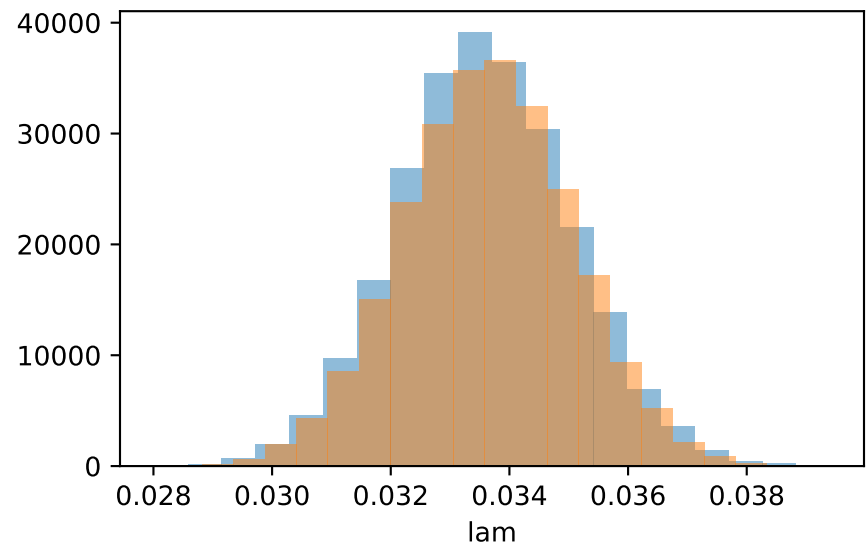

zero_i
414
412
410
408
406
404
402
chi
0
50000
100000
150000
200000
250000
iteration

one_i

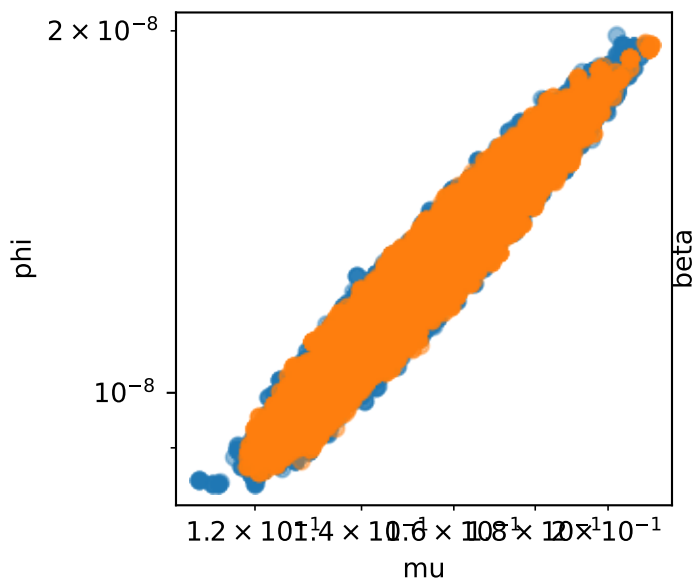

40000
30000
20000
10000
0
0.12
0.14
0.16
0.18
0.20
mu

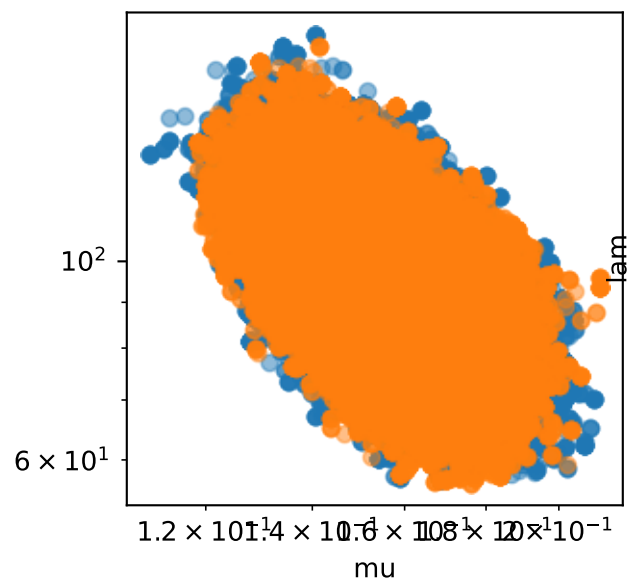

40000
30000
20000
10000
0
0.8
1.0
1.2
1.4
1.6
1.8
2.0
phi
1e−8

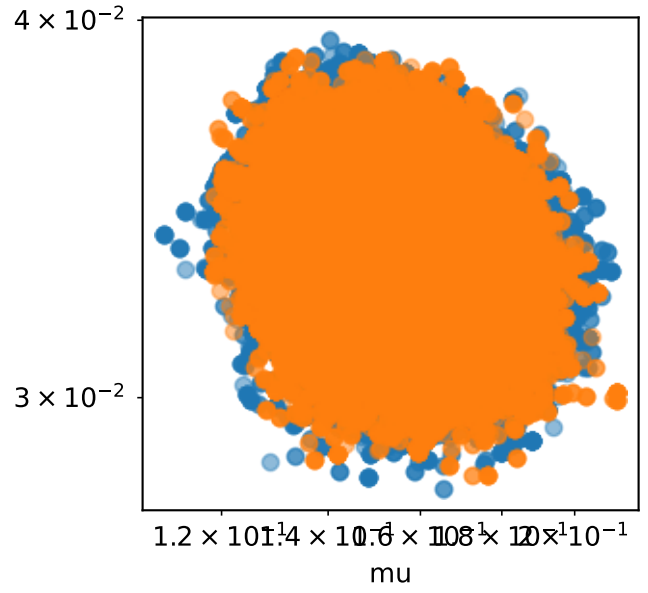

40000
30000
20000
10000
0
60
80
100
120
140
160
180
beta

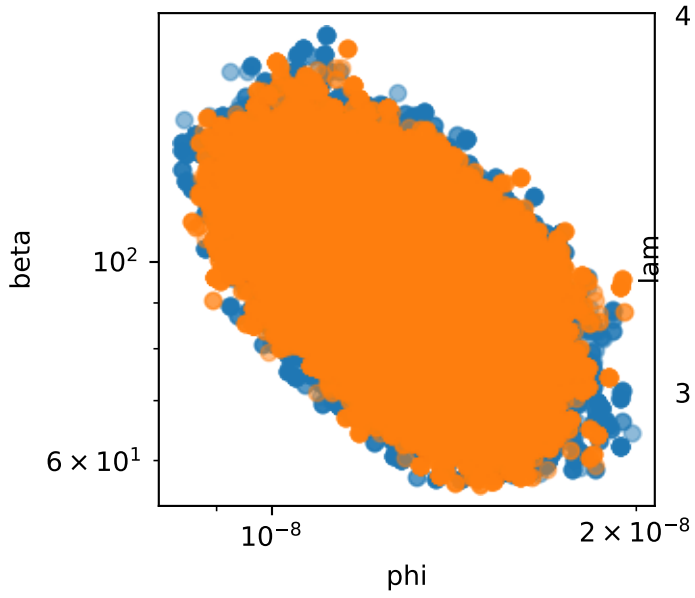

40000
30000
20000
10000
0
0.028
0.030
0.032
0.034
0.036
0.038
lam

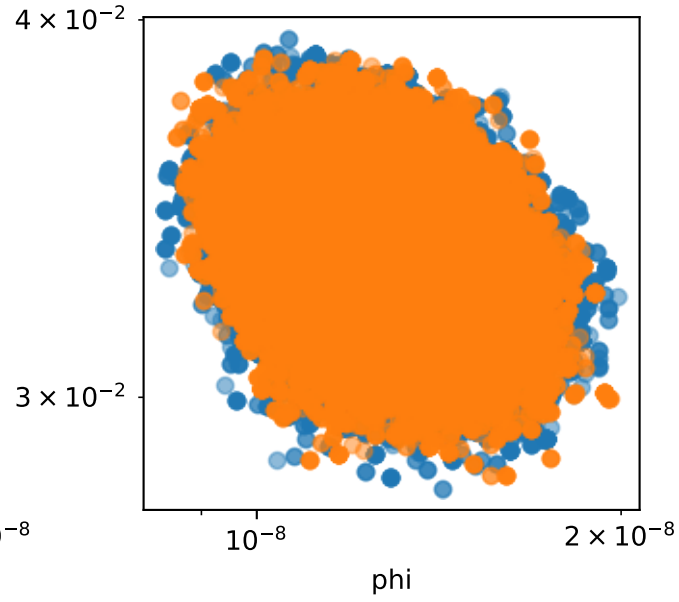
one_i

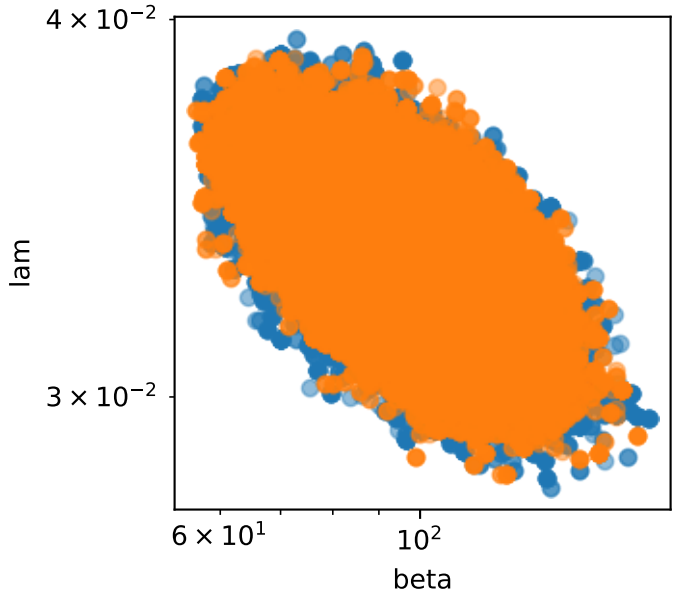

2×10^{-8}
10^{-8}
phi
1.2×10^{1}
1.4×10^{1}
1.6×10^{1}
1.8×10^{1}
2×10^{1}
10^{-1}
mu

