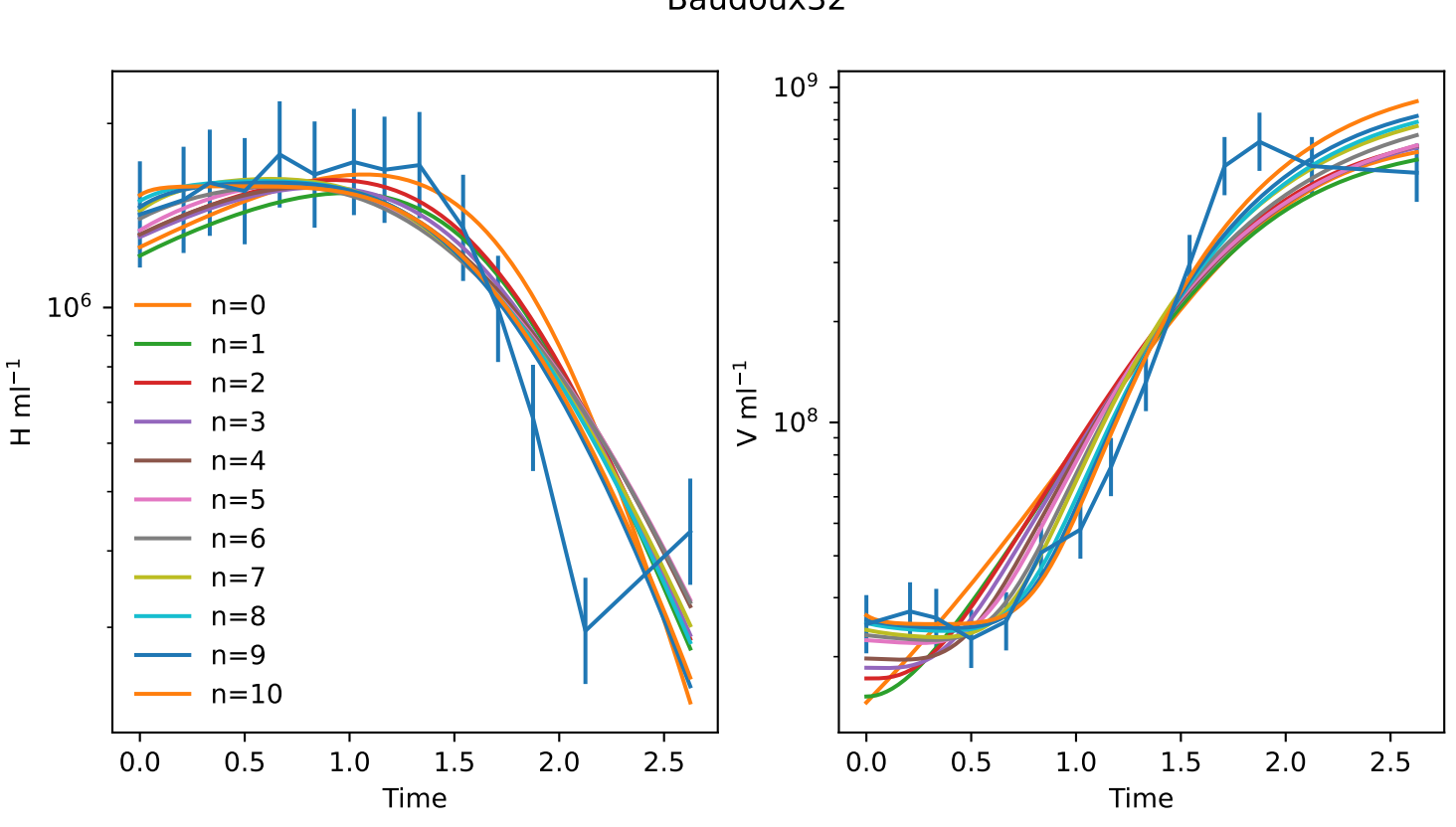
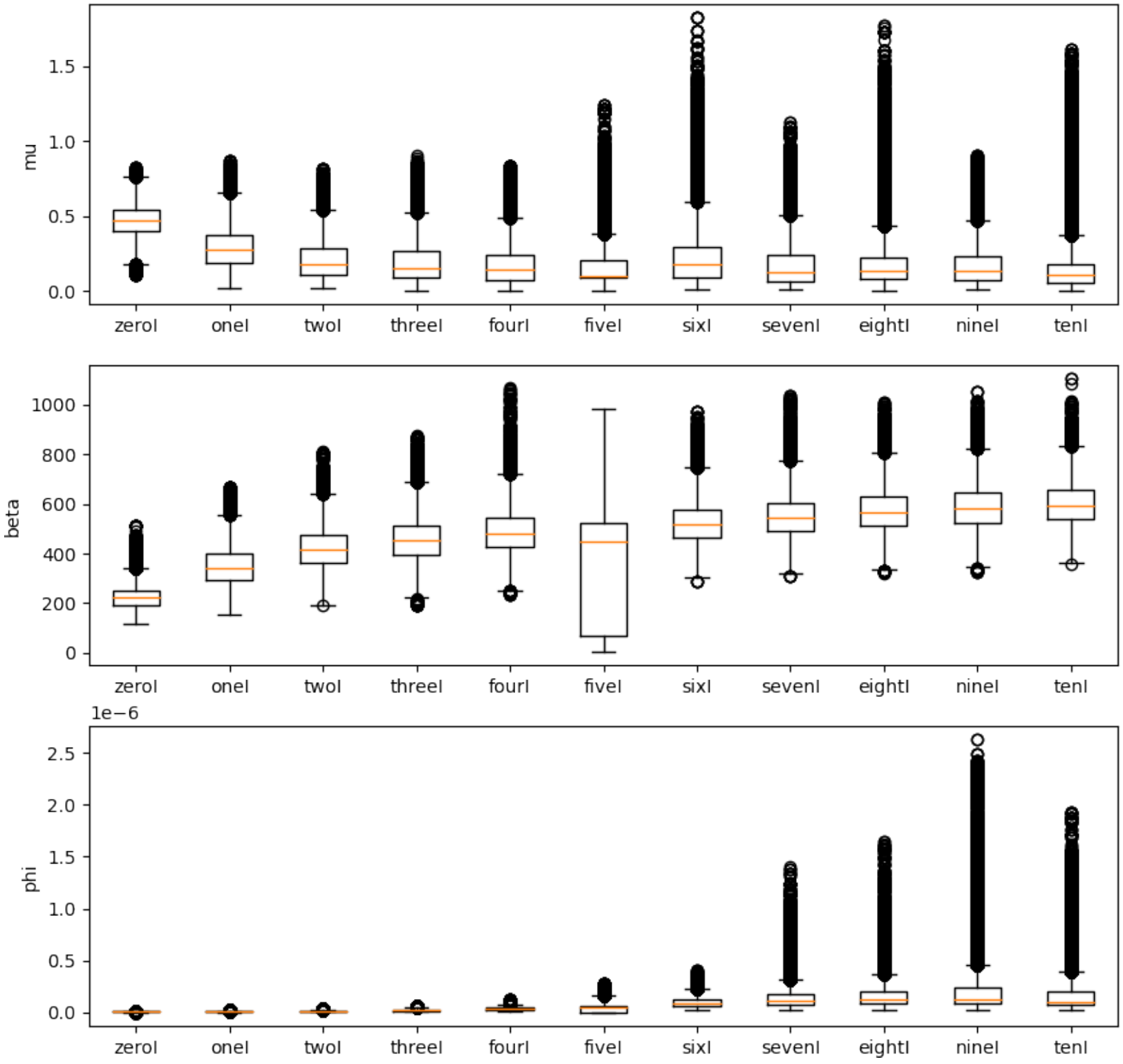
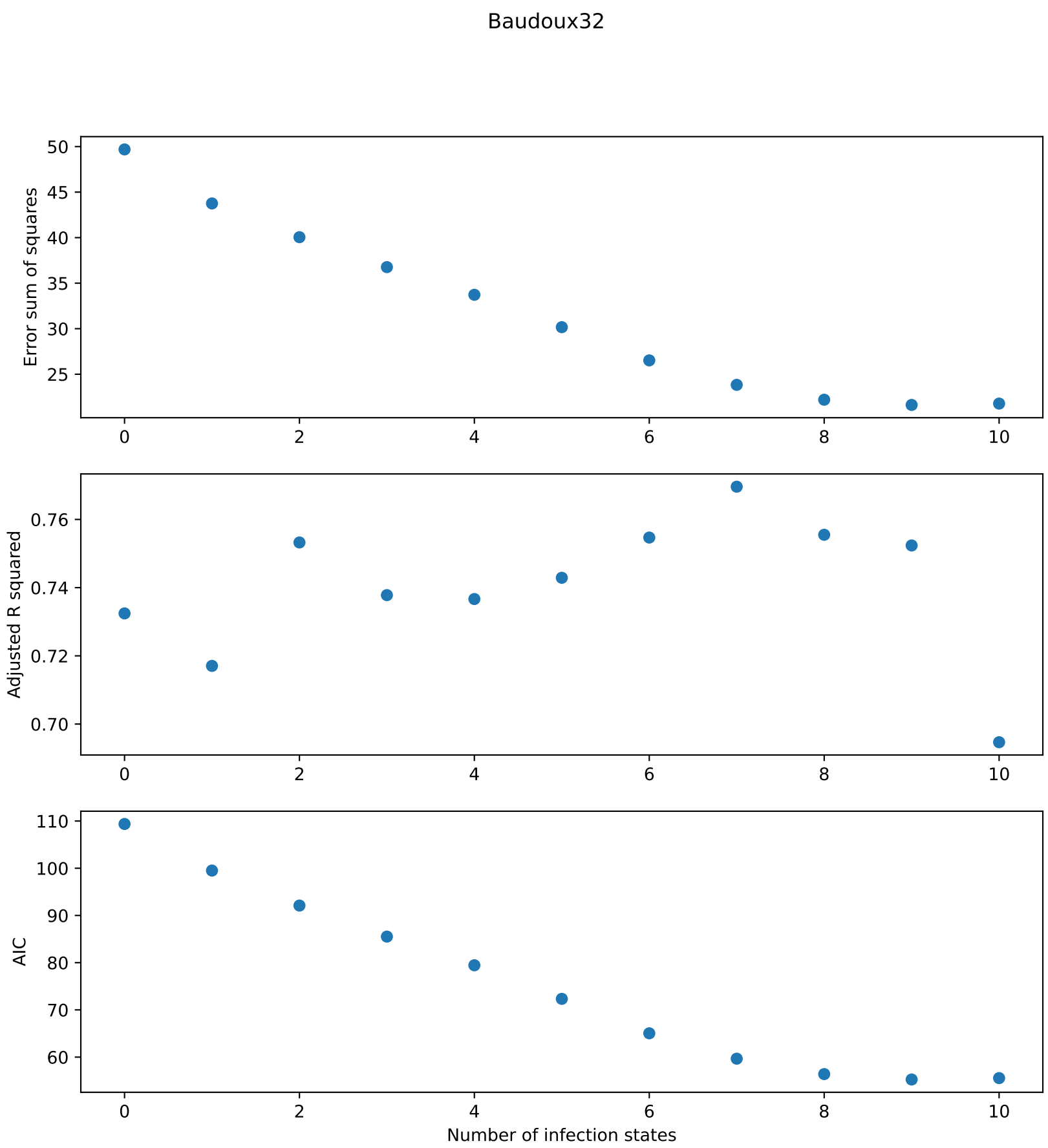
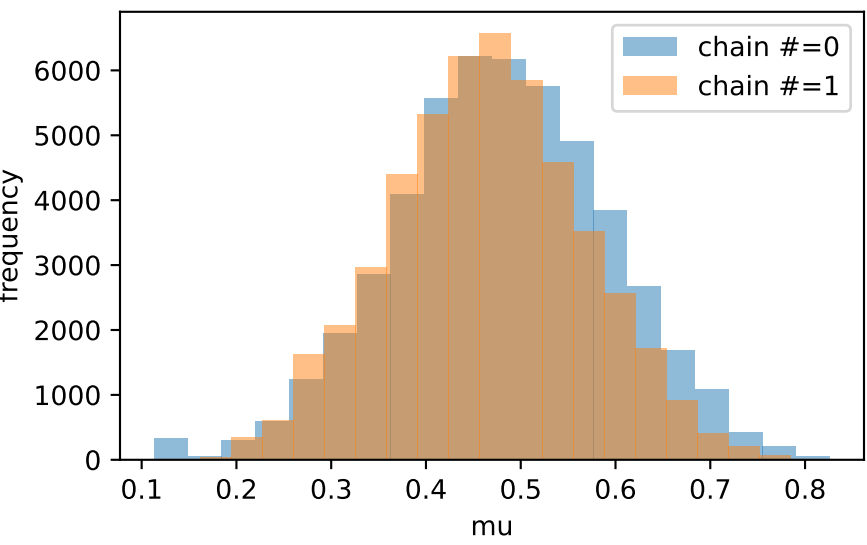

Baudoux32
H ml^{-1}
10^6
n=0
n=1
n=2
n=3
n=4
n=5
n=6
n=7
n=8
n=9
n=10
0.0
0.5
1.0
1.5
2.0
2.5
Time
V ml^{-1}
10^9
10^8
0.0
0.5
1.0
1.5
2.0
2.5
Time

