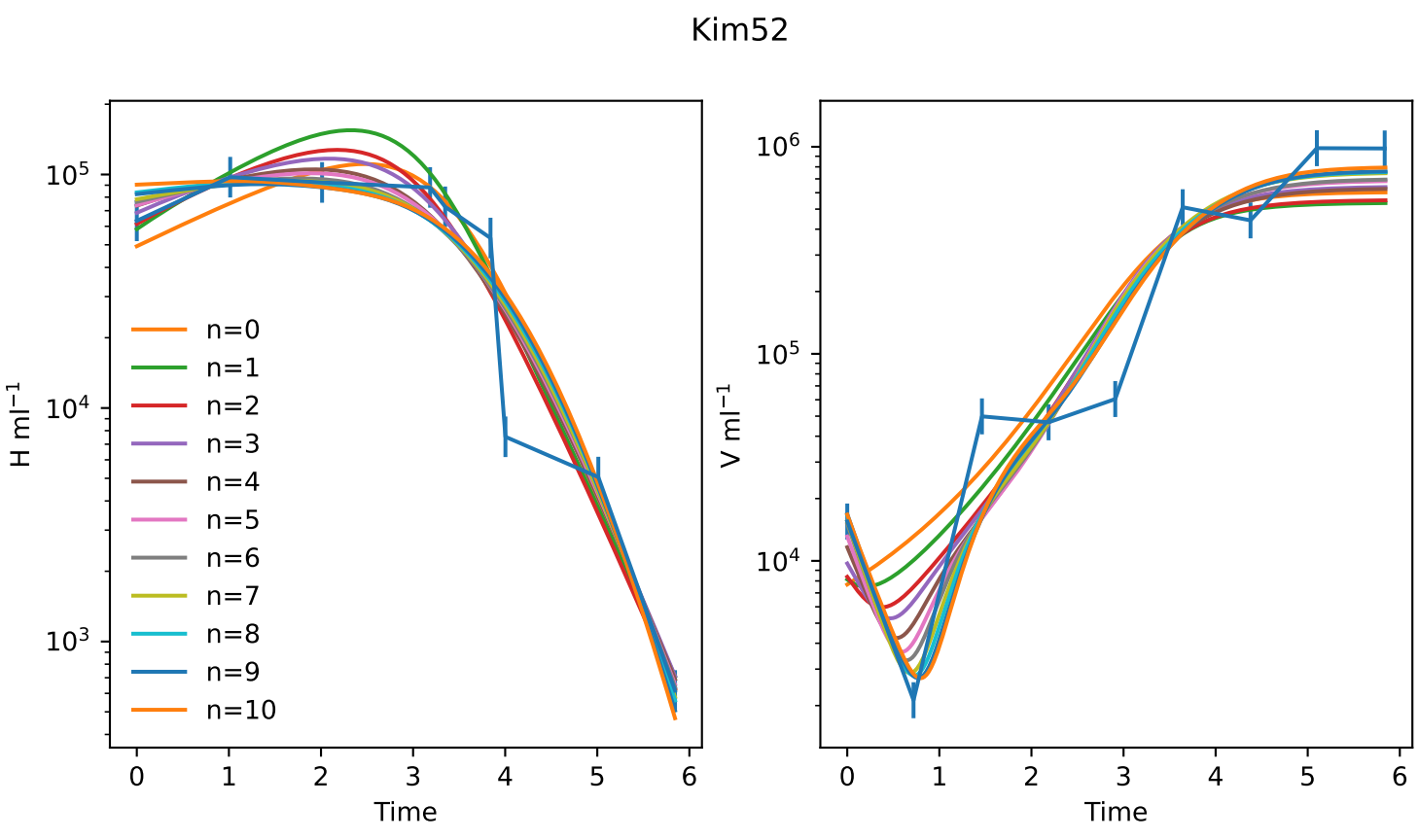
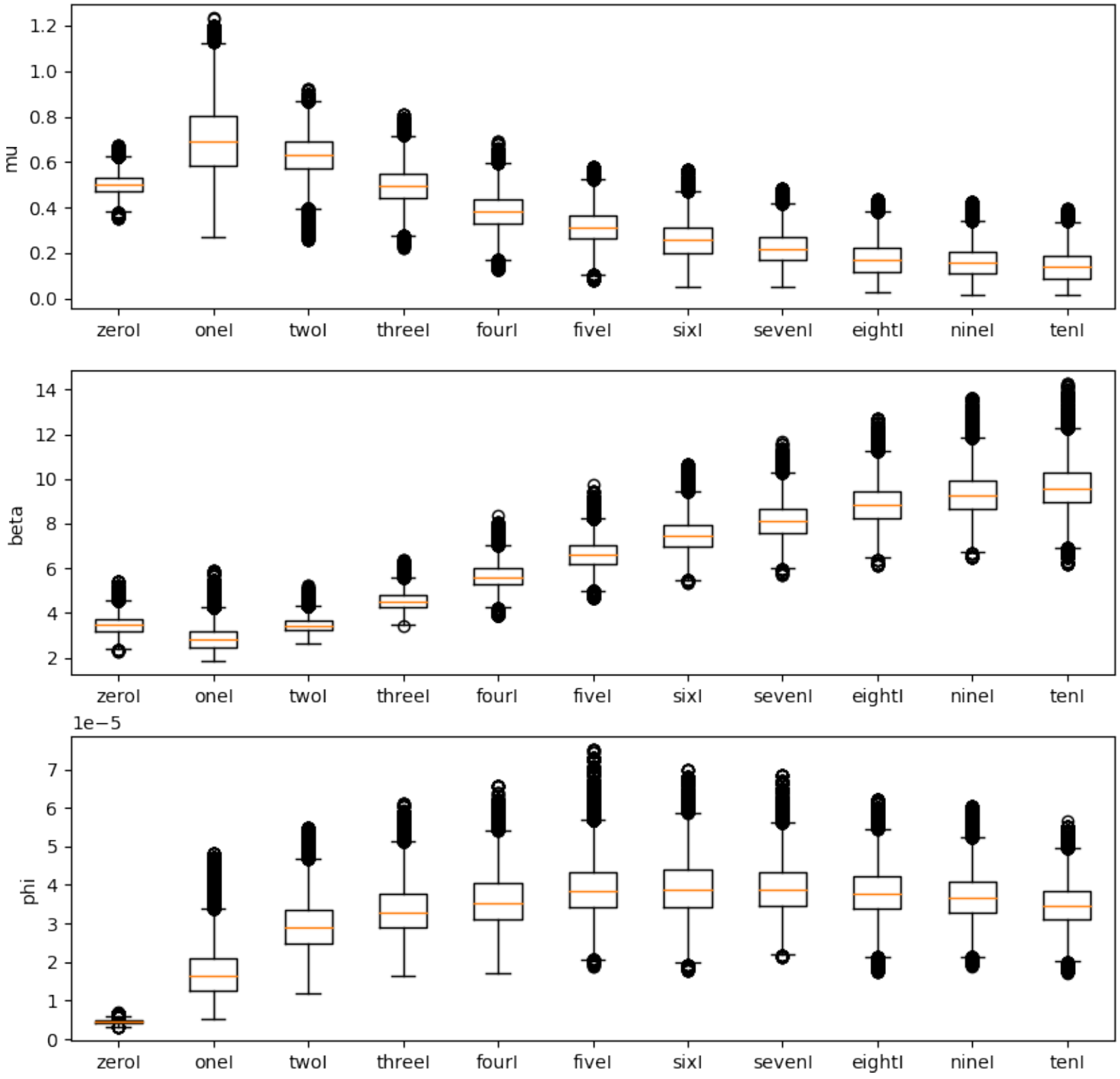
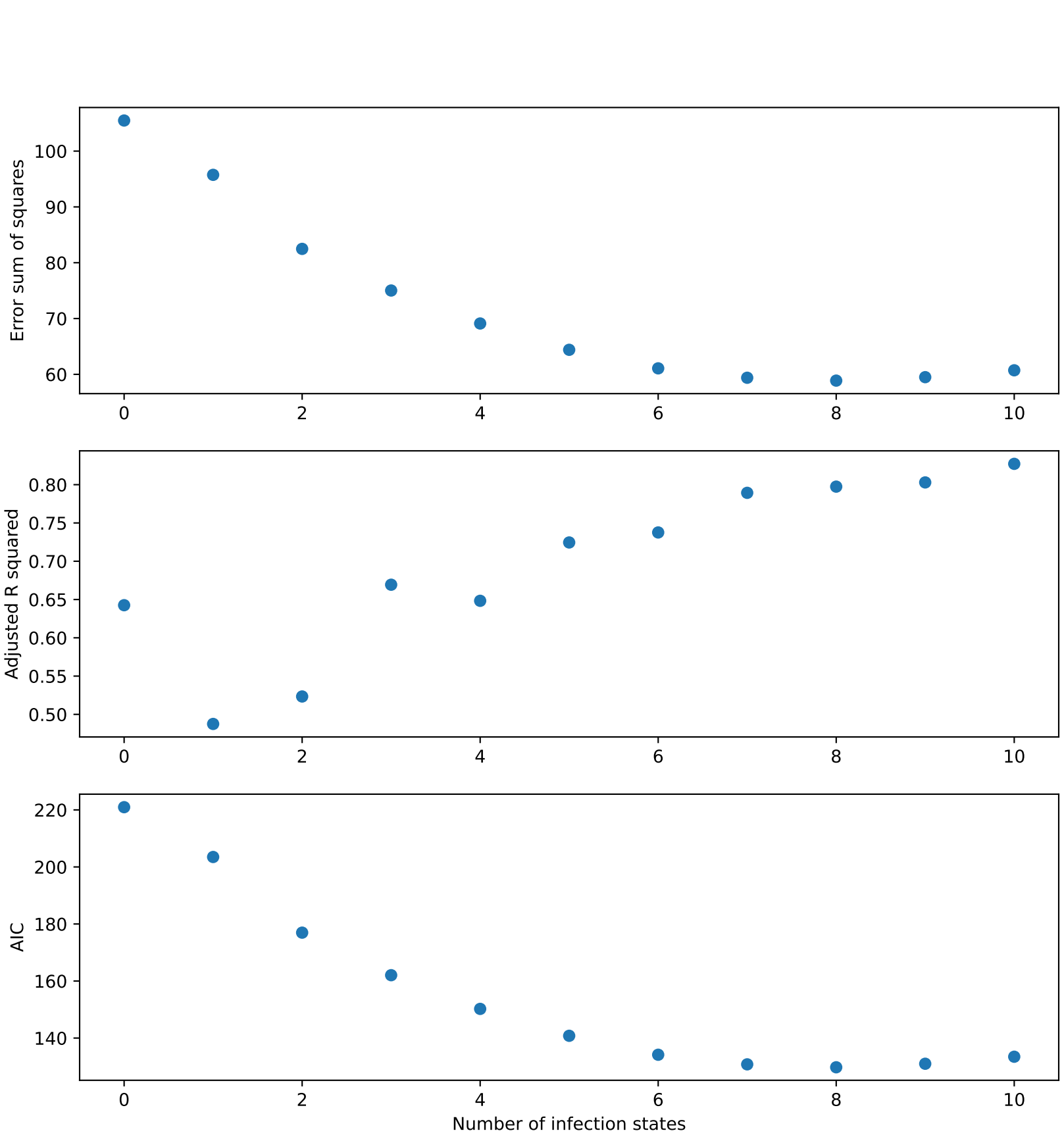
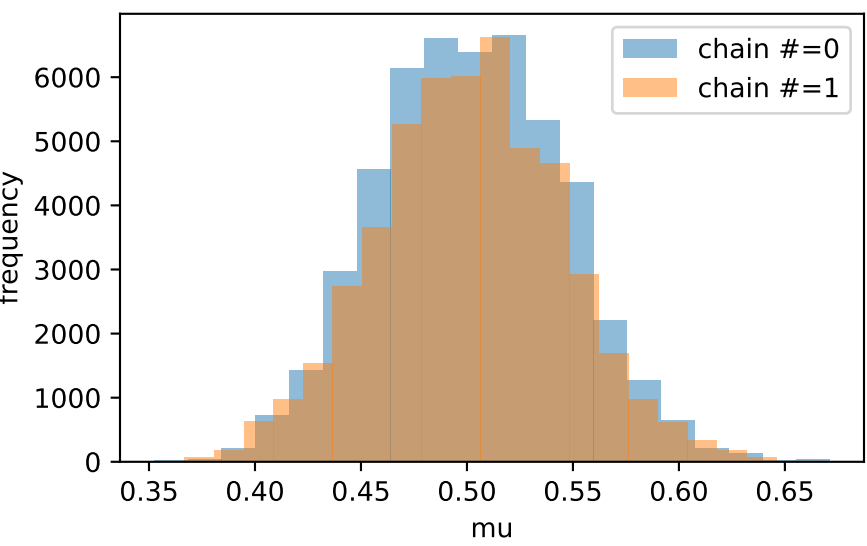

Kim52
H ml^{-1}
V ml^{-1}
Time
Time
n=0
n=1
n=2
n=3
n=4
n=5
n=6
n=7
n=8
n=9
n=10

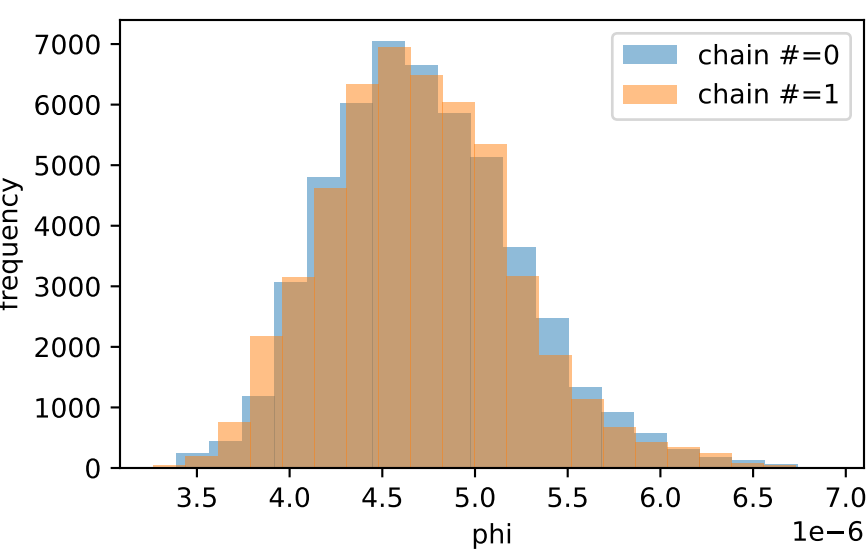
Kim52

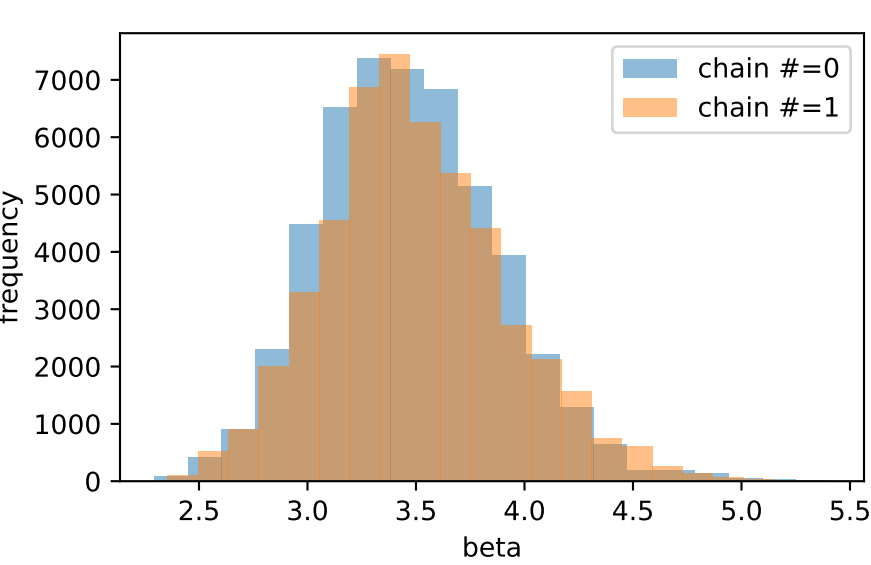

mu
1.2
1.0
0.8
0.6
0.4
0.2
0.0
zeroI
oneI
twoI
threeI
fourI
fiveI
sixI
sevenI
eightI
nineI
tenI
beta
14
12
10
8
6
4
2
zeroI
oneI
twoI
threeI
fourI
fiveI
sixI
sevenI
eightI
nineI
tenI
1e−5
phi
7
6
5
4
3
2
1
0
zeroI
oneI
twoI
threeI
fourI
fiveI
sixI
sevenI
eightI
nineI
tenI

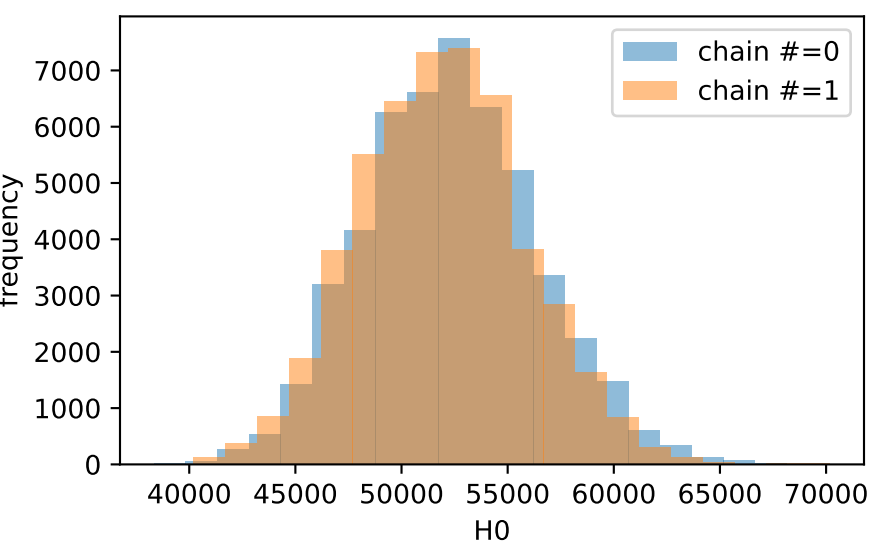

Kim52
Error sum of squares
100
90
80
70
60
0
2
4
6
8
10
Adjusted R squared
0.80
0.75
0.70
0.65
0.60
0.55
0.50
0
2
4
6
8
10
AIC
220
200
180
160
140
0
2
4
6
8
10
Number of infection states

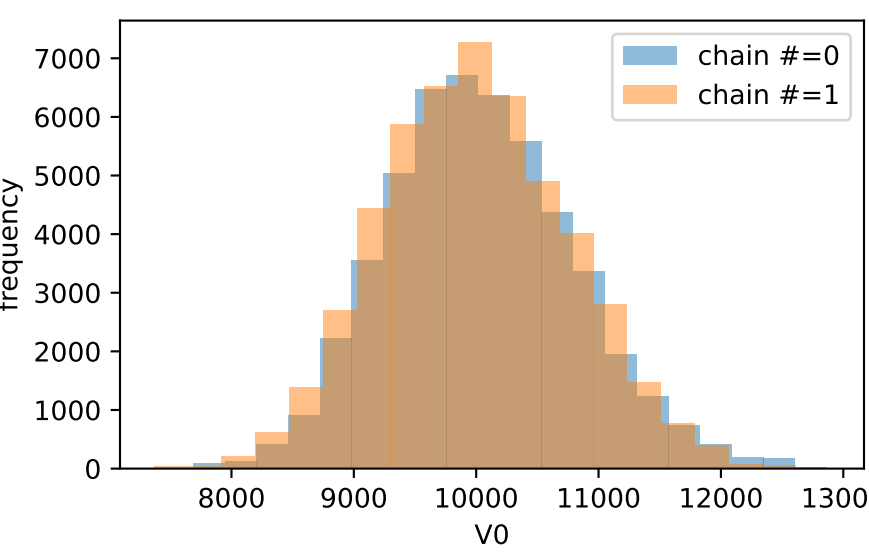
zero_i


chain #=0
chain #=1
frequency
0
1000
2000
3000
4000
5000
6000
0.35
0.40
0.45
0.50
0.55
0.60
0.65
mu

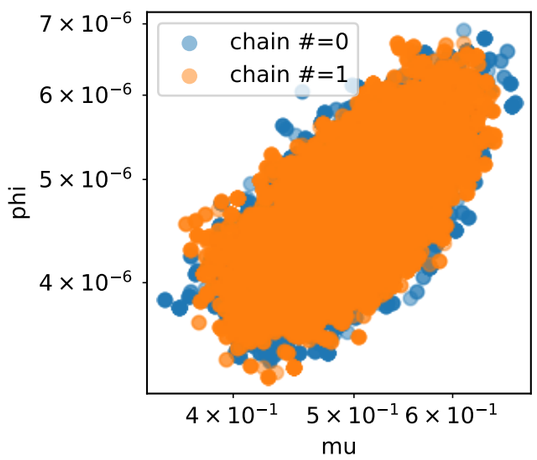

chain #=0
chain #=1
frequency
0
1000
2000
3000
4000
5000
6000
7000
3.5
4.0
4.5
5.0
5.5
6.0
6.5
7.0
phi
1e−6

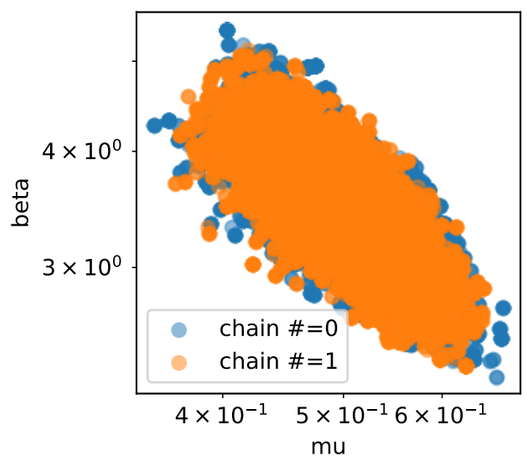

chain #=0
chain #=1
frequency
0
1000
2000
3000
4000
5000
6000
7000
2.5
3.0
3.5
4.0
4.5
5.0
5.5
beta

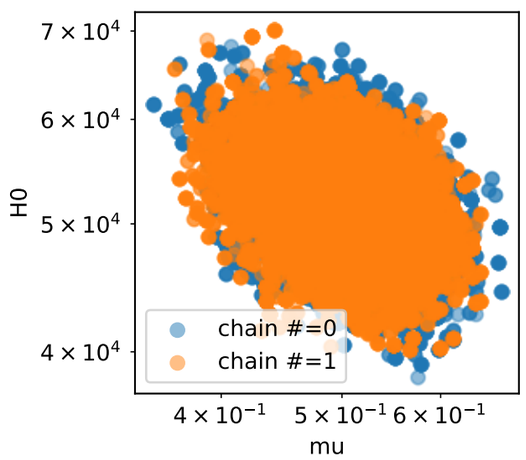

chain #=0
chain #=1
frequency
0
1000
2000
3000
4000
5000
6000
7000
40000
45000
50000
55000
60000
65000
70000
H0

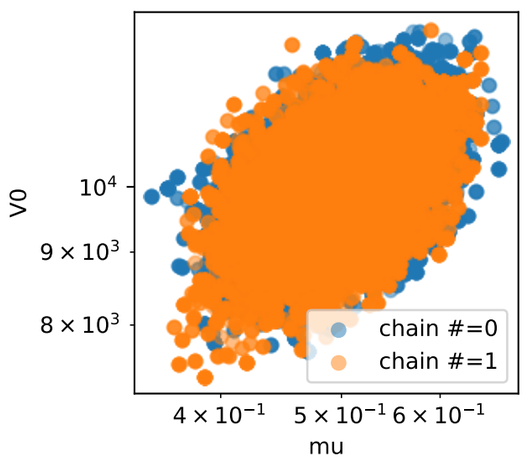

chain #=0
chain #=1
frequency
0
1000
2000
3000
4000
5000
6000
7000
8000
9000
10000
11000
12000
13000
V0

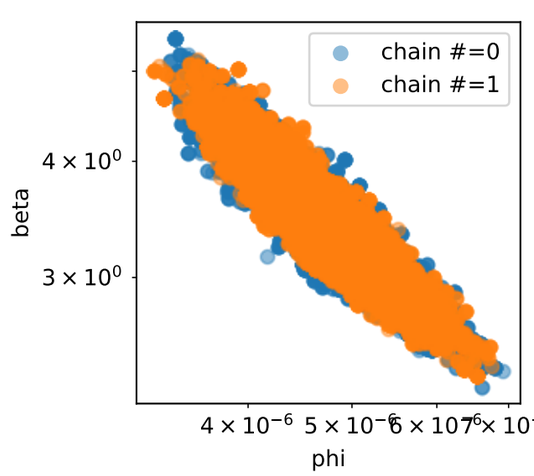
zero_i

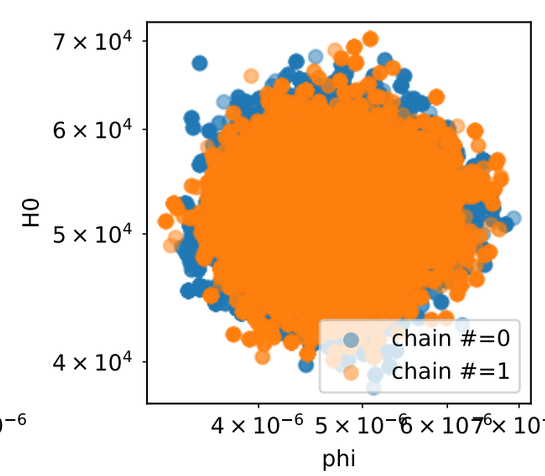

chain #=0
chain #=1
phi
mu


chain #=0
chain #=1
beta
mu


chain #=0
chain #=1
H0
mu


chain #=0
chain #=1
V0
mu


chain #=0
chain #=1
beta
phi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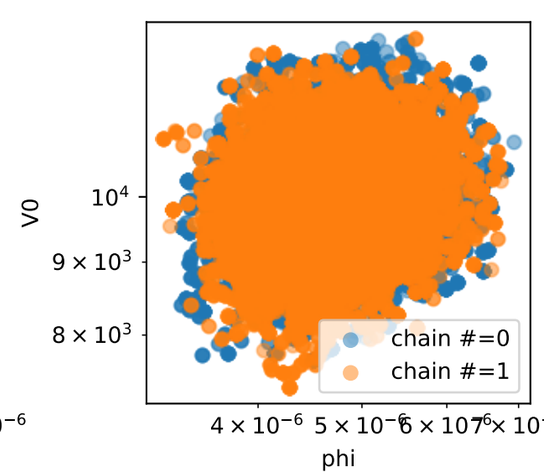
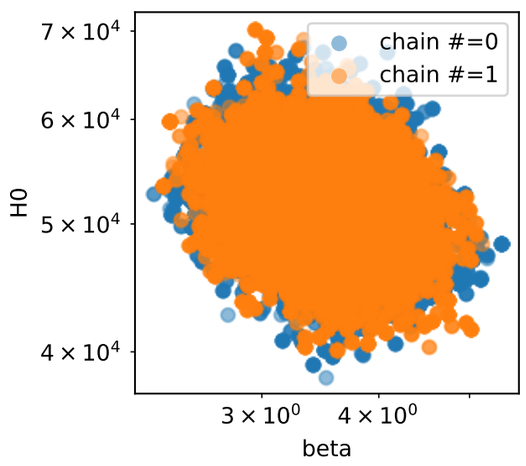
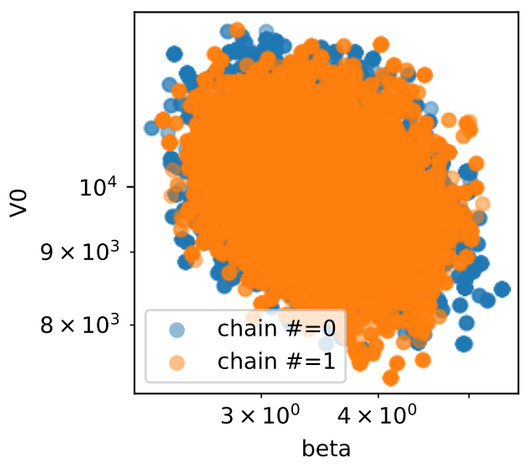
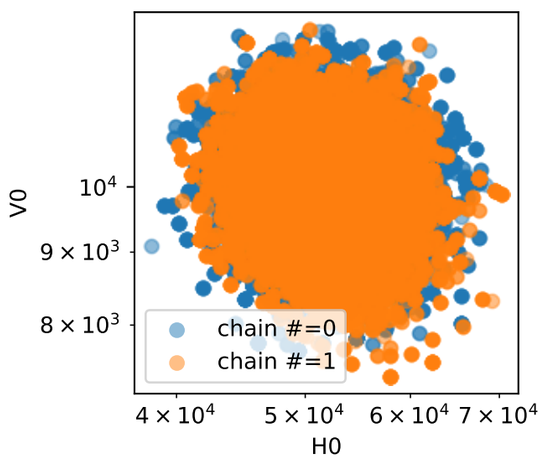
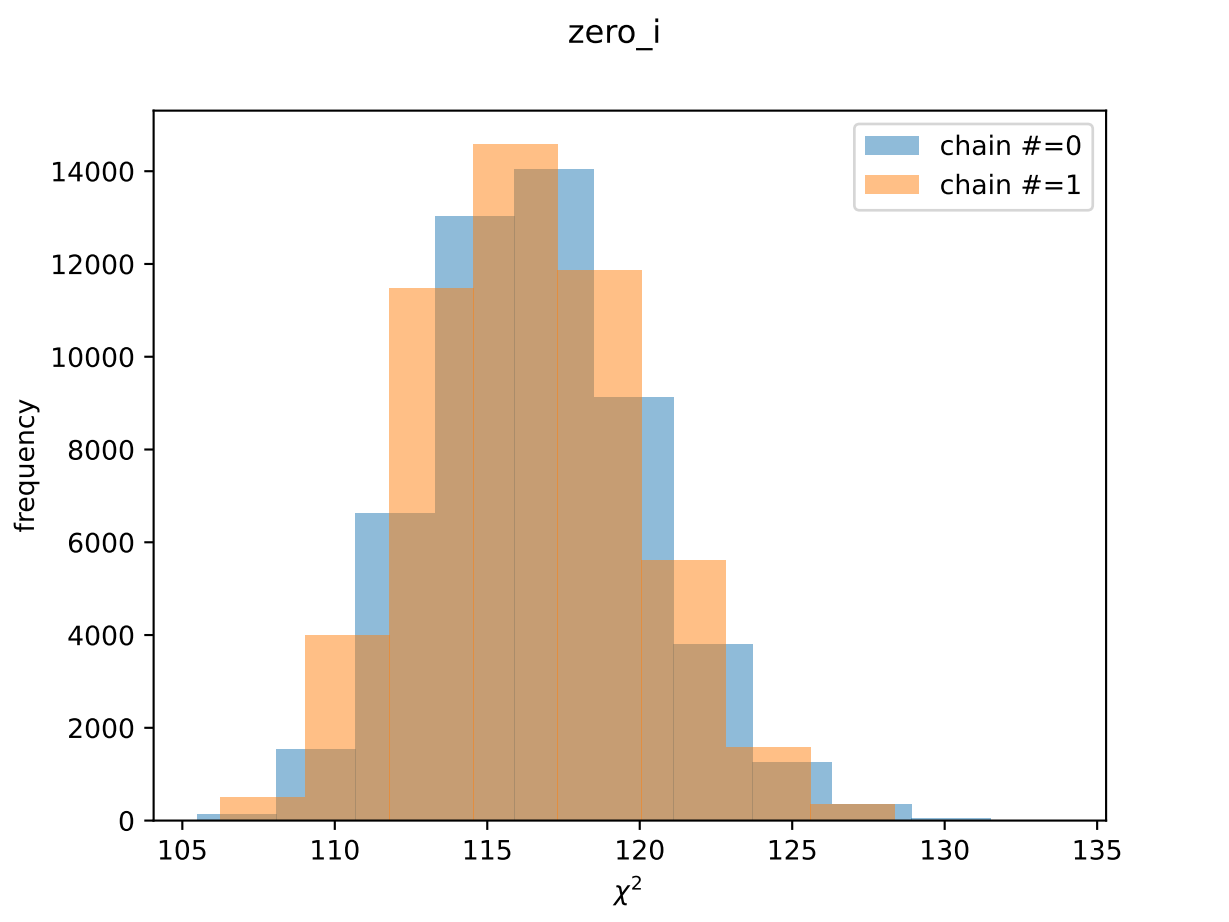
chain #=1
H0
phi