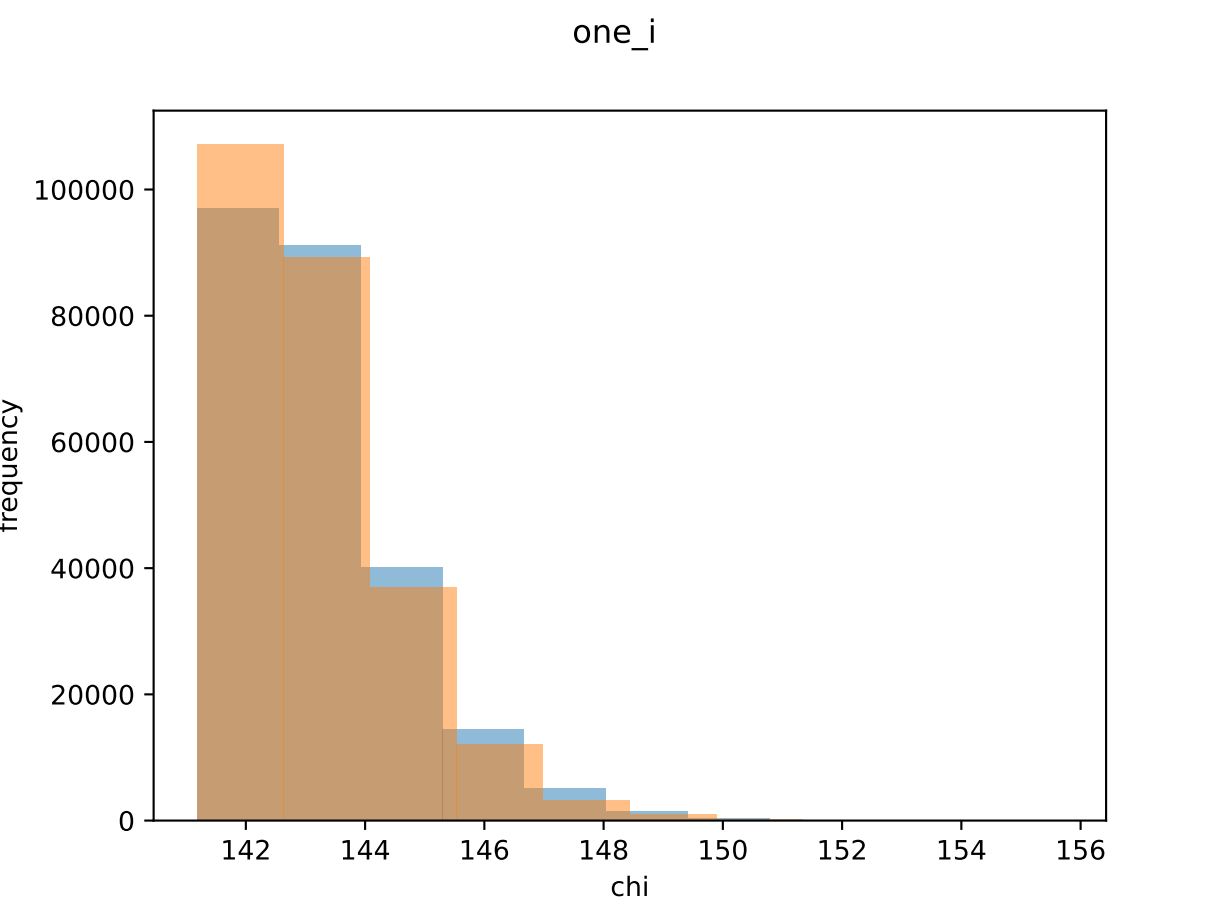

10^{2}
6×10^{1}
beta
1.2×10^{1}
1.4×10^{1}
1.6×10^{1}
1.8×10^{1}
2×10^{1}
10^{-1}
mu

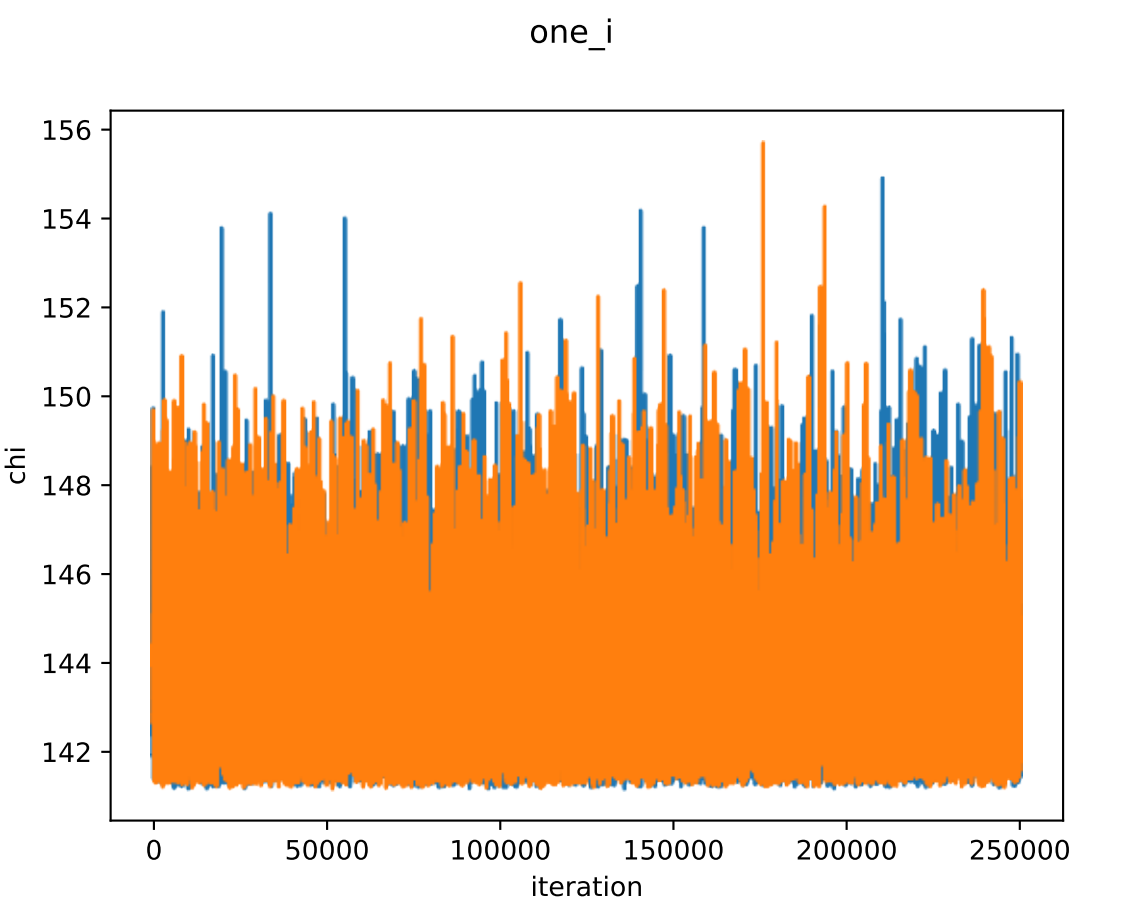

4×10^{-2}
3×10^{-2}
lam
1.2×10^{1}
1.4×10^{1}
1.6×10^{1}
1.8×10^{1}
2×10^{1}
10^{-1}
mu


10^{2}
6×10^{1}
beta
10^{-8}
2×10^{-8}
phi

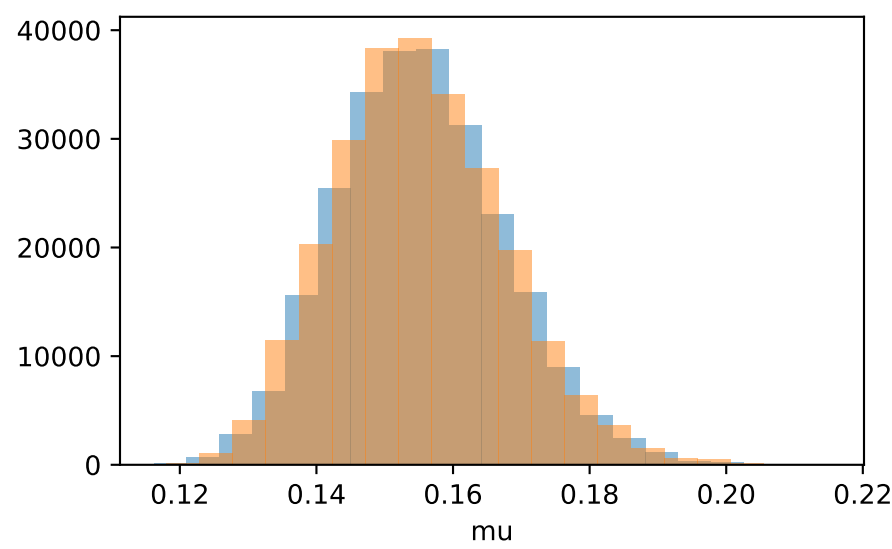

4×10^{-2}
3×10^{-2}
lam
10^{-8}
2×10^{-8}
phi

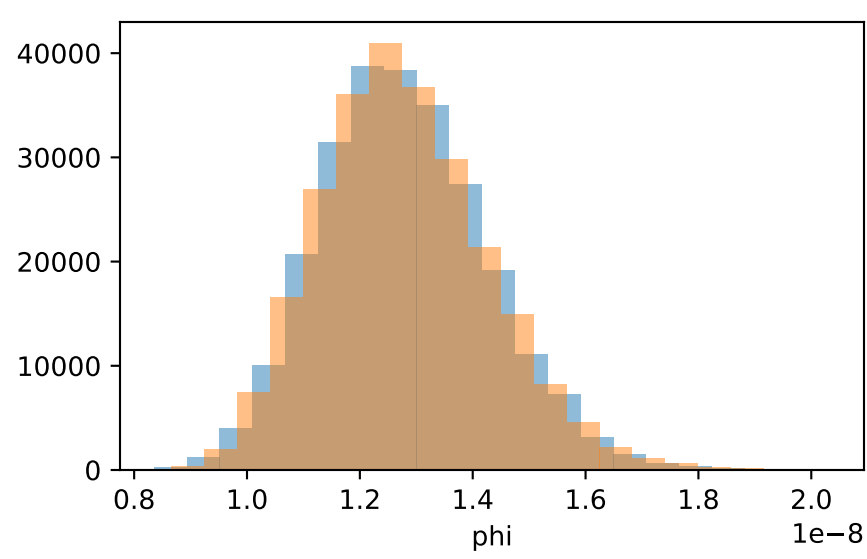

4×10^{-2}
3×10^{-2}
lam
6×10^{1}
10^{2}
beta

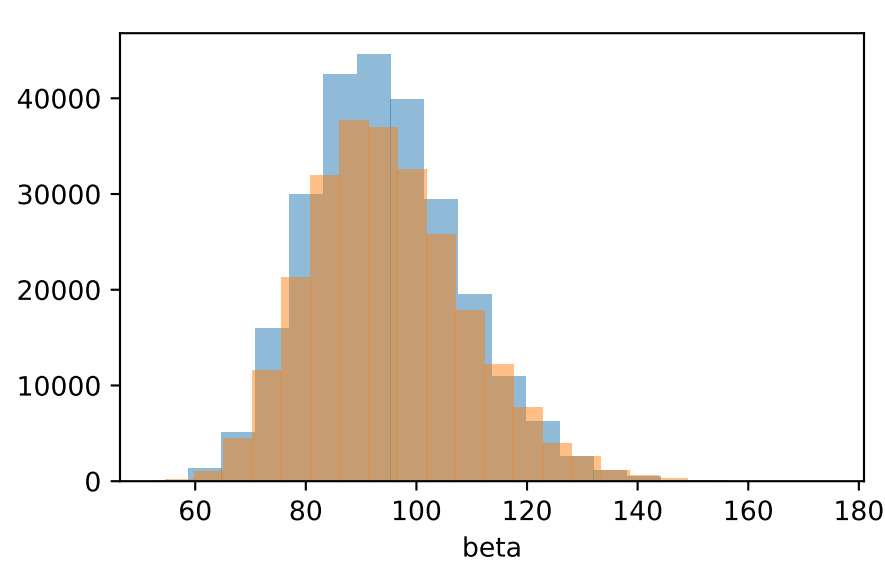

one_i
100000
80000
60000
40000
20000
0
frequency
142
144
146
148
150
152
154
156
chi

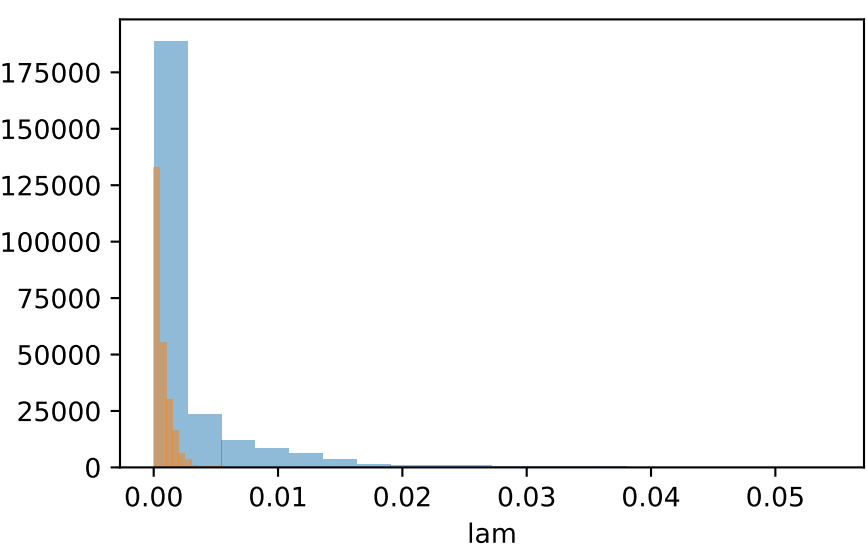

one_i
chi
iteration
156
154
152
150
148
146
144
142
0
50000
100000
150000
200000
250000