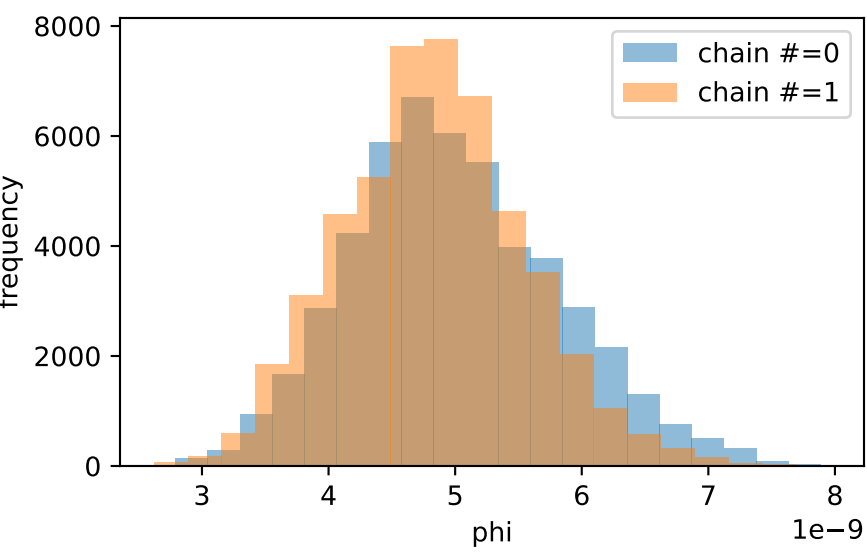
Baudoux32

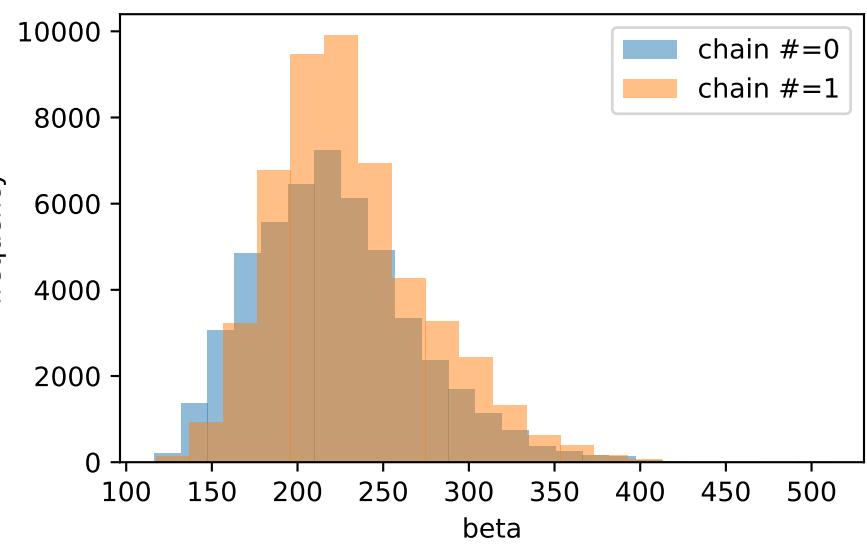

mu
1.5
1.0
0.5
0.0
zeroI
oneI
twoI
threeI
fourI
fiveI
sixI
sevenI
eightI
nineI
tenI
beta
1000
800
600
400
200
0
1e−6
phi
2.5
2.0
1.5
1.0
0.5
0.0

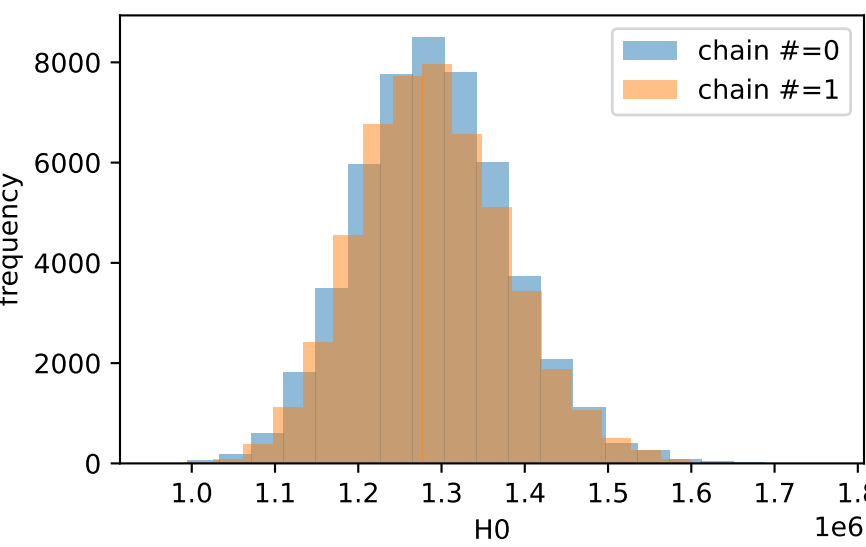

Baudoux32
Error sum of squares
50
45
40
35
30
25
0
2
4
6
8
10
Adjusted R squared
0.76
0.74
0.72
0.70
0
2
4
6
8
10
AIC
110
100
90
80
70
60
0
2
4
6
8
10
Number of infection states

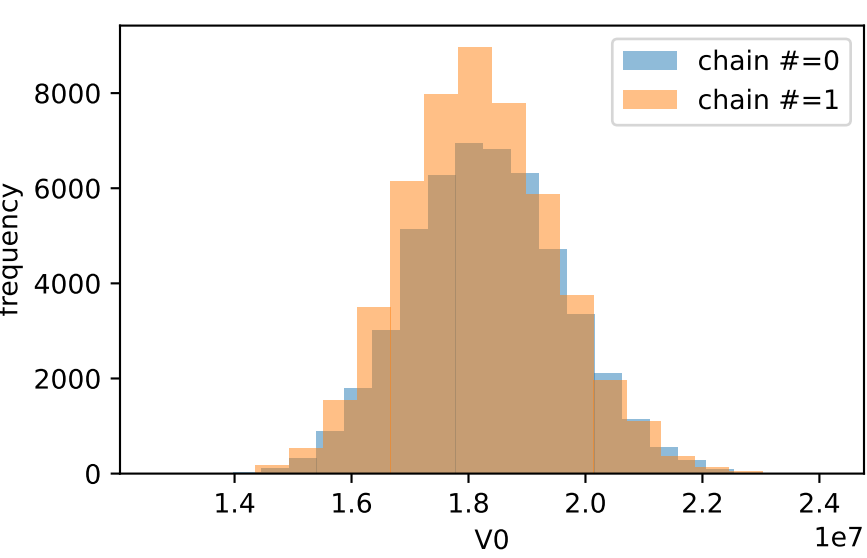
zero_i


chain #=0
chain #=1
frequency
6000
5000
4000
3000
2000
1000
0
0.1
0.2
0.3
0.4
0.5
0.6
0.7
0.8
mu

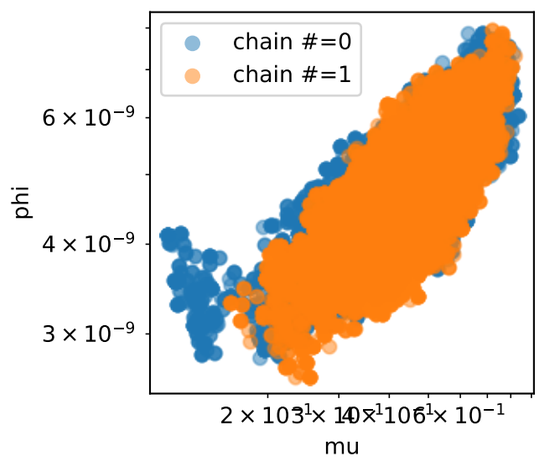

chain #=0
chain #=1
frequency
8000
6000
4000
2000
0
3
4
5
6
7
8
phi
1e−9

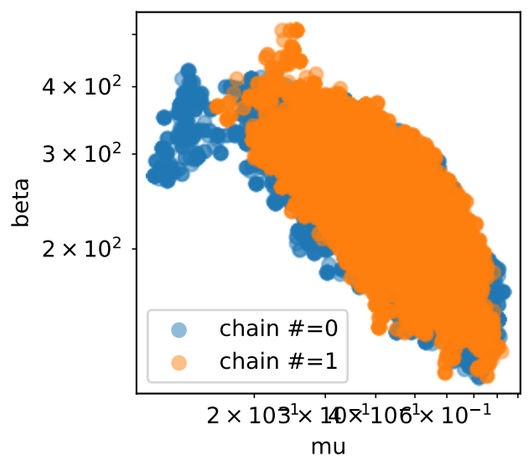

chain #=0
chain #=1
frequency
10000
8000
6000
4000
2000
0
100
150
200
250
300
350
400
450
500
beta

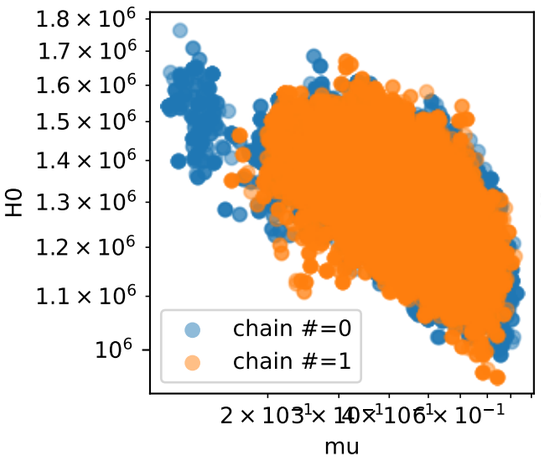

chain #=0
chain #=1
frequency
8000
6000
4000
2000
0
1.0
1.1
1.2
1.3
1.4
1.5
1.6
1.7
1.8
H0
1e6

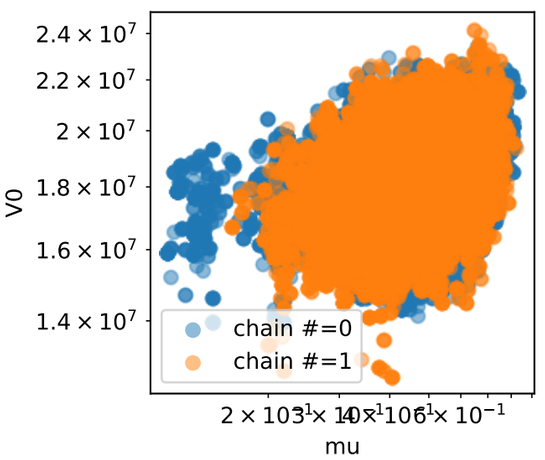

chain #=0
chain #=1
frequency
8000
6000
4000
2000
0
1.4
1.6
1.8
2.0
2.2
2.4
V0
1e7