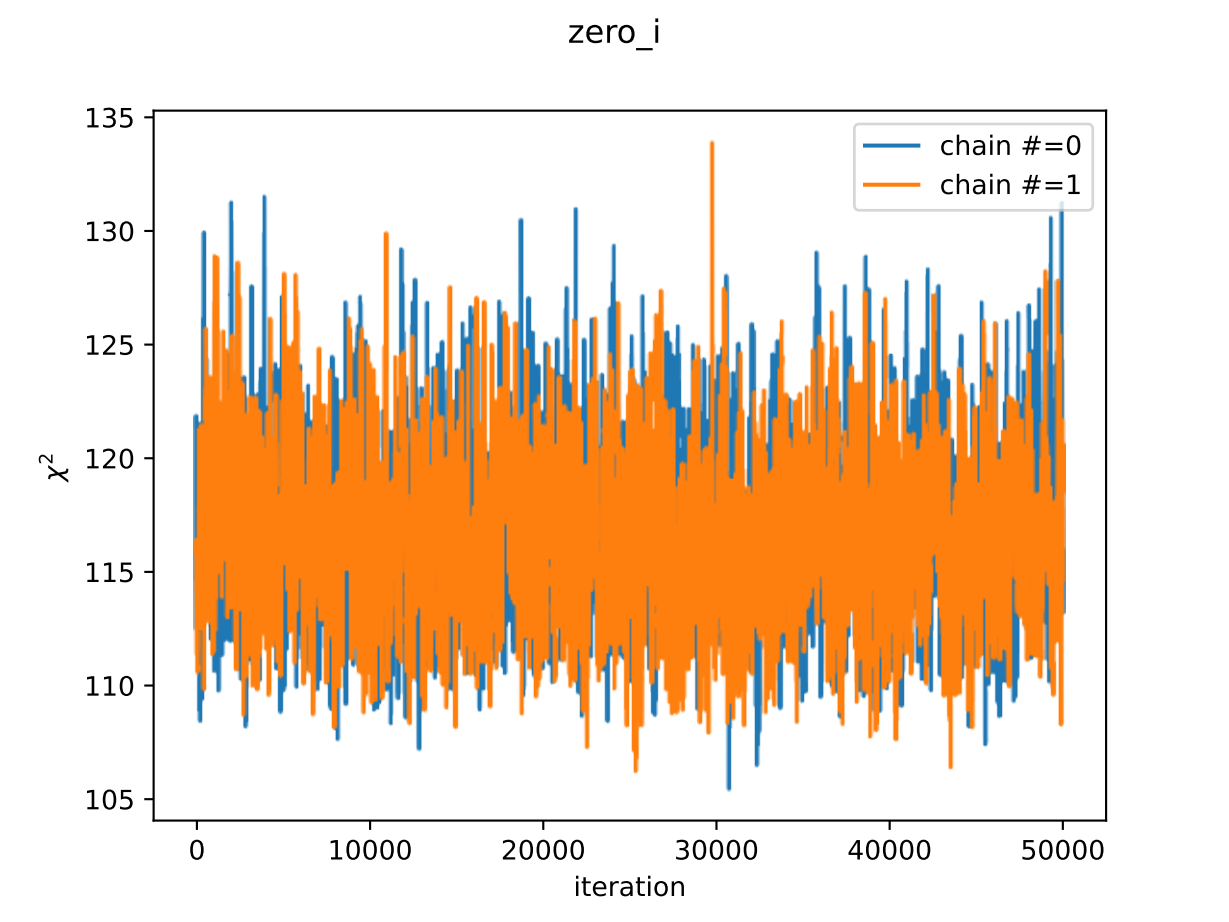

chain #=0
chain #=1
V0
phi


chain #=0
chain #=1
H0
beta

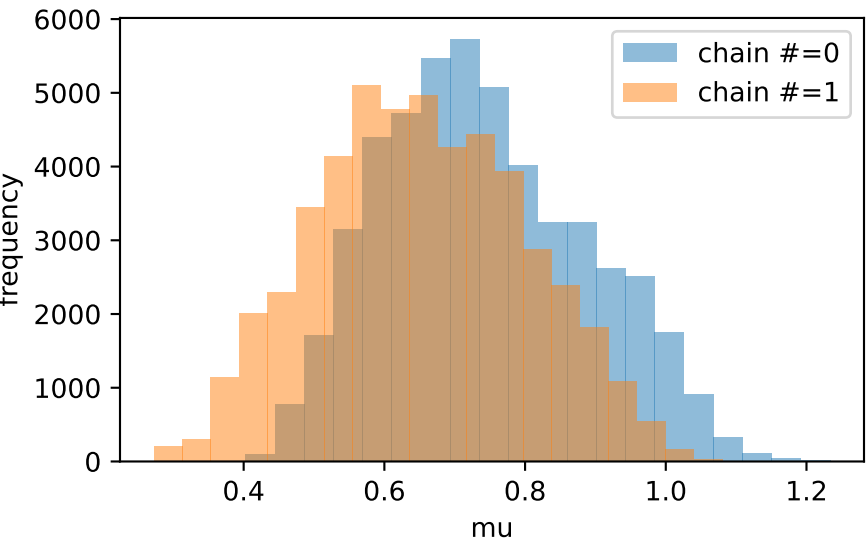

chain #=0
chain #=1
V0
beta

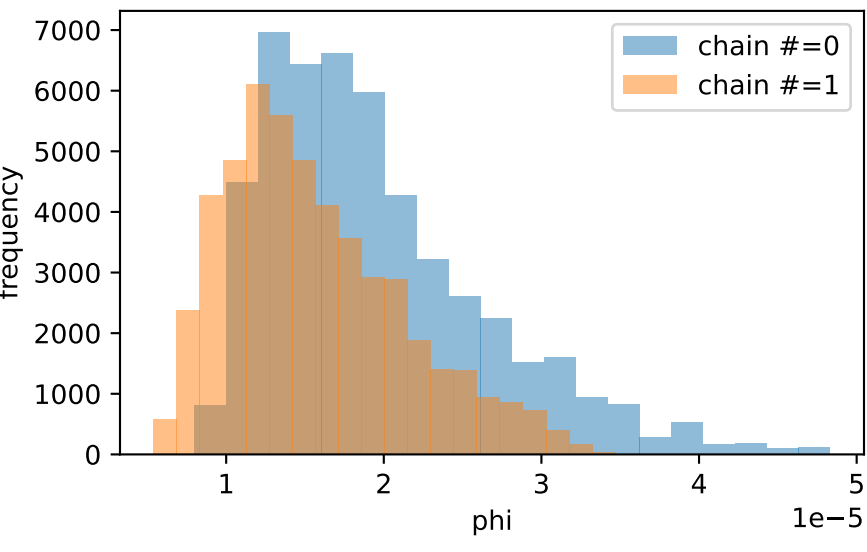

chain #=0
chain #=1
V0
H0

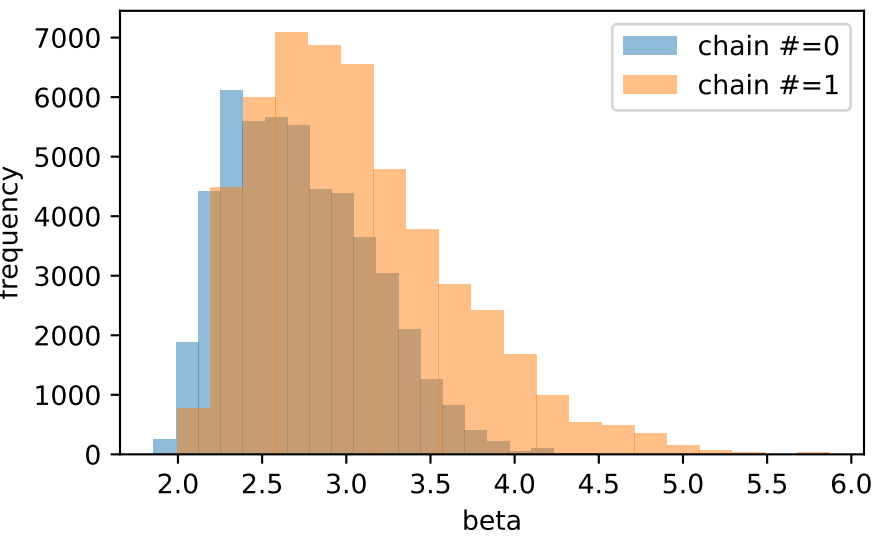

zero_i
chain #=0
chain #=1
frequency
14000
12000
10000
8000
6000
4000
2000
0
105
110
115
120
125
130
135
χ^2

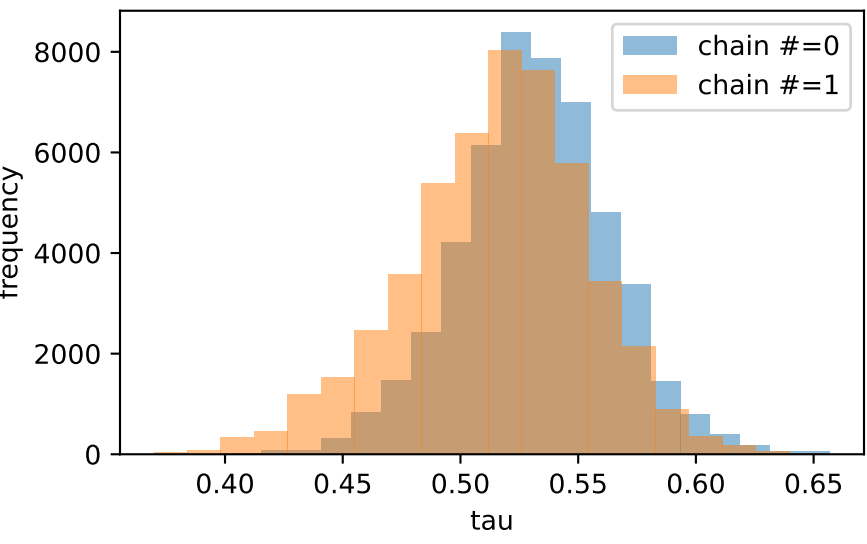

zero_i
chain #=0
chain #=1
χ^2
iteration
135
130
125
120
115
110
105
0
10000
20000
30000
40000
50000

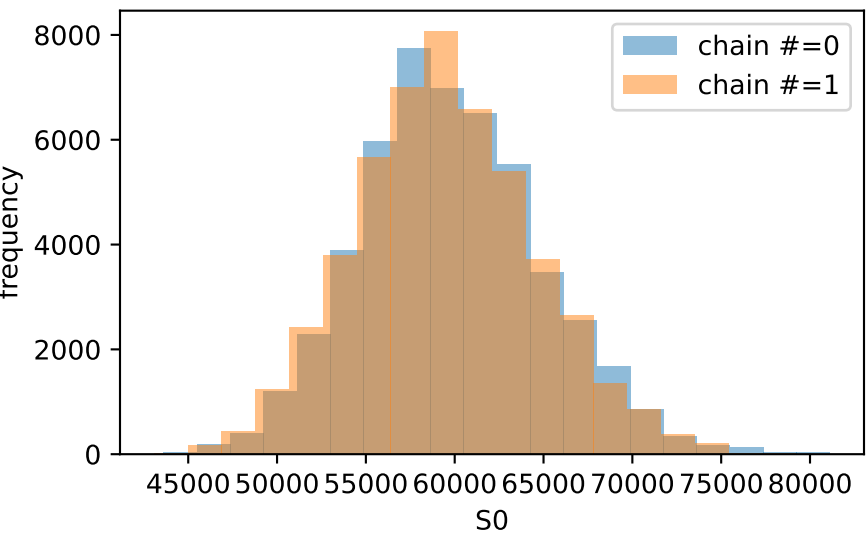
one_i

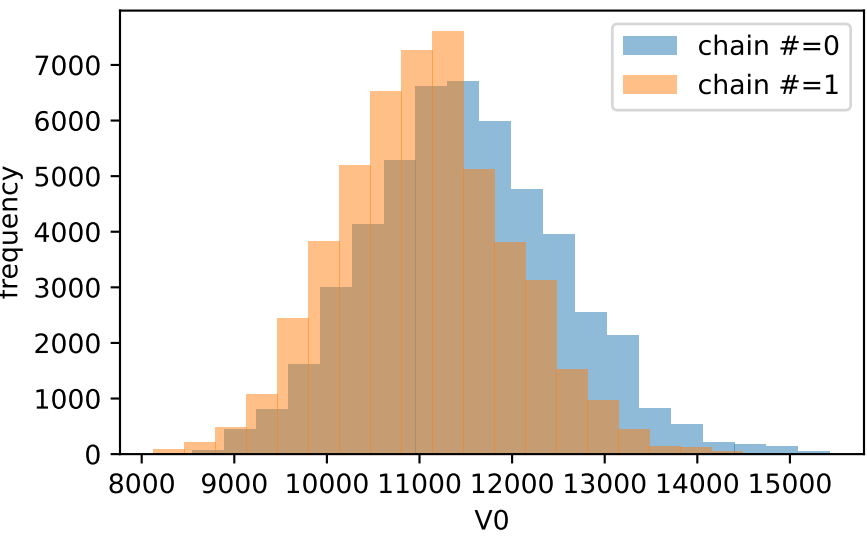

chain #=0
chain #=1
frequency
mu


chain #=0
chain #=1
frequency
phi
1e−5

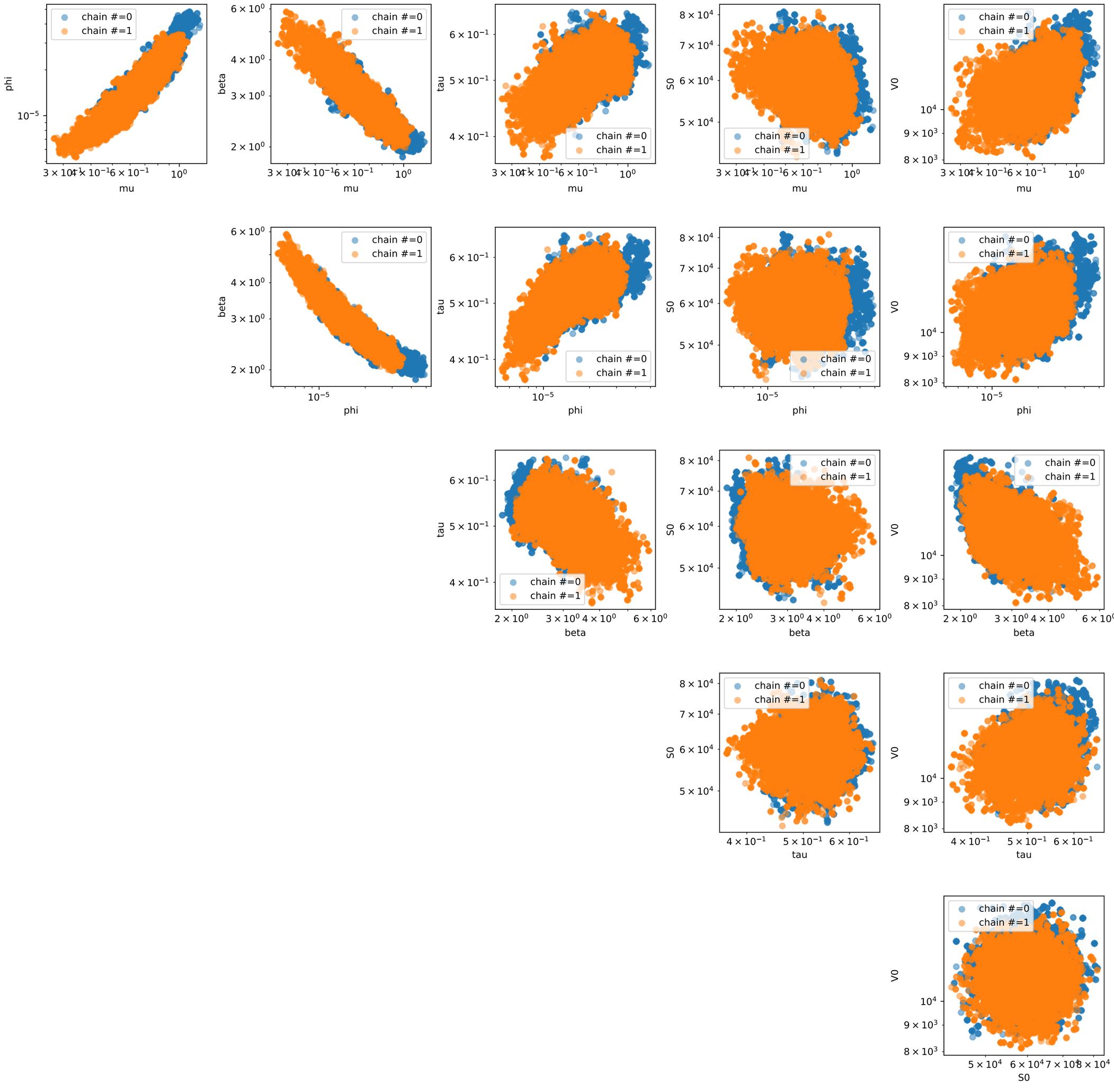

chain #=0
chain #=1
frequency
beta

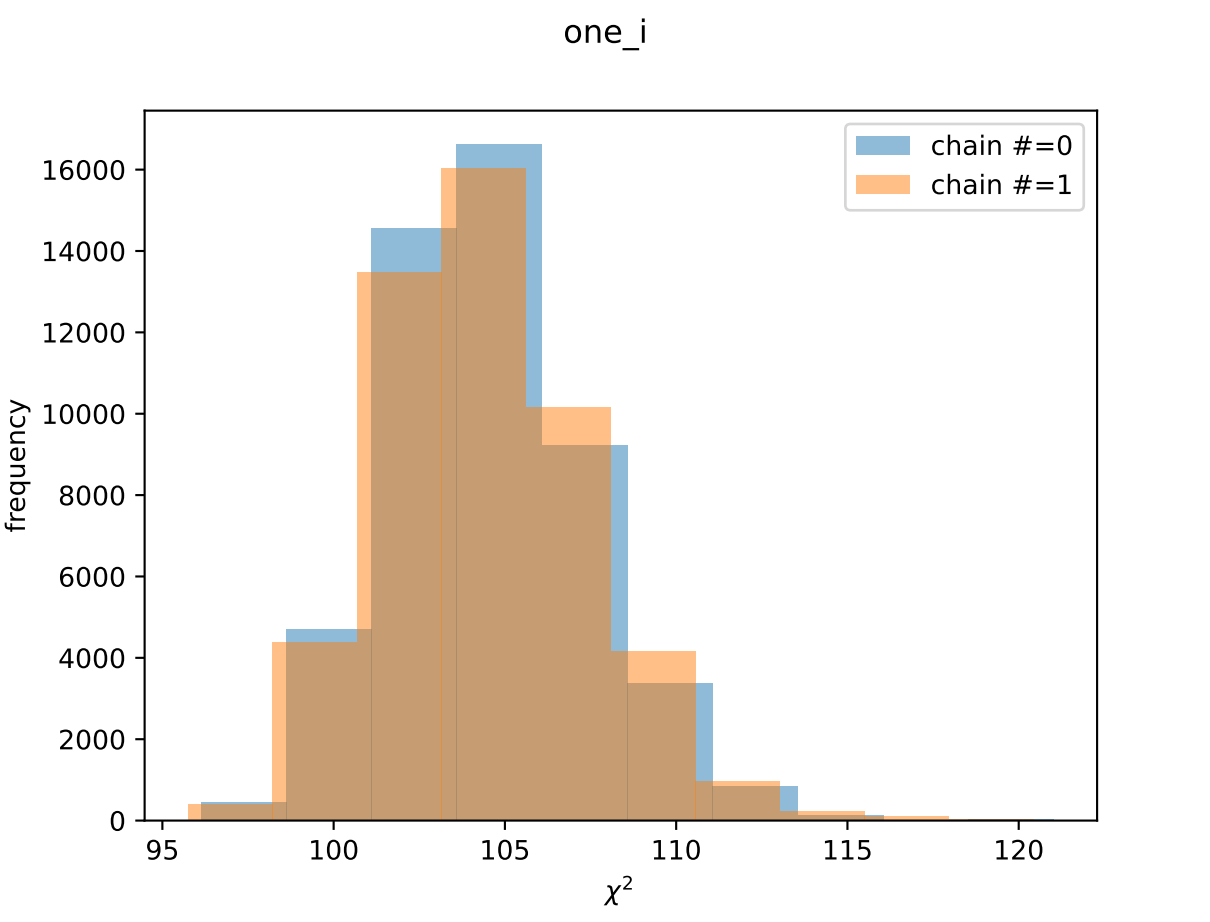

chain #=0
chain #=1
frequency
tau

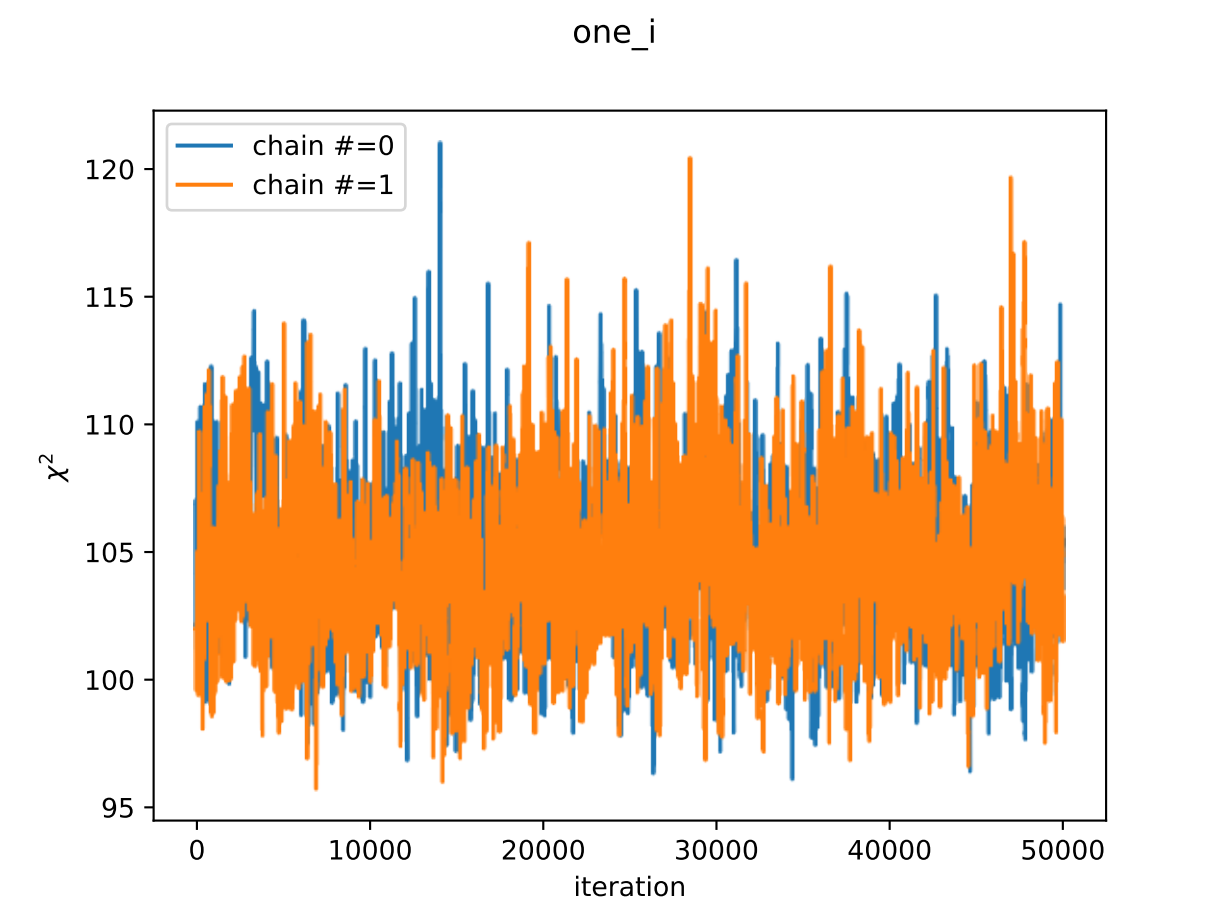

chain #=0
chain #=1
frequency
S0


chain #=0
chain #=1
frequency
V0

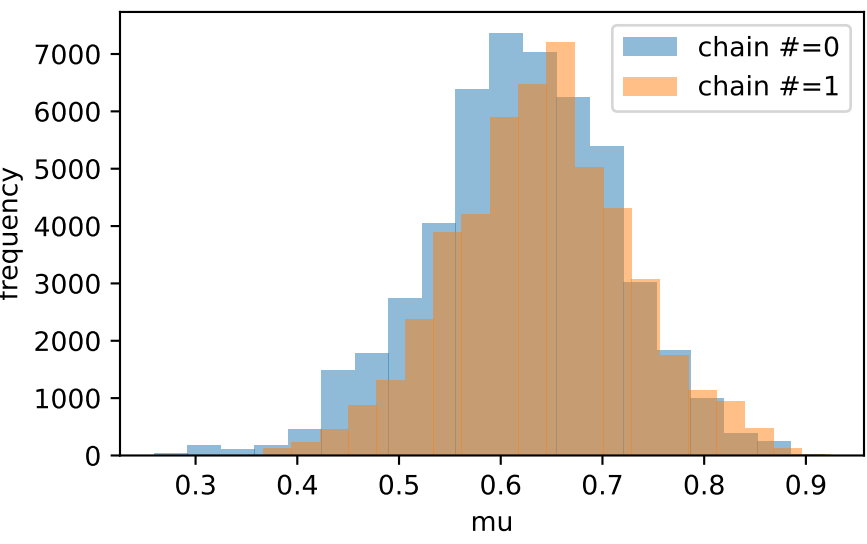
one_i

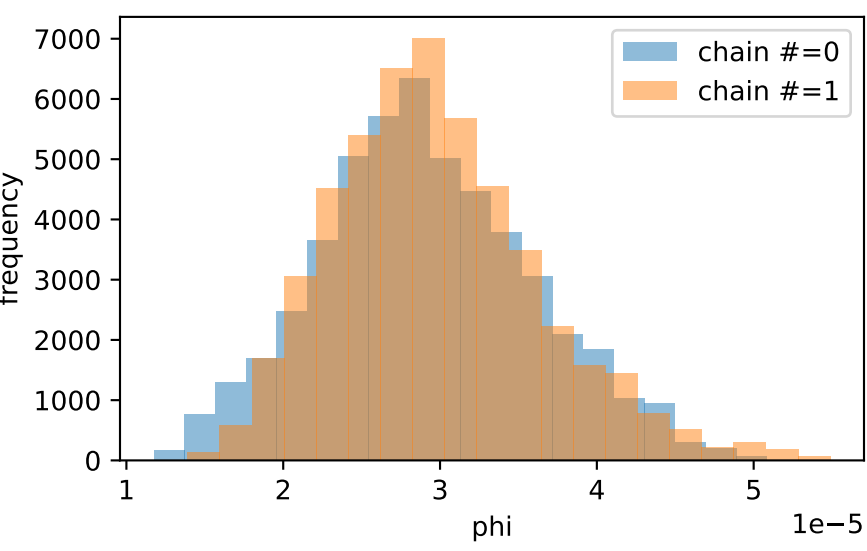


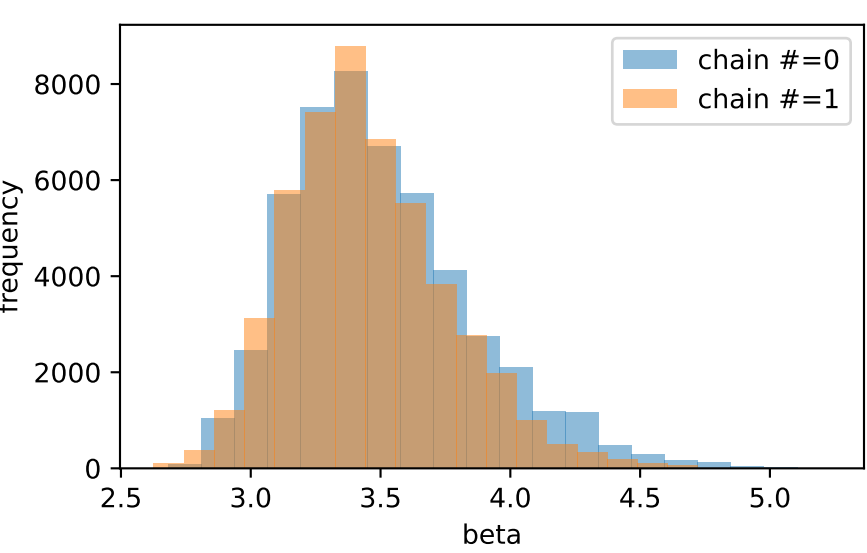

one_i
chain #=0
chain #=1
frequency
0
2000
4000
6000
8000
10000
12000
14000
16000
95
100
105
110
115
120
χ^2


one_i
chain #=0
chain #=1
120
115
110
105
100
95
χ^2
0
10000
20000
30000
40000
50000
iteration