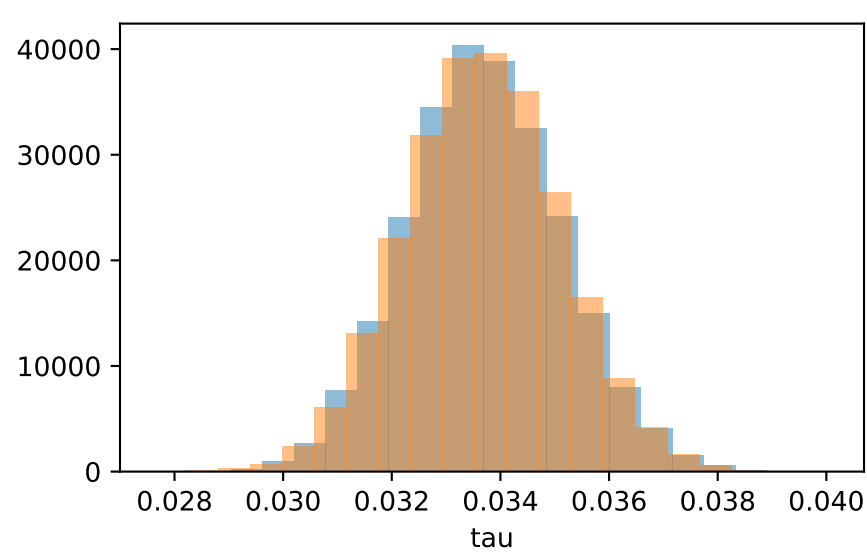
two_i


40000
30000
20000
10000
0
0.12
0.14
0.16
0.18
0.20
0.22
mu

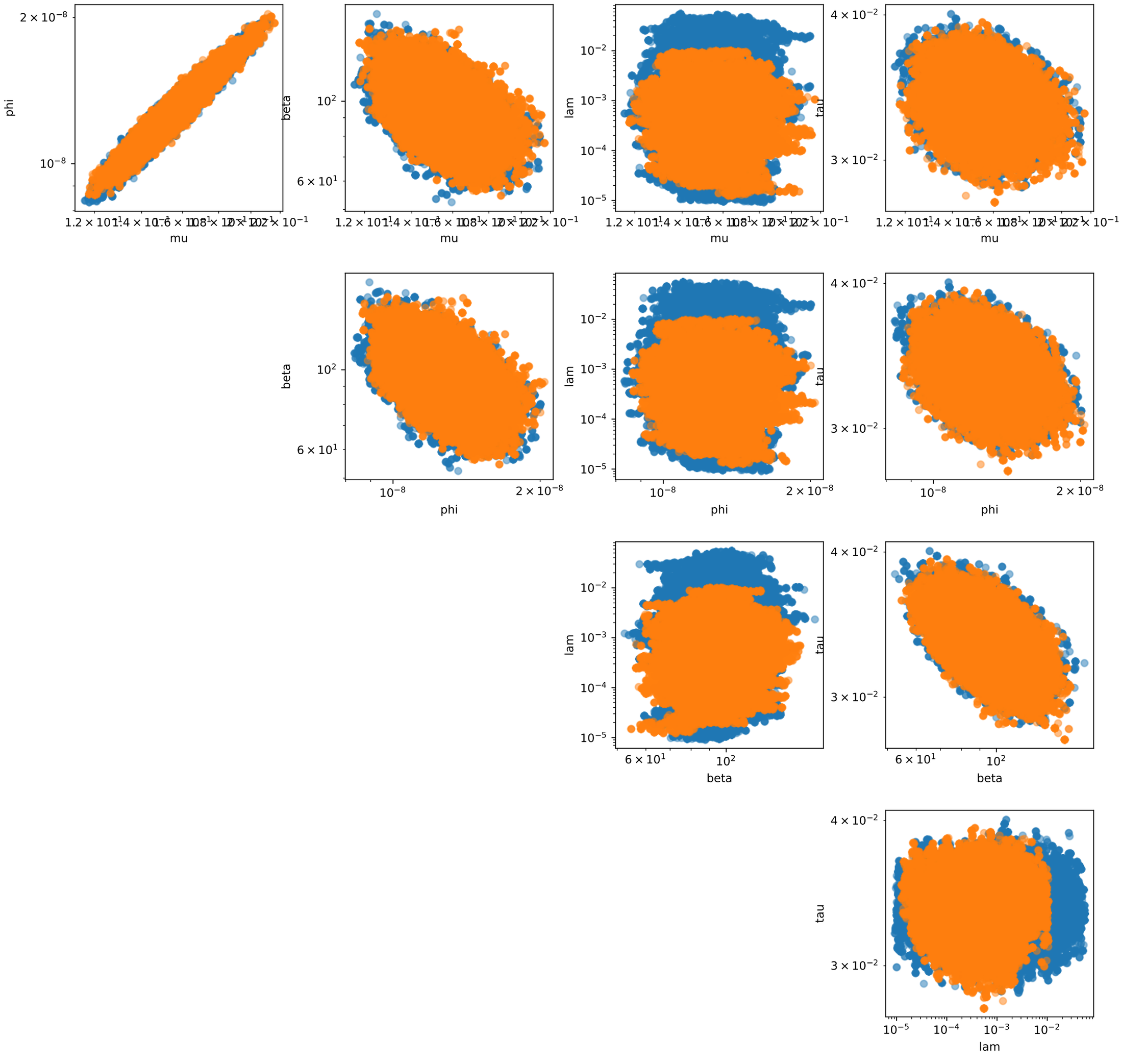

40000
30000
20000
10000
0
0.8
1.0
1.2
1.4
1.6
1.8
2.0
phi
1e−8

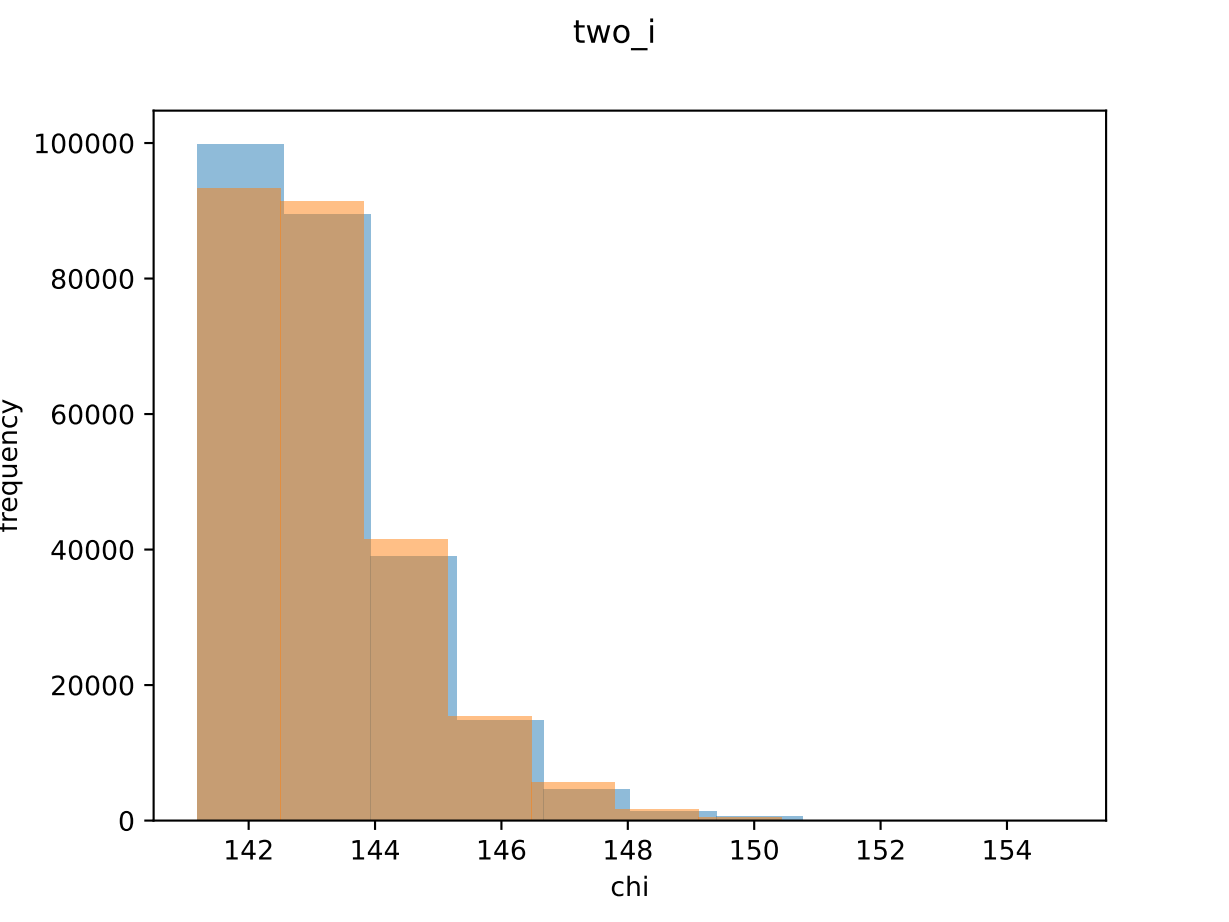

40000
30000
20000
10000
0
60
80
100
120
140
160
180
beta

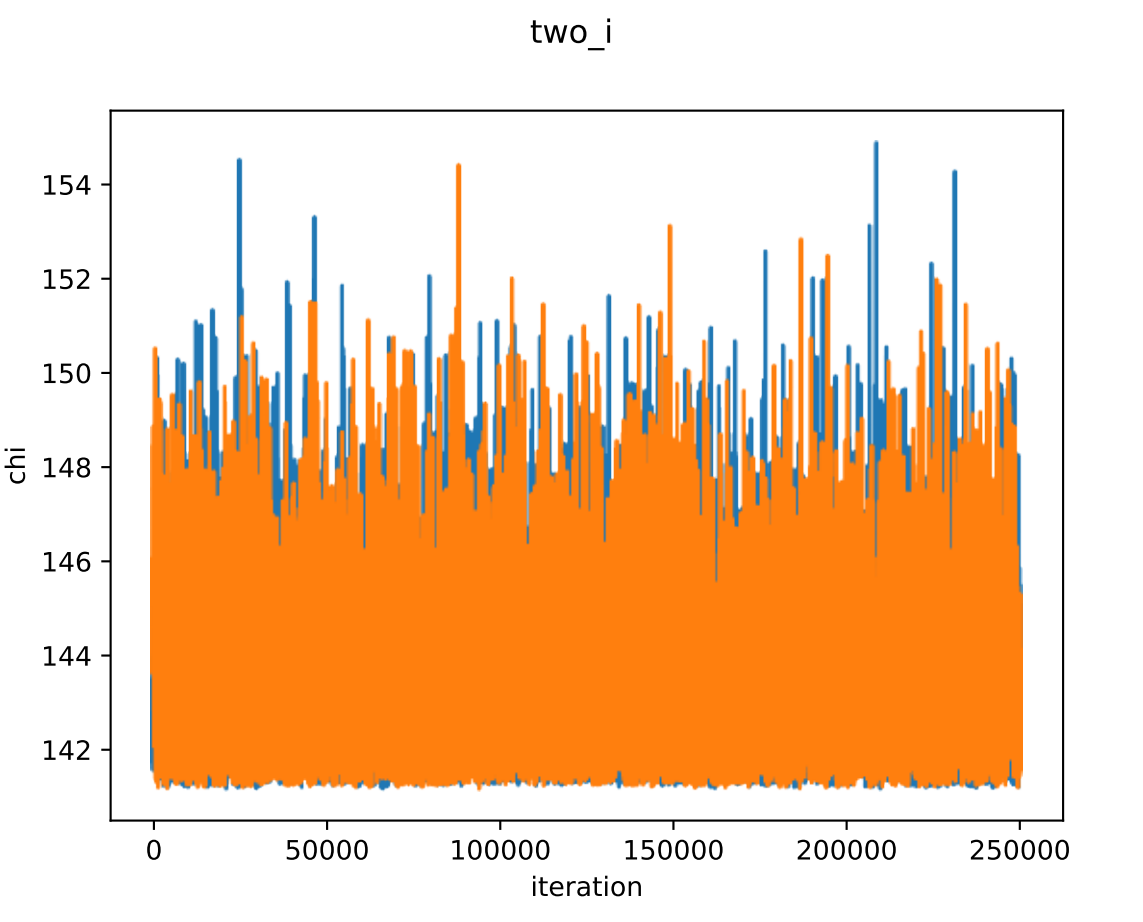

175000
150000
125000
100000
75000
50000
25000
0
0.00
0.01
0.02
0.03
0.04
0.05
lam