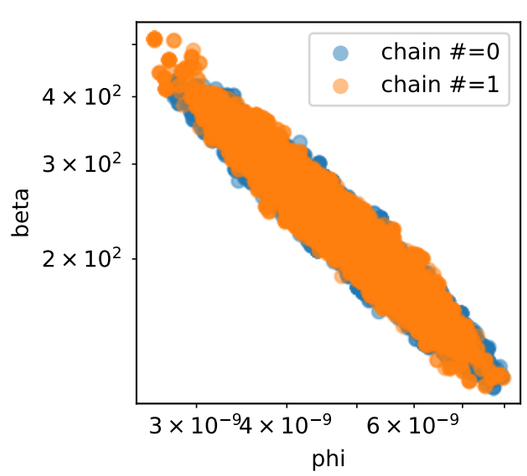
zero_i

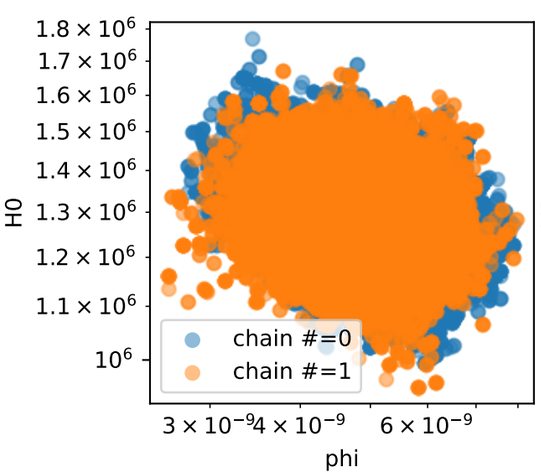

chain #=0
chain #=1
phi
mu

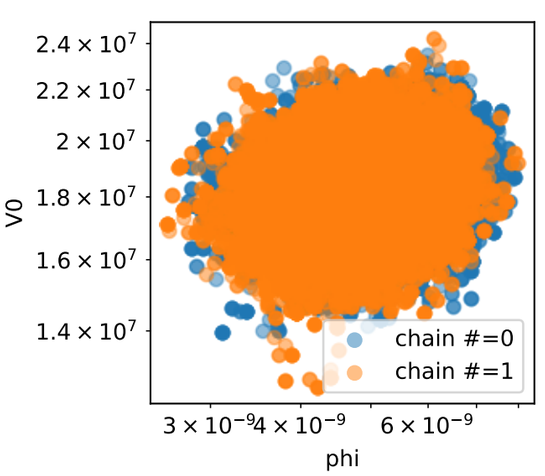

chain #=0
chain #=1
beta
mu

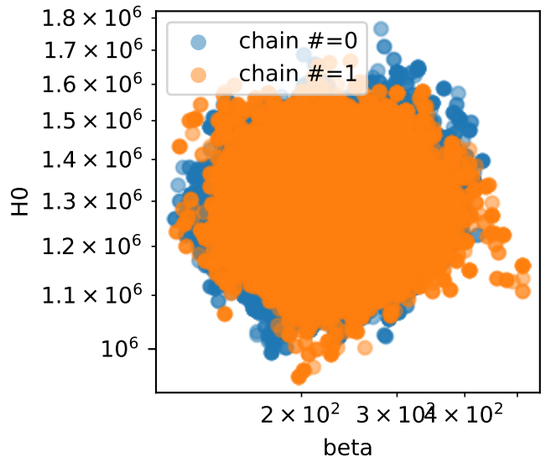

chain #=0
chain #=1
H0
mu

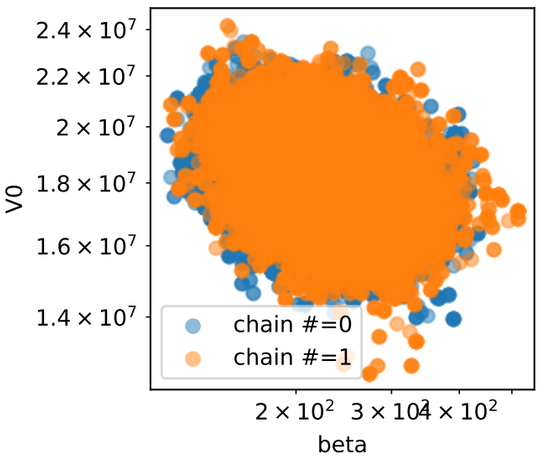

chain #=0
chain #=1
V0
mu

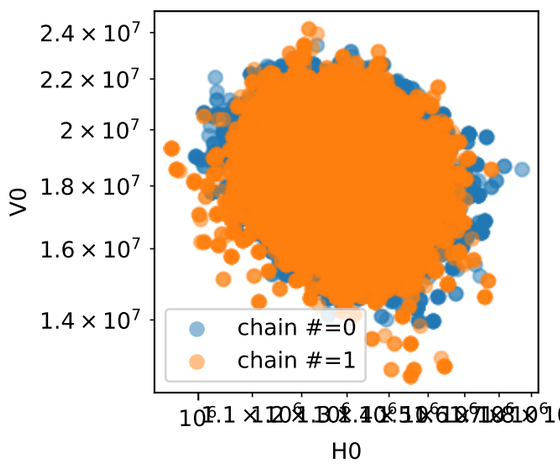

chain #=0
chain #=1
beta
phi

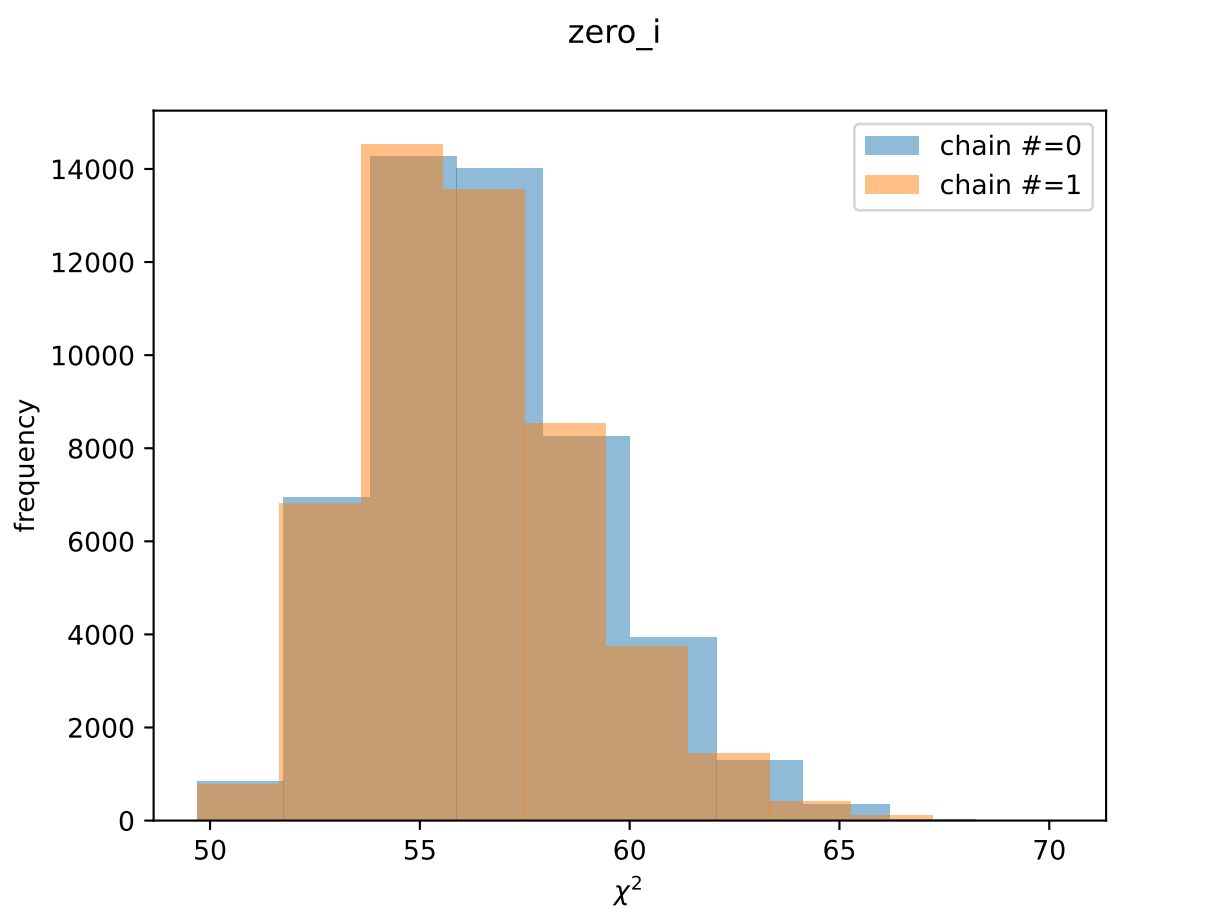

chain #=0
chain #=1
H0
phi

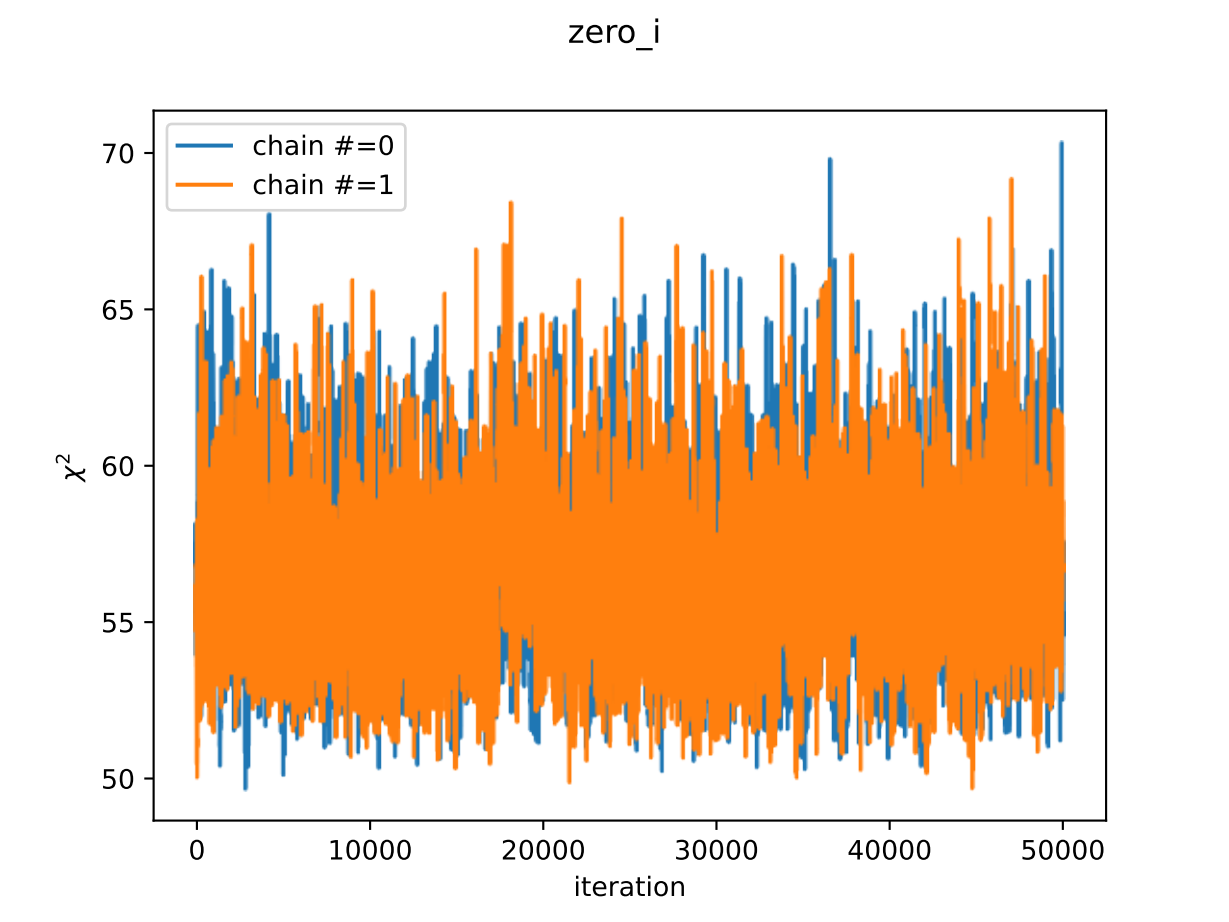

chain #=0
chain #=1
V0
phi


chain #=0
chain #=1
H0
beta

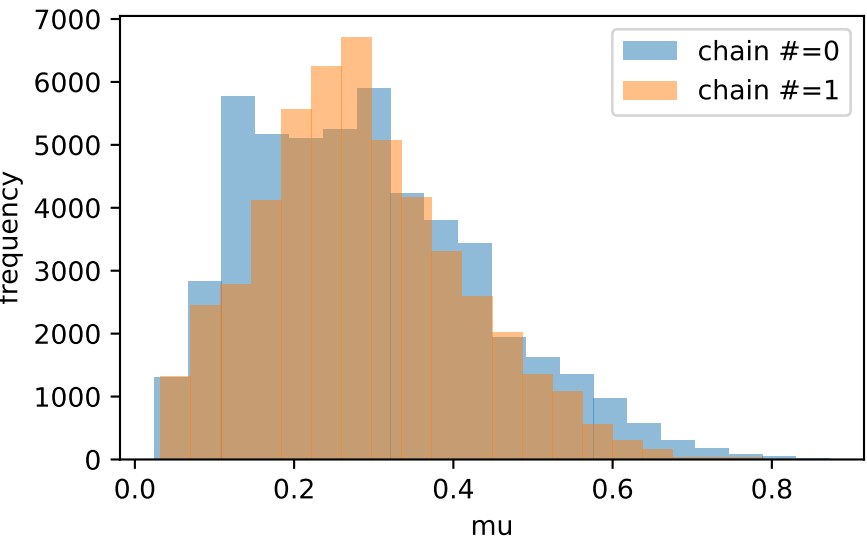

chain #=0
chain #=1
V0
beta

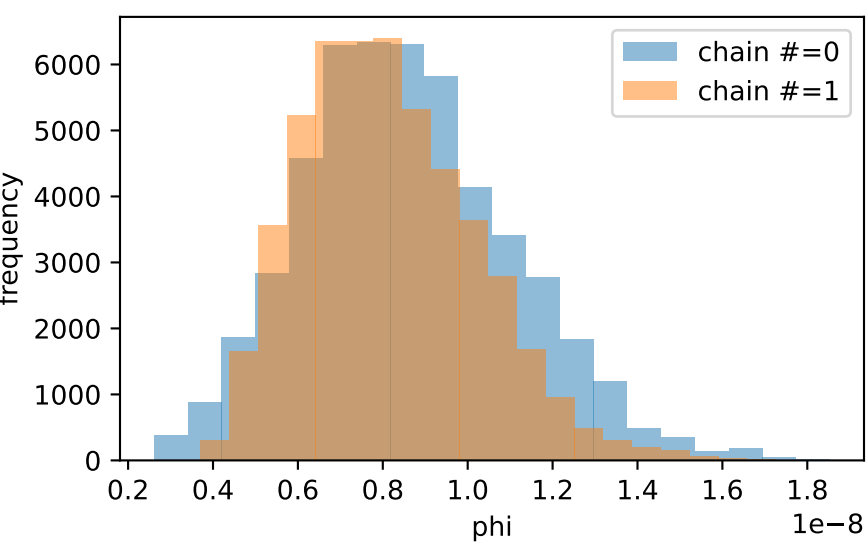

chain #=0
chain #=1
V0
H0

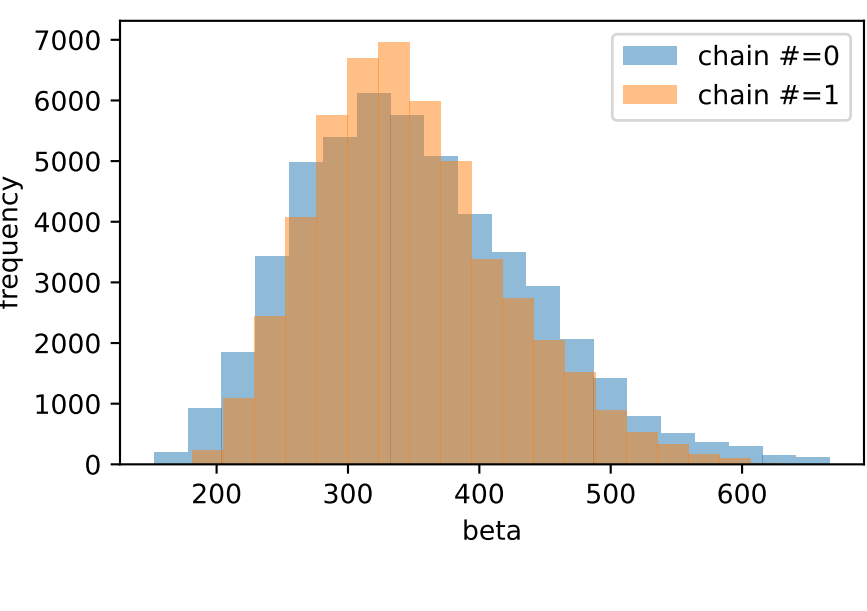

zero_i
chain #=0
chain #=1
frequency
0
2000
4000
6000
8000
10000
12000
14000
50
55
60
65
70
χ^2