two_i


chain #=0
chain #=1
frequency
mu


chain #=0
chain #=1
frequency
phi
1e−5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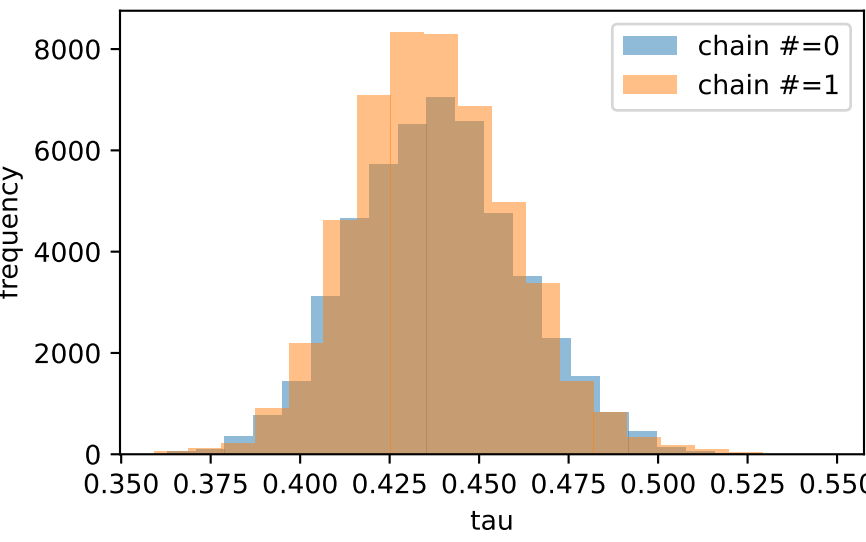
chain #=1
frequency
beta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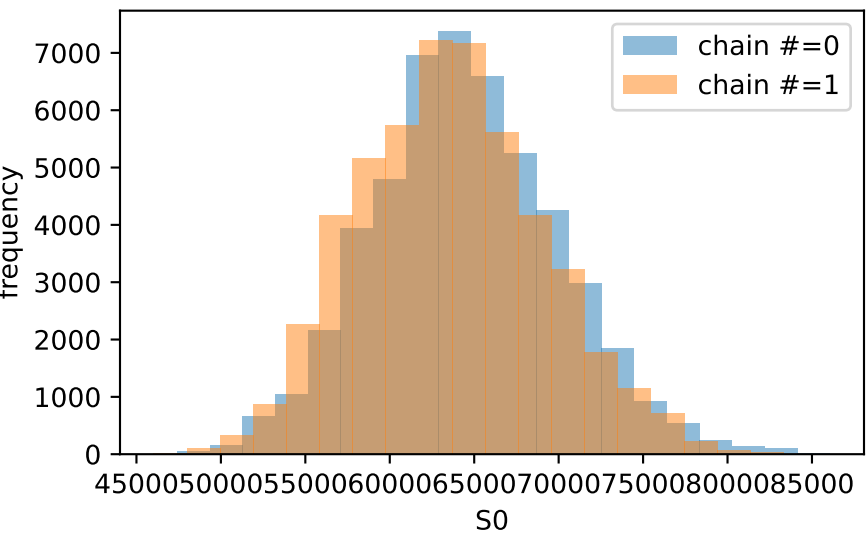
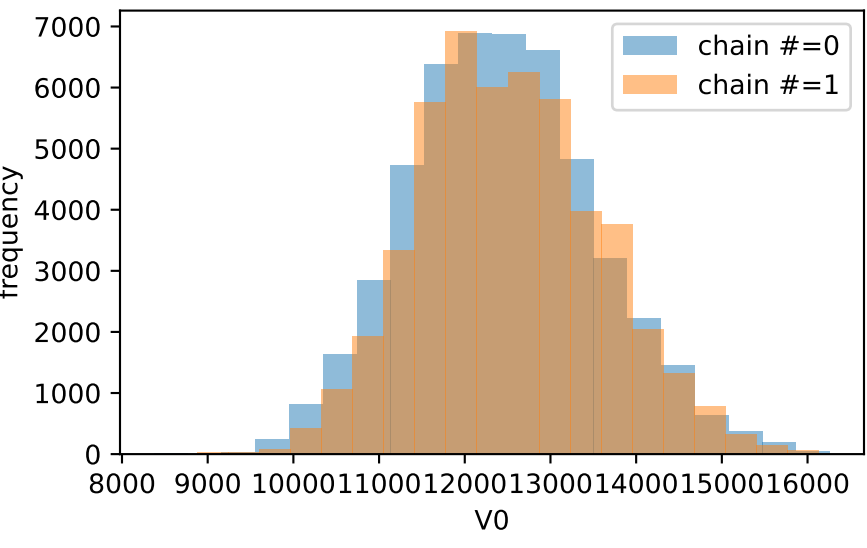
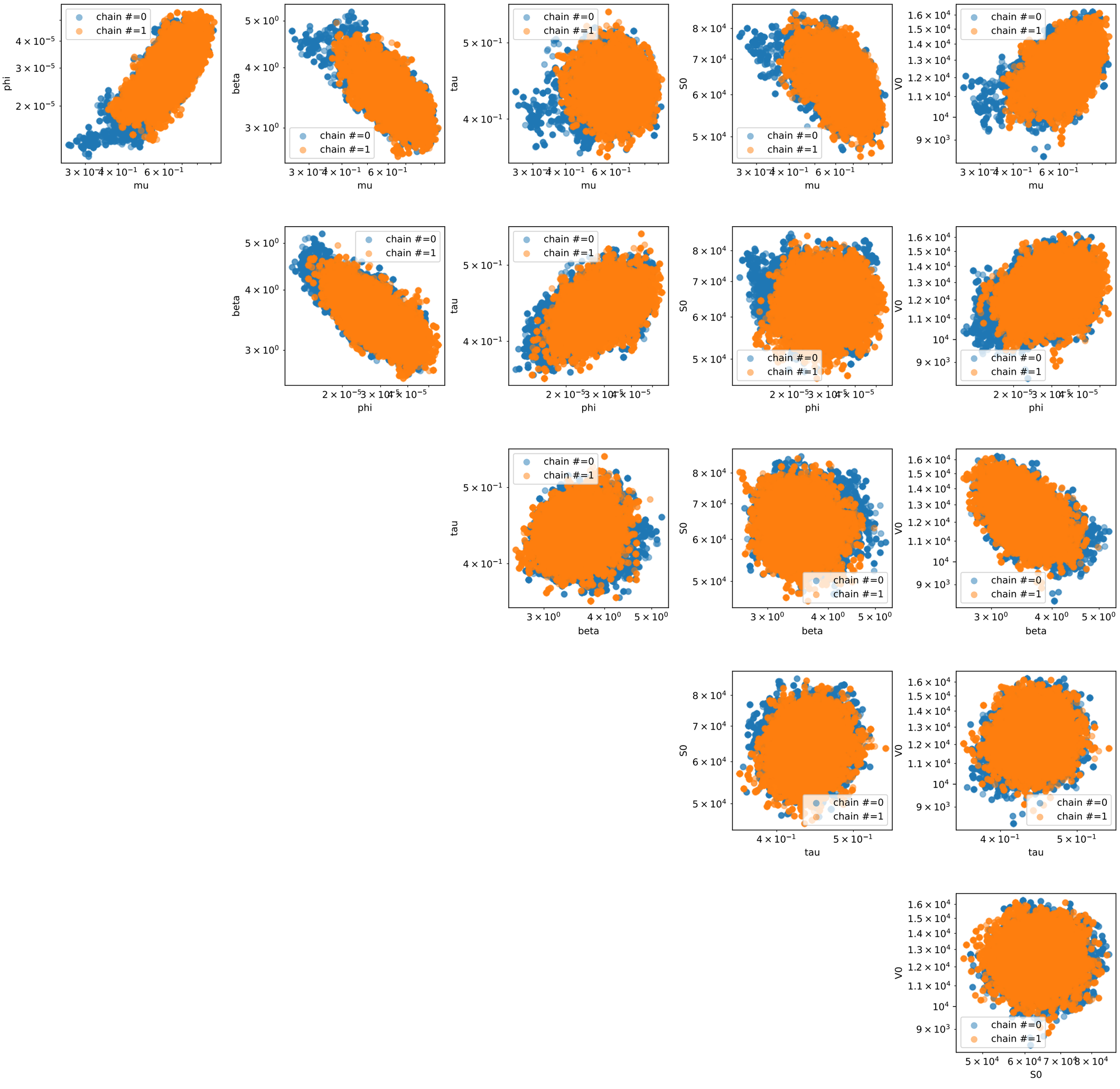
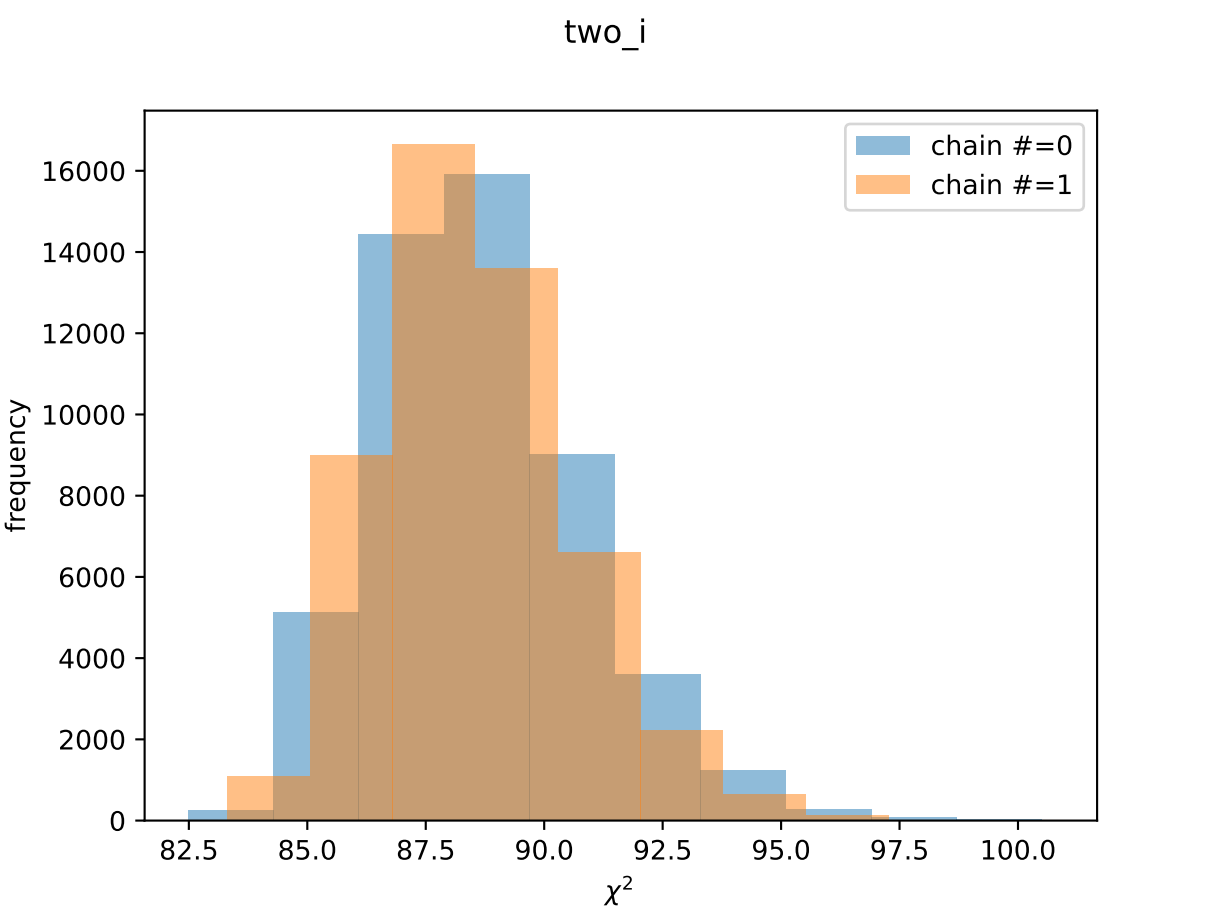
chain #=1
frequency
tau

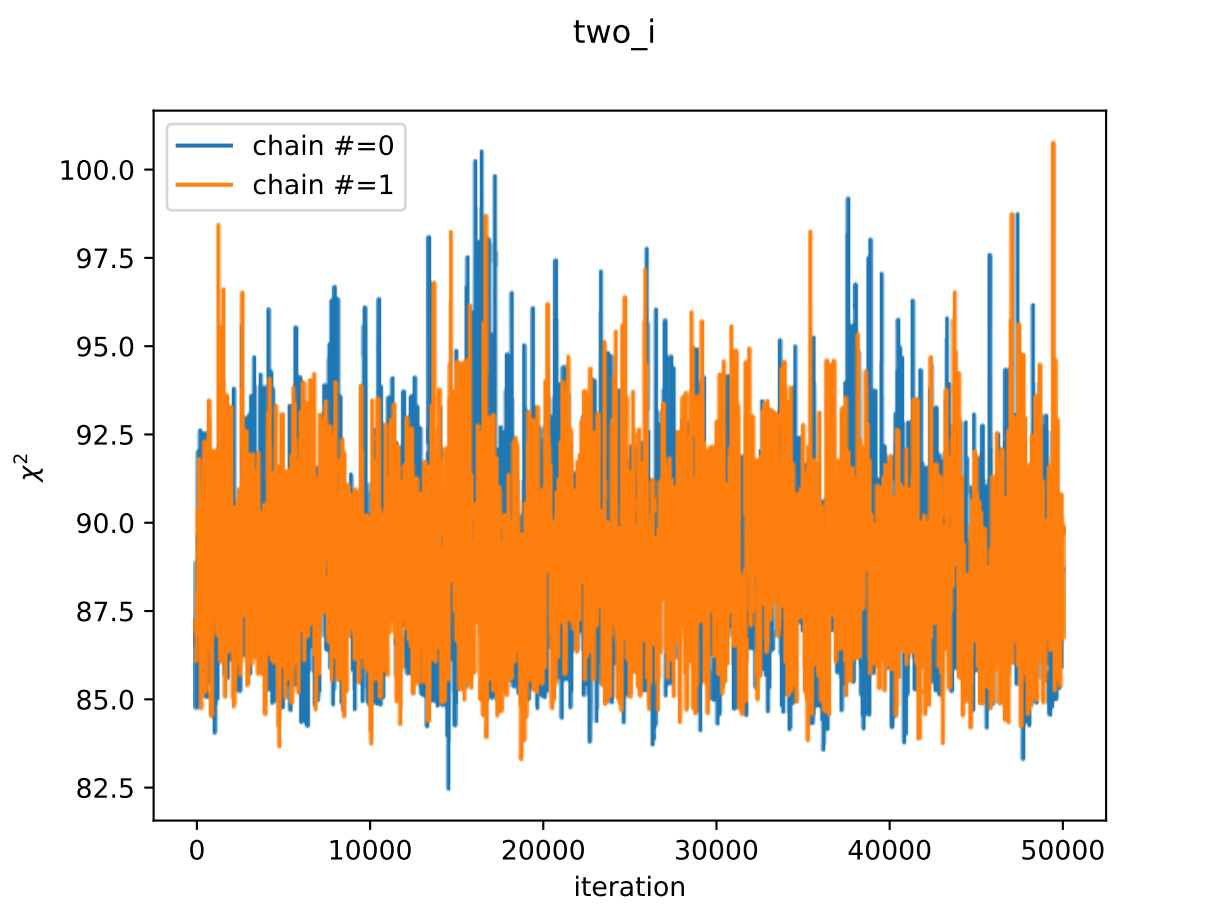

chain #=0
chain #=1
frequency
S0


chain #=0
chain #=1
frequency
V0

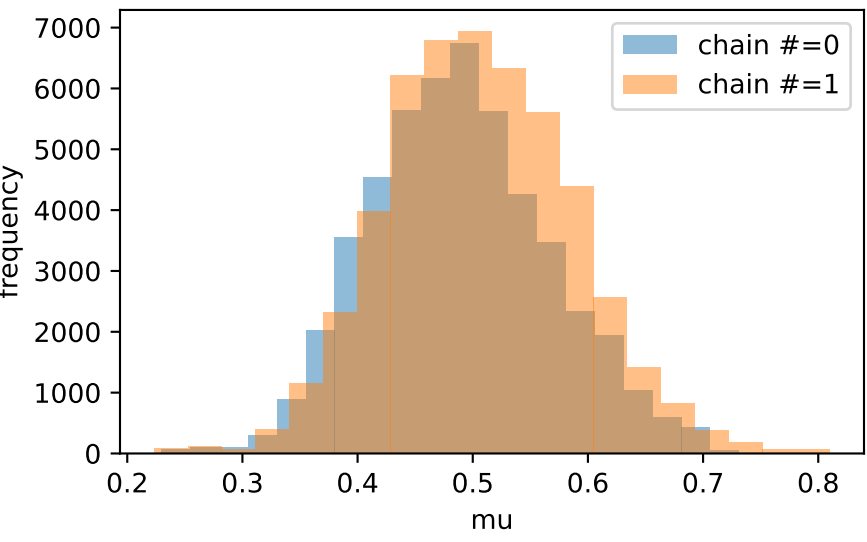
two_i

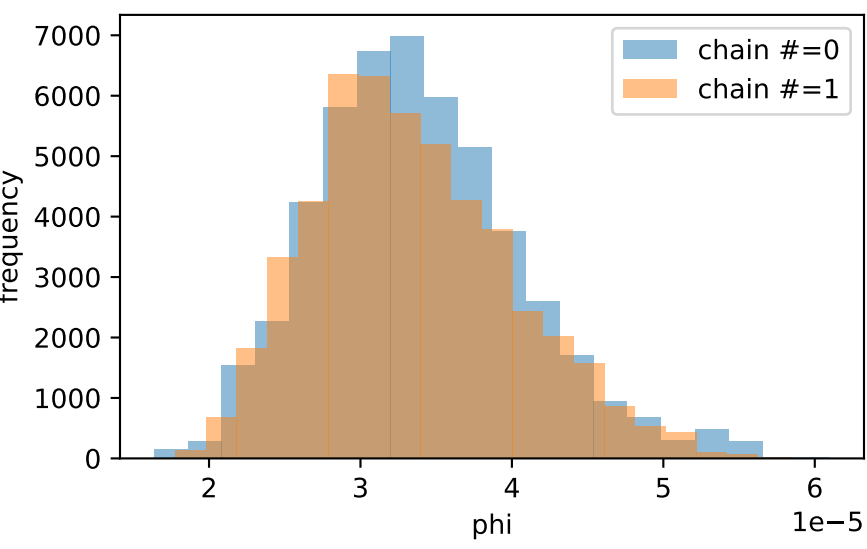


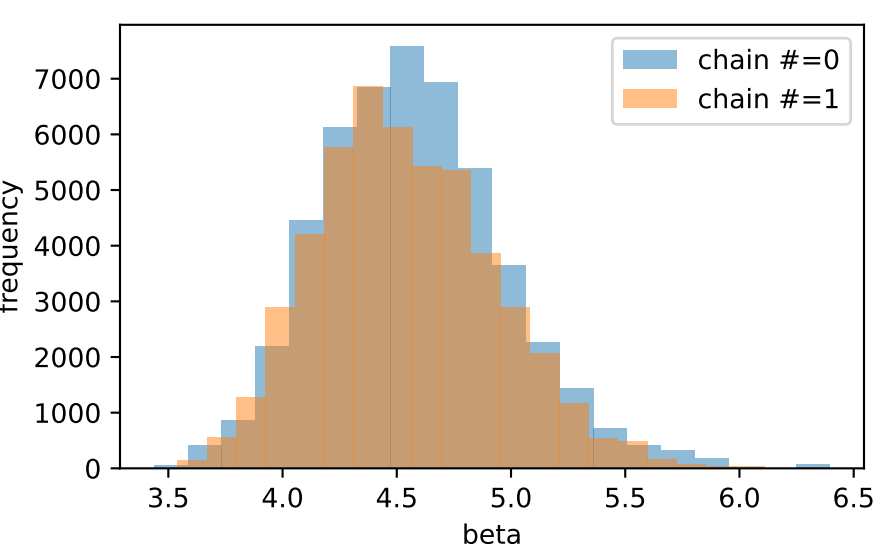

two_i
chain #=0
chain #=1
frequency
16000
14000
12000
10000
8000
6000
4000
2000
0
82.5
85.0
87.5
90.0
92.5
95.0
97.5
100.0
χ^2

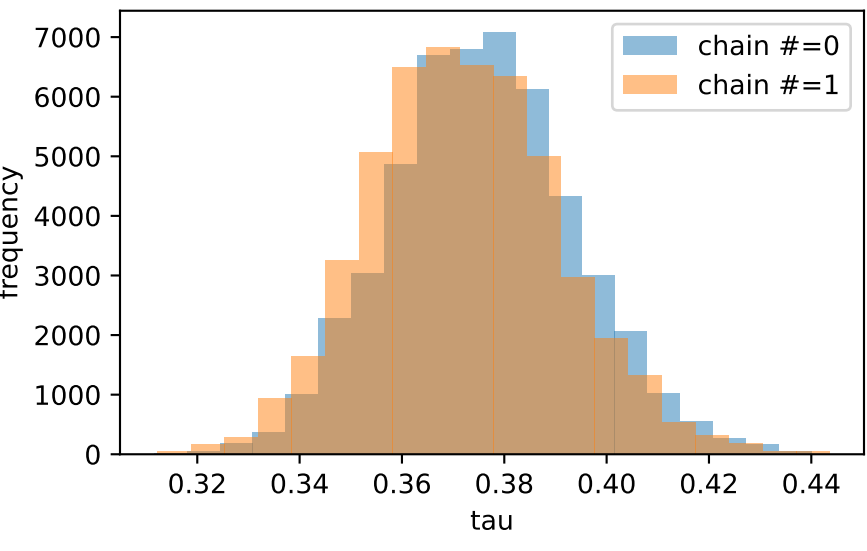

two_i
chain #=0
chain #=1
100.0
97.5
95.0
92.5
90.0
87.5
85.0
82.5
χ^2
0
10000
20000
30000
40000
50000
iteration

three_i


chain #=0
chain #=1
frequency
mu


chain #=0
chain #=1
frequency
phi
1e−5


chain #=0
chain #=1
frequency
beta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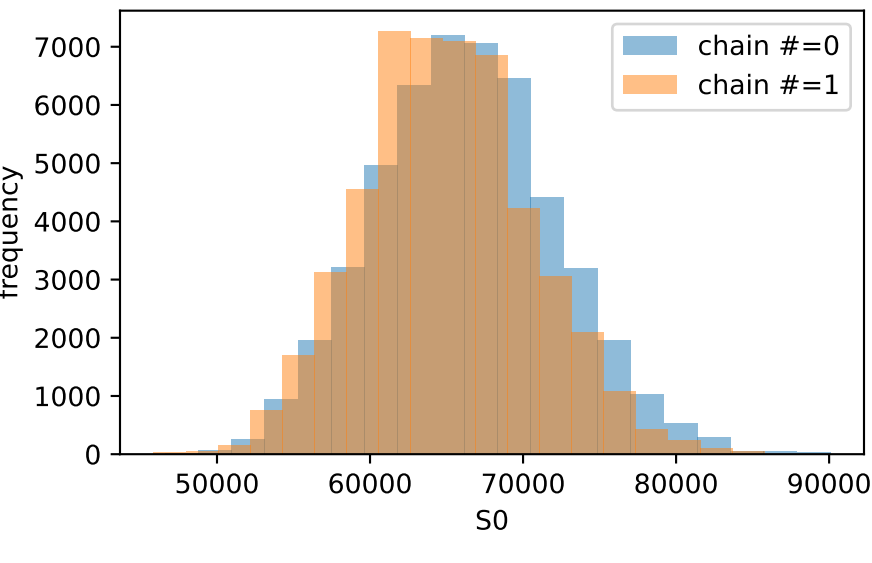
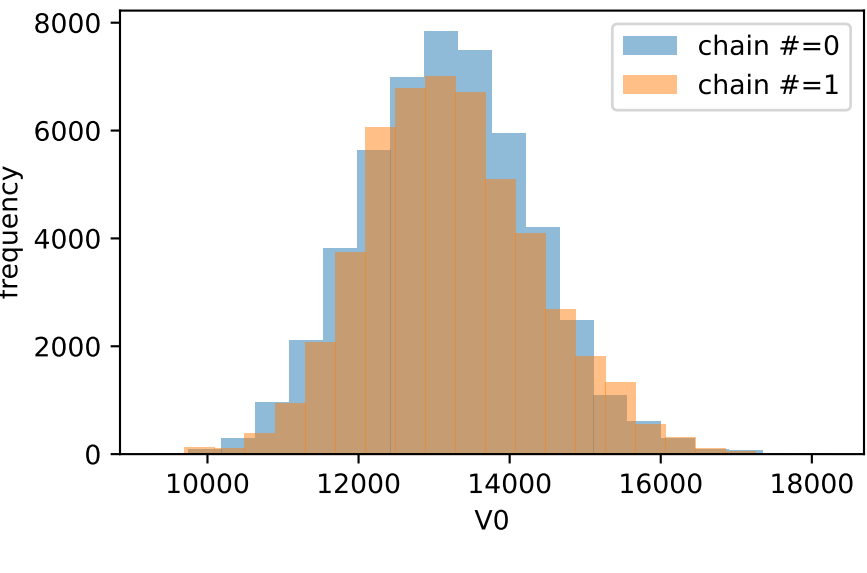
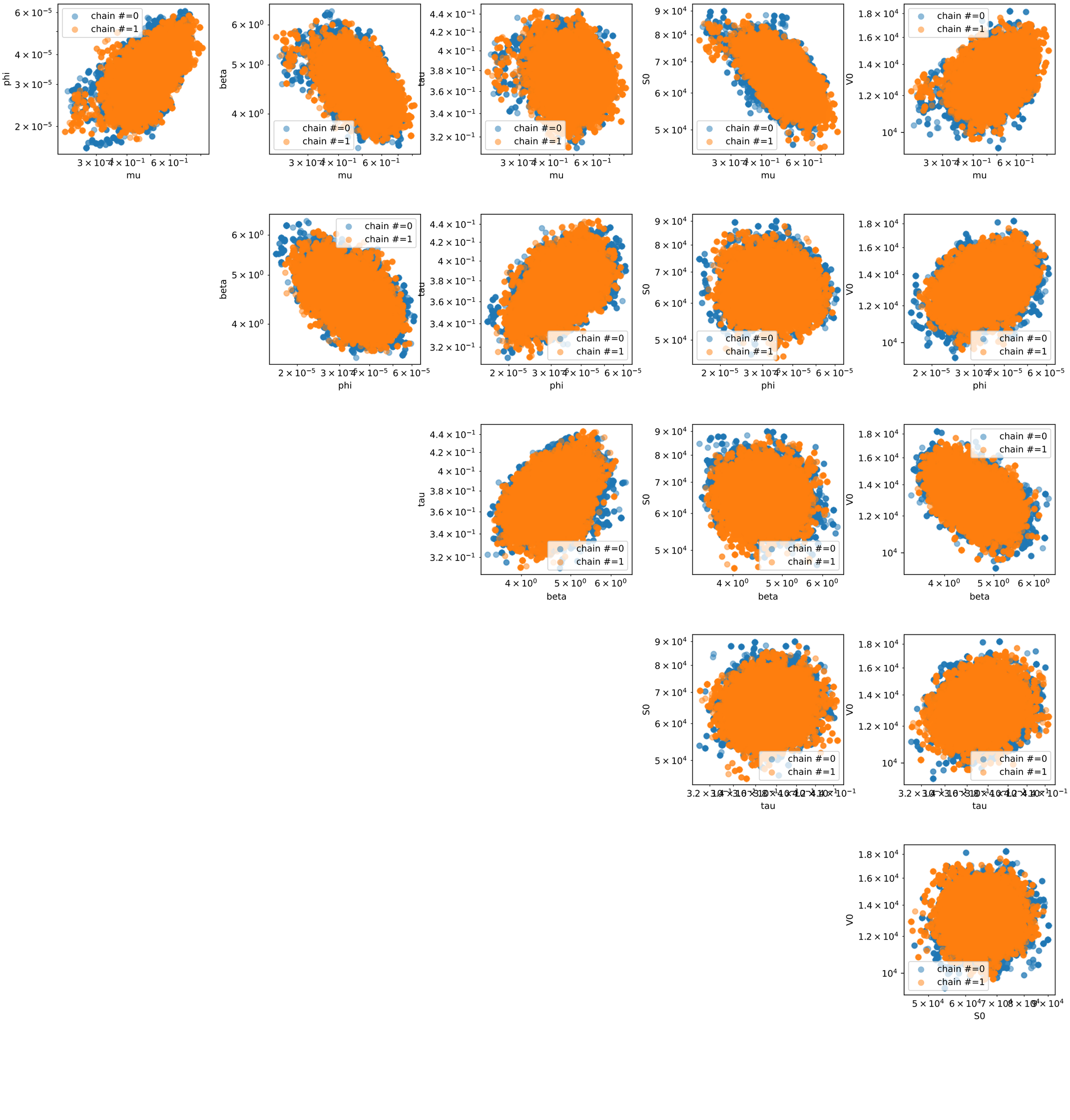
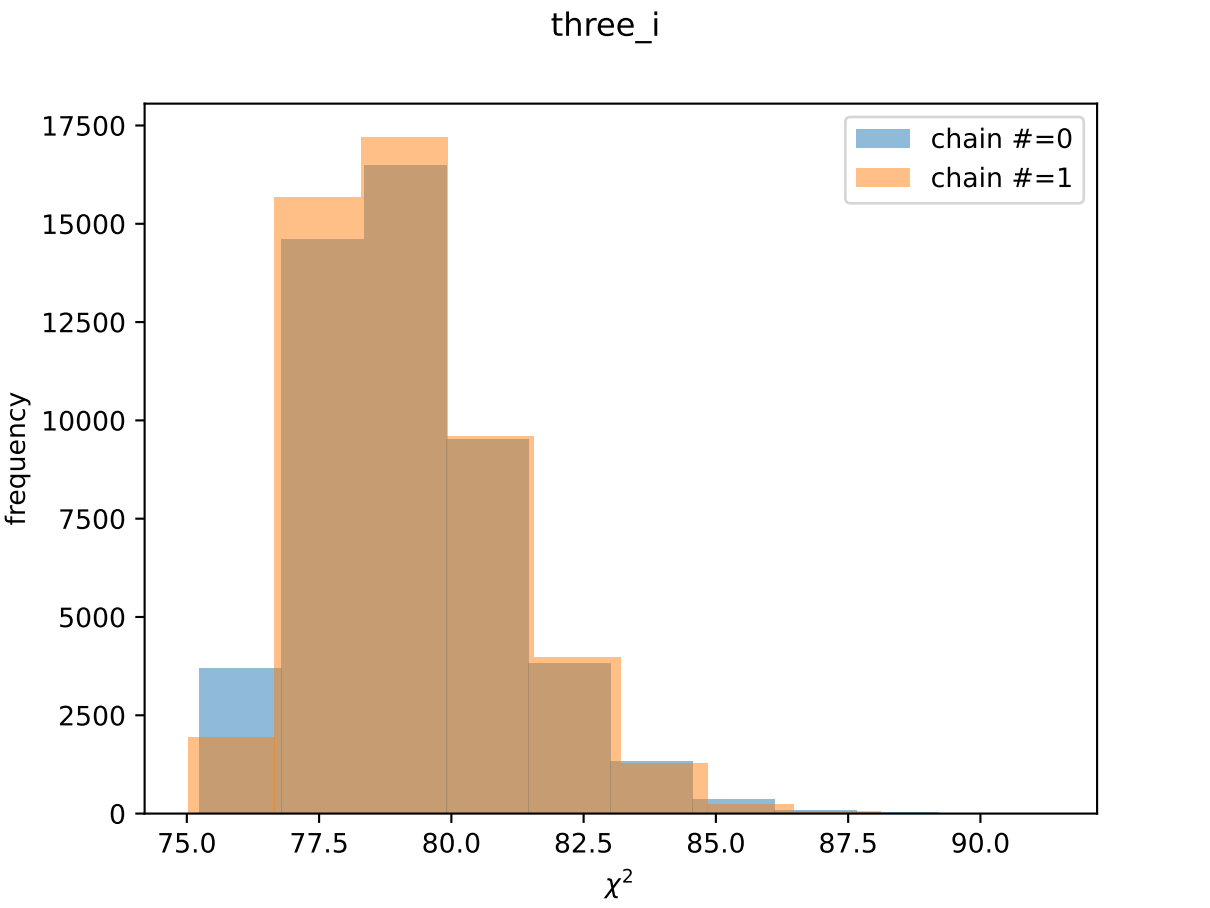
chain #=1
frequency
tau