40000
30000
20000
10000
0
0.028
0.030
0.032
0.034
0.036
0.038
0.040
tau

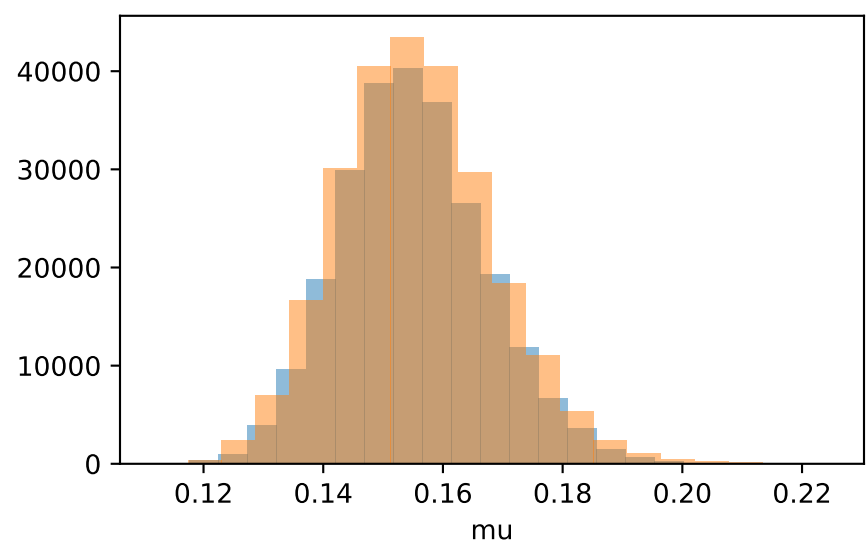
two_i

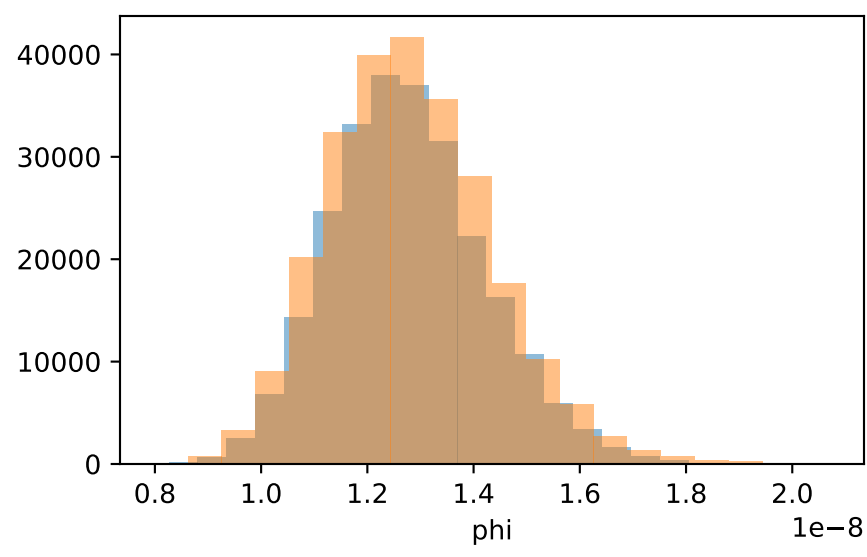


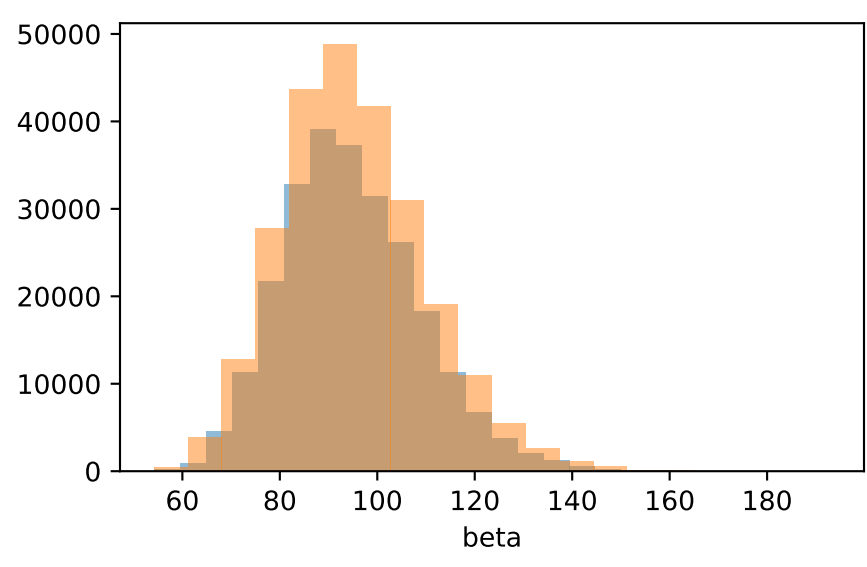

two_i
100000
80000
60000
40000
20000
0
frequency
142
144
146
148
150
152
154
chi

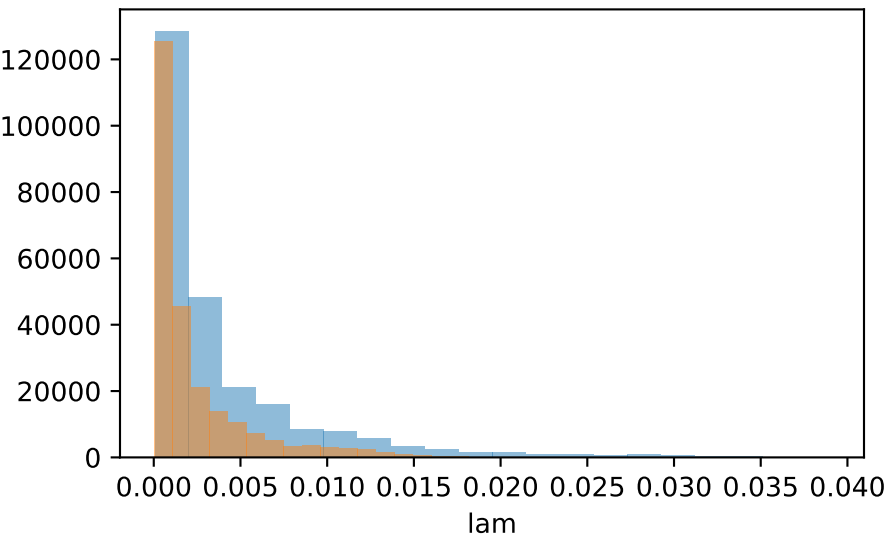

two_i
chi
154
152
150
148
146
144
142
0
50000
100000
150000
200000
250000
iteration