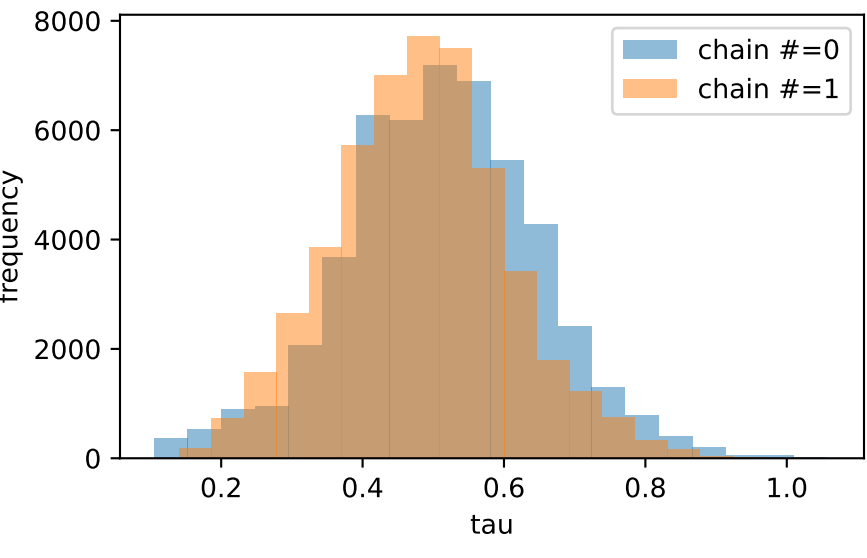

zero_i
chain #=0
chain #=1
70
65
60
55
50
χ^2
0
10000
20000
30000
40000
50000
iteration