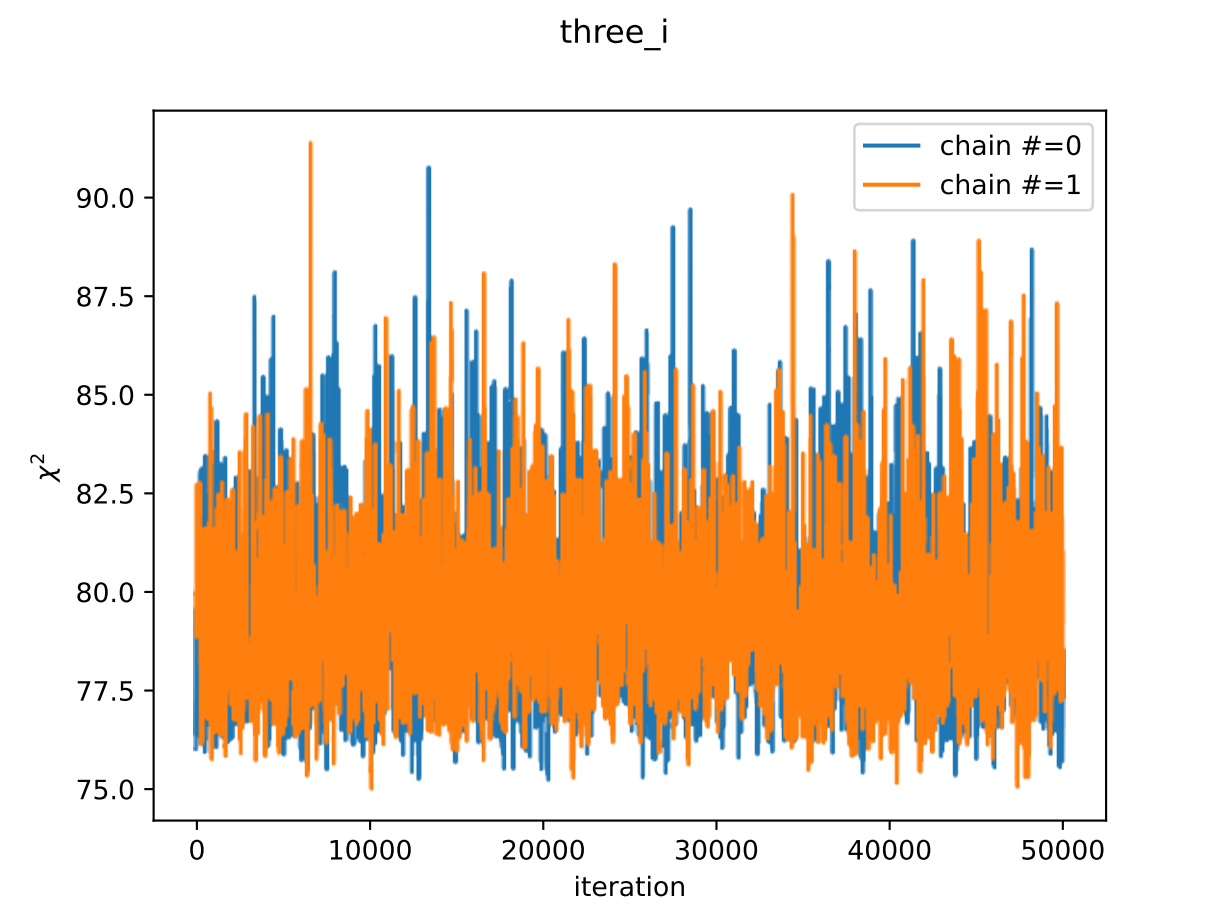

chain #=0
chain #=1
frequency
S0


chain #=0
chain #=1
frequency
V0

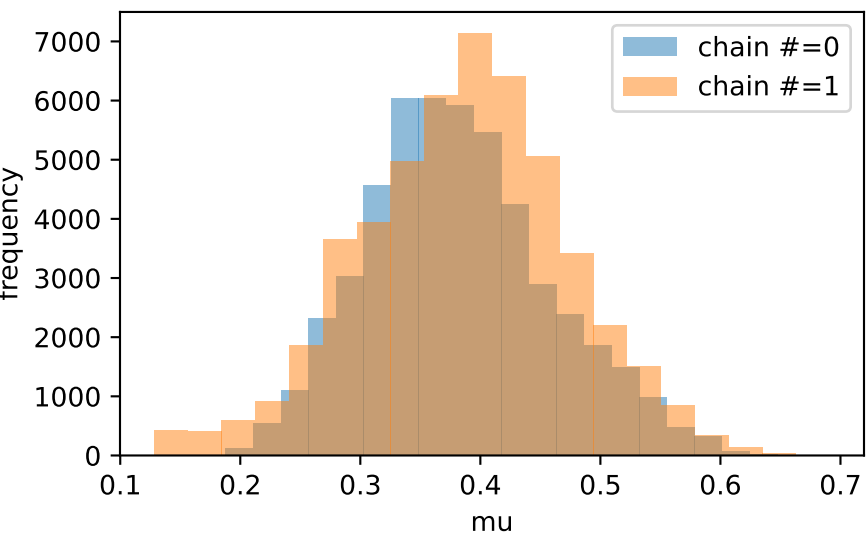
three_i

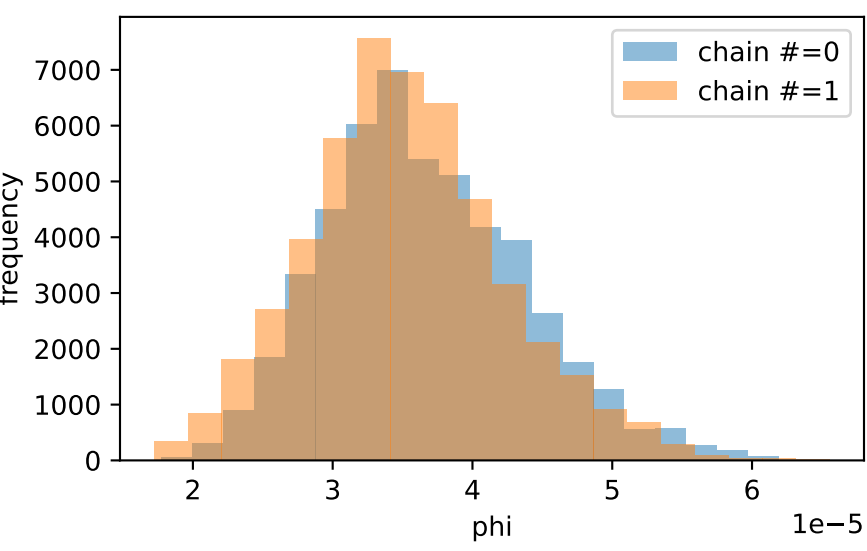



three_i
chain #=0
chain #=1
frequency
17500
15000
12500
10000
7500
5000
2500
0
75.0
77.5
80.0
82.5
85.0
87.5
90.0
χ^2


three_i
chain #=0
chain #=1
90.0
87.5
85.0
82.5
80.0
77.5
75.0
χ^2
0
10000
20000
30000
40000
50000
iteration

four_i


chain #=0
chain #=1
frequency
mu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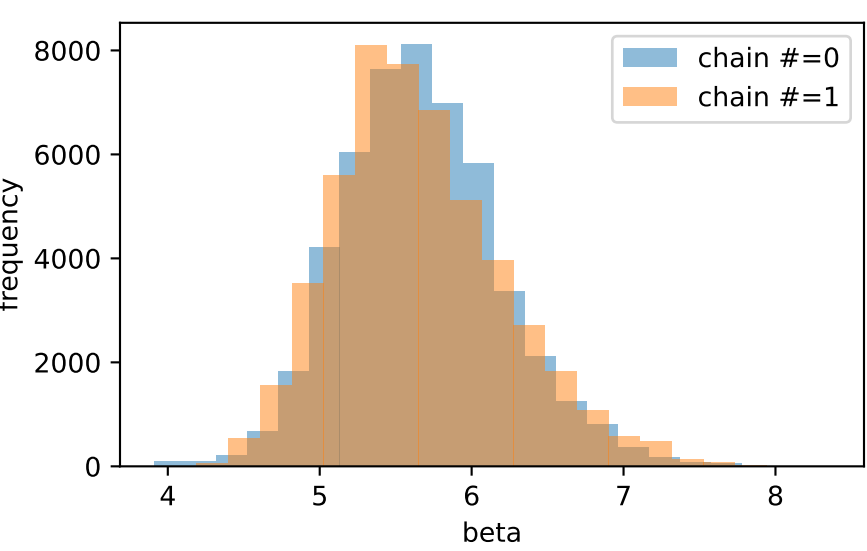
chain #=1
frequency
phi
1e−5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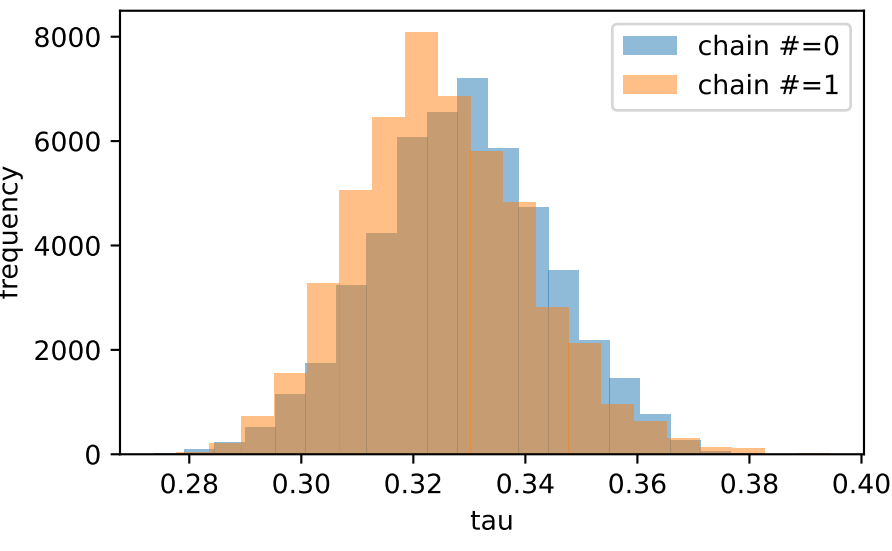
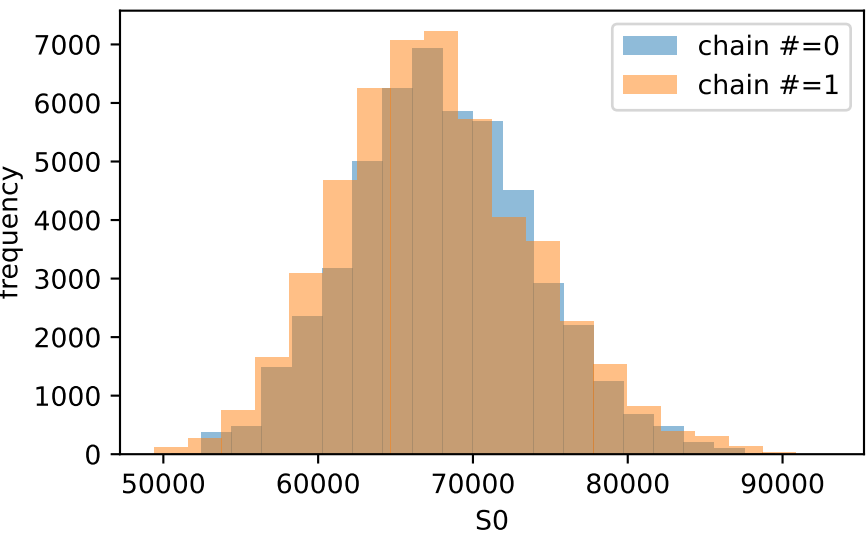
chain #=1
frequency
beta


chain #=0
chain #=1
frequency
tau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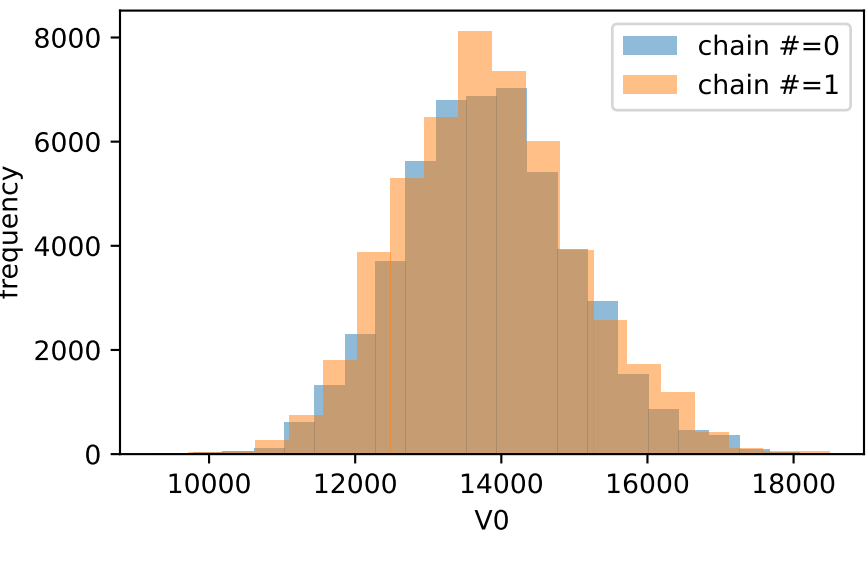
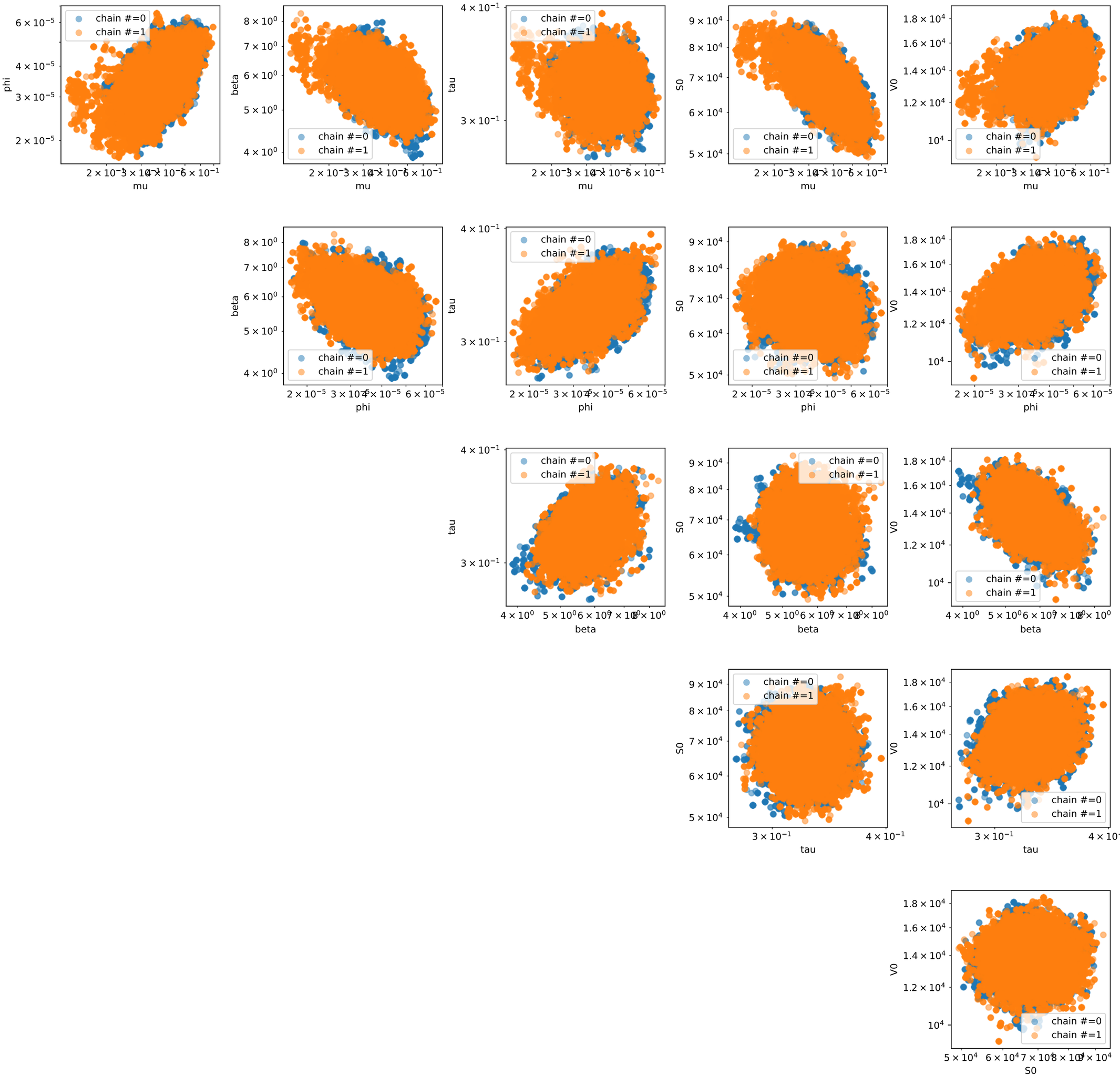
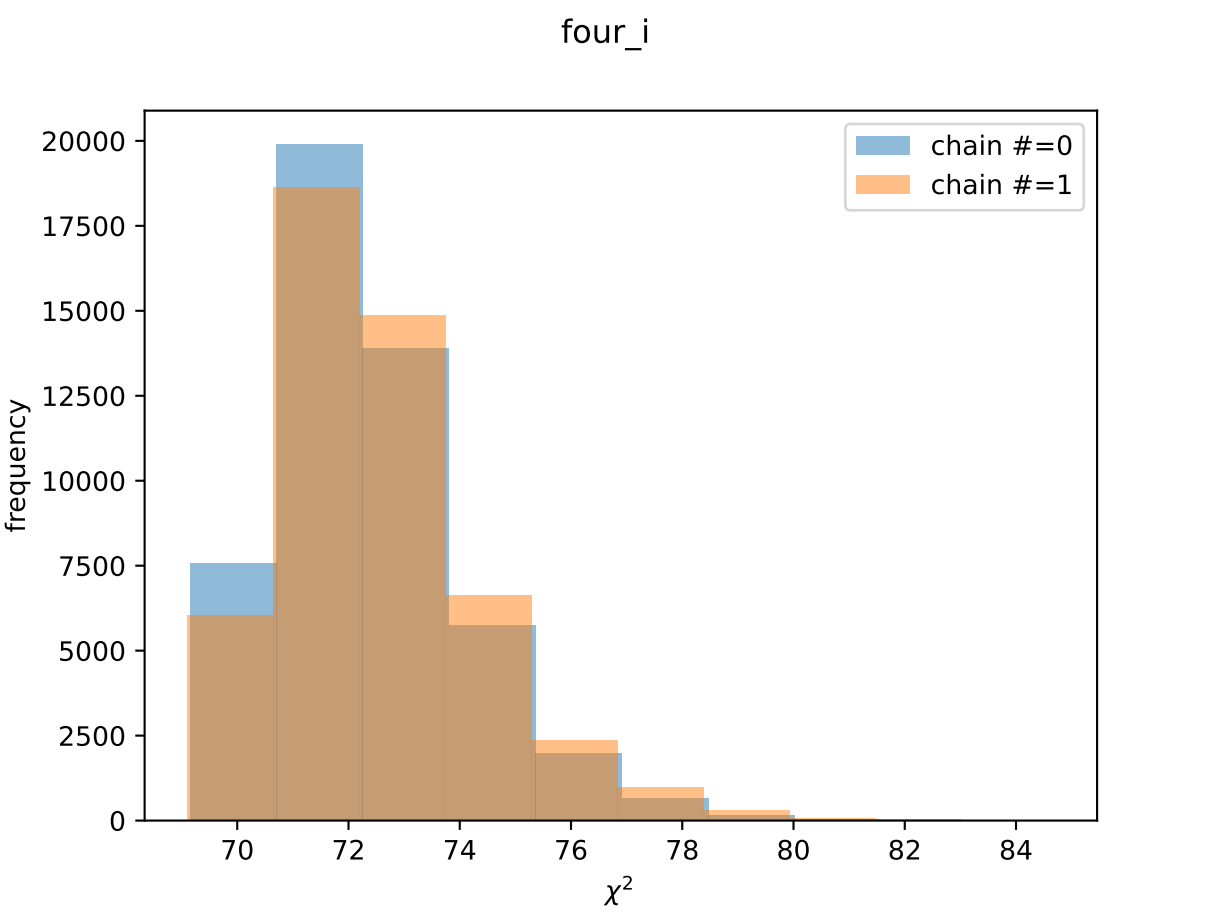
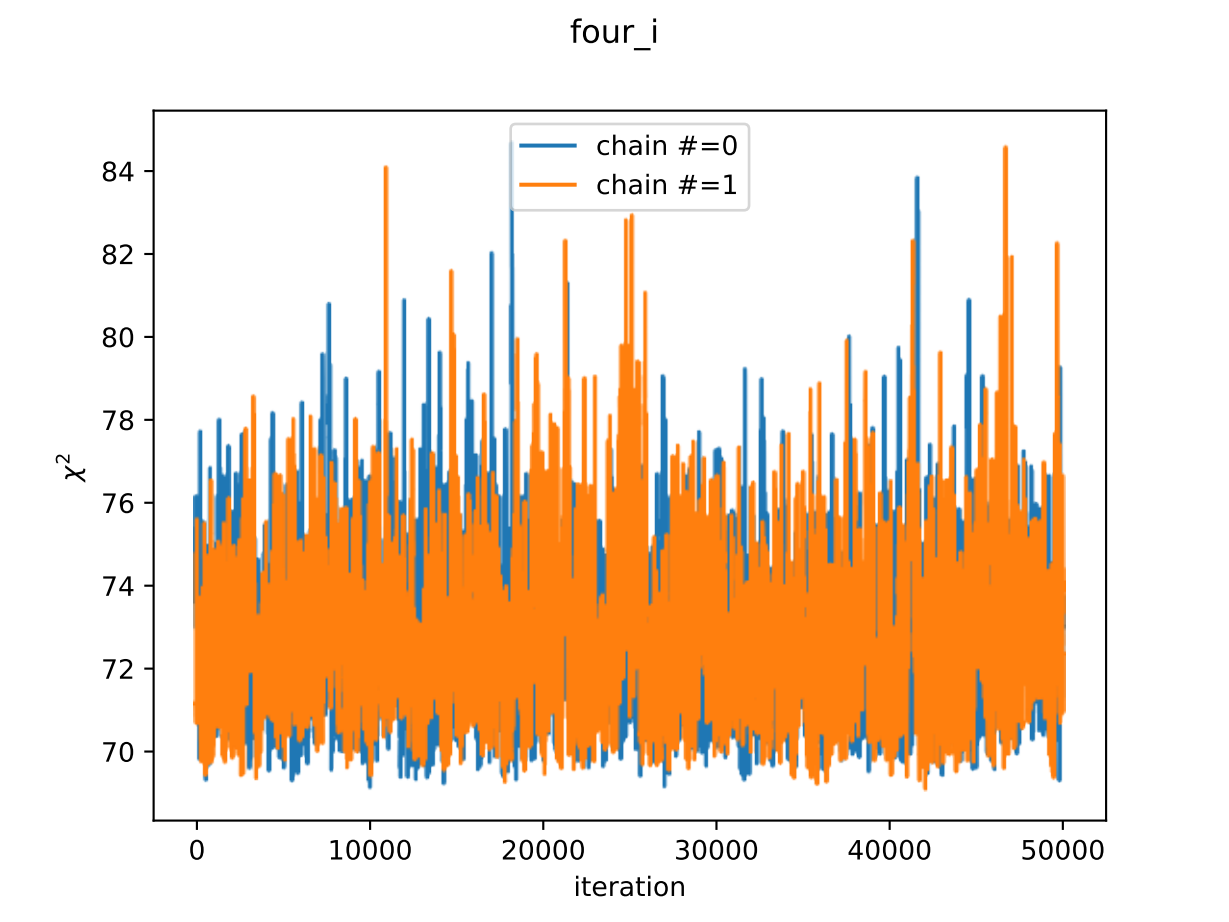
chain #=1
frequency
S0


chain #=0
chain #=1
frequency
V0

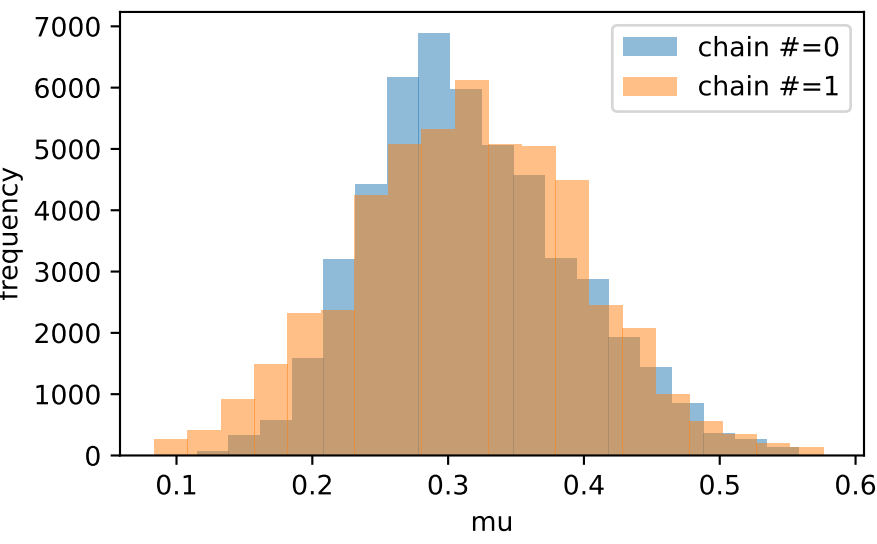
four_i




four_i
chain #=0
chain #=1
frequency
20000
17500
15000
12500
10000
7500
5000
2500
0
70
72
74
76
78
80
82
84
χ^2


four_i
chain #=0
chain #=1
84
82
80
78
76
74
72
70
χ^2
0
10000
20000
30000
40000
50000
iteration

five_i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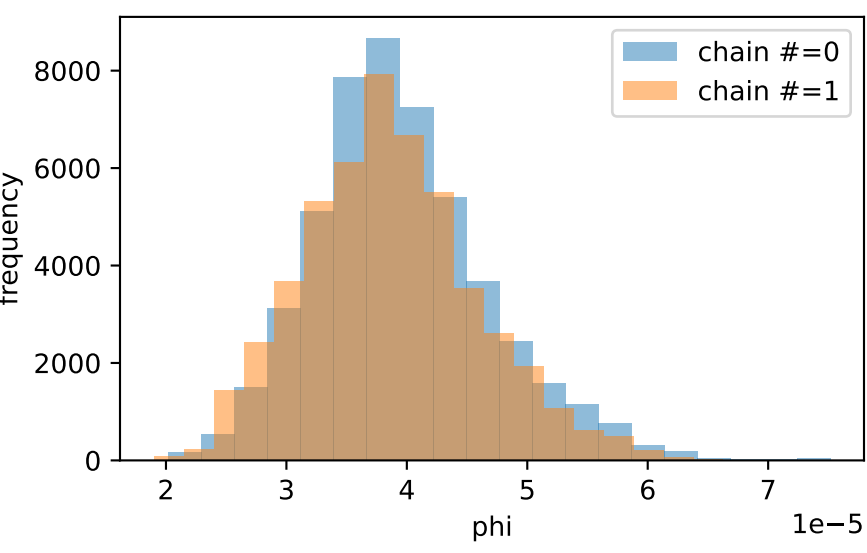
chain #=1
frequency
mu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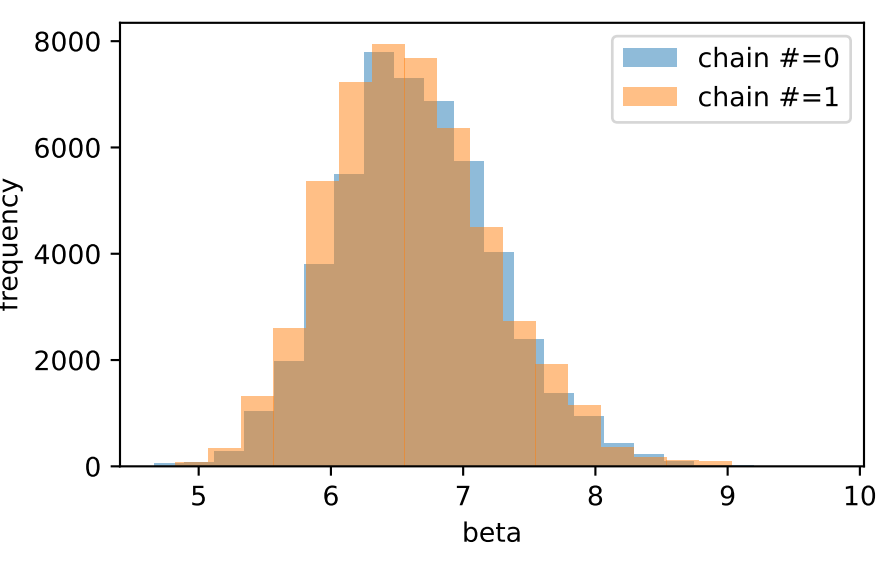
chain #=1
frequency
phi
1e−5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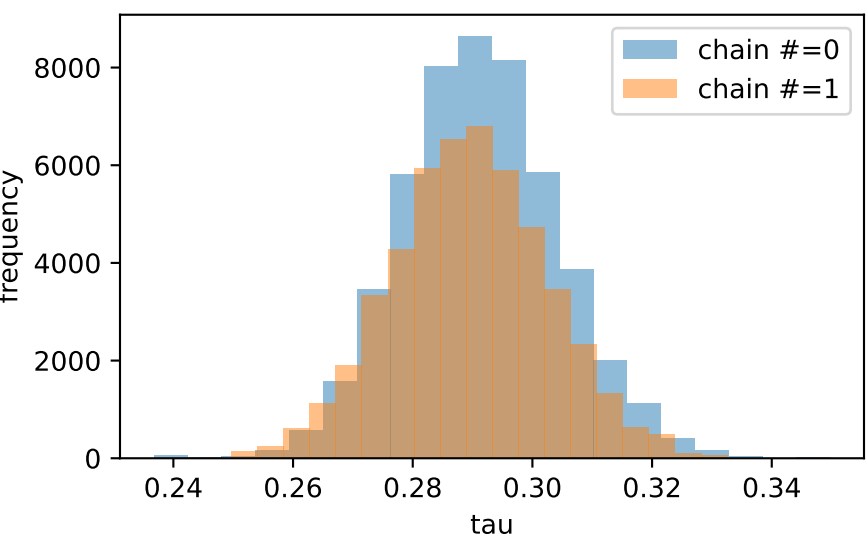
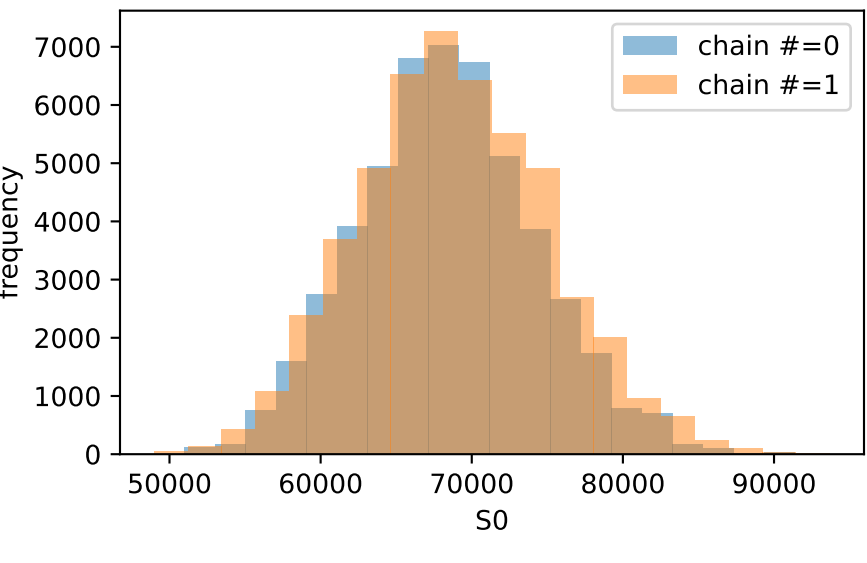
chain #=1
frequency
beta