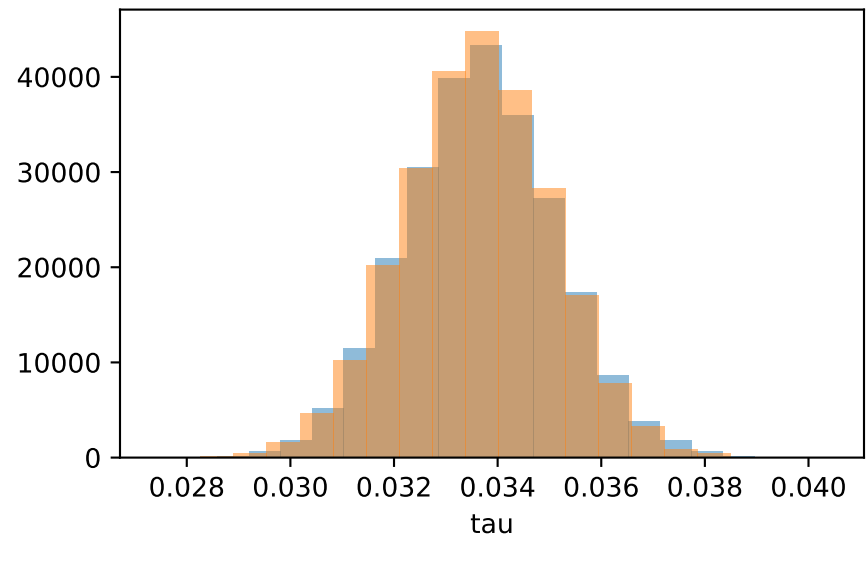
three_i


40000
30000
20000
10000
0
0.12
0.14
0.16
0.18
0.20
0.22
mu

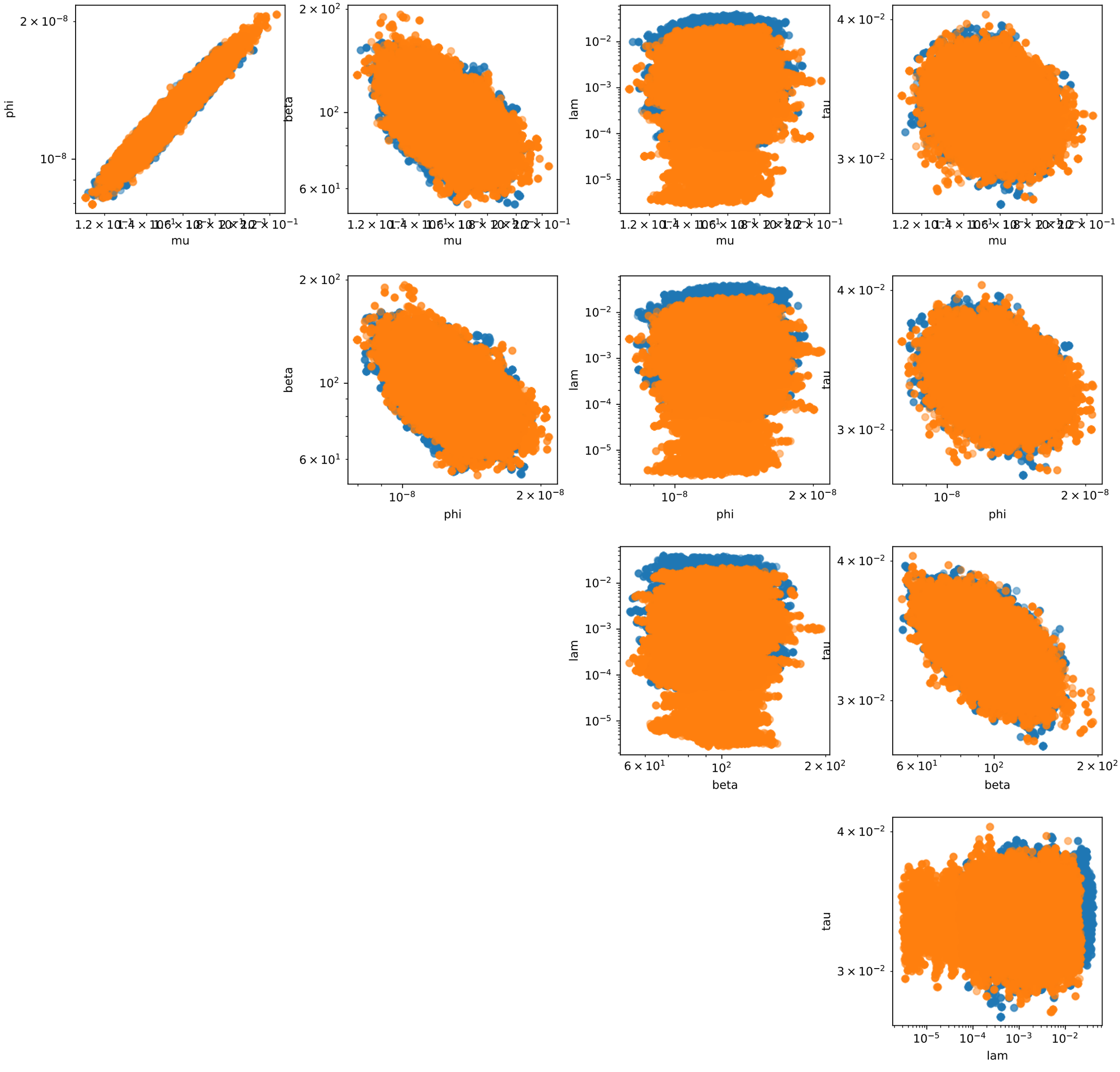

40000
30000
20000
10000
0
0.8
1.0
1.2
1.4
1.6
1.8
2.0
phi
1e−8

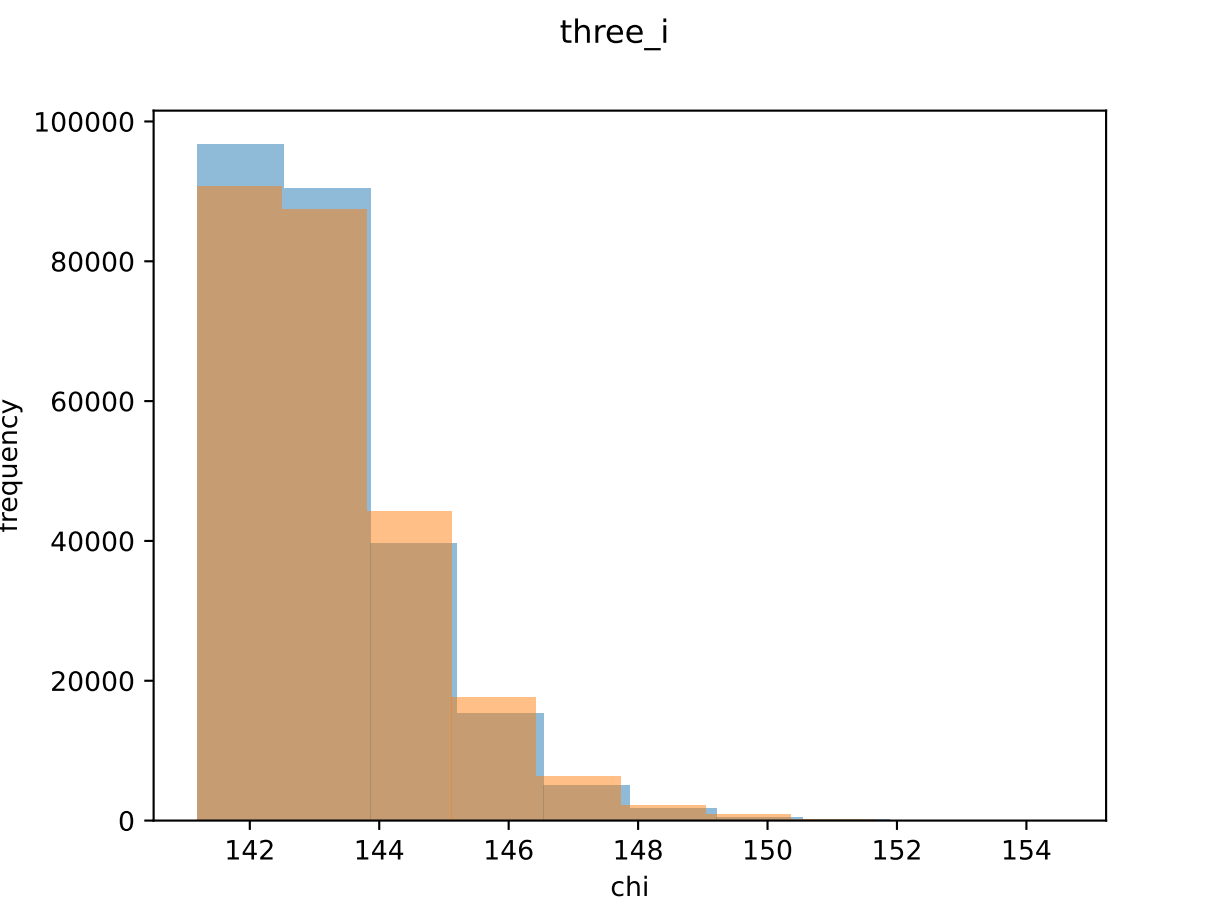

50000
40000
30000
20000
10000
0
60
80
100
120
140
160
180
beta

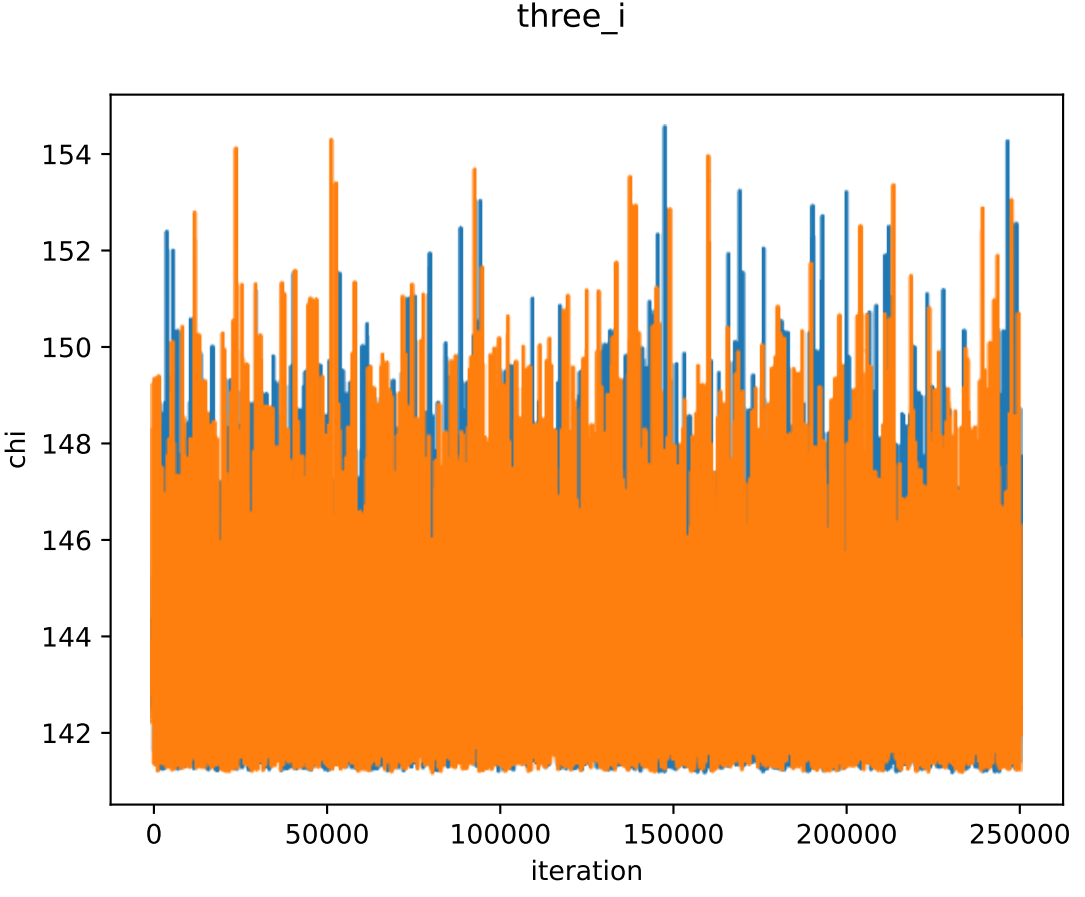

120000
100000
80000
60000
40000
20000
0
0.000
0.005
0.010
0.015
0.020
0.025
0.030
0.035
0.040
lam