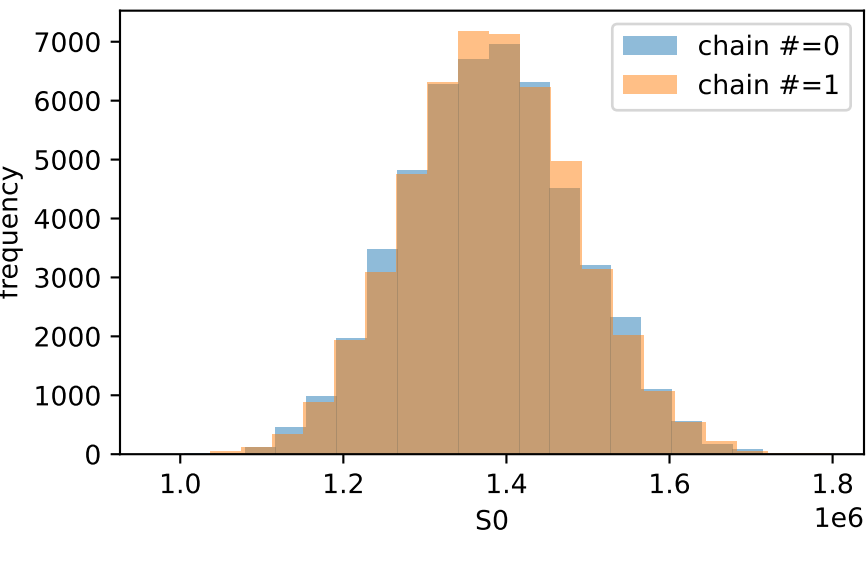
one_i

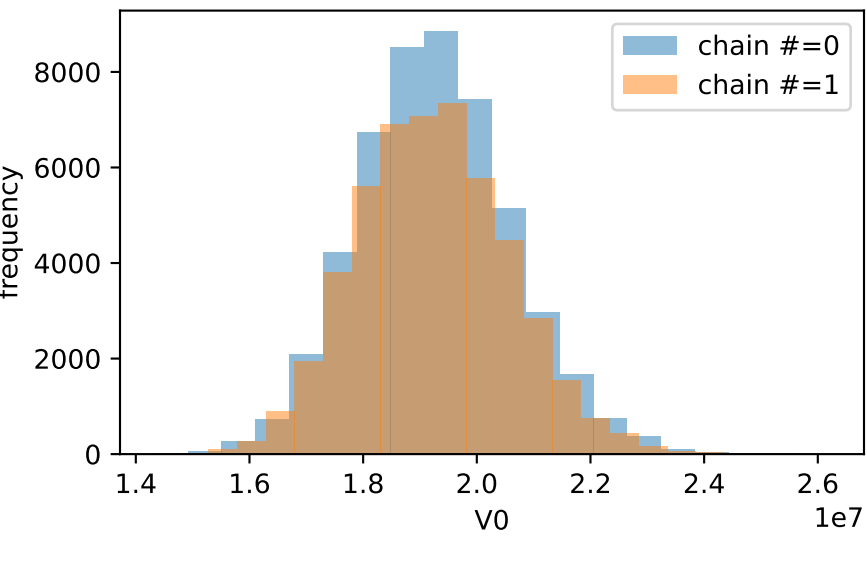

chain #=0
chain #=1
frequency
mu


chain #=0
chain #=1
frequency
phi
1e−8

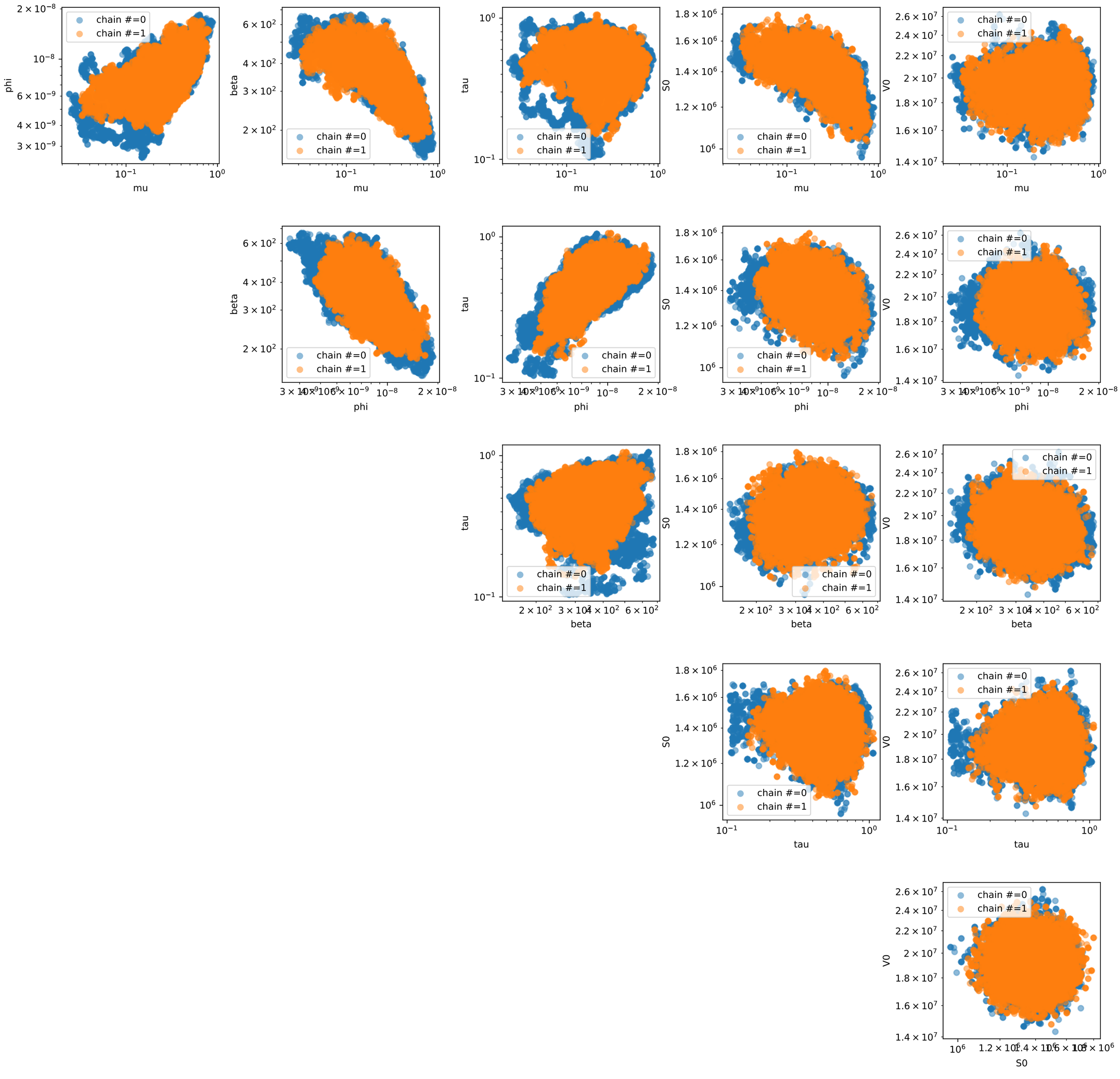

chain #=0
chain #=1
frequency
beta

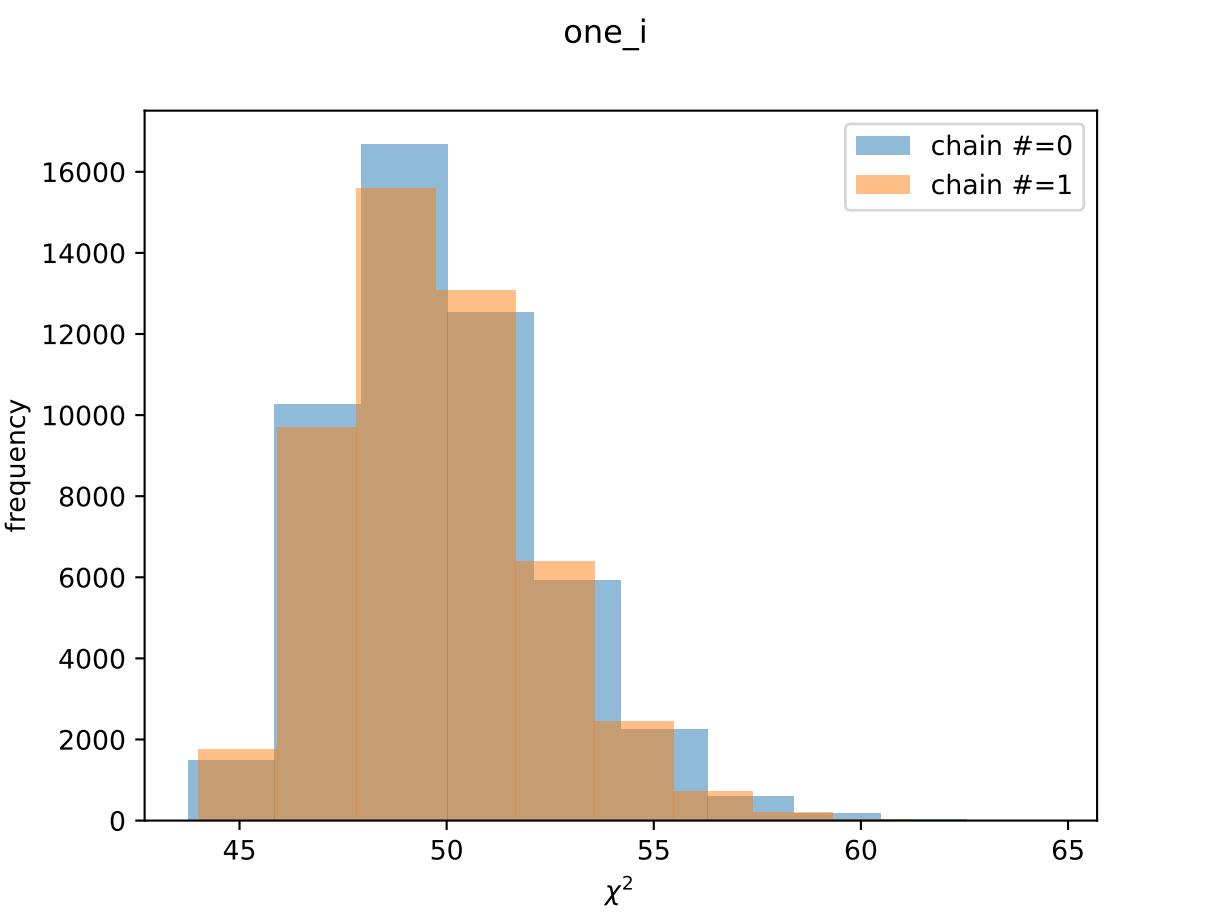

chain #=0
chain #=1
frequency
tau

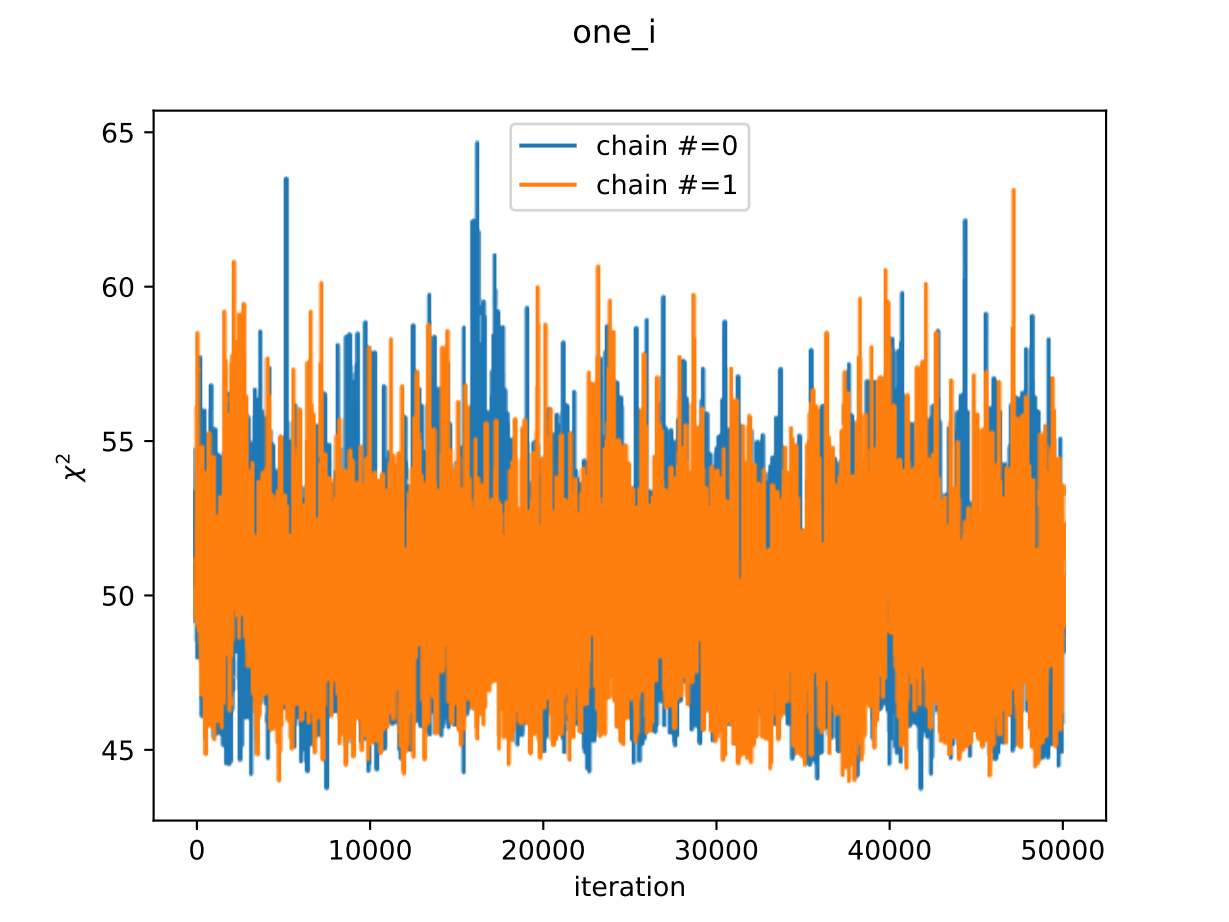

chain #=0
chain #=1
frequency
S0
1e6


chain #=0
chain #=1
frequency
V0
1e7

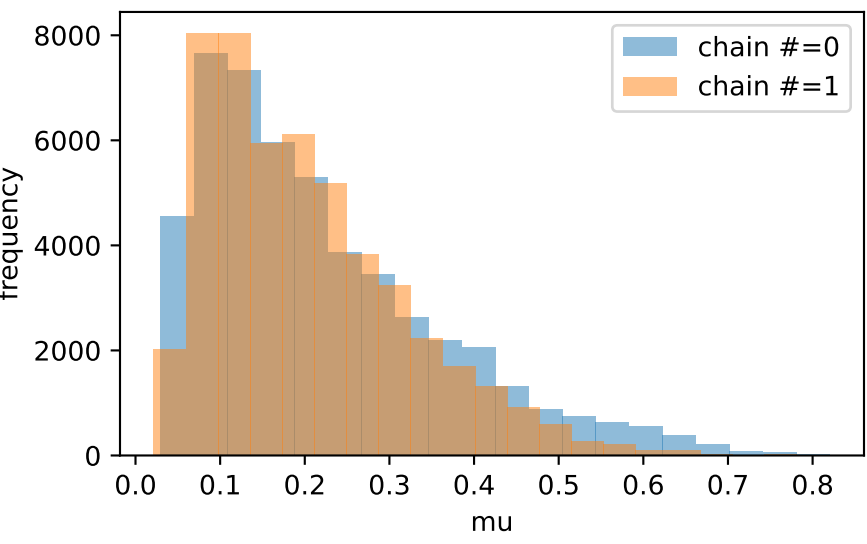
one_i

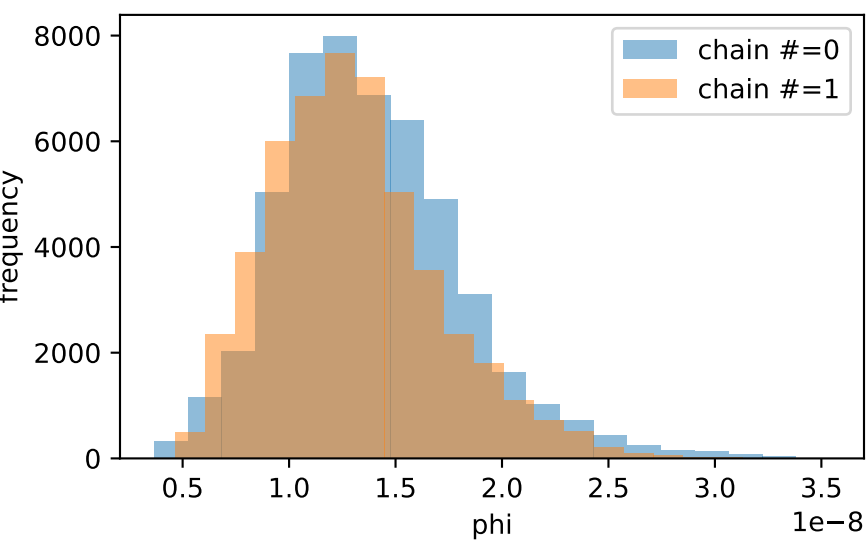


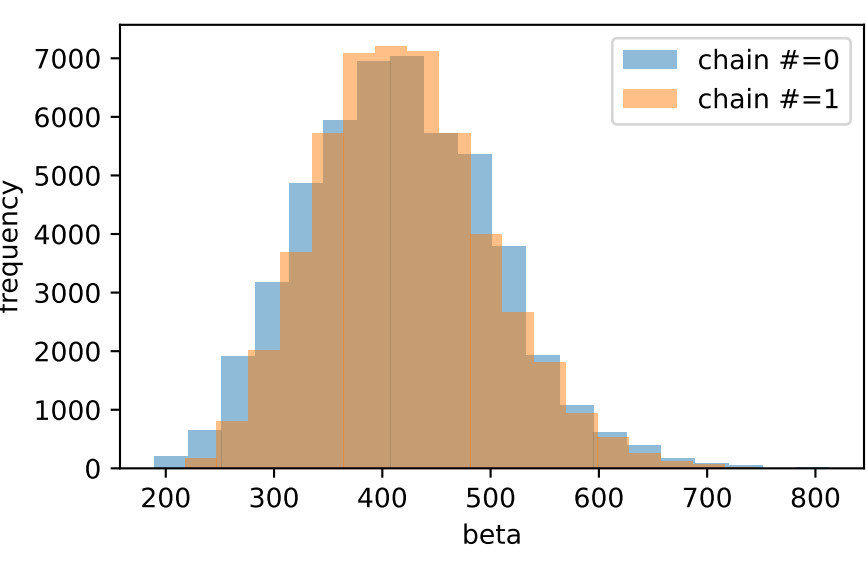

one_i
chain #=0
chain #=1
frequency
16000
14000
12000
10000
8000
6000
4000
2000
0
45
50
55
60
65
χ^2

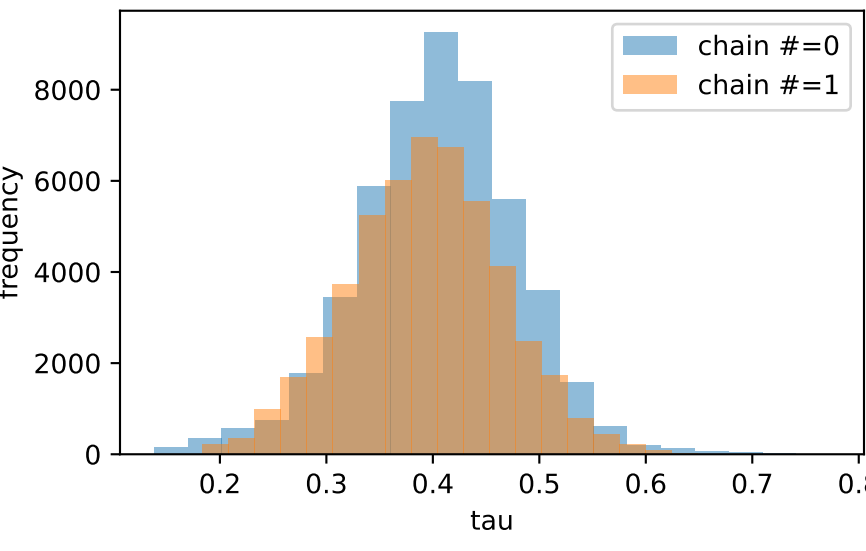

one_i
chain #=0
chain #=1
65
60
55
50
45
χ^2
0
10000
20000
30000
40000
50000
iteration