chain #=0
chain #=1
frequency
tau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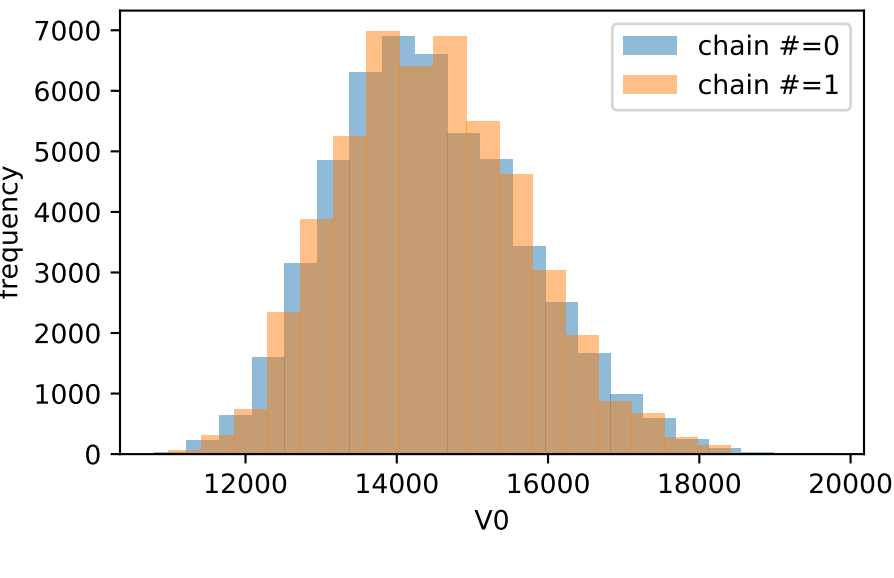
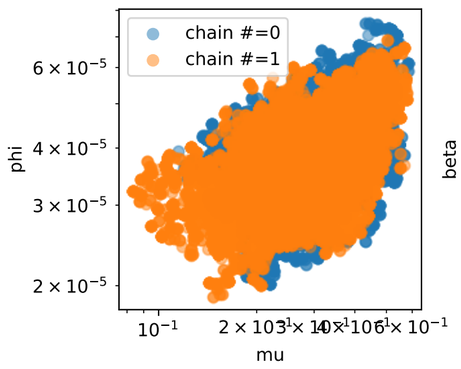
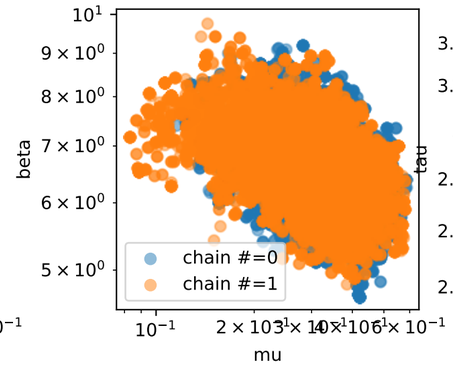
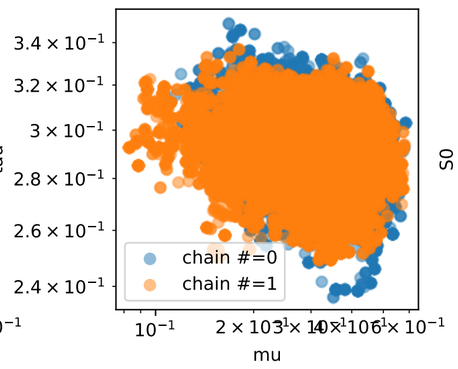
chain #=1
frequency
S0

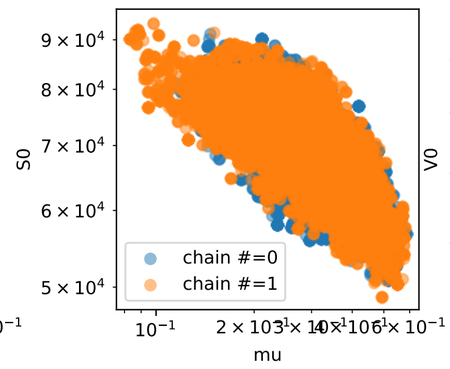

chain #=0
chain #=1
frequency
V0

five_i


chain #=0
chain #=1
phi
mu


chain #=0
chain #=1
beta
mu


chain #=0
chain #=1
tau
mu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chain #=1
S0
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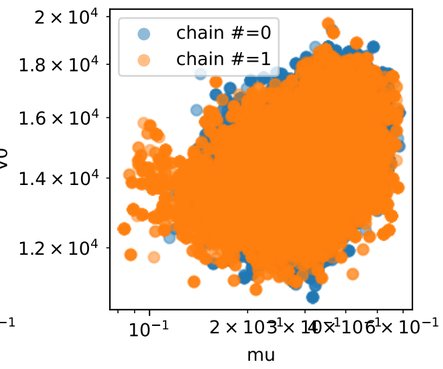
chain #=0
chain #=1
V0
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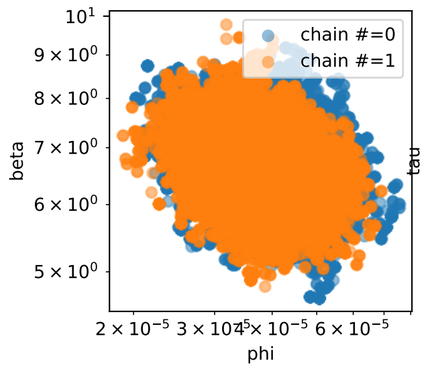
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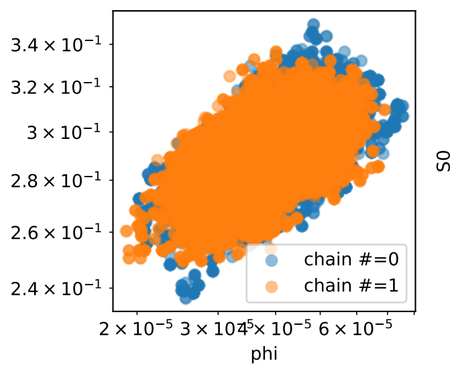
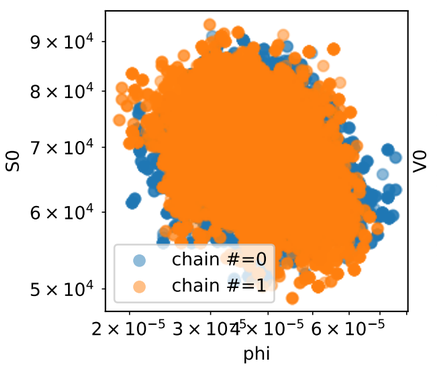
chain #=1
beta
phi


chain #=0
chain #=1
tau
phi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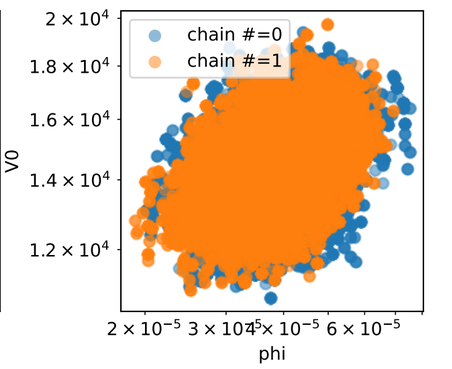
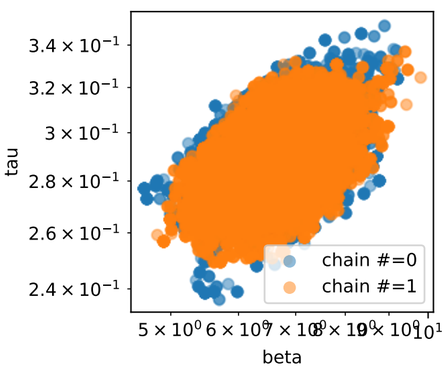
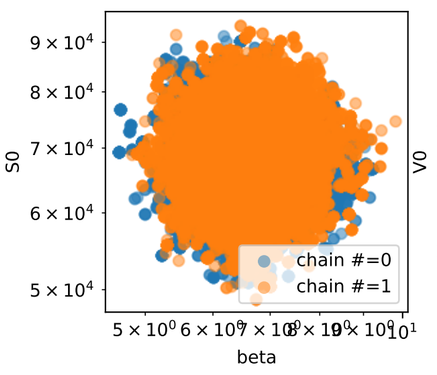
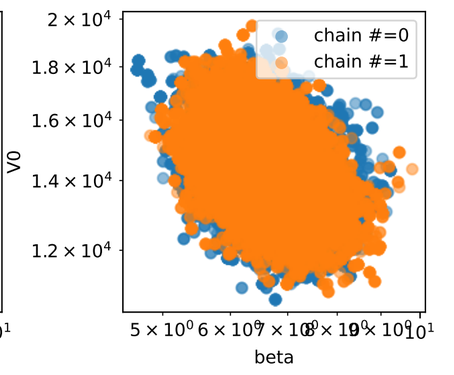
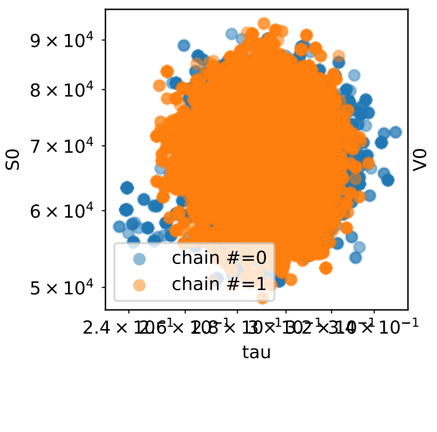
chain #=1
S0
phi

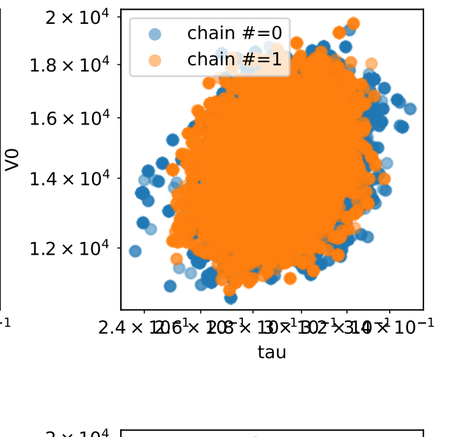

chain #=0
chain #=1
V0
phi

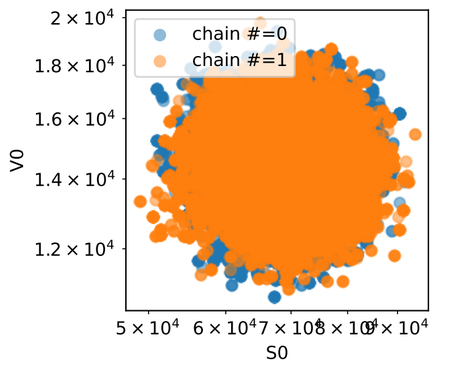

chain #=0
chain #=1
tau
beta


chain #=0
chain #=1
S0
beta


chain #=0
chain #=1
V0
beta


chain #=0
chain #=1
S0
tau


chain #=0
chain #=1
V0
tau


chain #=0
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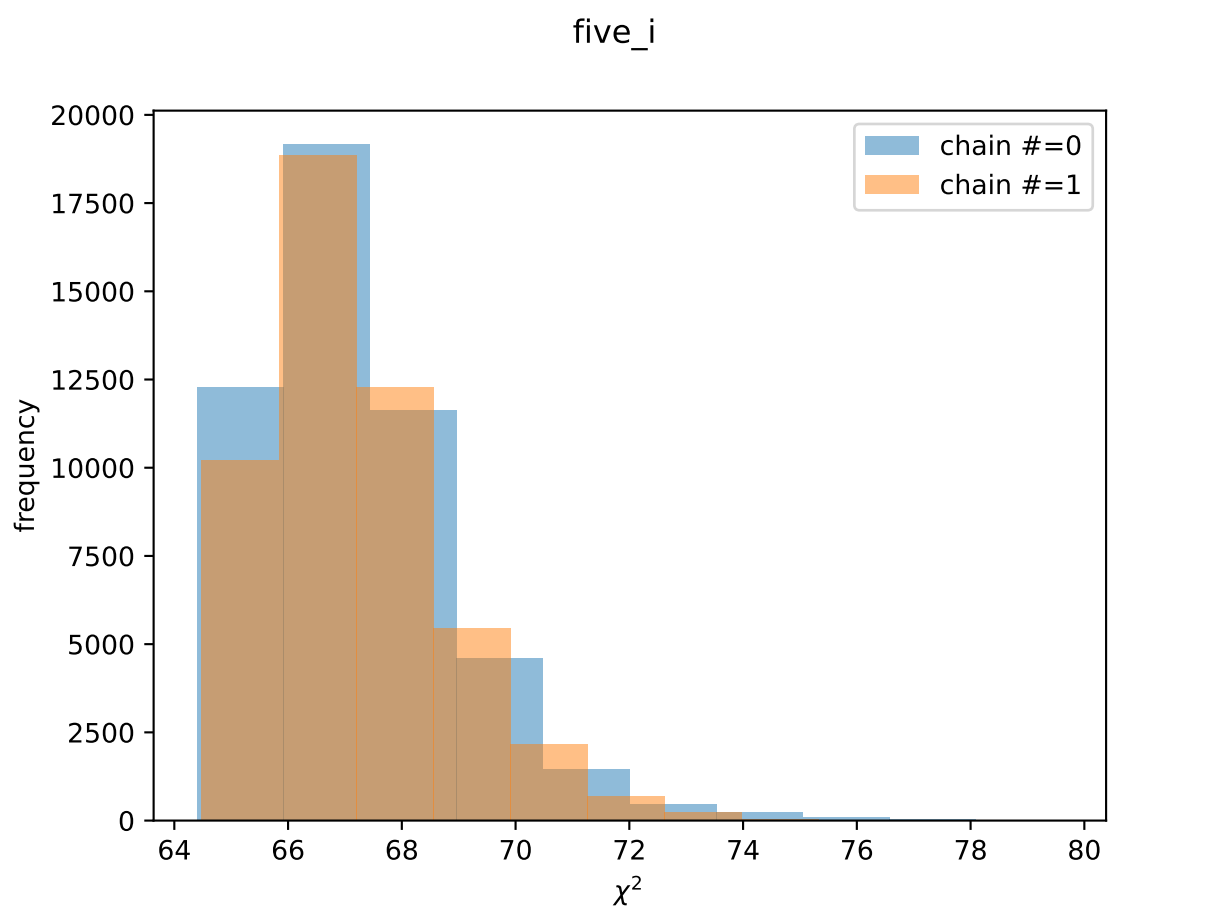
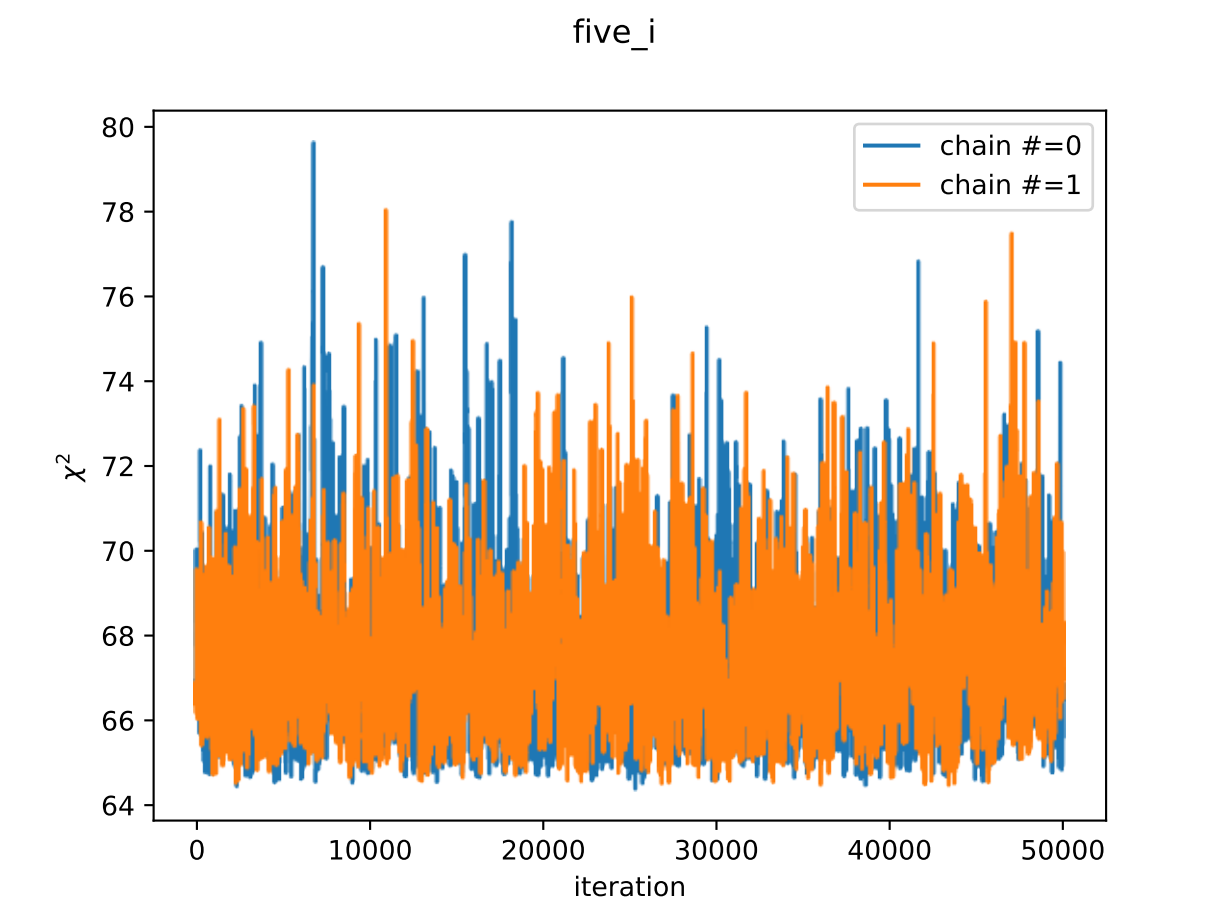
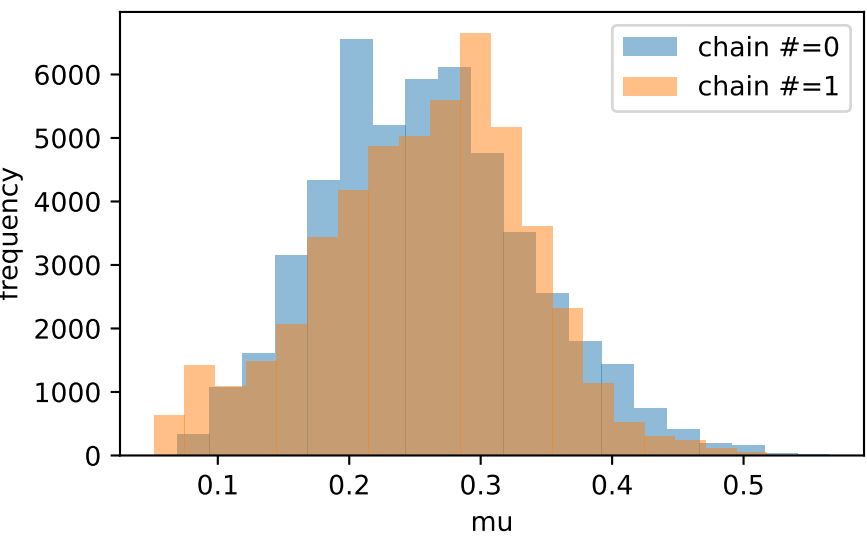
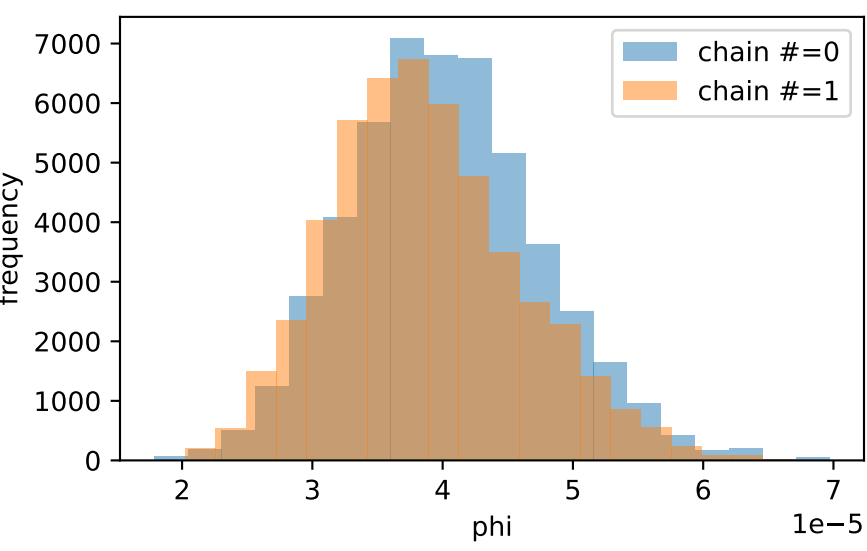
V0
S0

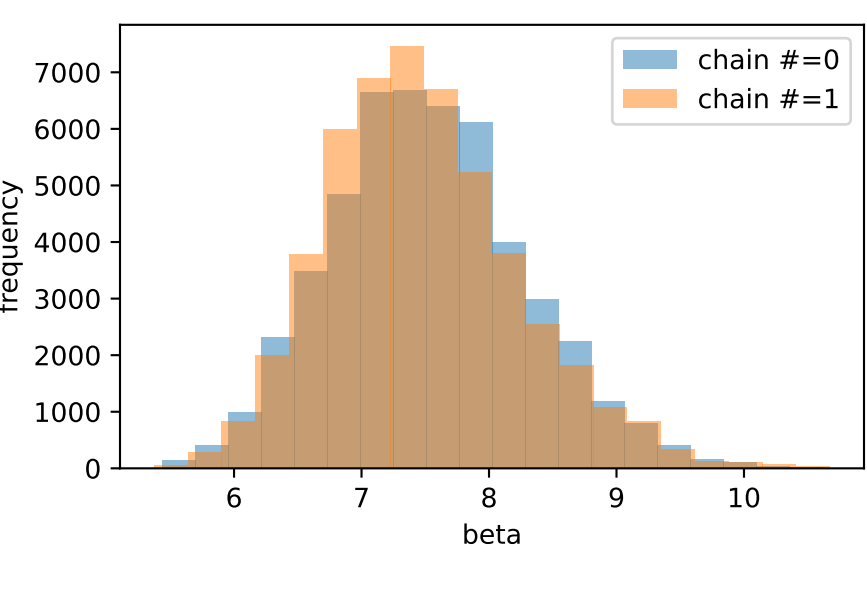

five_i
chain #=0
chain #=1
frequency
20000
17500
15000
12500
10000
7500
5000
2500
0
64
66
68
70
72
74
76
78
80
χ^2

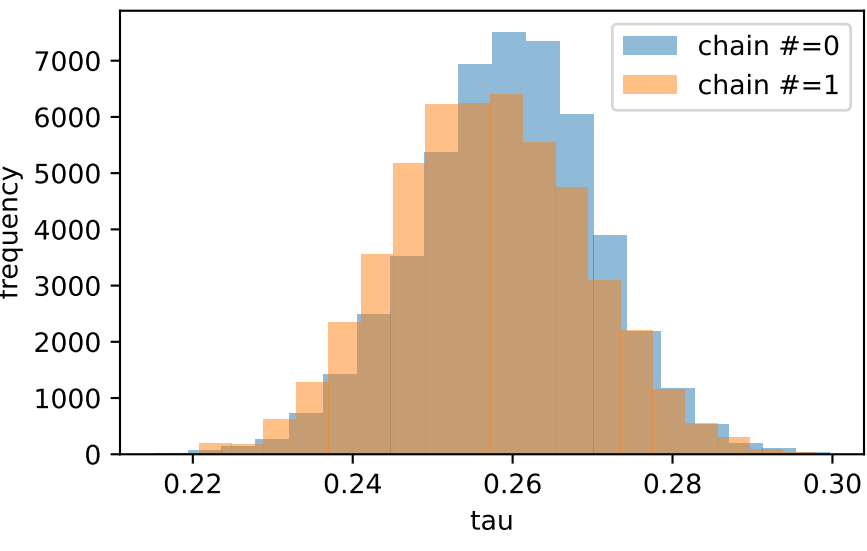

five_i
chain #=0
chain #=1
80
78
76
74
72
70
68
66
64
χ^2
0
10000
20000
30000
40000
50000
iteration