40000
30000
20000
10000
0
0.028
0.030
0.032
0.034
0.036
0.038
0.040
tau

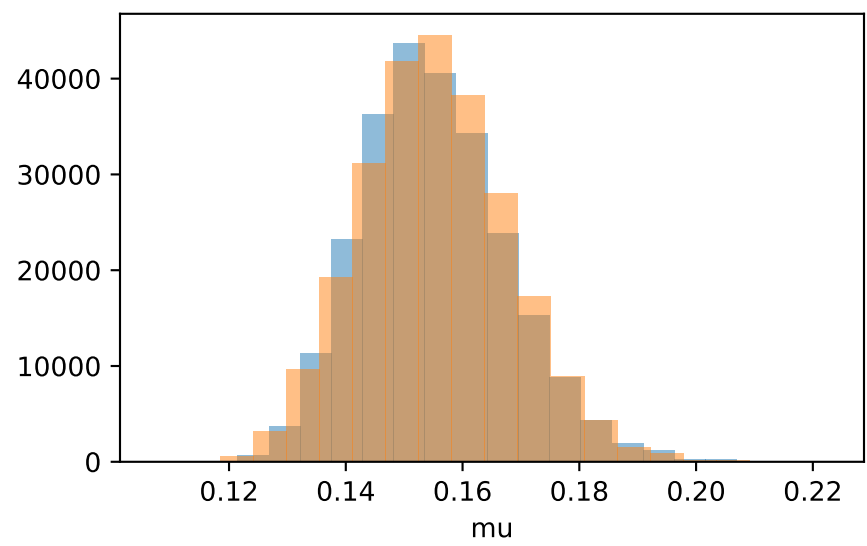
three_i

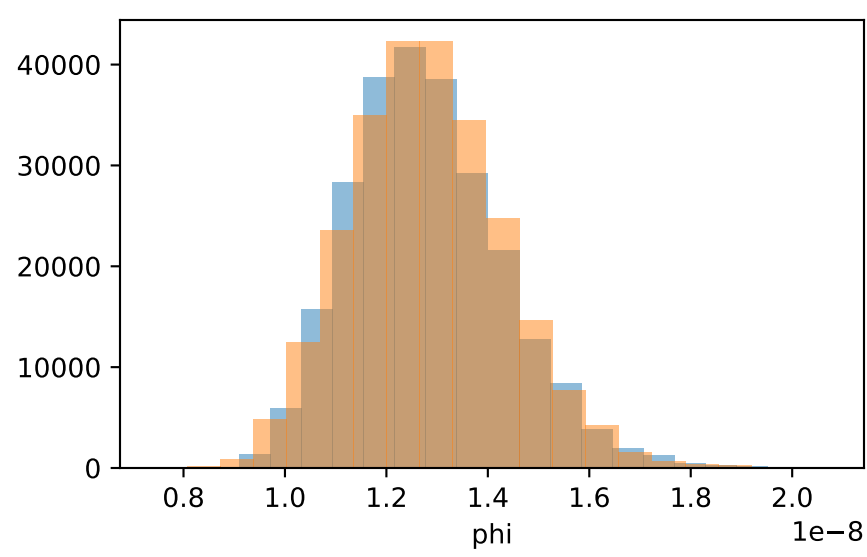


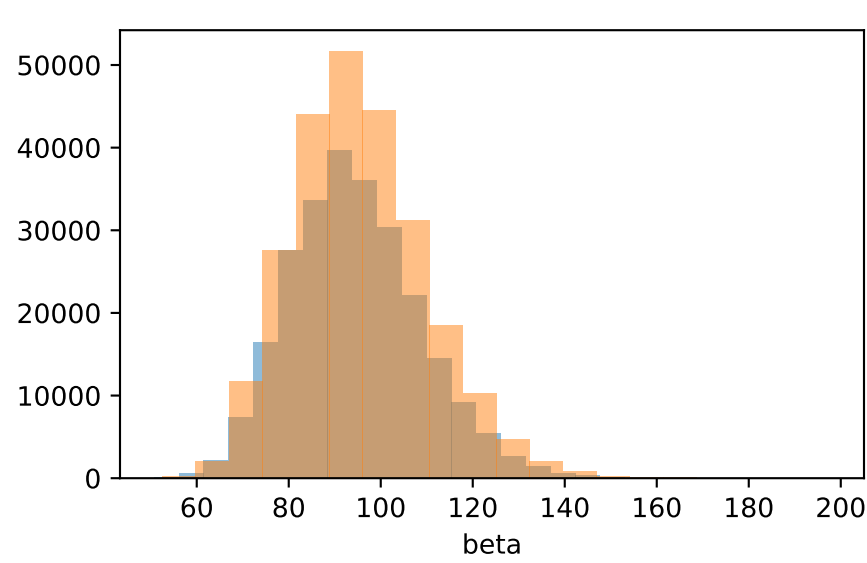

three_i
100000
80000
60000
40000
20000
0
frequency
142
144
146
148
150
152
154
chi

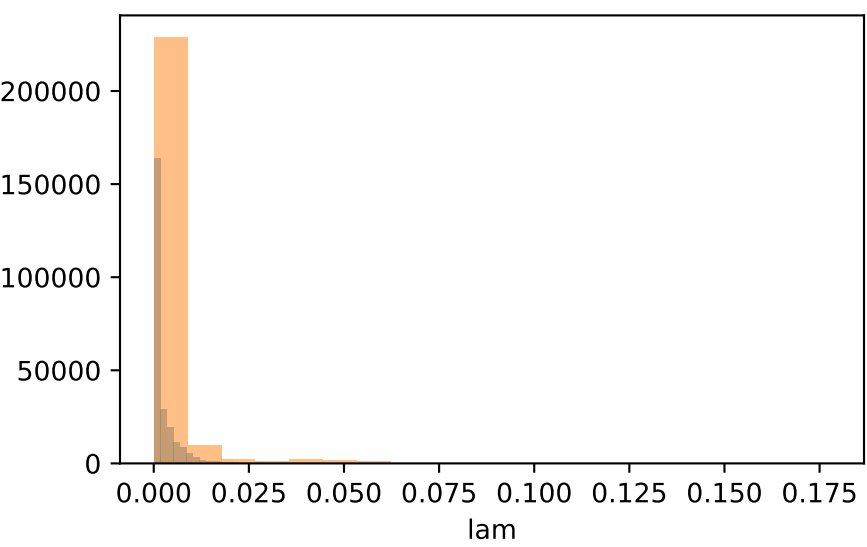

three_i
chi
154
152
150
148
146
144
142
0
50000
100000
150000
200000
250000
iteration

four_i


40000
30000
20000
10000
0
0.12
0.14
0.16
0.18
0.20
0.22
mu


40000
30000
20000
10000
0
0.8
1.0
1.2
1.4
1.6
1.8
2.0
phi
1e−8


50000
40000
30000
20000
10000
0
60
80
100
120
140
160
180
200
beta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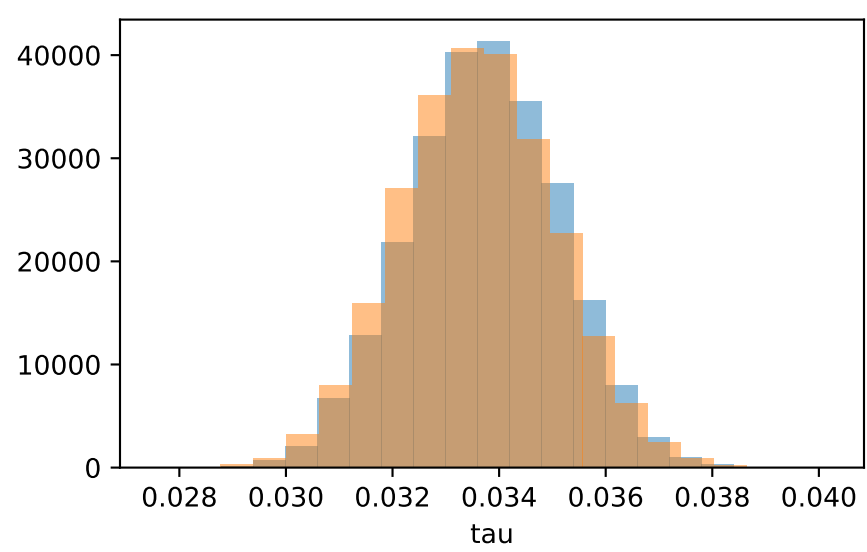
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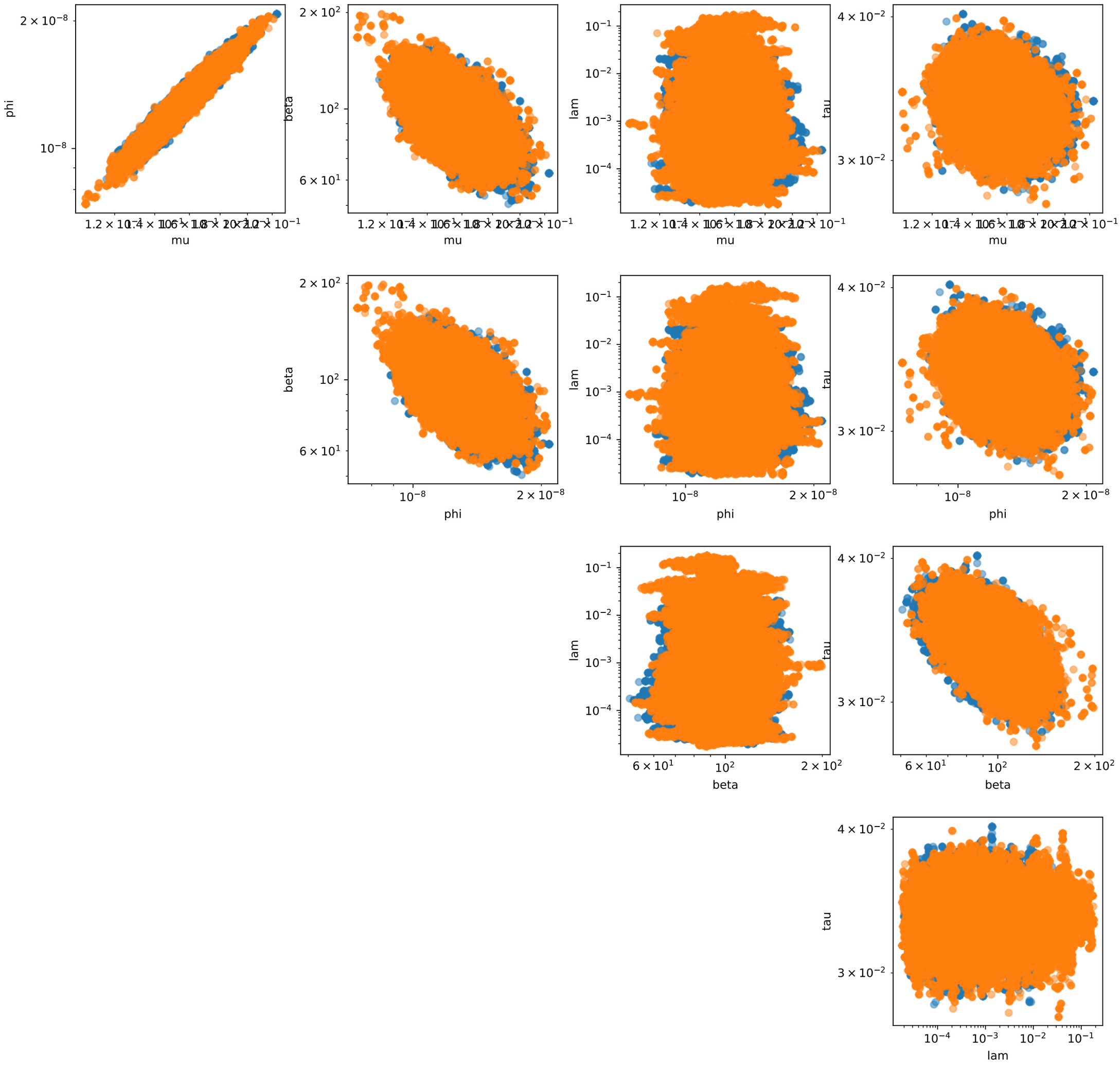