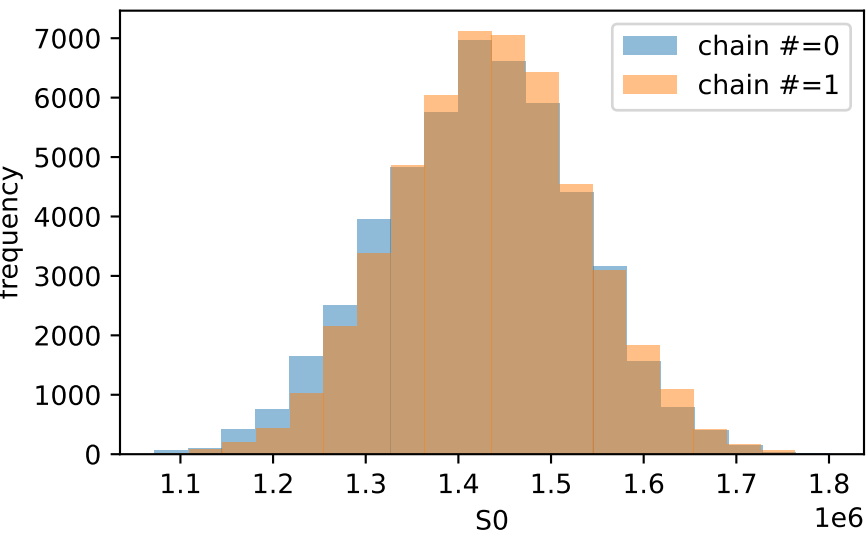
two_i

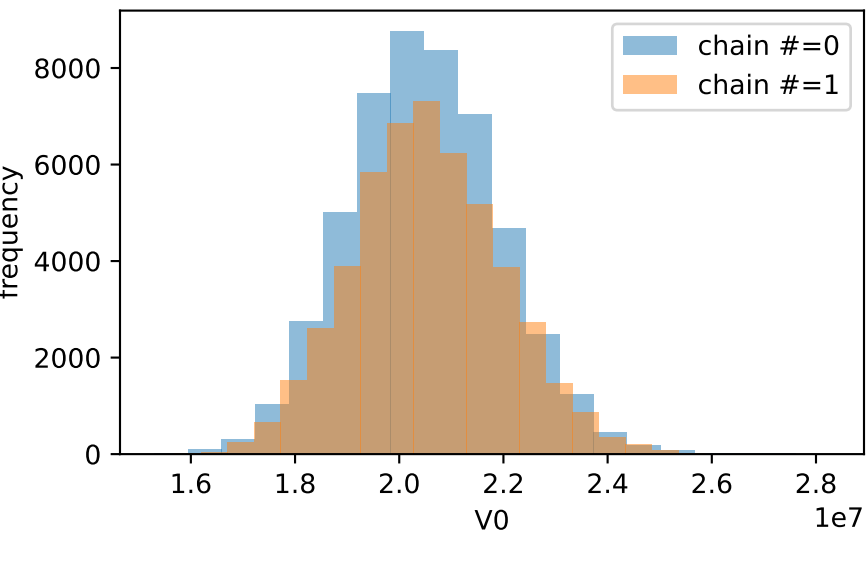

chain #=0
chain #=1
frequency
mu


chain #=0
chain #=1
frequency
phi
1e−8

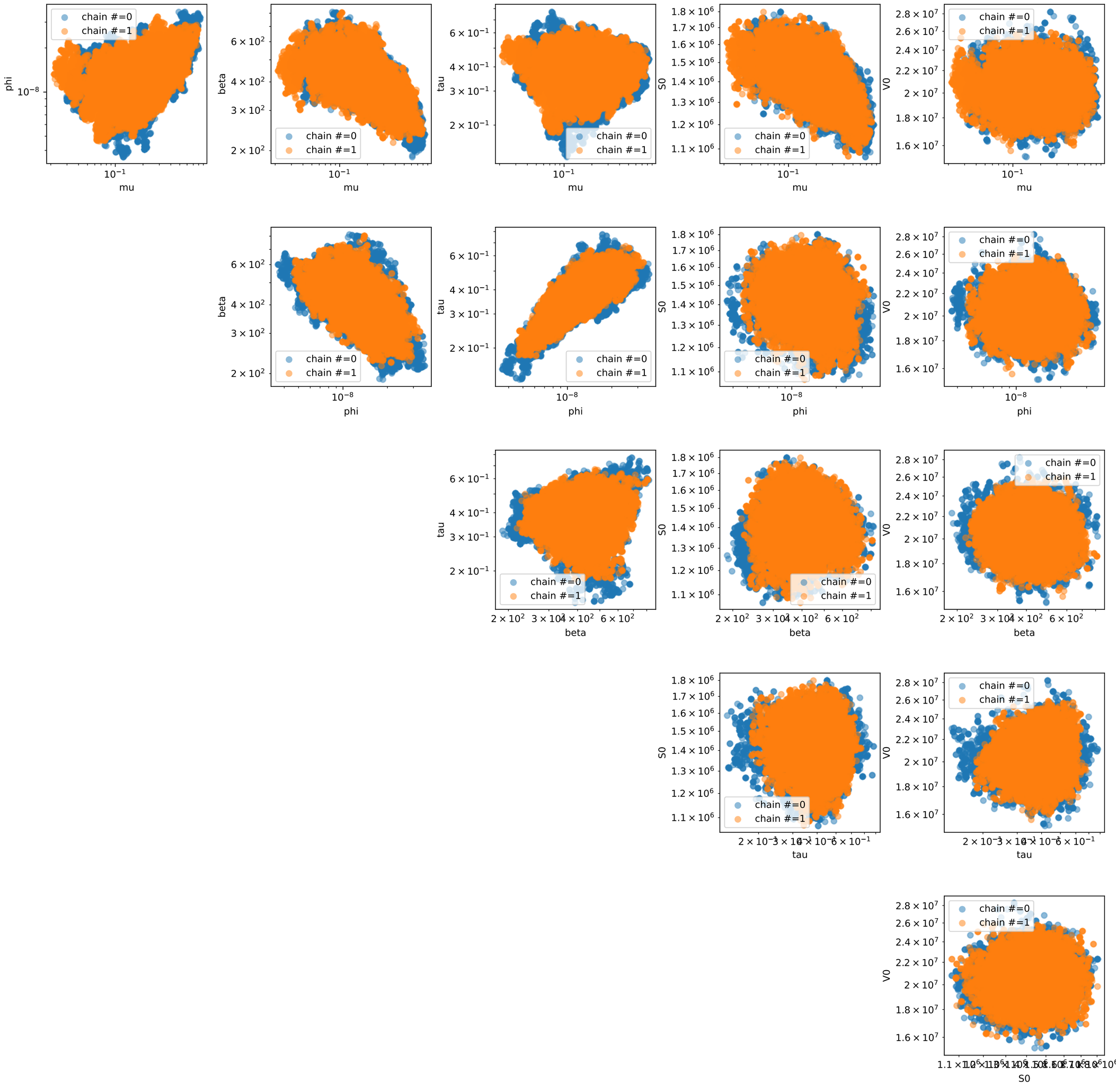

chain #=0
chain #=1
frequency
beta

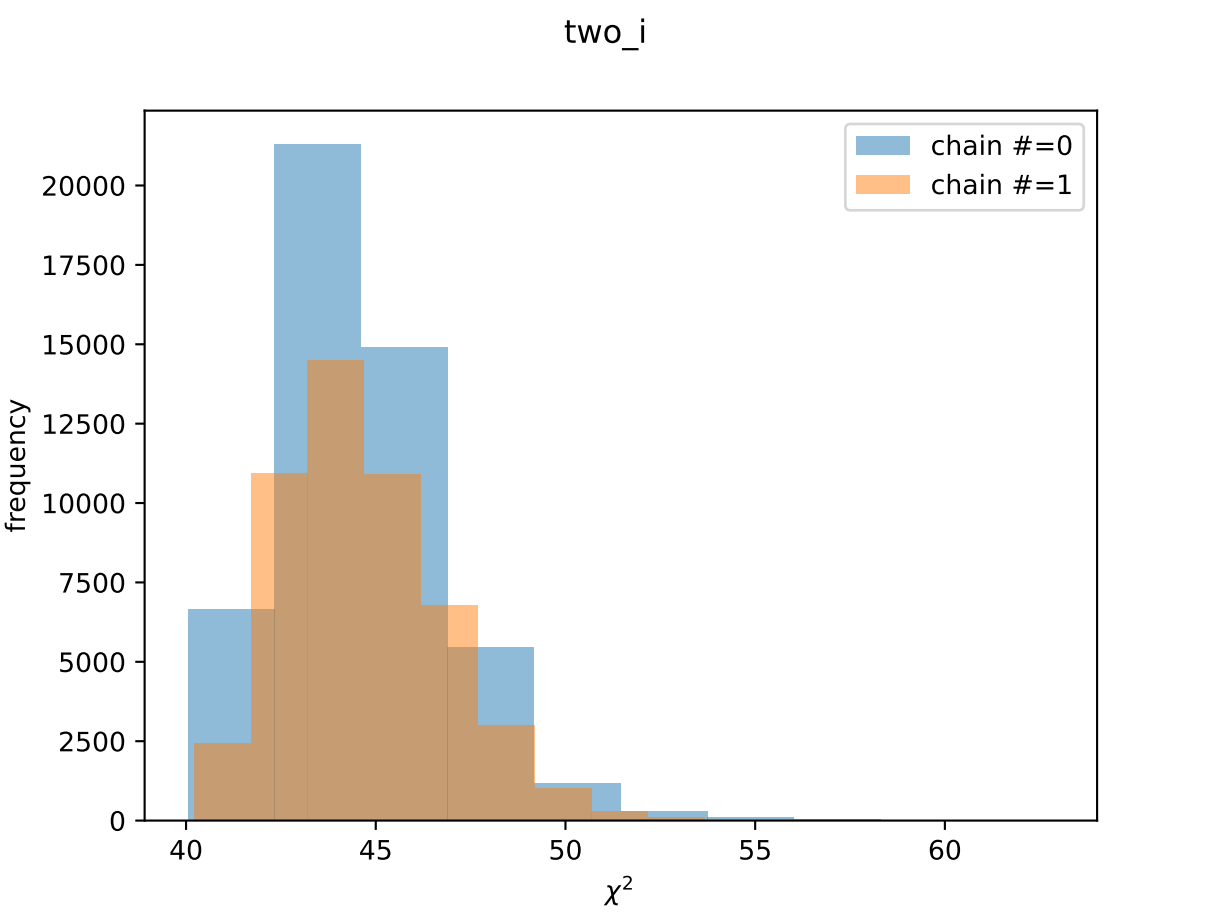

chain #=0
chain #=1
frequency
tau

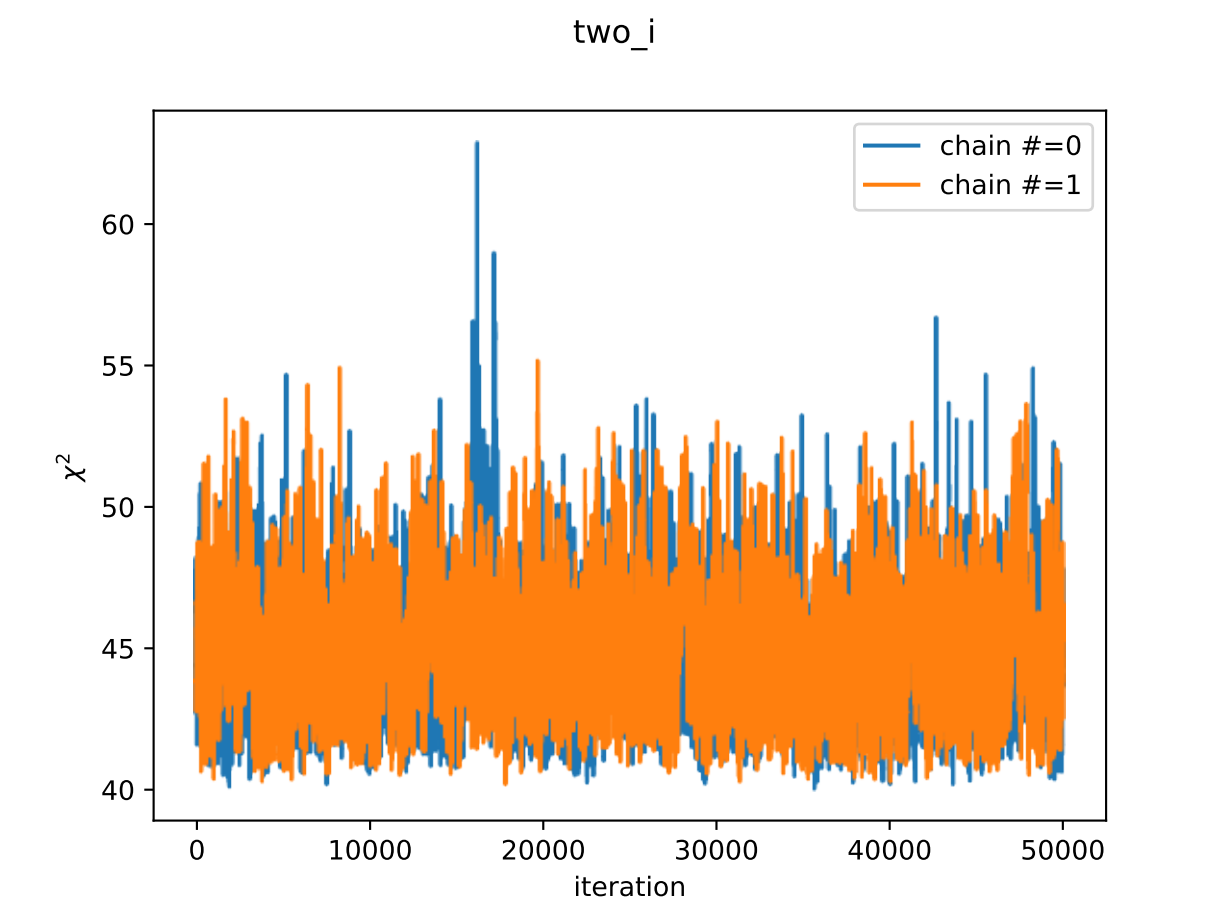

chain #=0
chain #=1
frequency
S0
1e6


chain #=0
chain #=1
frequency
V0
1e7

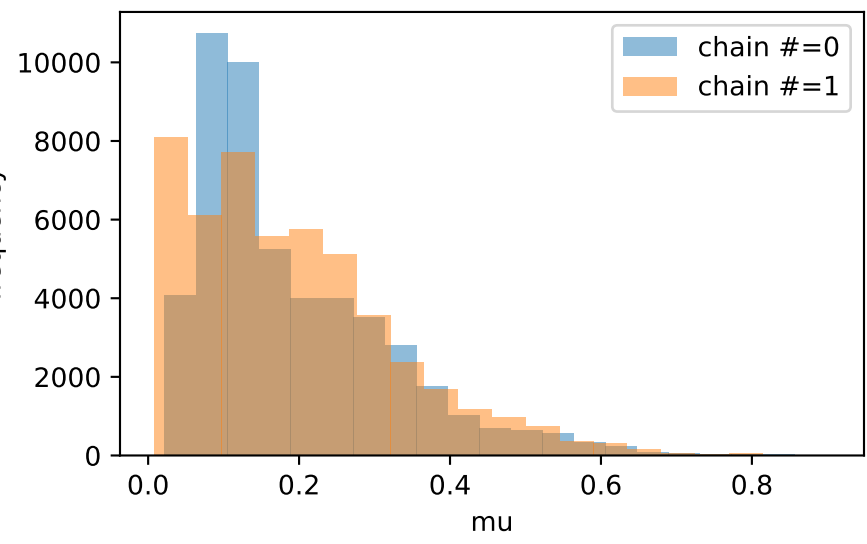
two_i

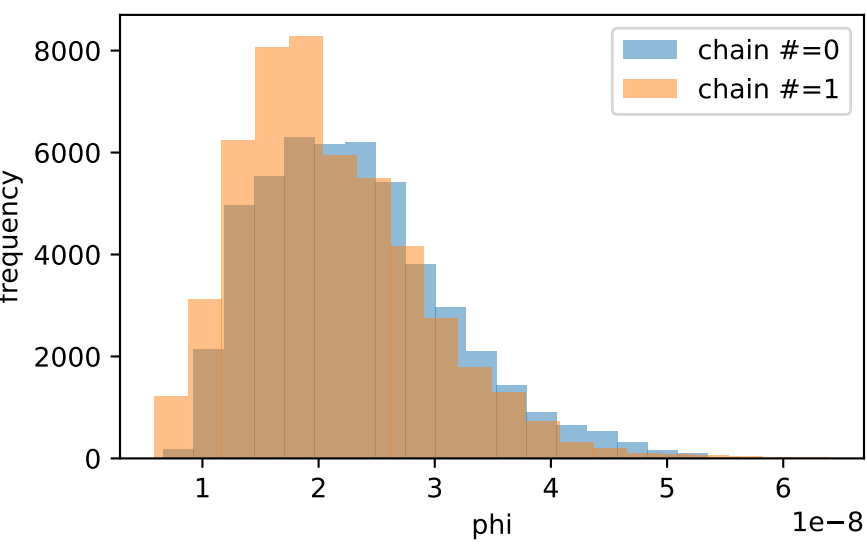


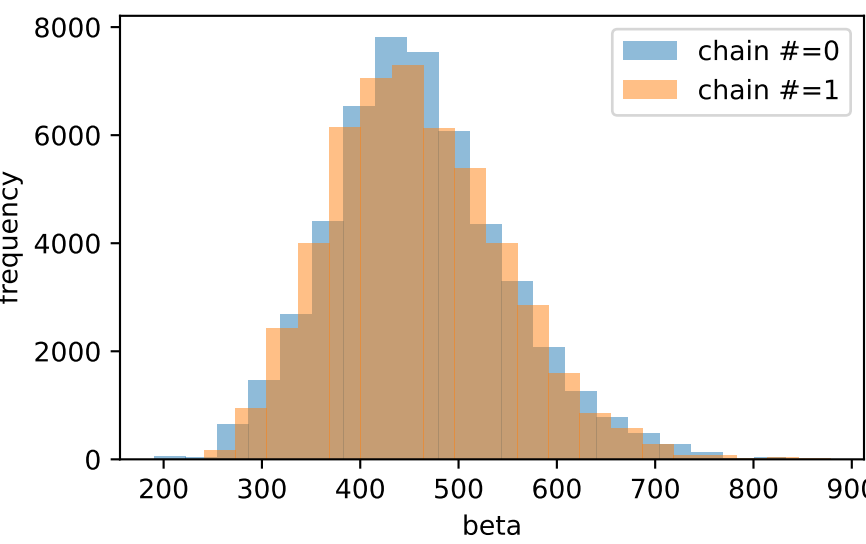

two_i
chain #=0
chain #=1
frequency
20000
17500
15000
12500
10000
7500
5000
2500
0
40
45
50
55
60
χ^2