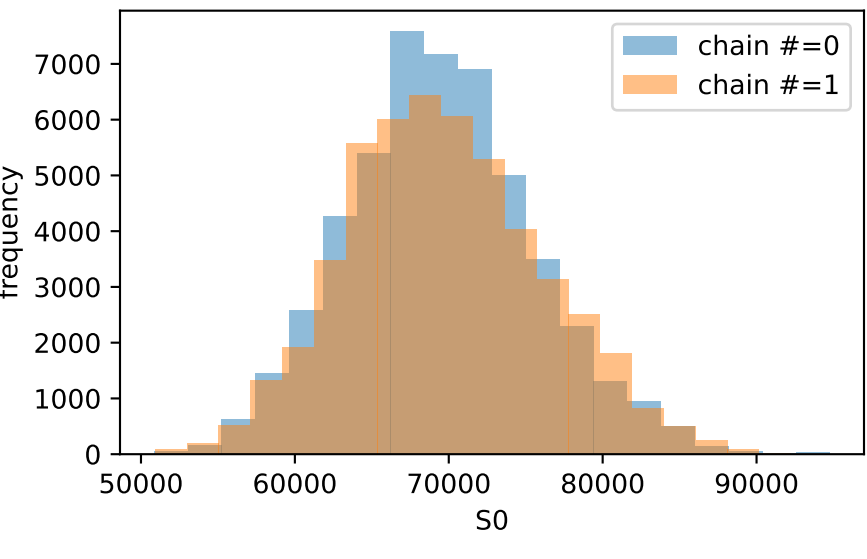
six_i

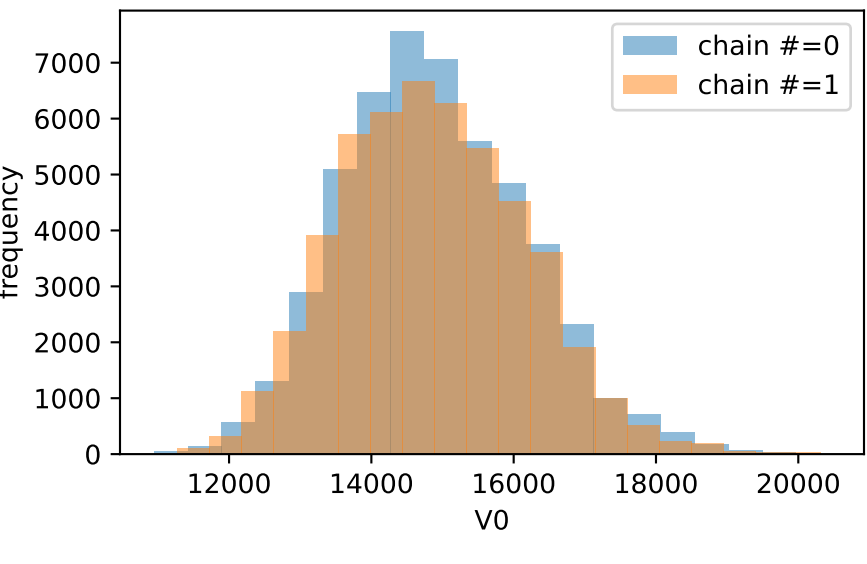

chain #=0
chain #=1
frequency
mu


chain #=0
chain #=1
frequency
phi
1e−5

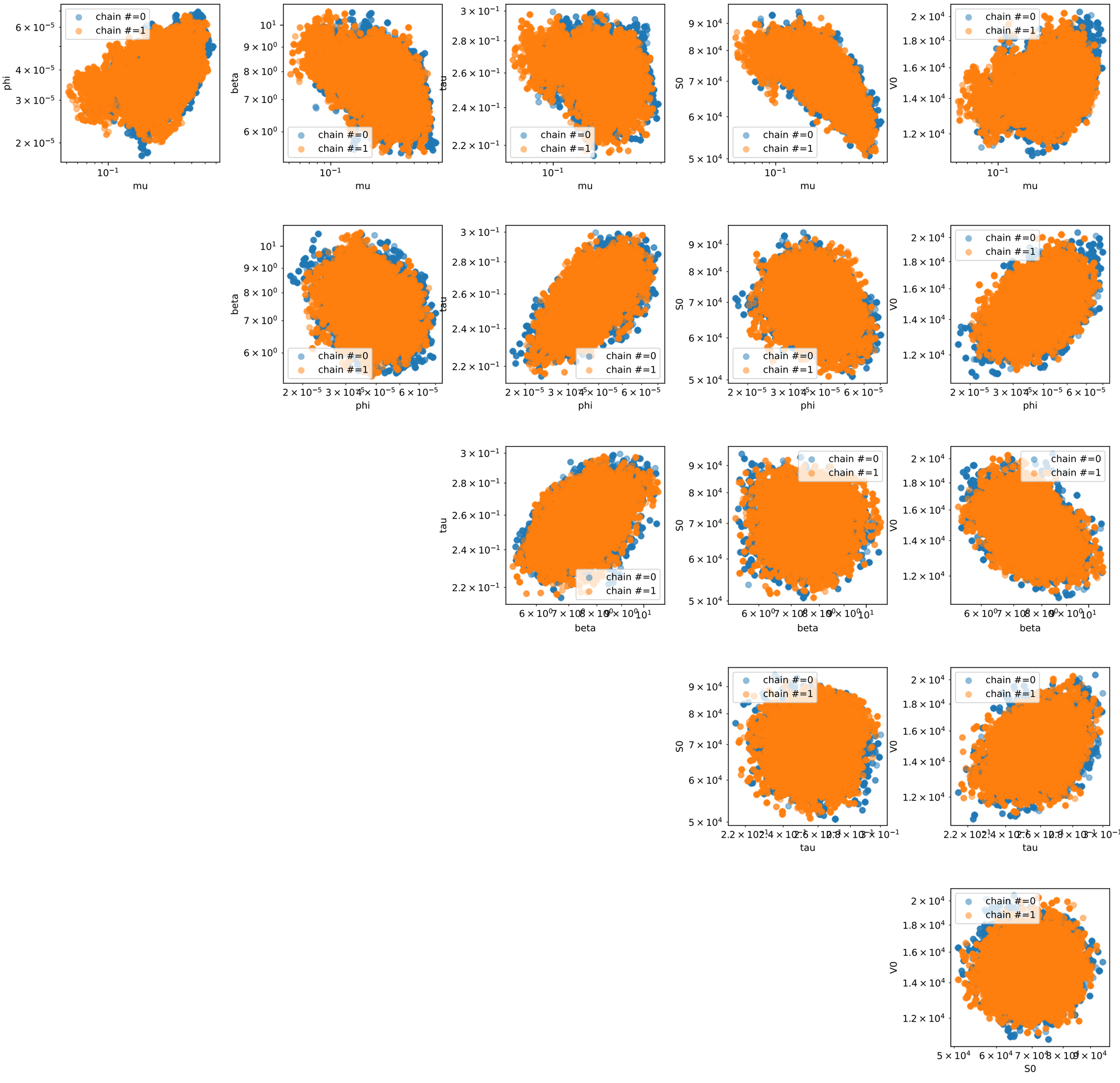

chain #=0
chain #=1
frequency
beta

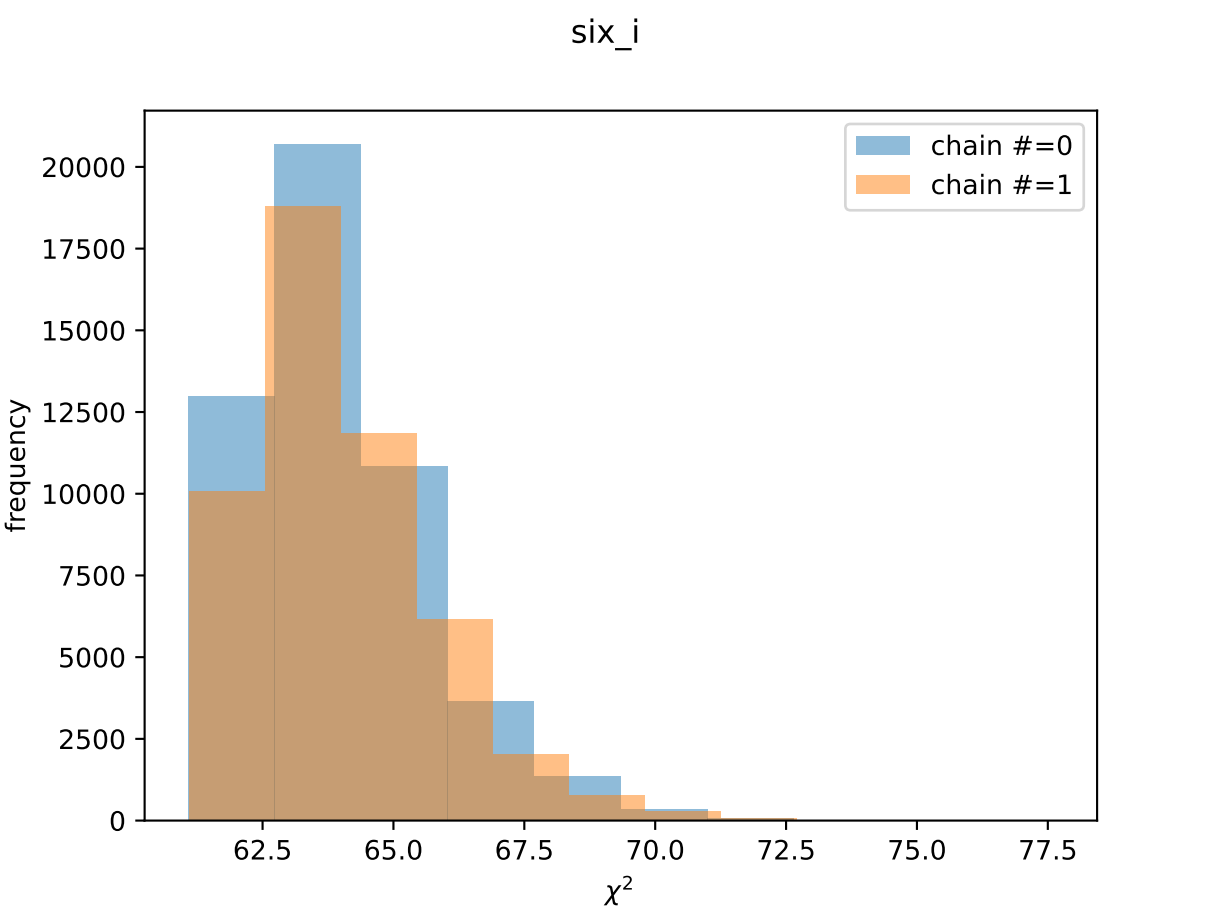

chain #=0
chain #=1
frequency
tau

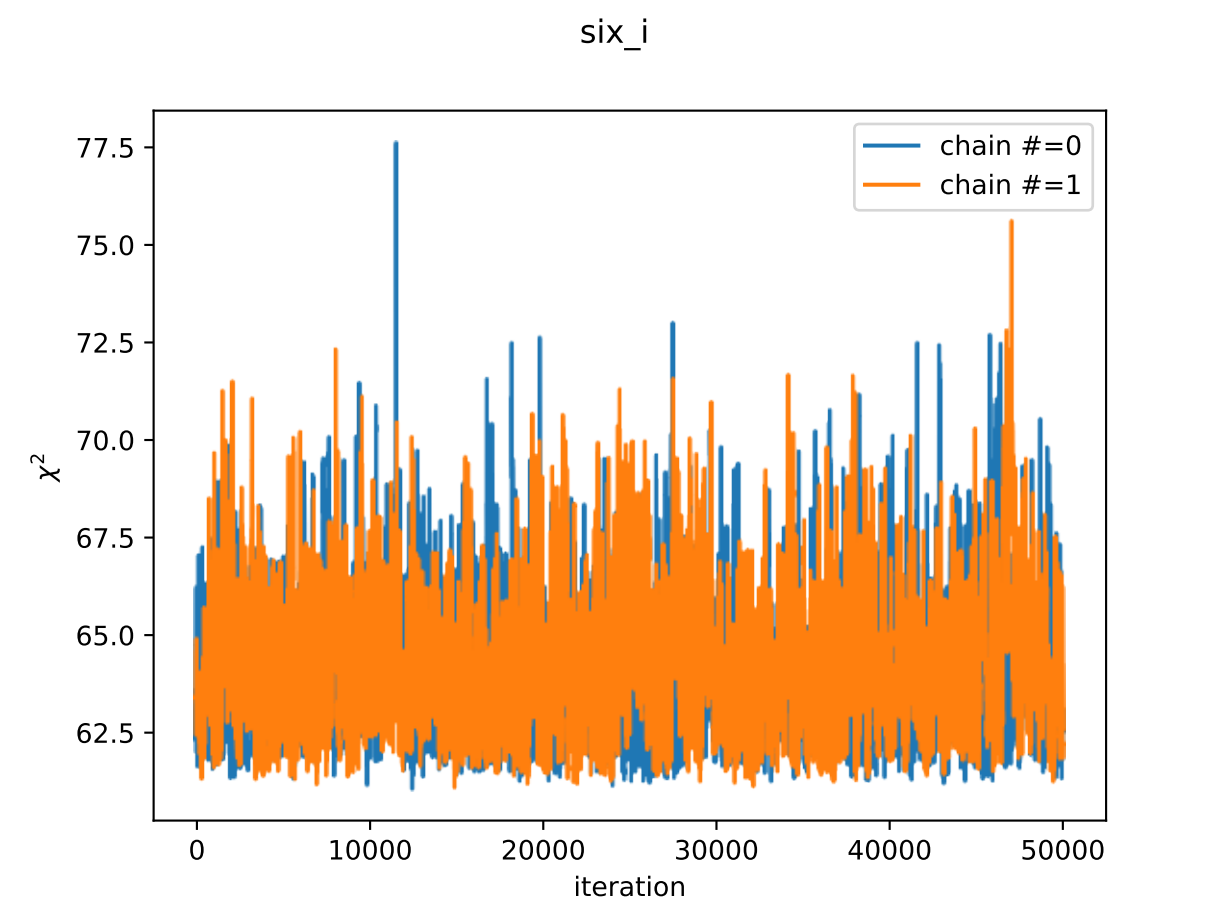

chain #=0
chain #=1
frequency
S0


chain #=0
chain #=1
frequency
V0

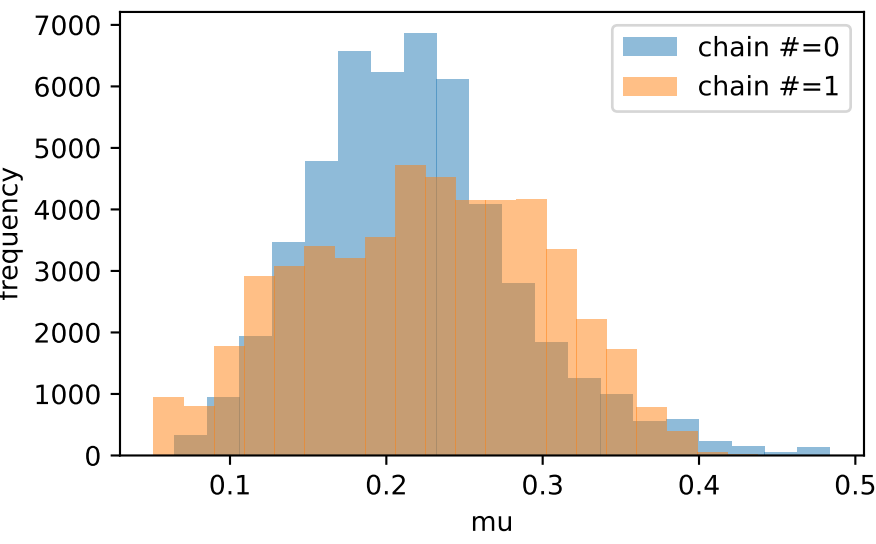
six_i

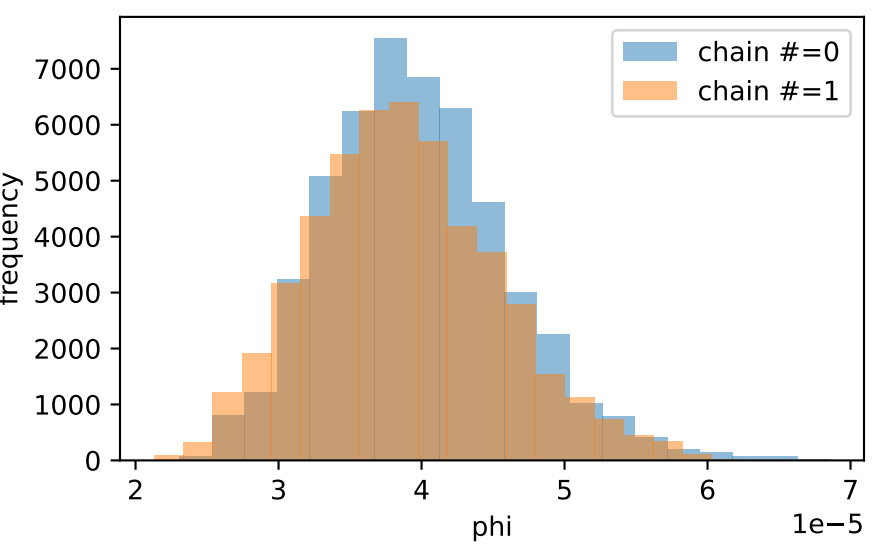


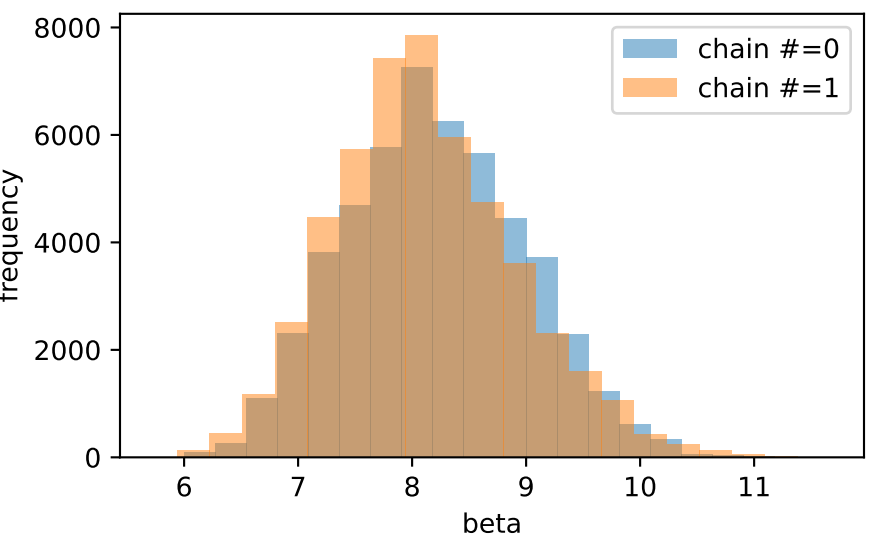

six_i
chain #=0
chain #=1
frequency
20000
17500
15000
12500
10000
7500
5000
2500
0
62.5
65.0
67.5
70.0
72.5
75.0
77.5
χ^2

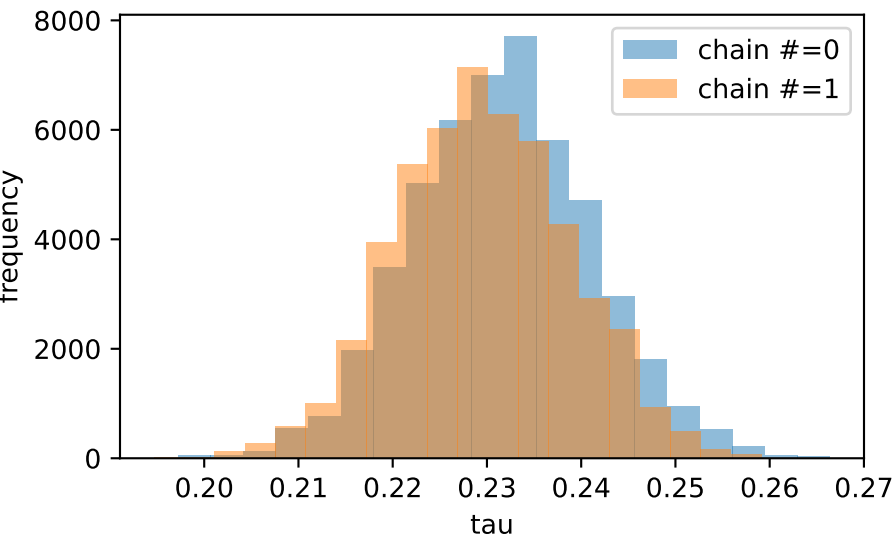

six_i
chain #=0
chain #=1
77.5
75.0
72.5
70.0
67.5
65.0
62.5
χ^2
0
10000
20000
30000
40000
50000
iteration

seven_i


chain #=0
chain #=1
frequency
mu
0.1
0.2
0.3
0.4
0.5
0
1000
2000
3000
4000
5000
6000
7000


chain #=0
chain #=1
frequency
phi
1e−5
2
3
4
5
6
7
0
1000
2000
3000
4000
5000
6000
7000


chain #=0
chain #=1
frequency
beta
6
7
8
9
10
11
0
2000
4000
6000
8000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chain #=1
frequency
tau
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0.21
0.22
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0.24
0.25
0.26
0.27
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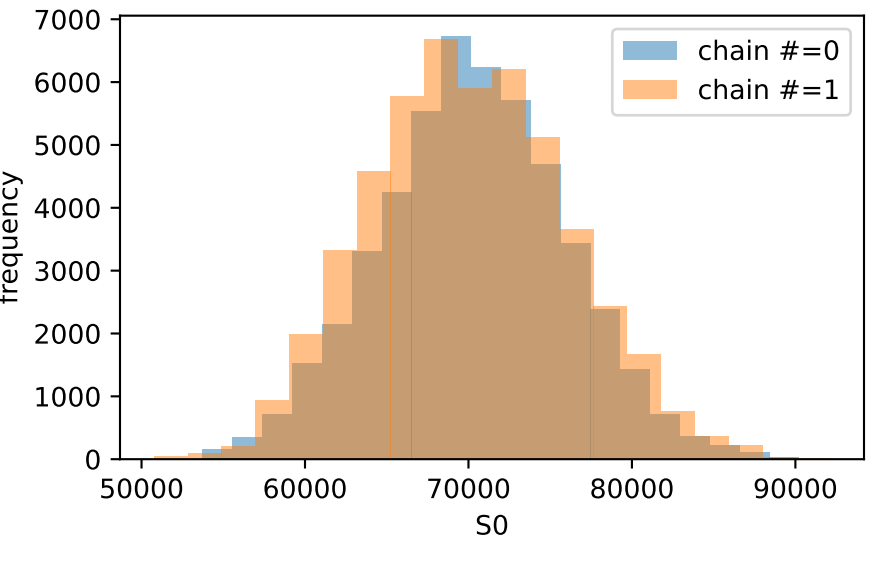
2000
4000
6000
8000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S0
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60000
70000
80000
90000
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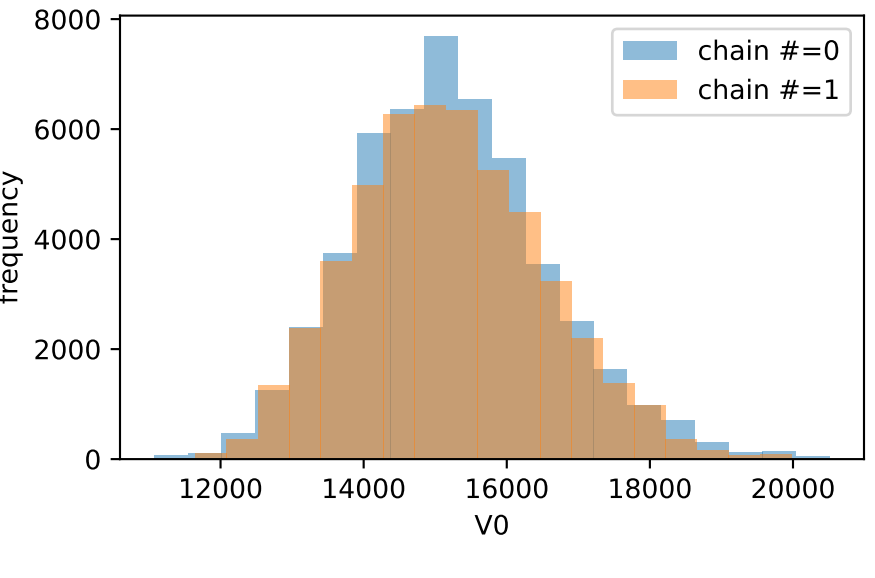
2000
3000
4000
5000
6000
7000


chain #=0
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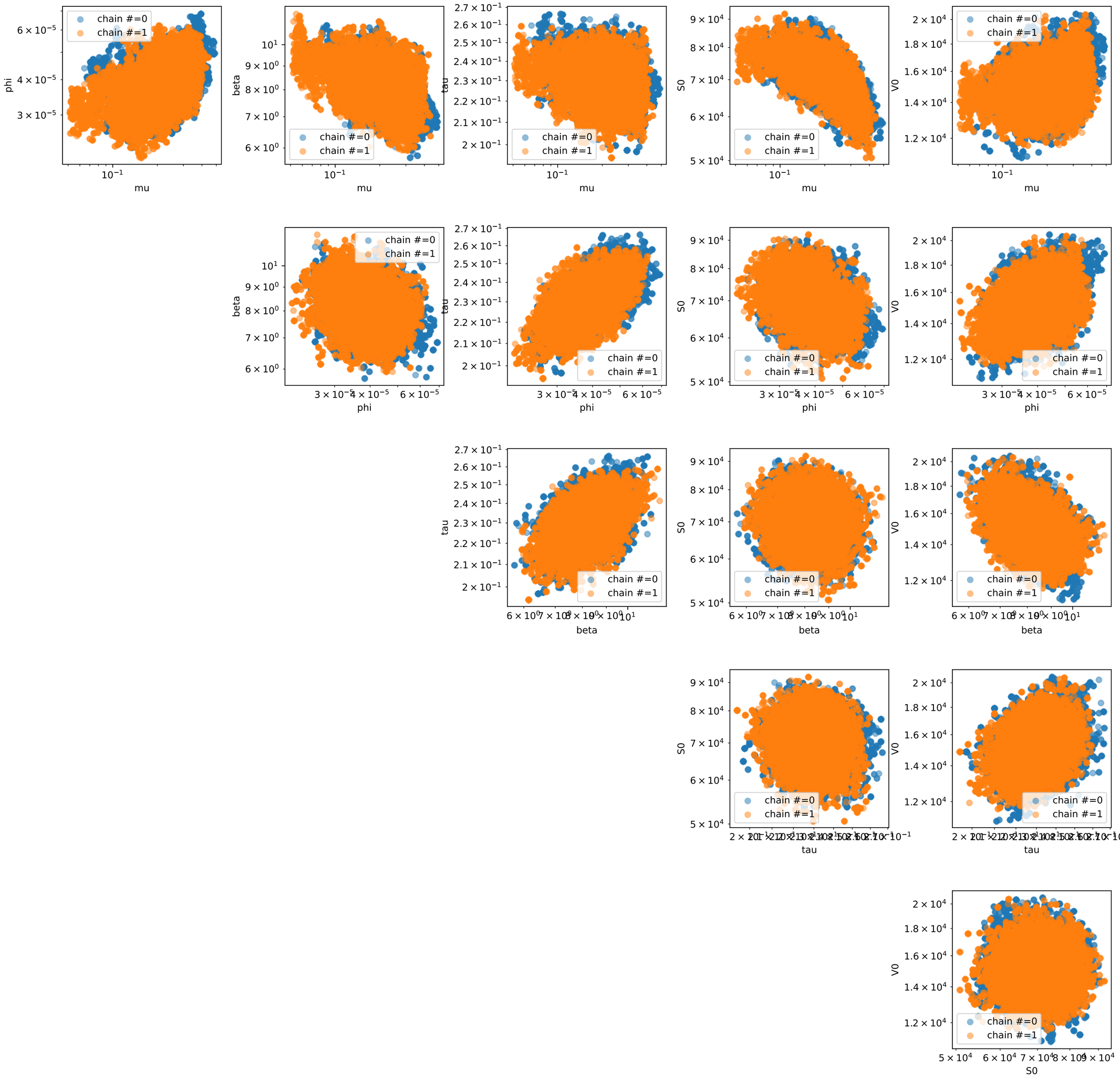
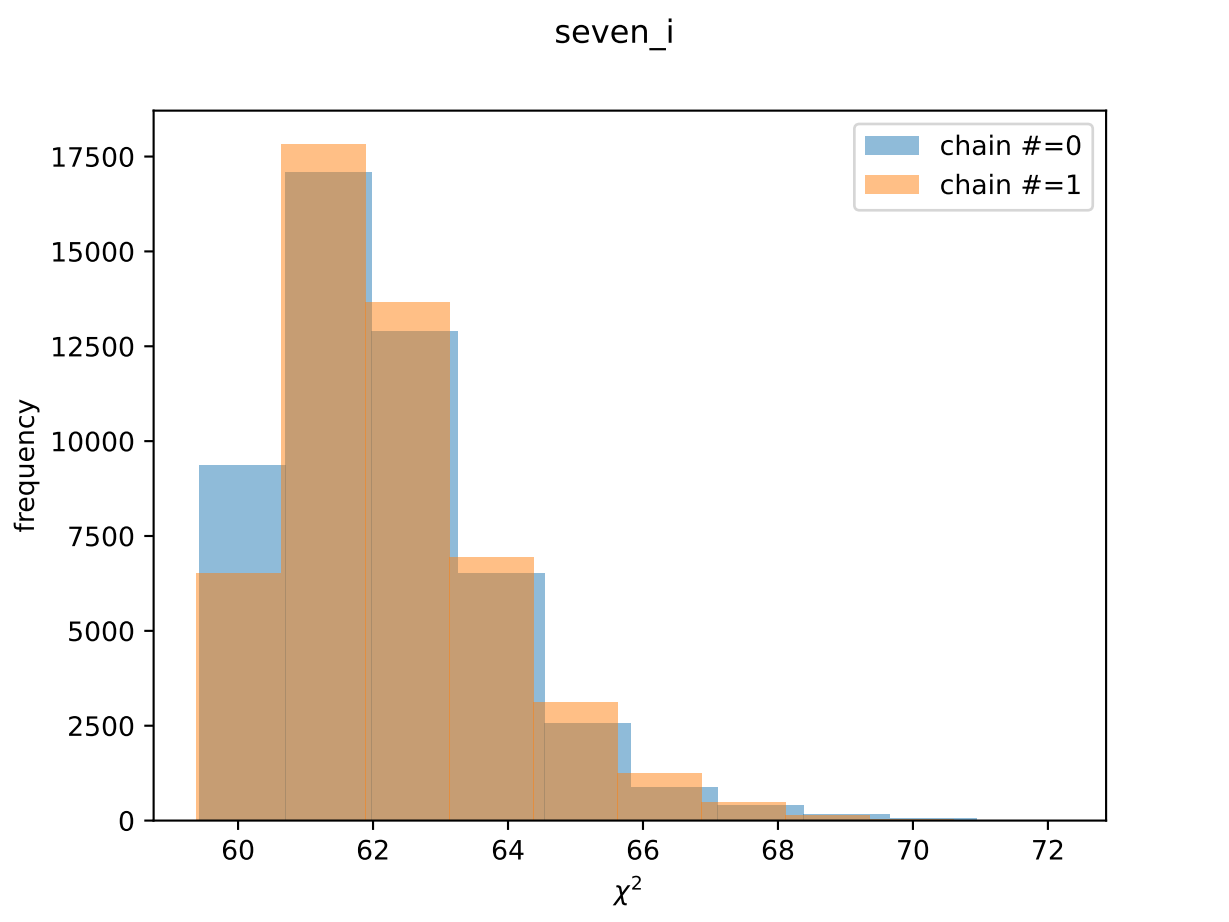
frequency
V0
12000
14000
16000
18000
20000
0
2000
4000
6000
8000

seven_i




seven_i
chain #=0
chain #=1
frequency
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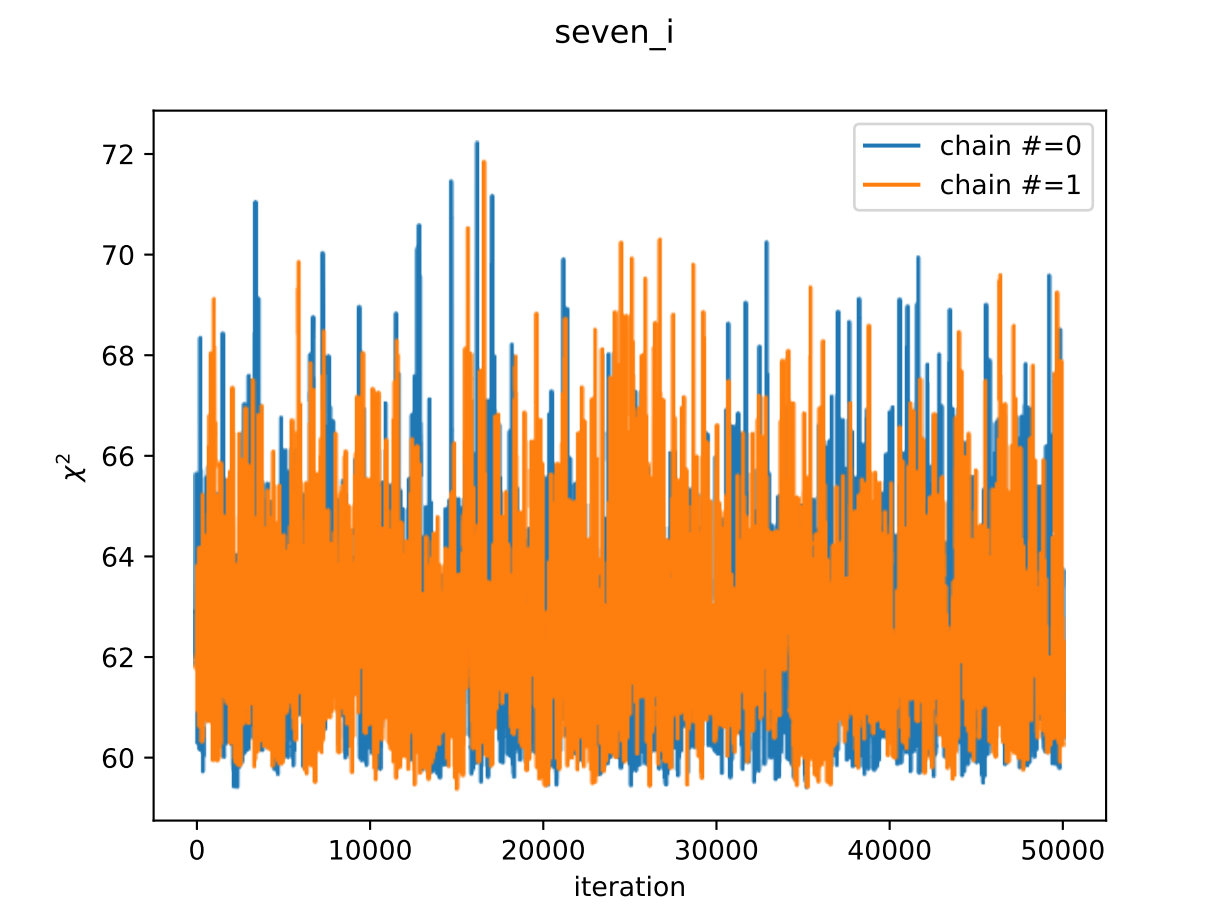
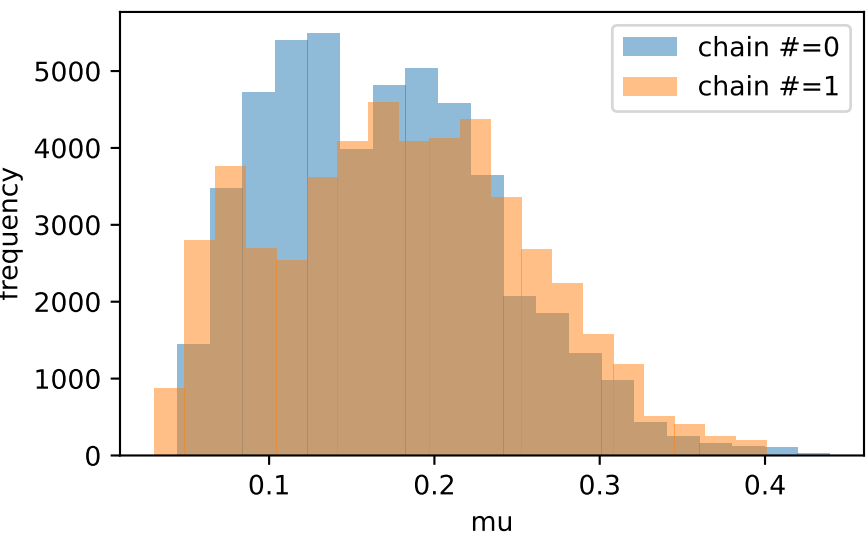
15000
12500
10000
7500
5000
2500
0
60
62
64
66
68
70
72
χ^2