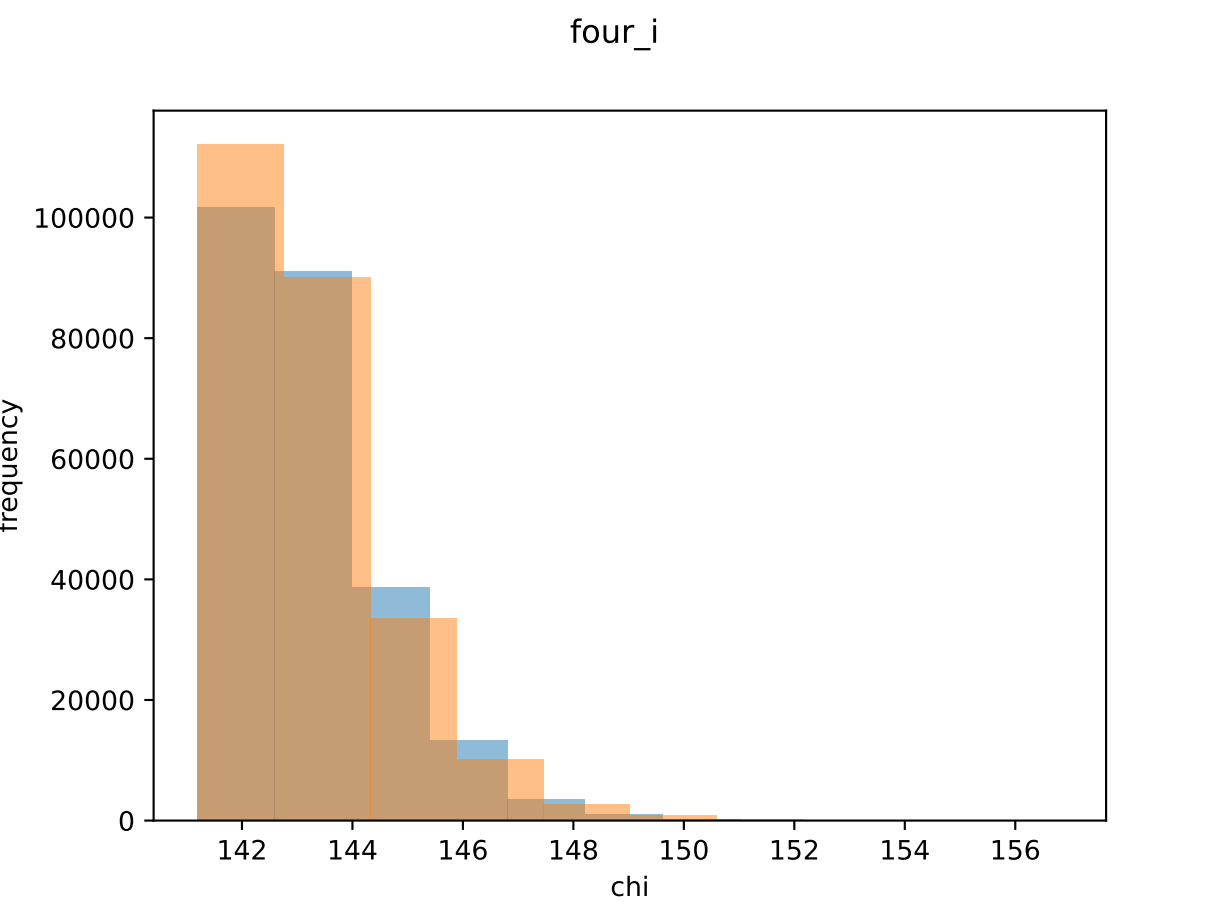
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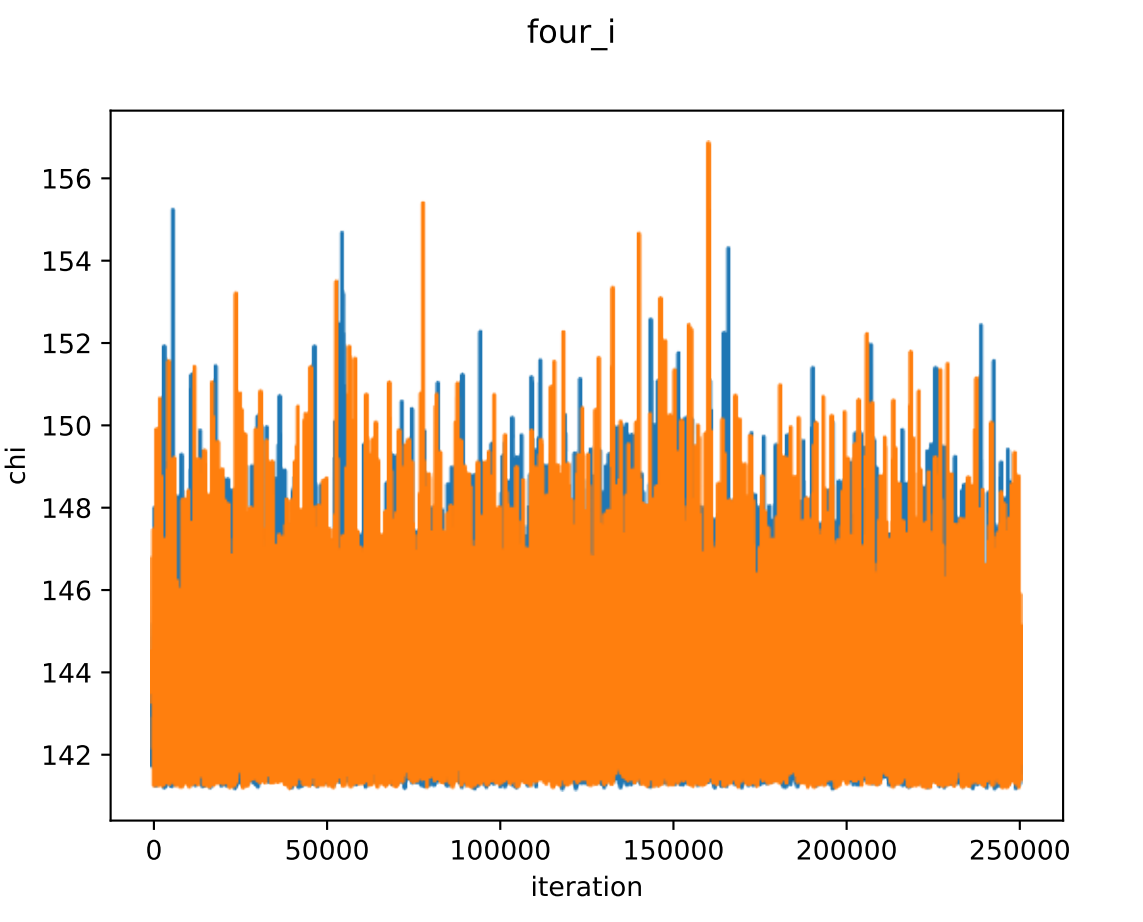
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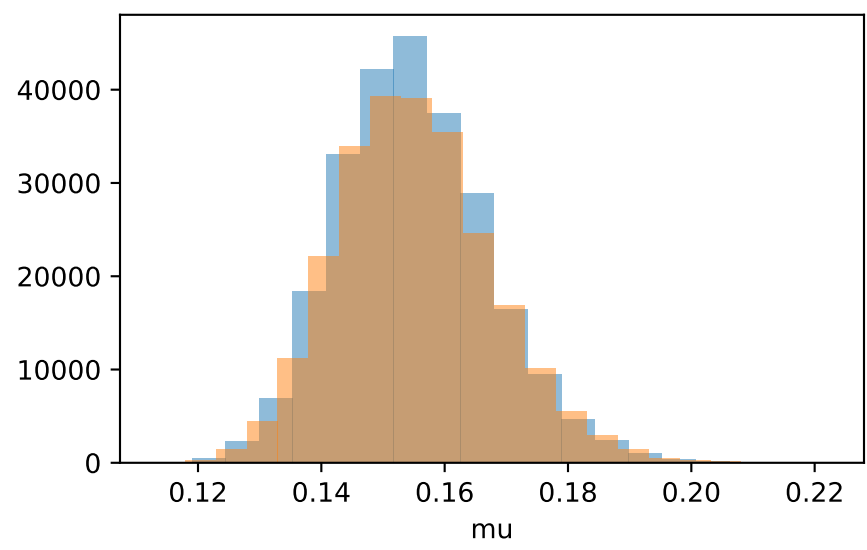
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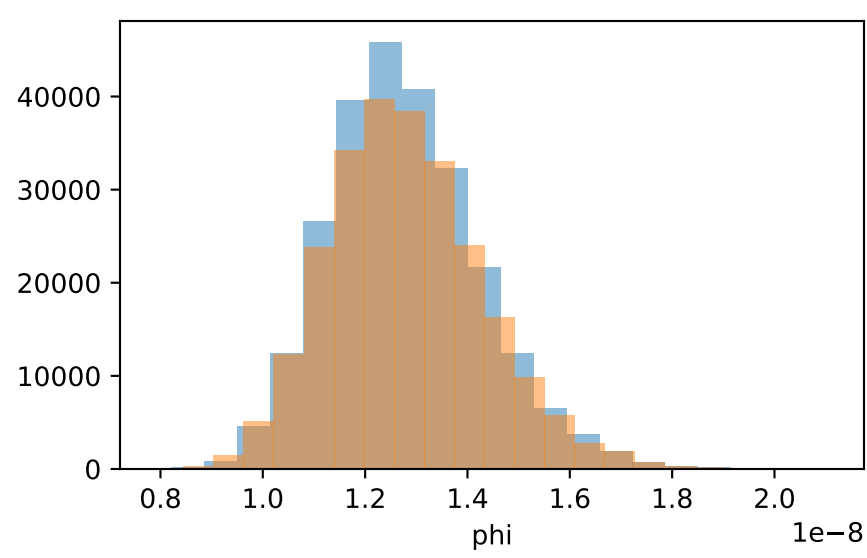
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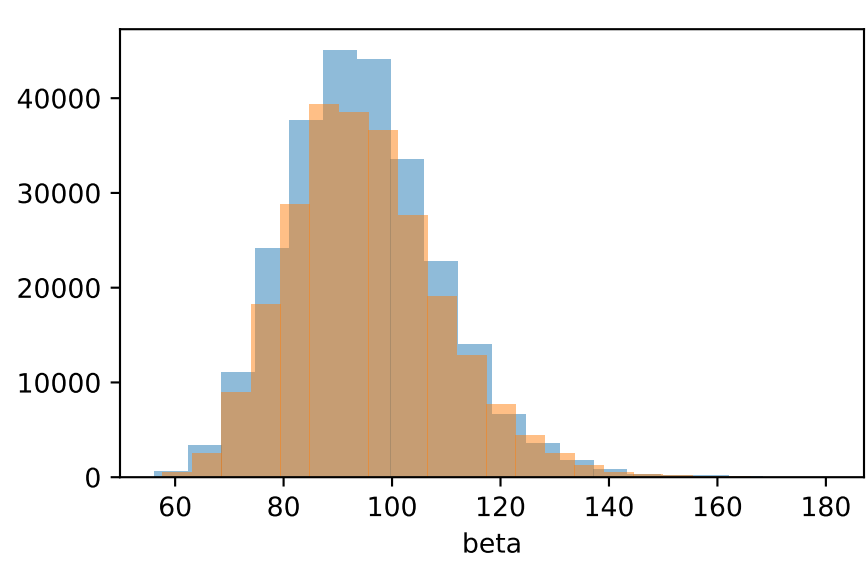
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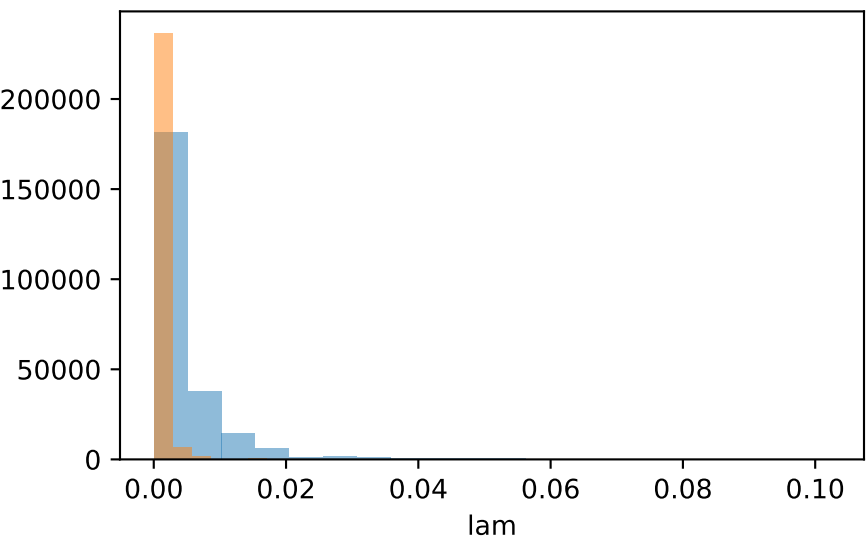
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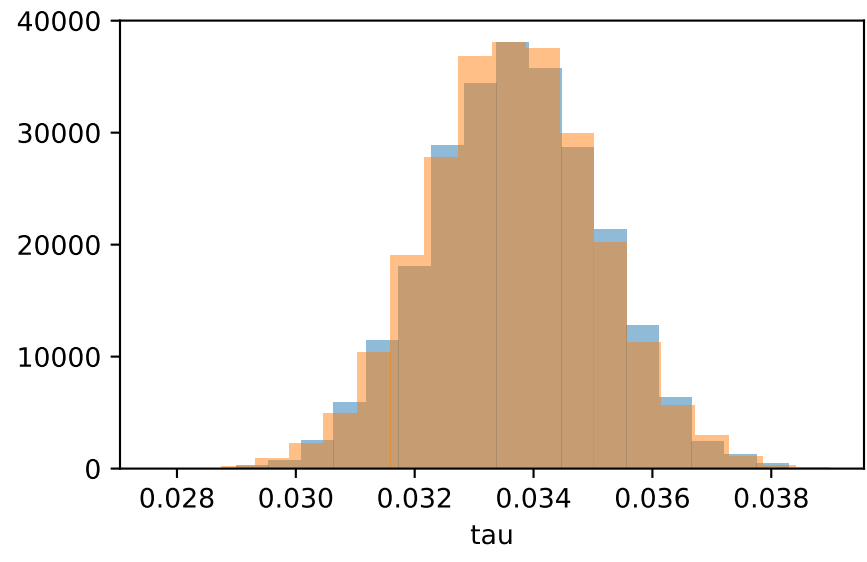
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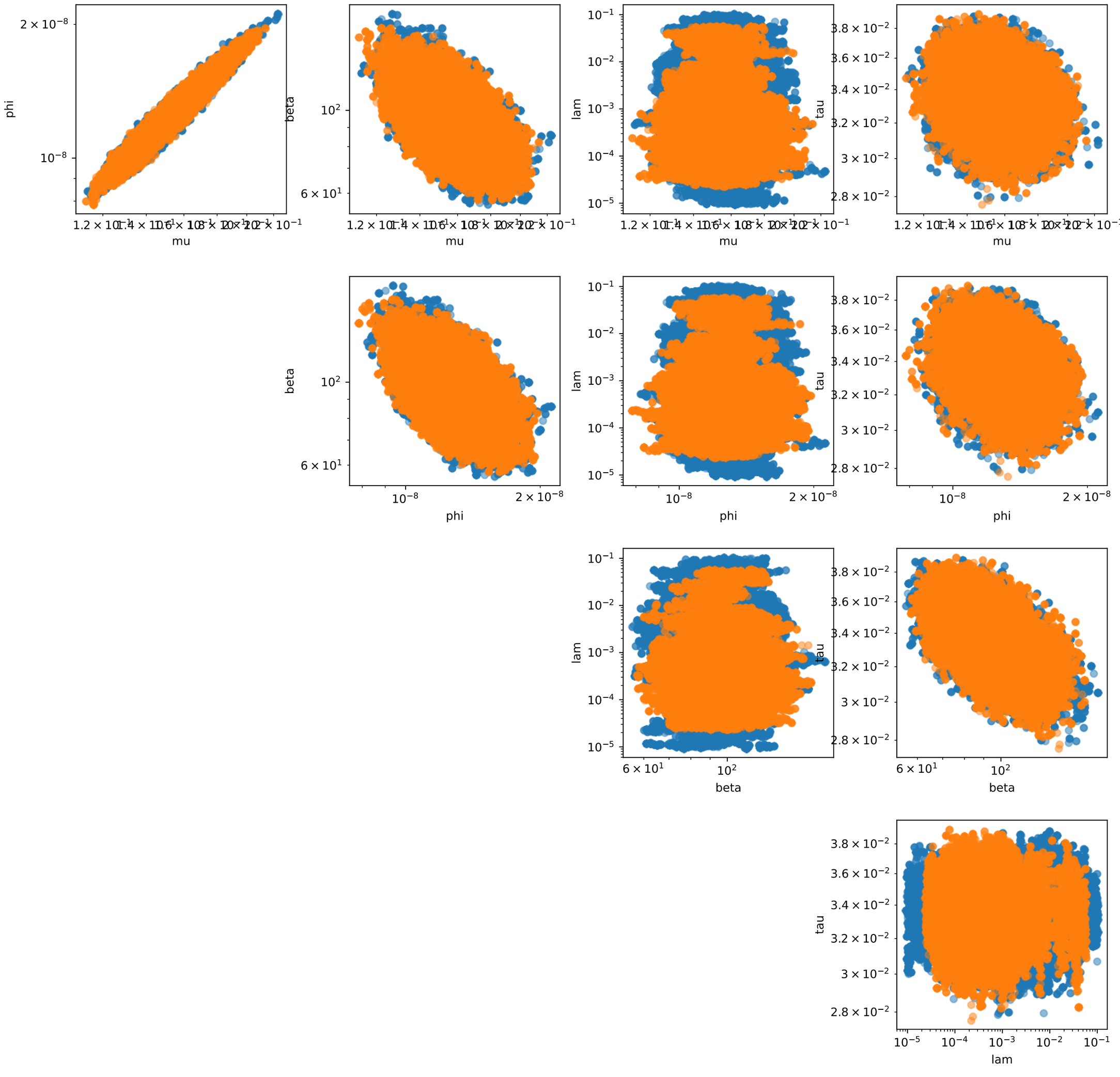