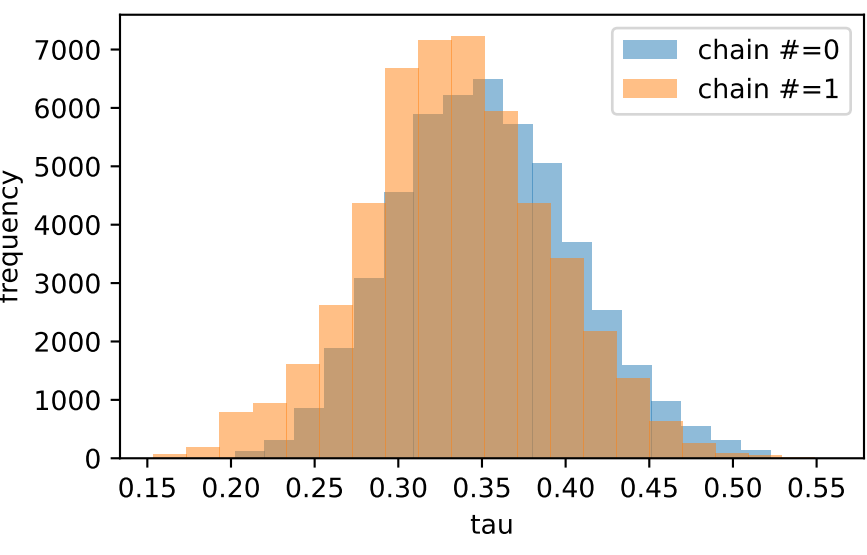

two_i
chain #=0
chain #=1
60
55
50
45
40
χ^2
0
10000
20000
30000
40000
50000
iteration

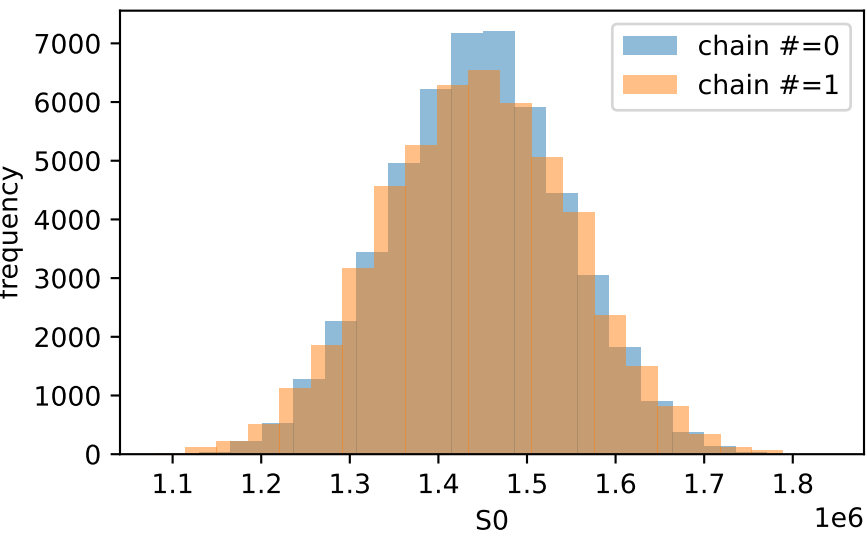
three_i

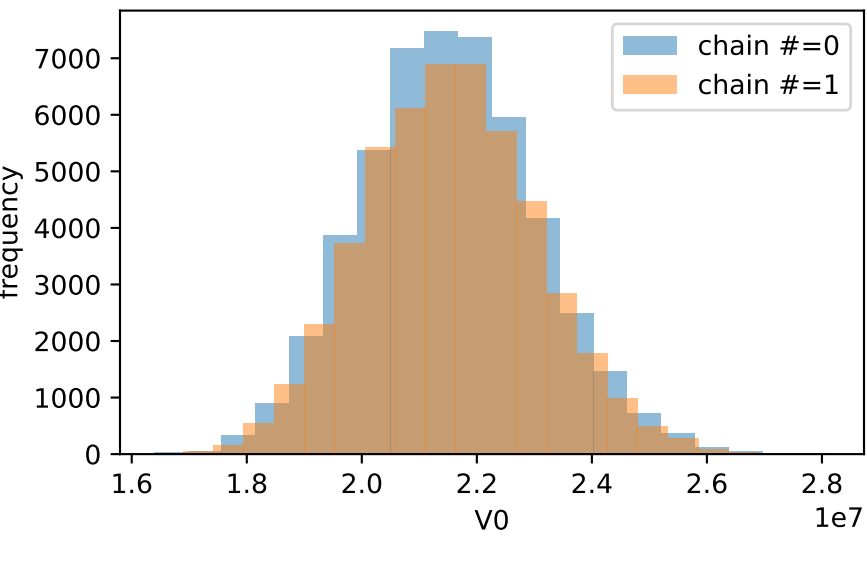

chain #=0
chain #=1
10000
8000
6000
4000
2000
0
0.0
0.2
0.4
0.6
0.8
mu


chain #=0
chain #=1
frequency
8000
6000
4000
2000
0
1
2
3
4
5
6
phi
1e−8

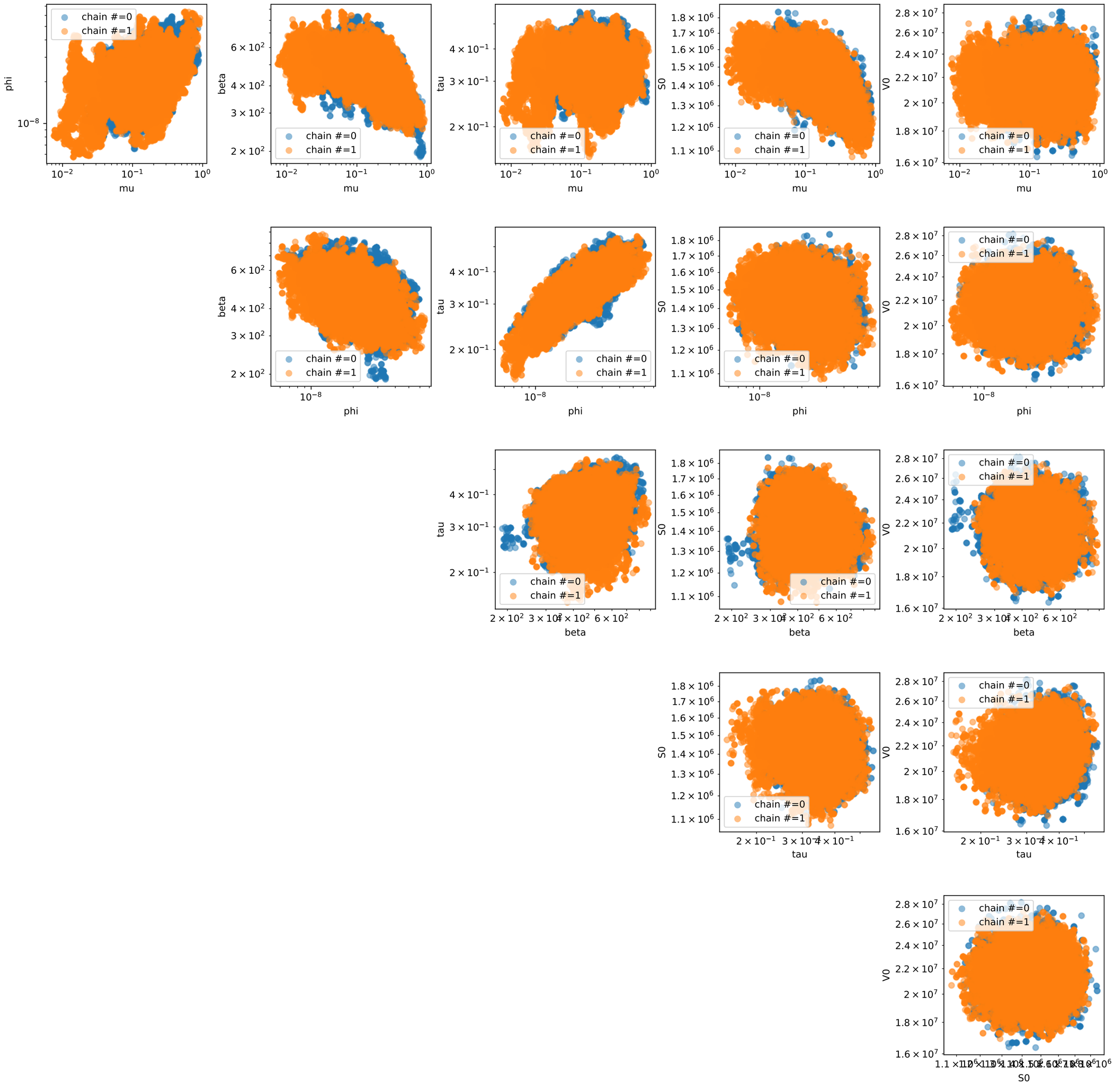

chain #=0
chain #=1
frequency
8000
6000
4000
2000
0
200
300
400
500
600
700
800
900
beta

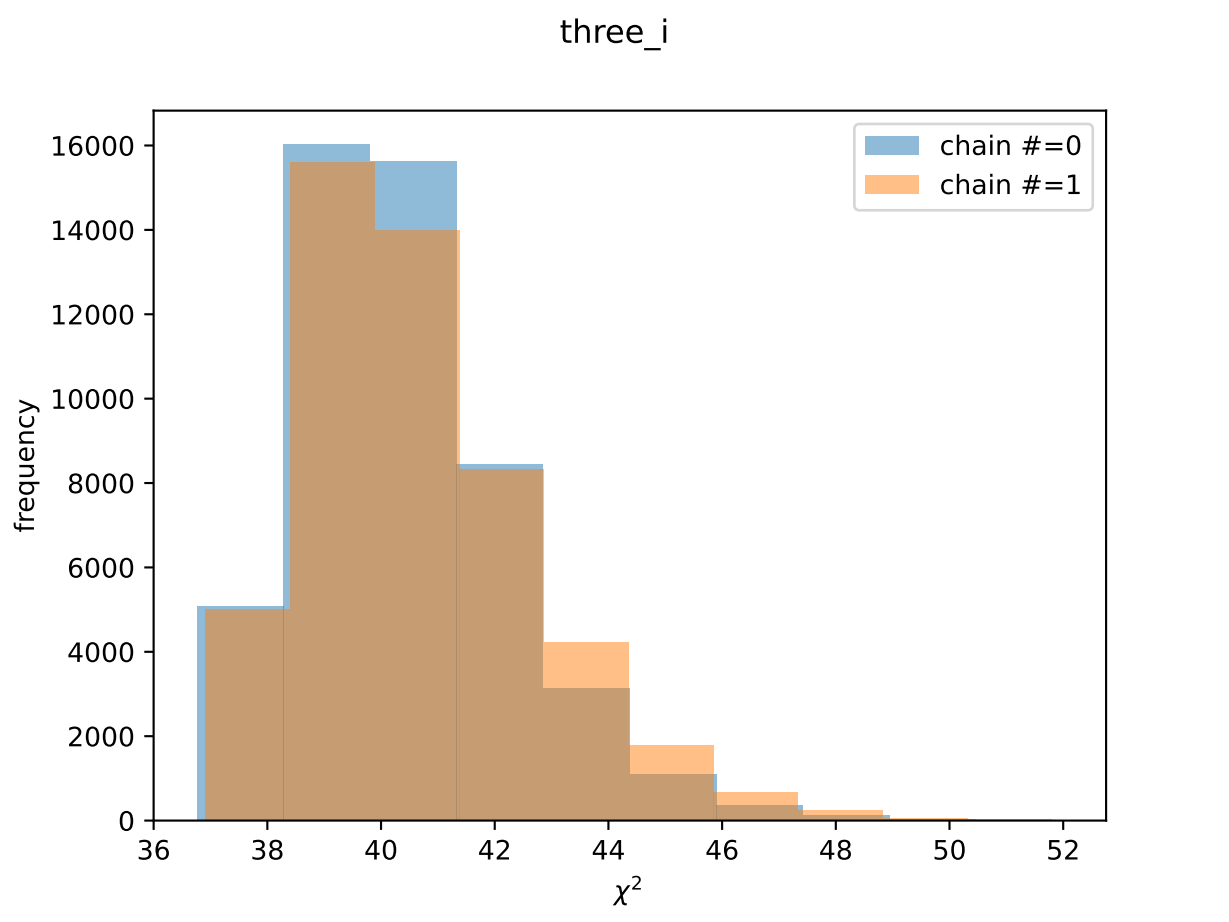

chain #=0
chain #=1
frequency
7000
6000
5000
4000
3000
2000
1000
0
0.15
0.20
0.25
0.30
0.35
0.40
0.45
0.50
0.55
tau