seven_i
chain #=0
chain #=1
72
70
68
66
64
62
60
χ^2
0
10000
20000
30000
40000
50000
iteration

eight_i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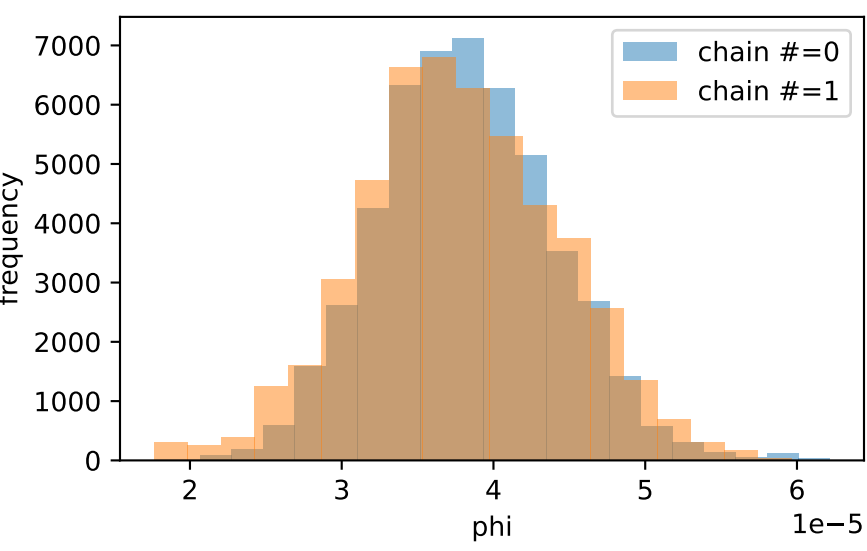
chain #=1
frequency
mu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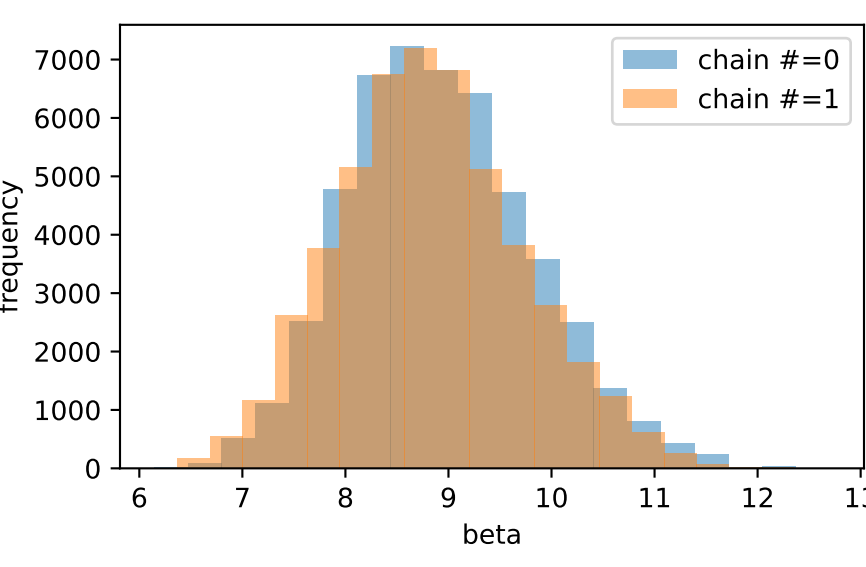
chain #=1
frequency
phi
1e−5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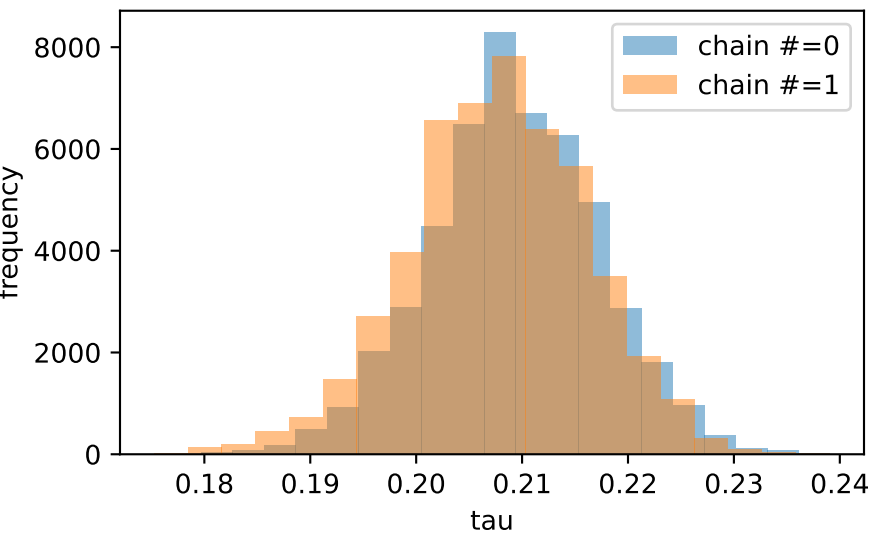
chain #=1
frequency
beta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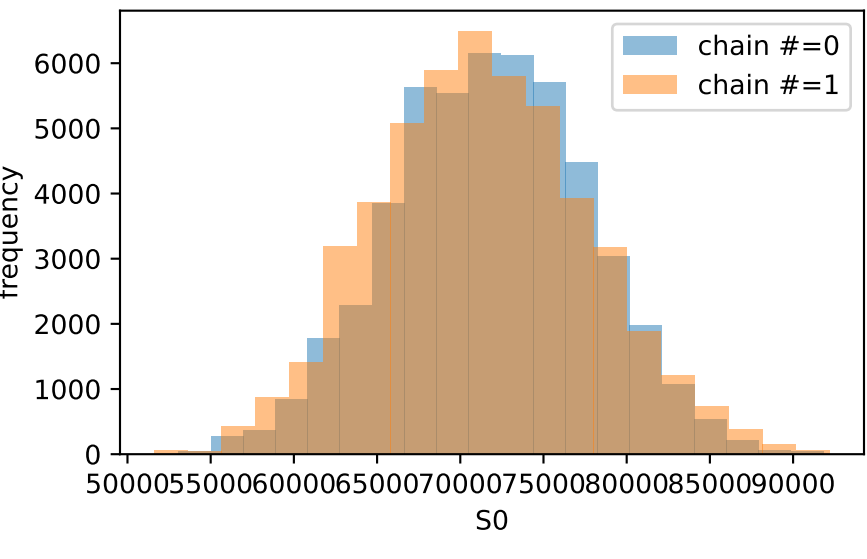
chain #=1
frequency
tau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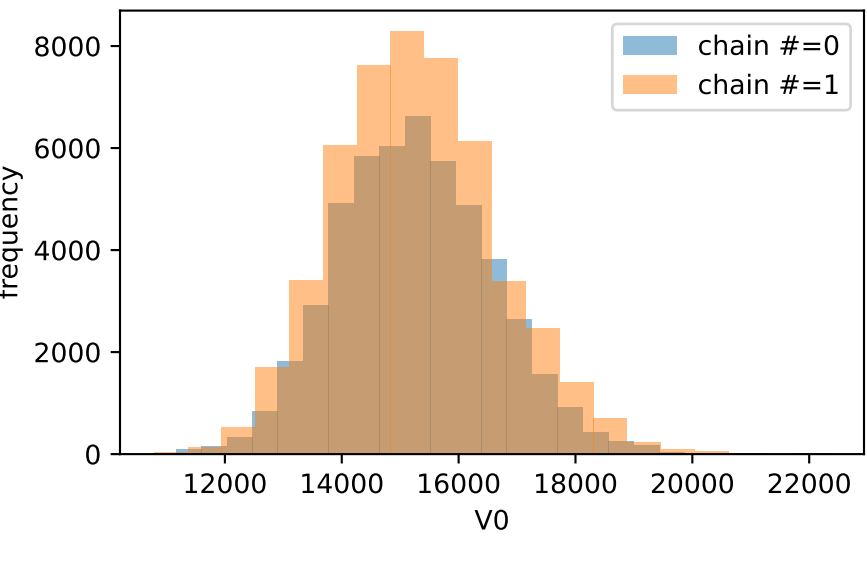
chain #=1
frequency
S0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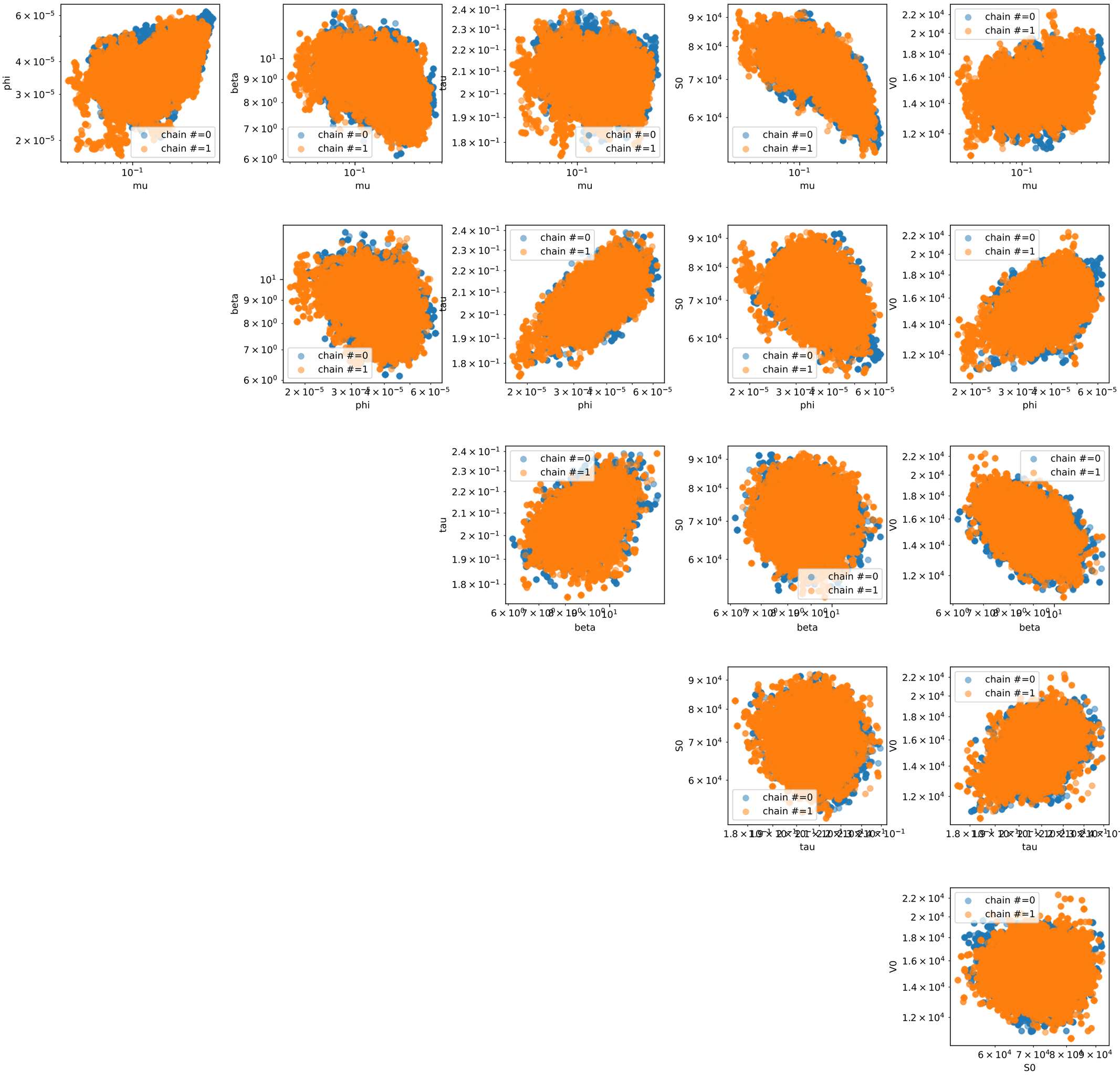
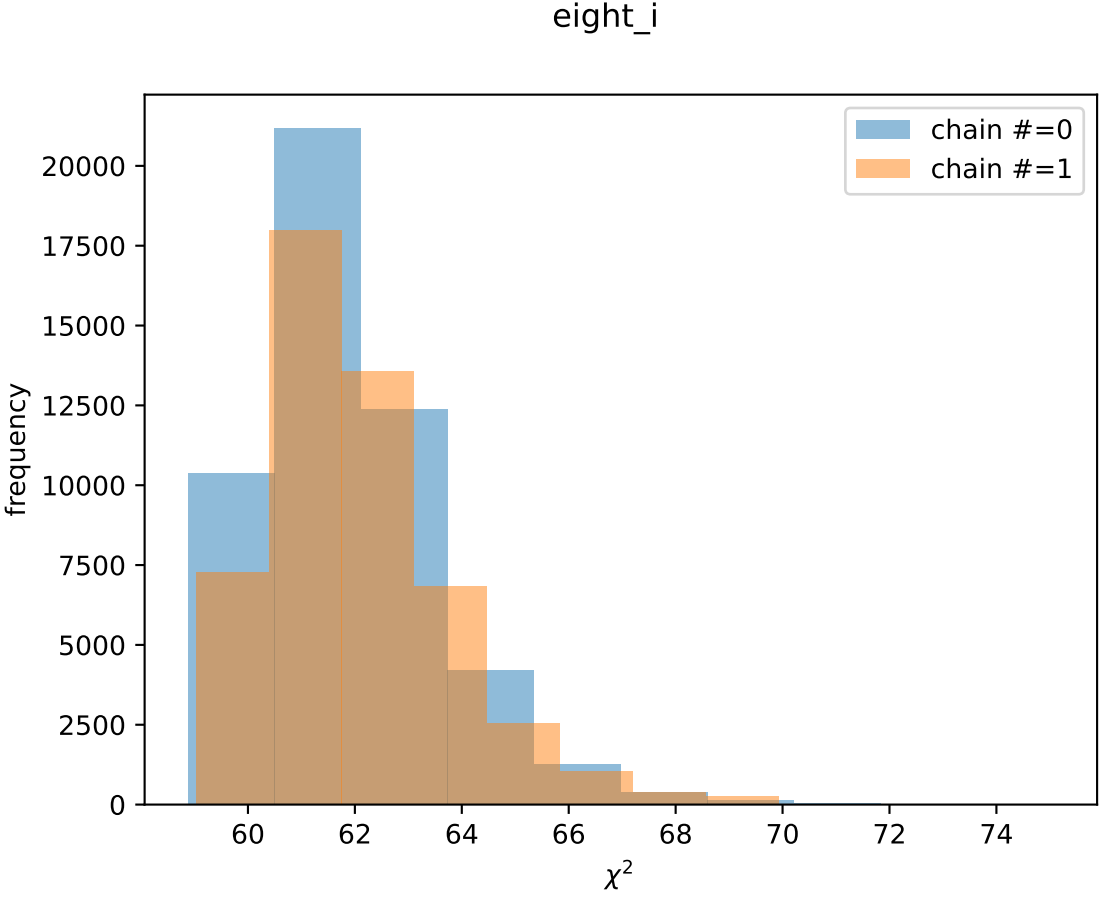
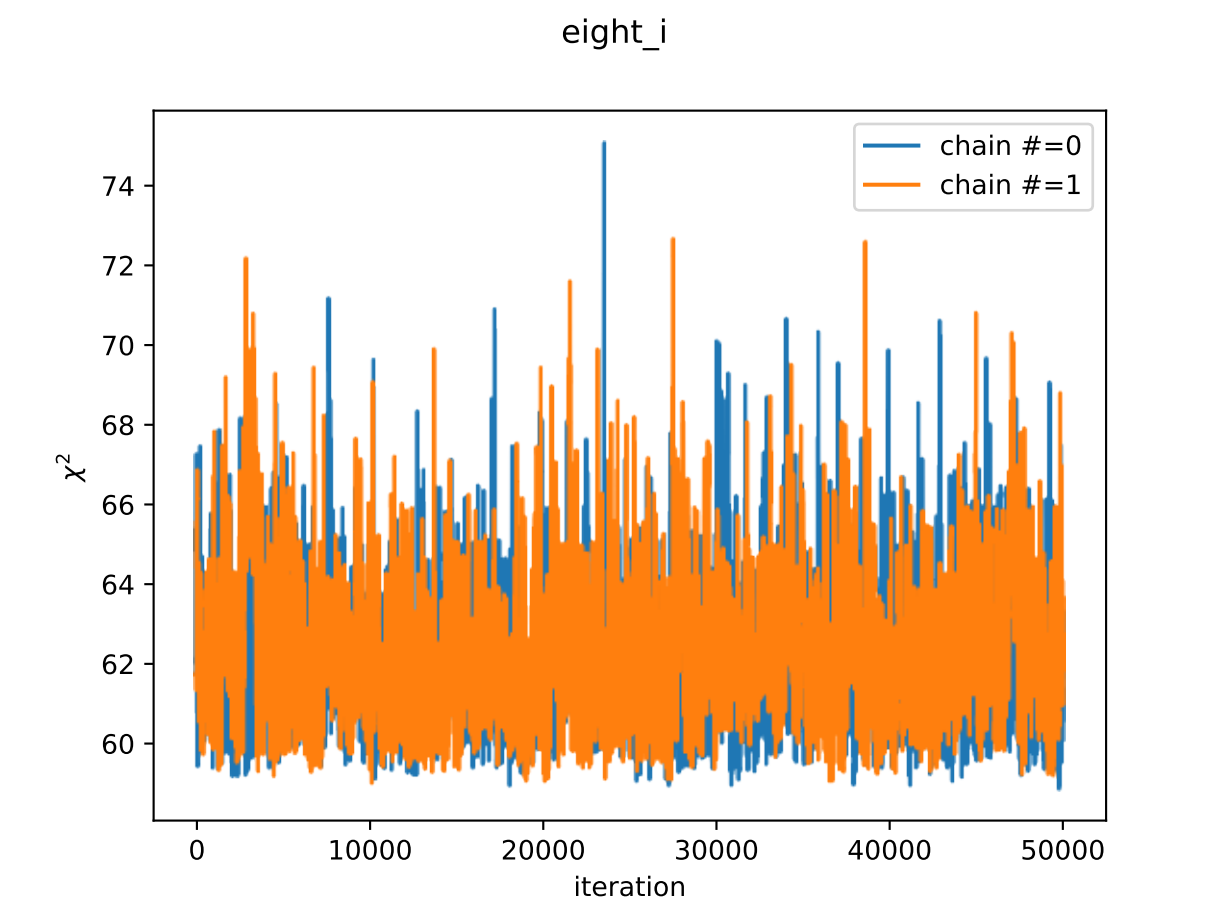
chain #=1
frequency
V0

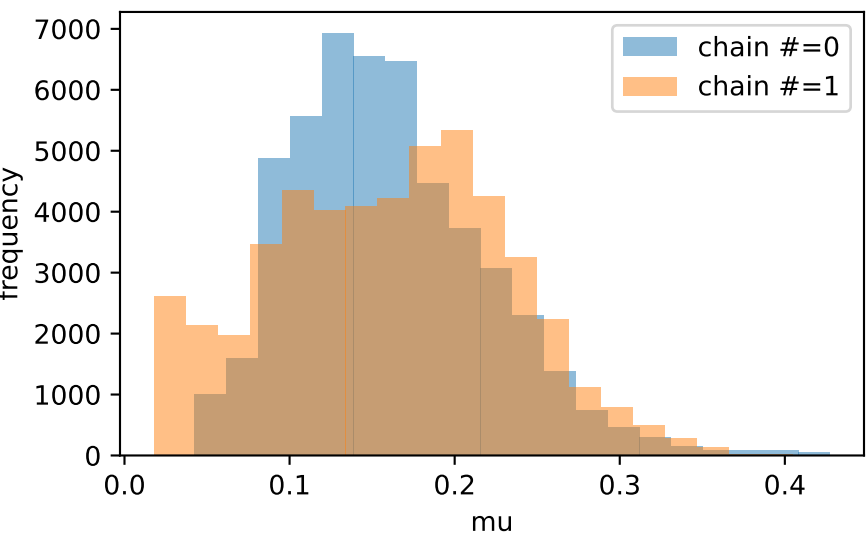
eight_i




eight_i
chain #=0
chain #=1
frequency
20000
17500
15000
12500
10000
7500
5000
2500
0
60
62
64
66
68
70
72
74
χ^2


eight_i
chain #=0
chain #=1
74
72
70
68
66
64
62
60
χ^2
0
10000
20000
30000
40000
50000
iteration

nine_i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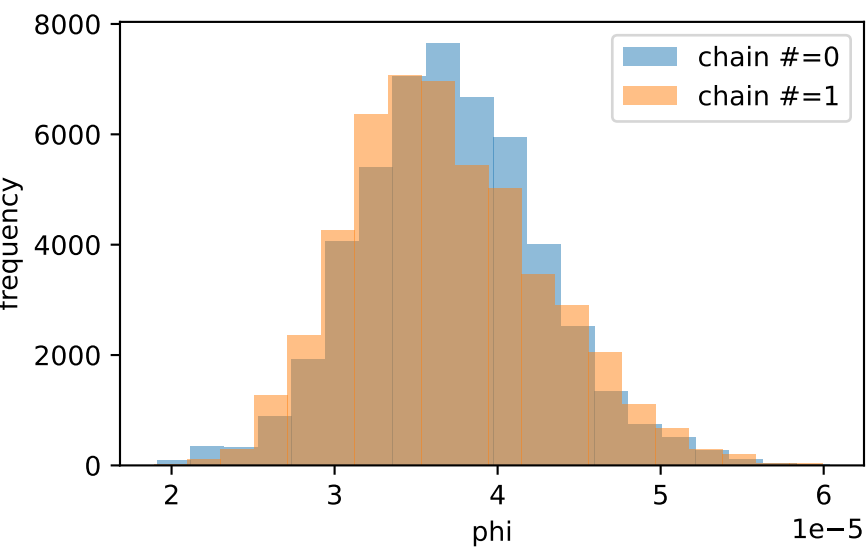
chain #=1
frequency
mu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chain #=1
frequency
phi
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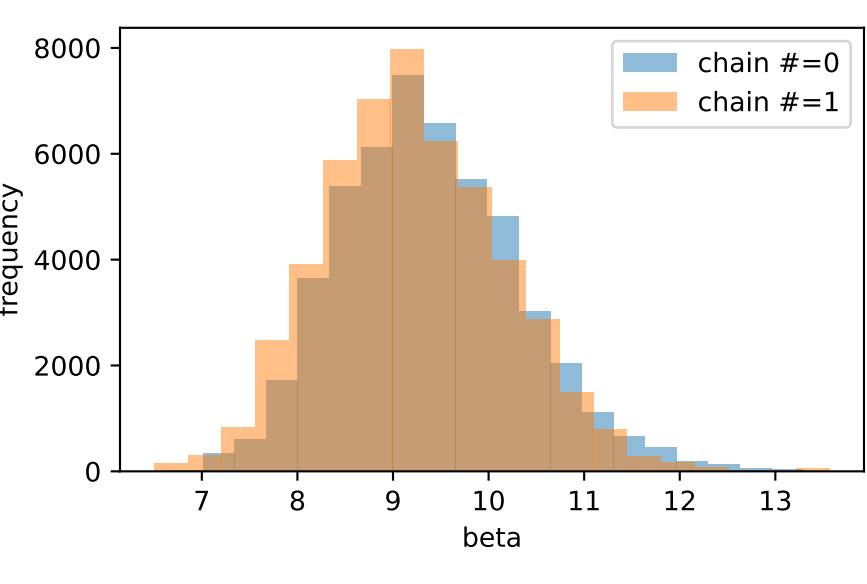
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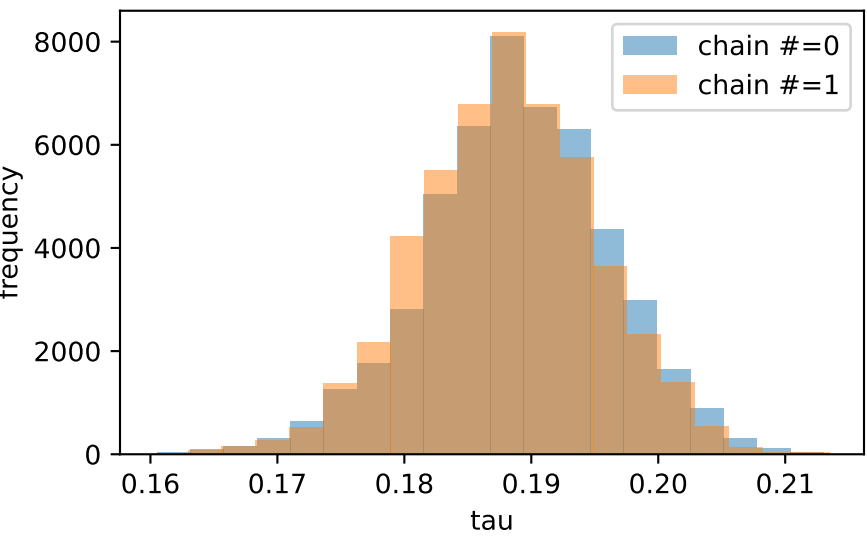
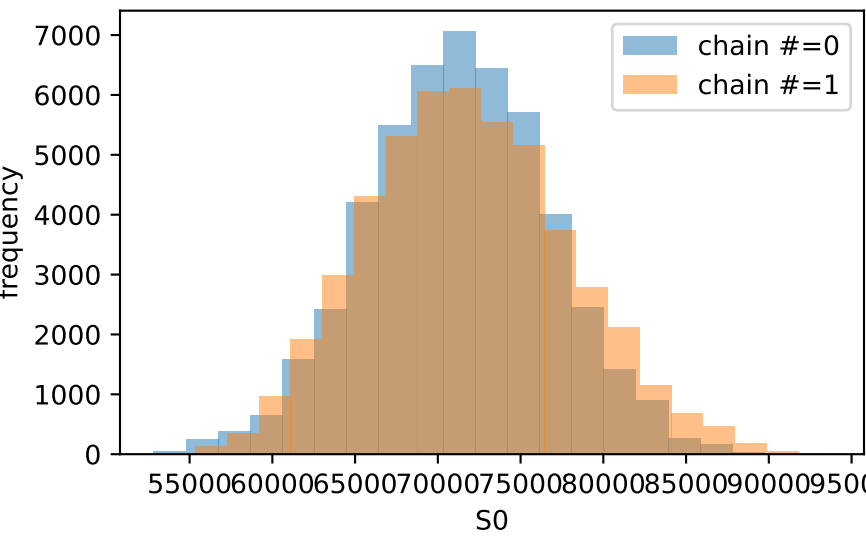
chain #=1
frequency
beta