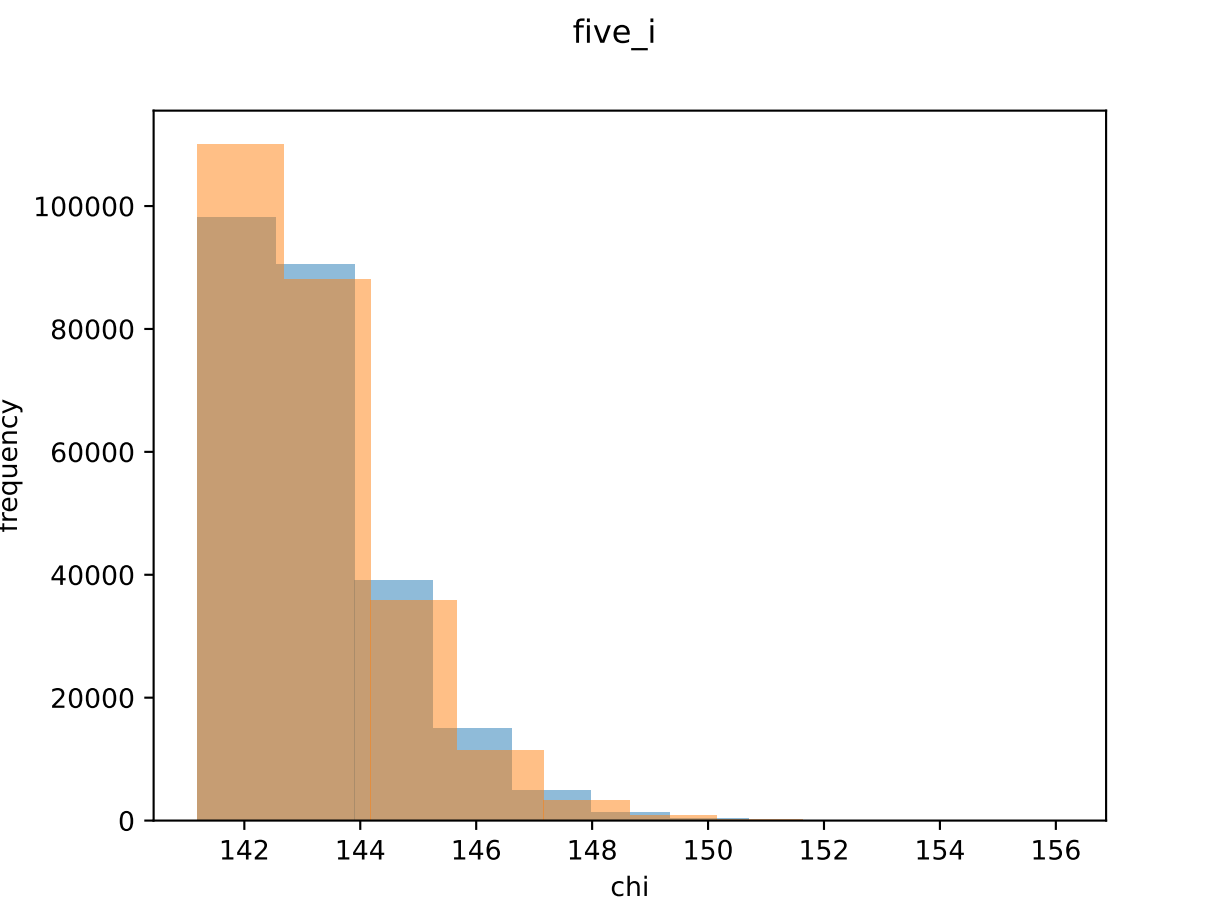
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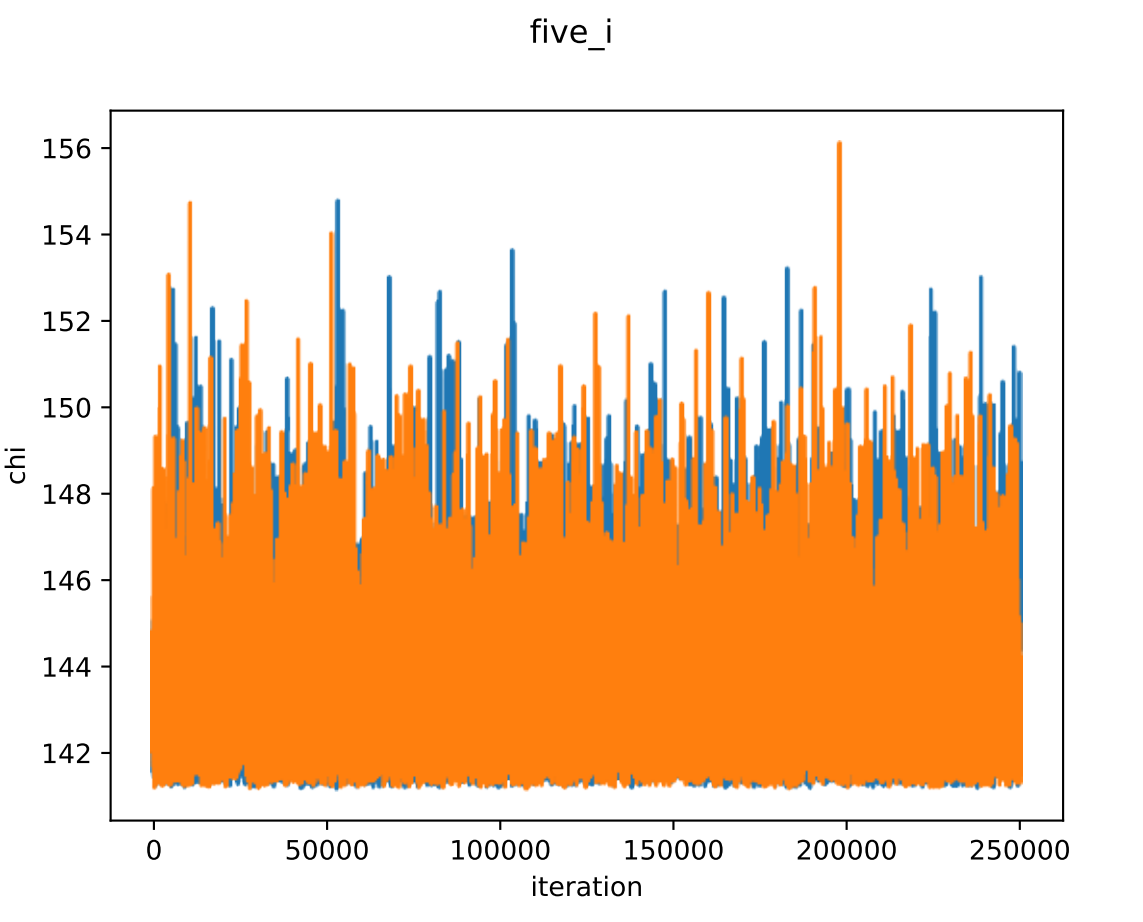
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