chain #=0
chain #=1
frequency
tau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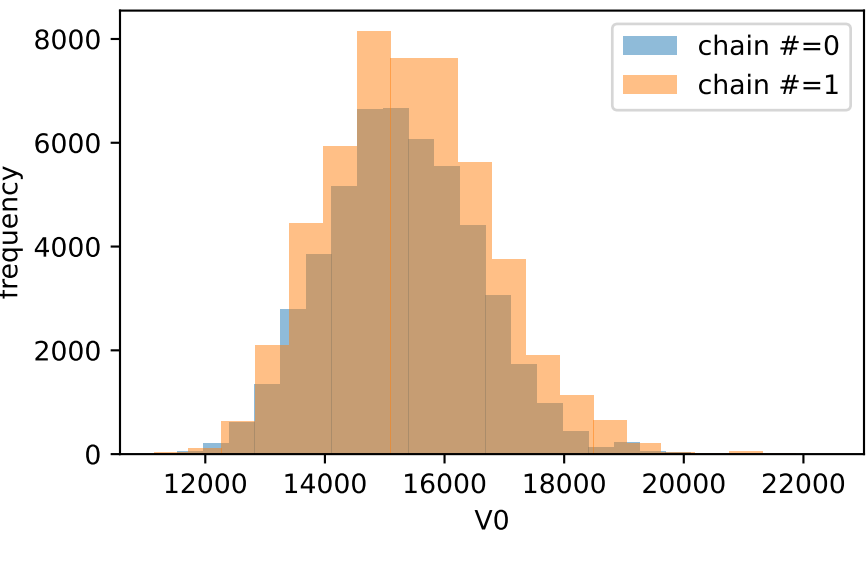
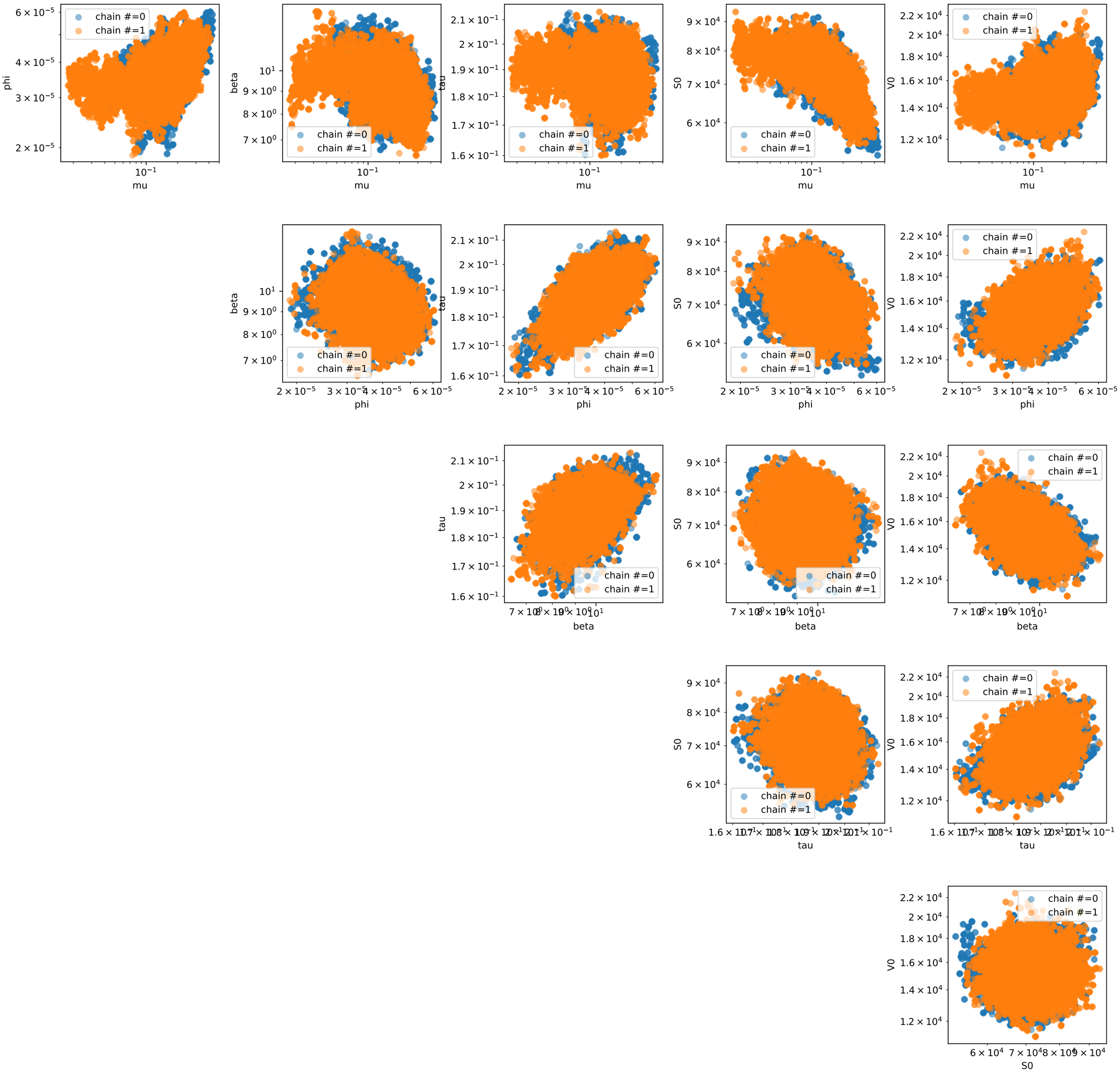
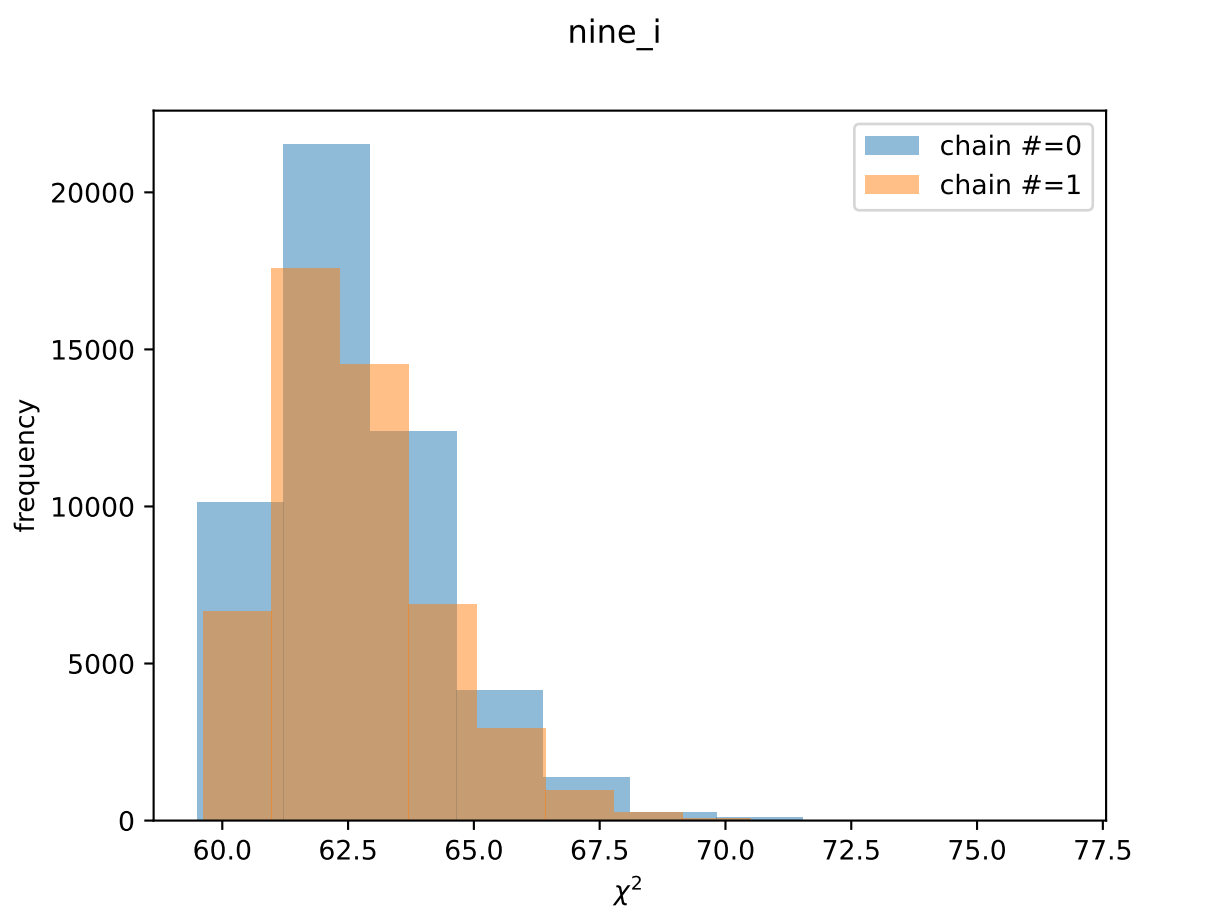
frequency
S0


chain #=0
chain #=1
frequency
V0

nine_i




nine_i
chain #=0
chain #=1
frequency
20000
15000
10000
5000
0
60.0
62.5
65.0
67.5
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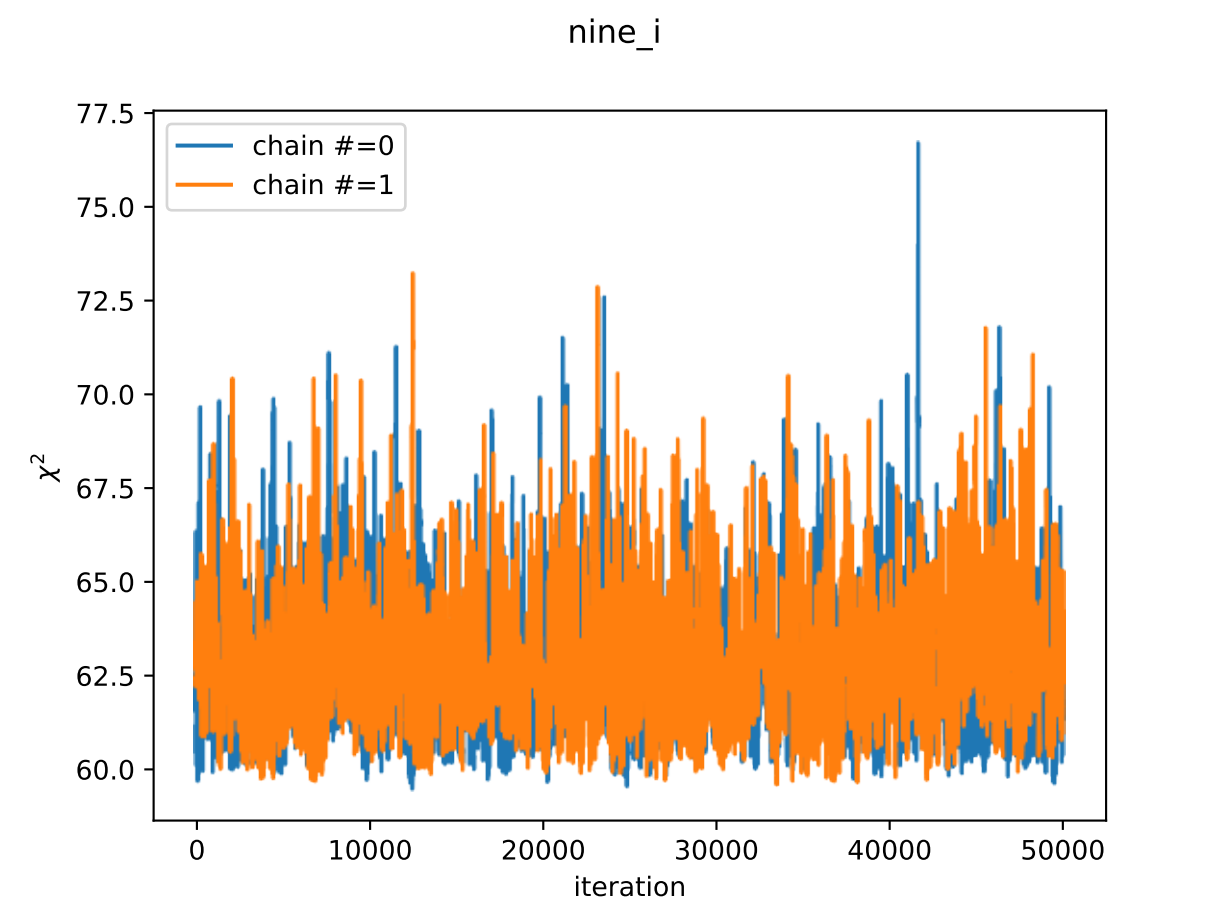
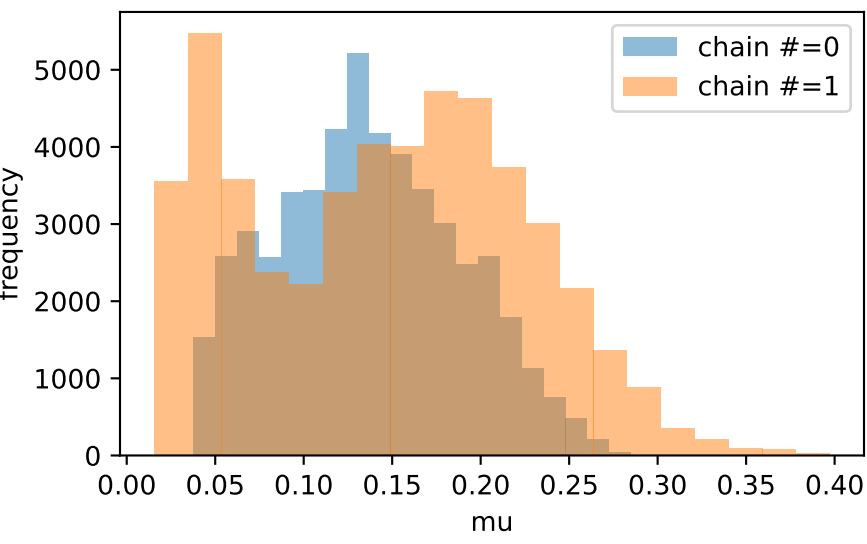
75.0
77.5
χ^2


nine_i
chain #=0
chain #=1
77.5
75.0
72.5
70.0
67.5
65.0
62.5
60.0
χ^2
0
10000
20000
30000
40000
50000
iteration

ten_i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chain #=1
frequency
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5000
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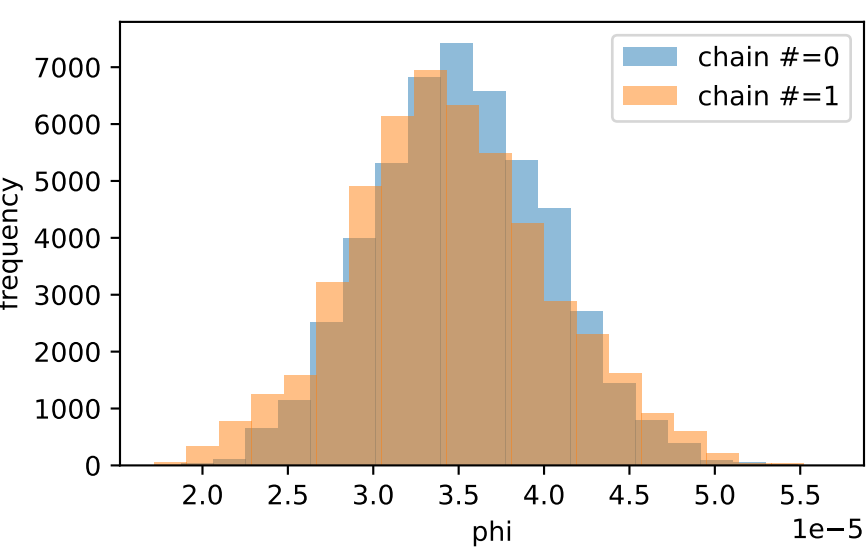
0.10
0.15
0.20
0.25
0.30
0.35
0.40
mu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chain #=1
frequency
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1000
2000
3000
4000
5000
6000
7000
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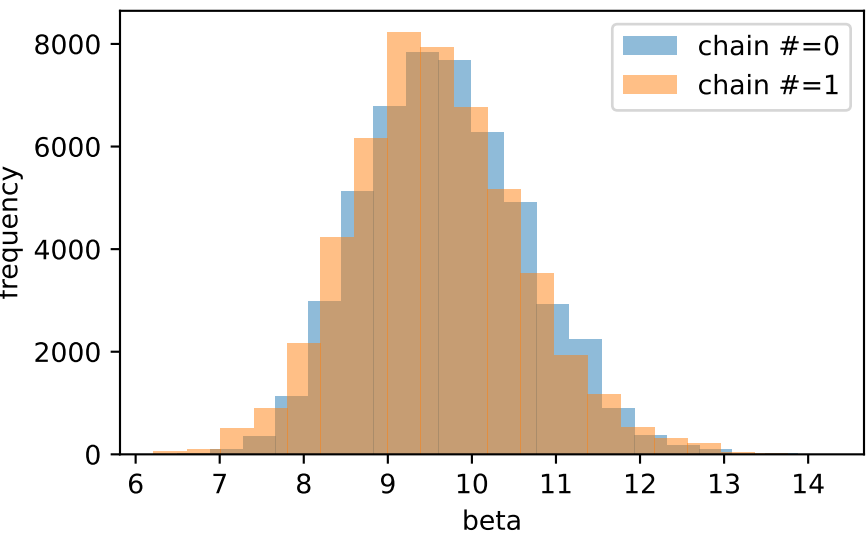
2.5
3.0
3.5
4.0
4.5
5.0
5.5
phi
1e−5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chain #=1
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6000
8000
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7
8
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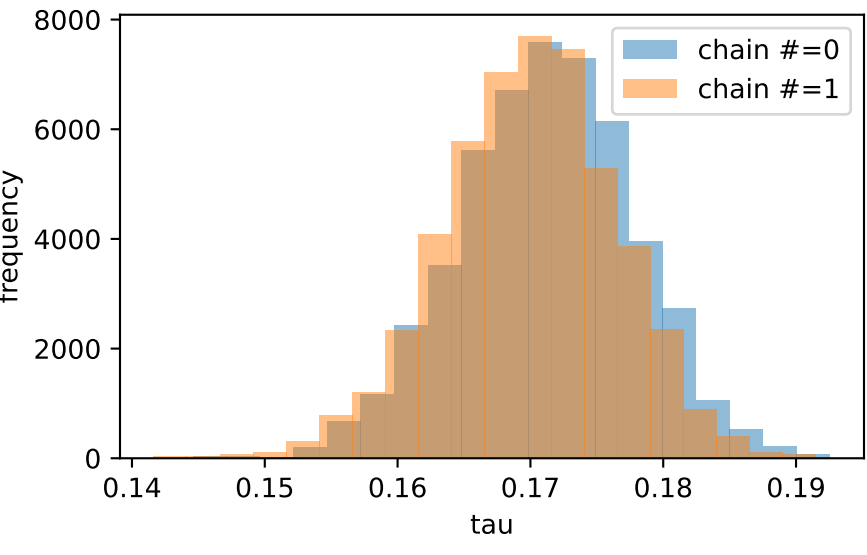
10
11
12
13
14
beta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chain #=1
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6000
8000
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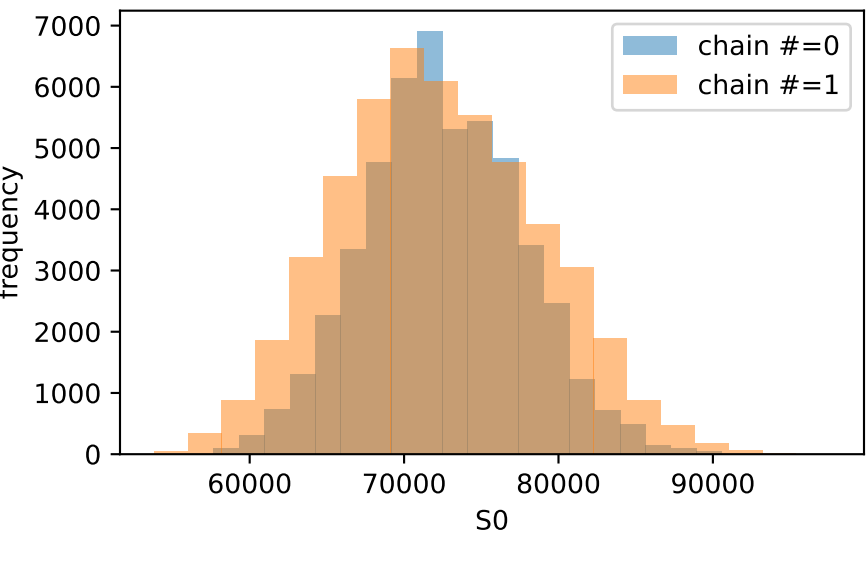
0.15
0.16
0.17
0.18
0.19
tau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chain #=1
frequency
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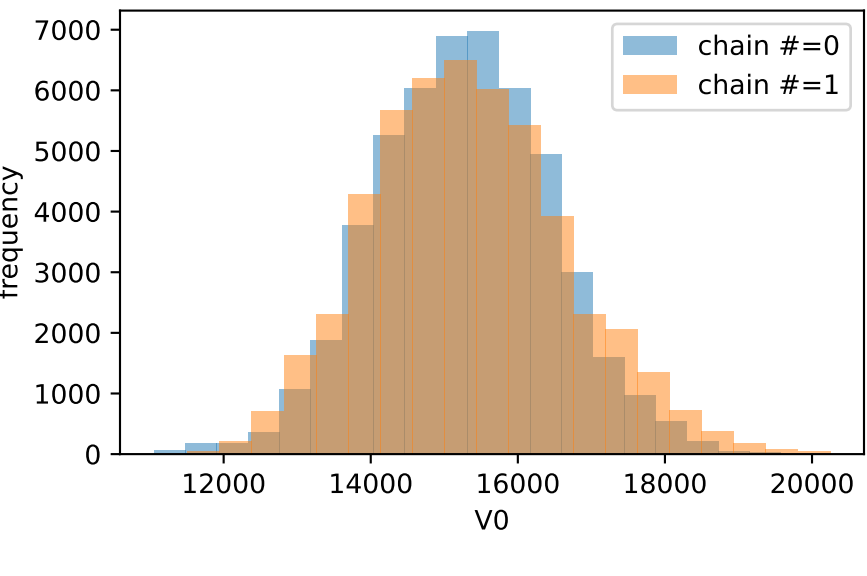
5000
6000
7000
60000
70000
80000
90000
S0


chain #=0
chain #=1
frequency
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1000
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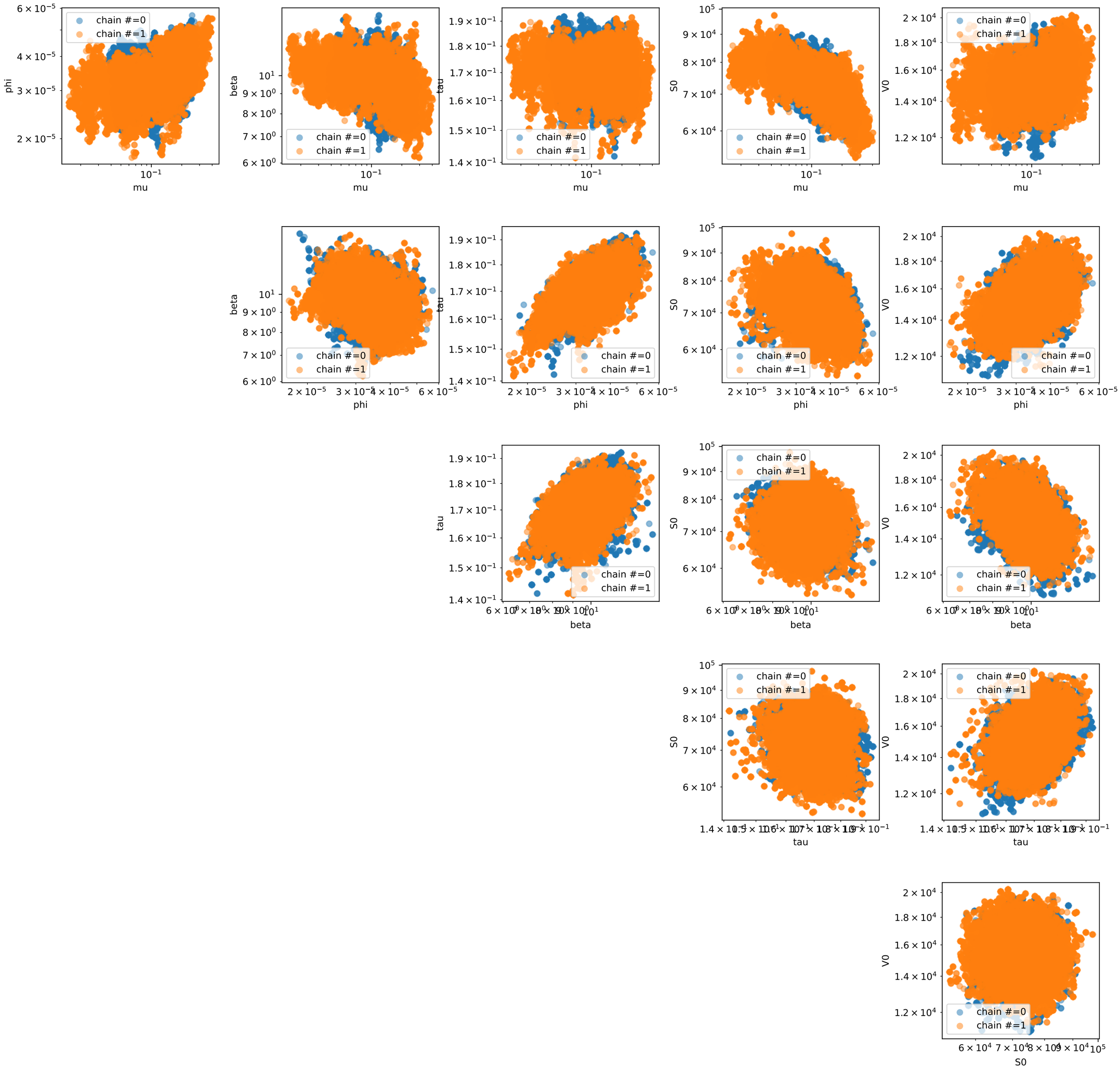
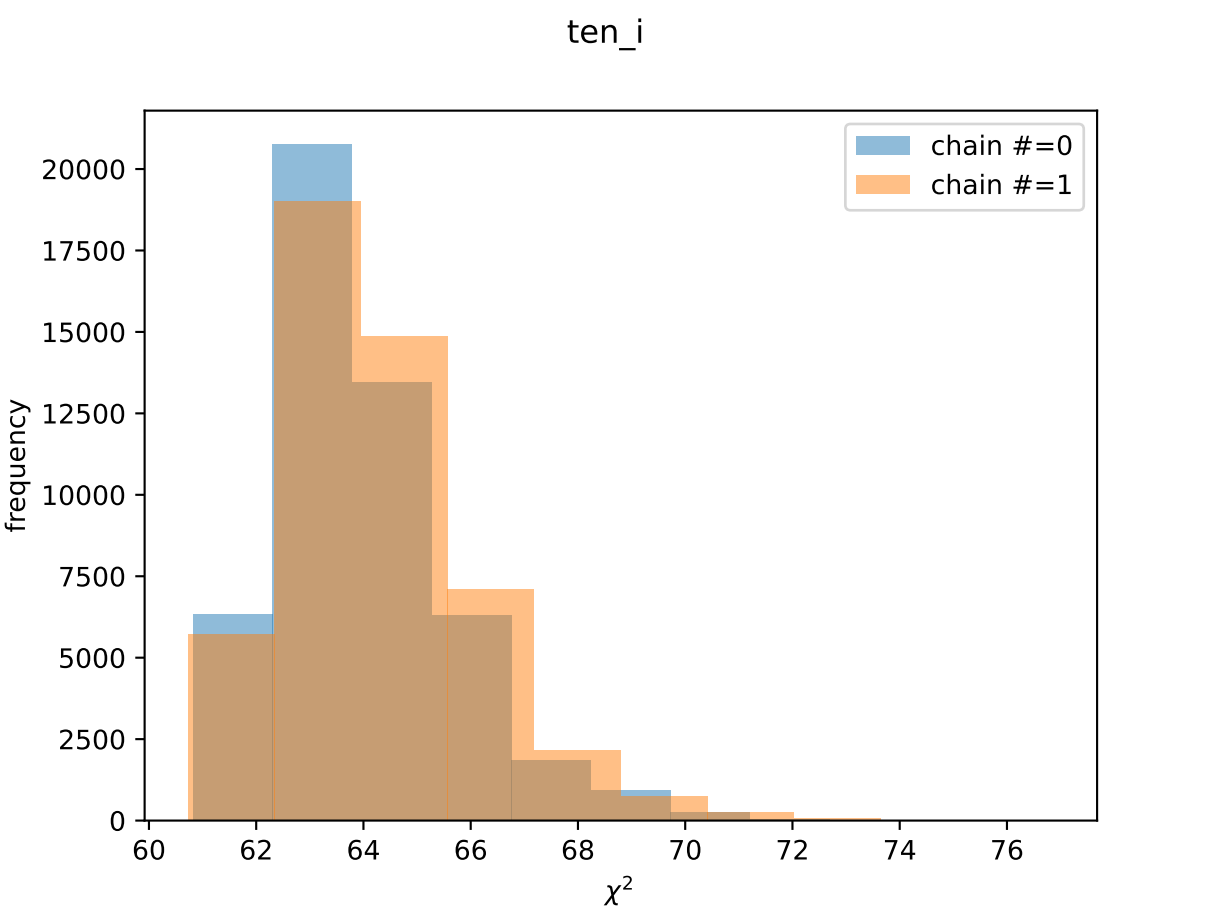
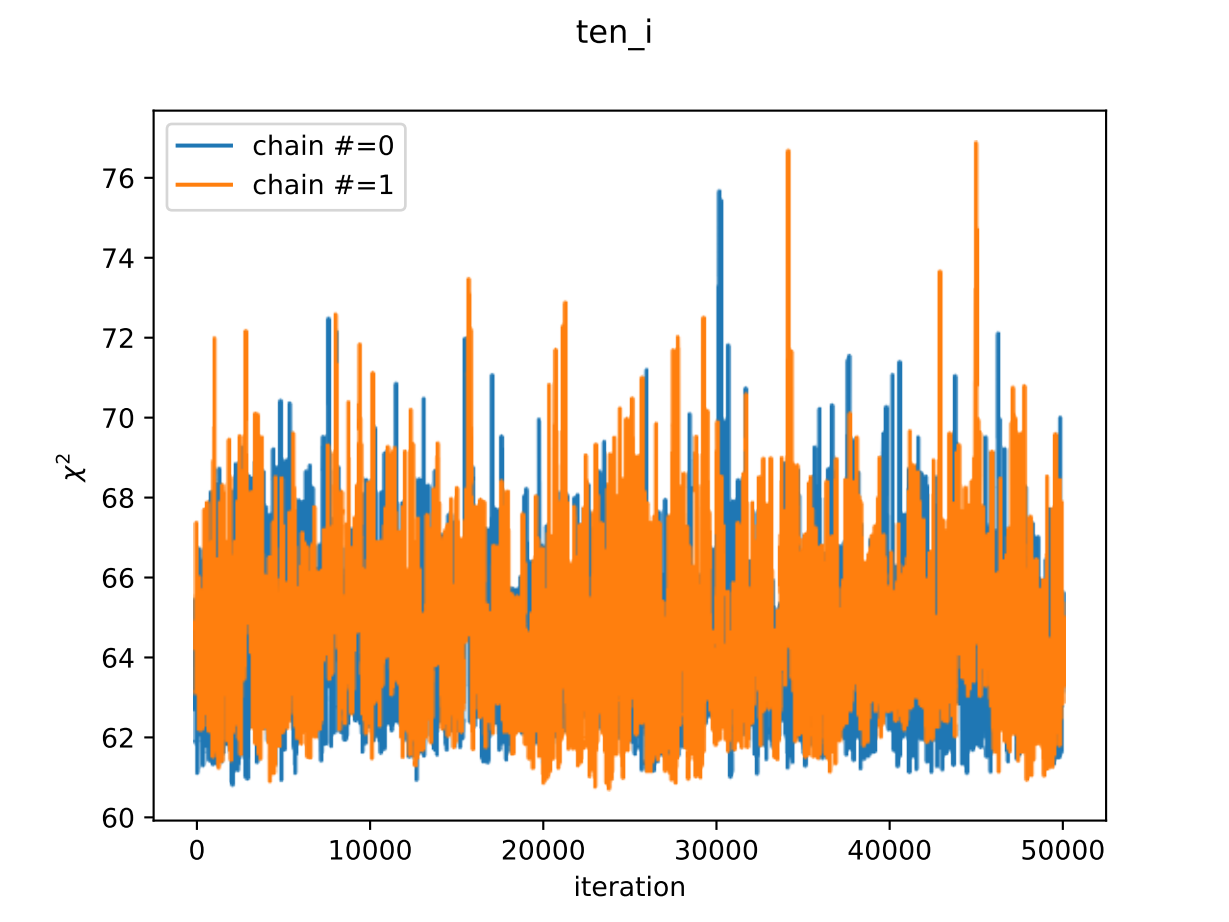
5000
6000
7000
12000
14000
16000
18000
20000
V0

ten_i




ten_i
chain #=0
chain #=1
frequency
20000
17500
15000
12500
10000
7500
5000
2500
0
60
62
64
66
68
70
72
74
76
χ^2


ten_i
chain #=0
chain #=1
76
74
72
70
68
66
64
62
60
χ^2
0
10000
20000
30000
40000
50000
iteration