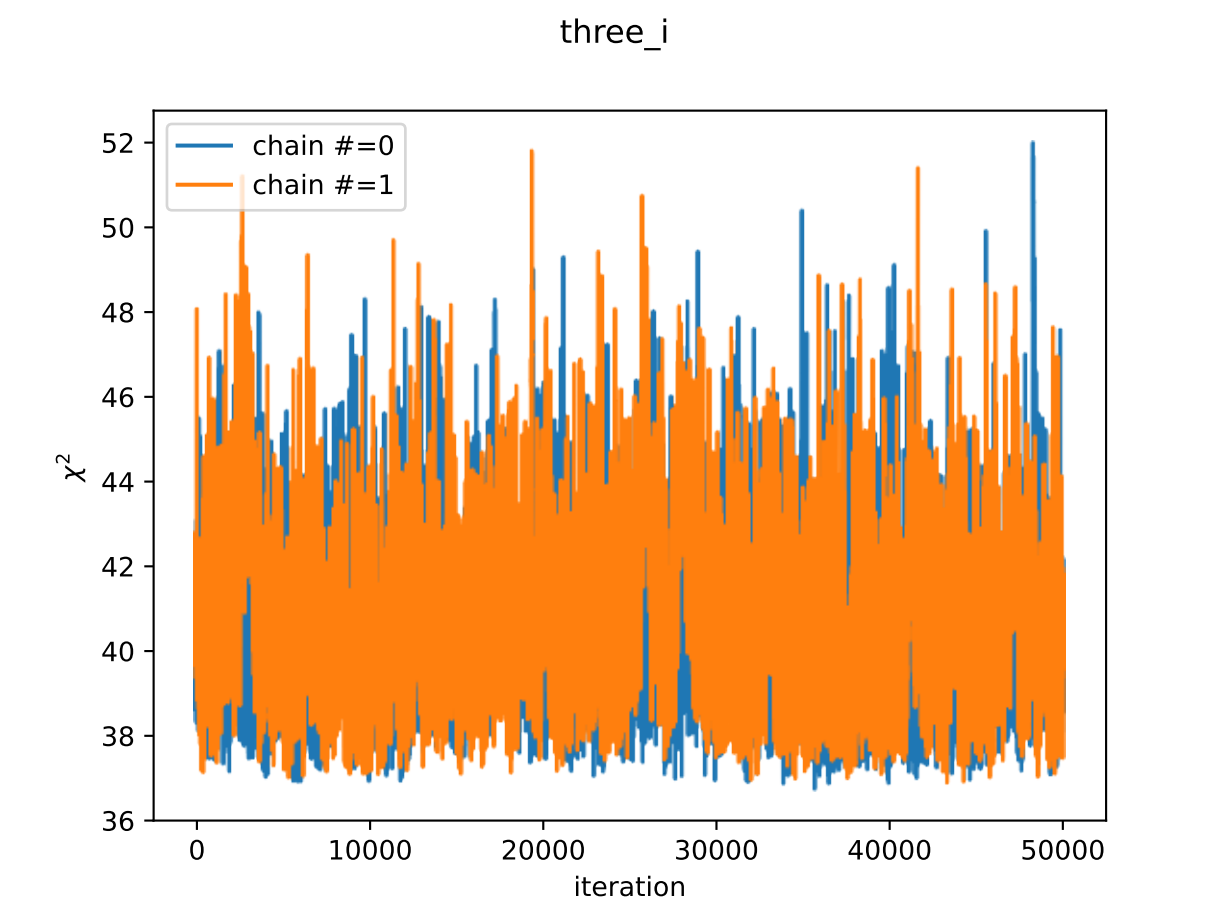

chain #=0
chain #=1
frequency
7000
6000
5000
4000
3000
2000
1000
0
1.1
1.2
1.3
1.4
1.5
1.6
1.7
1.8
S0
1e6


chain #=0
chain #=1
frequency
7000
6000
5000
4000
3000
2000
1000
0
1.6
1.8
2.0
2.2
2.4
2.6
2.8
V0
1e7

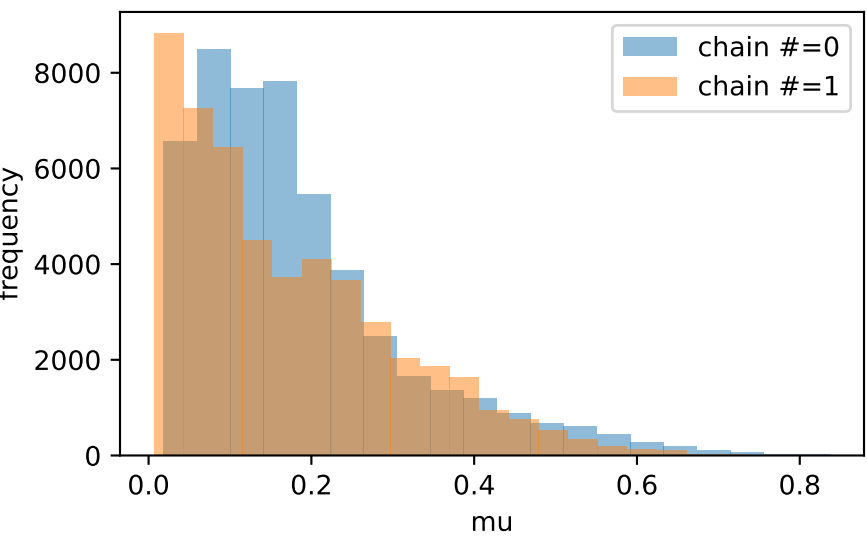
three_i

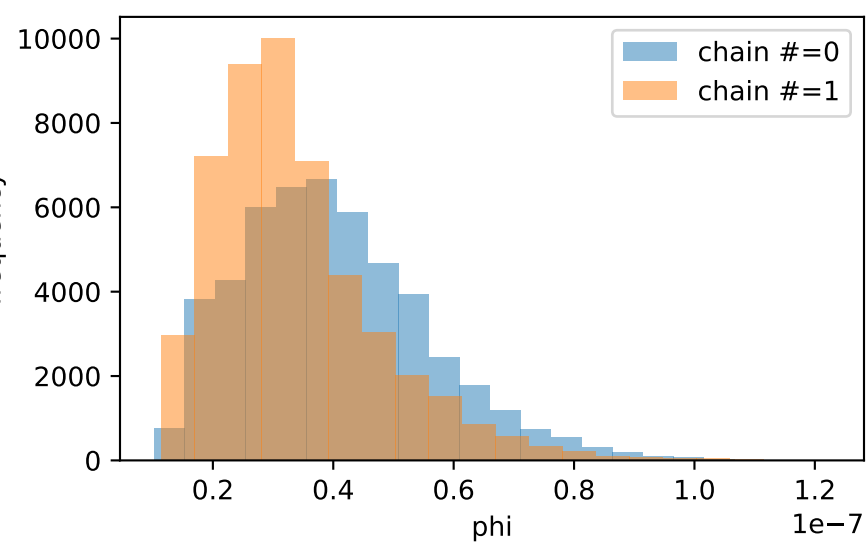


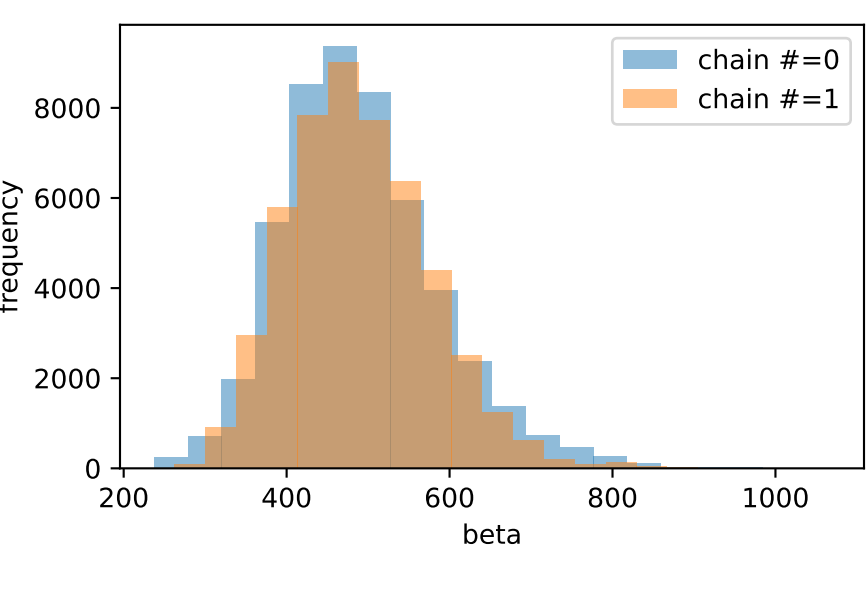

three_i
chain #=0
chain #=1
frequency
16000
14000
12000
10000
8000
6000
4000
2000
0
36
38
40
42
44
46
48
50
52
χ^2

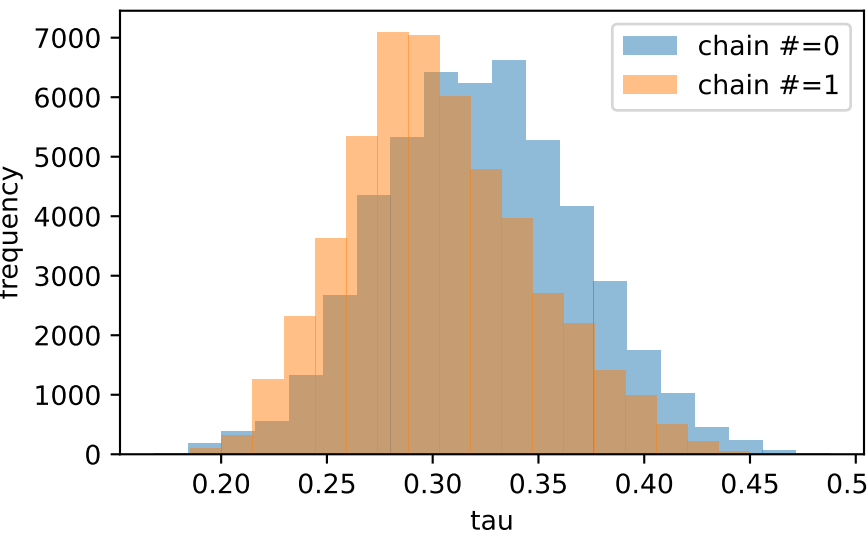

three_i
chain #=0
chain #=1
52
50
48
46
44
42
40
38
36
χ^2
0
10000
20000
30000
40000
50000
iteration

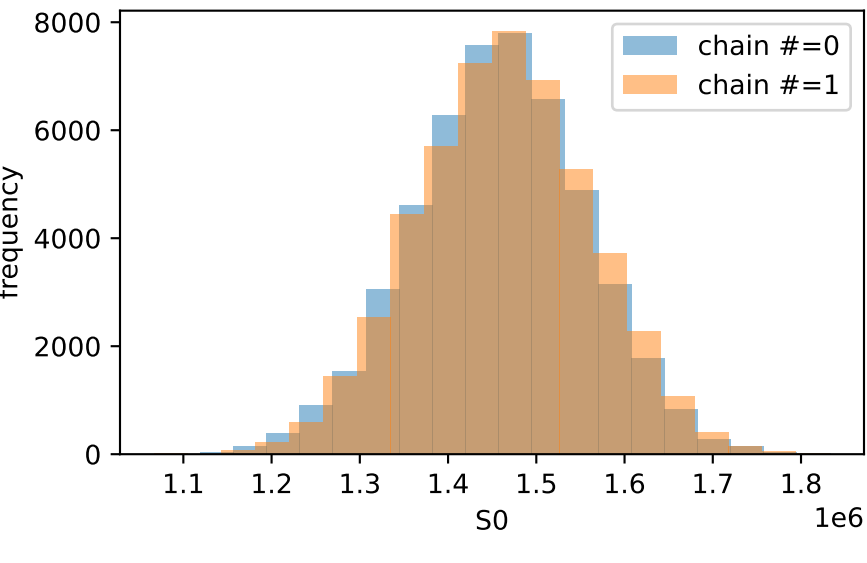
four_i

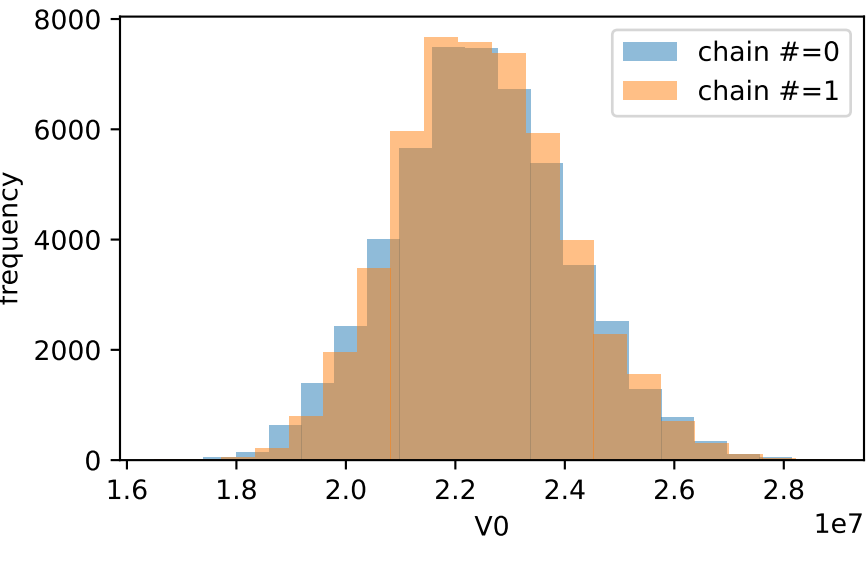

chain #=0
chain #=1
frequency
mu


chain #=0
chain #=1
phi
1e−7

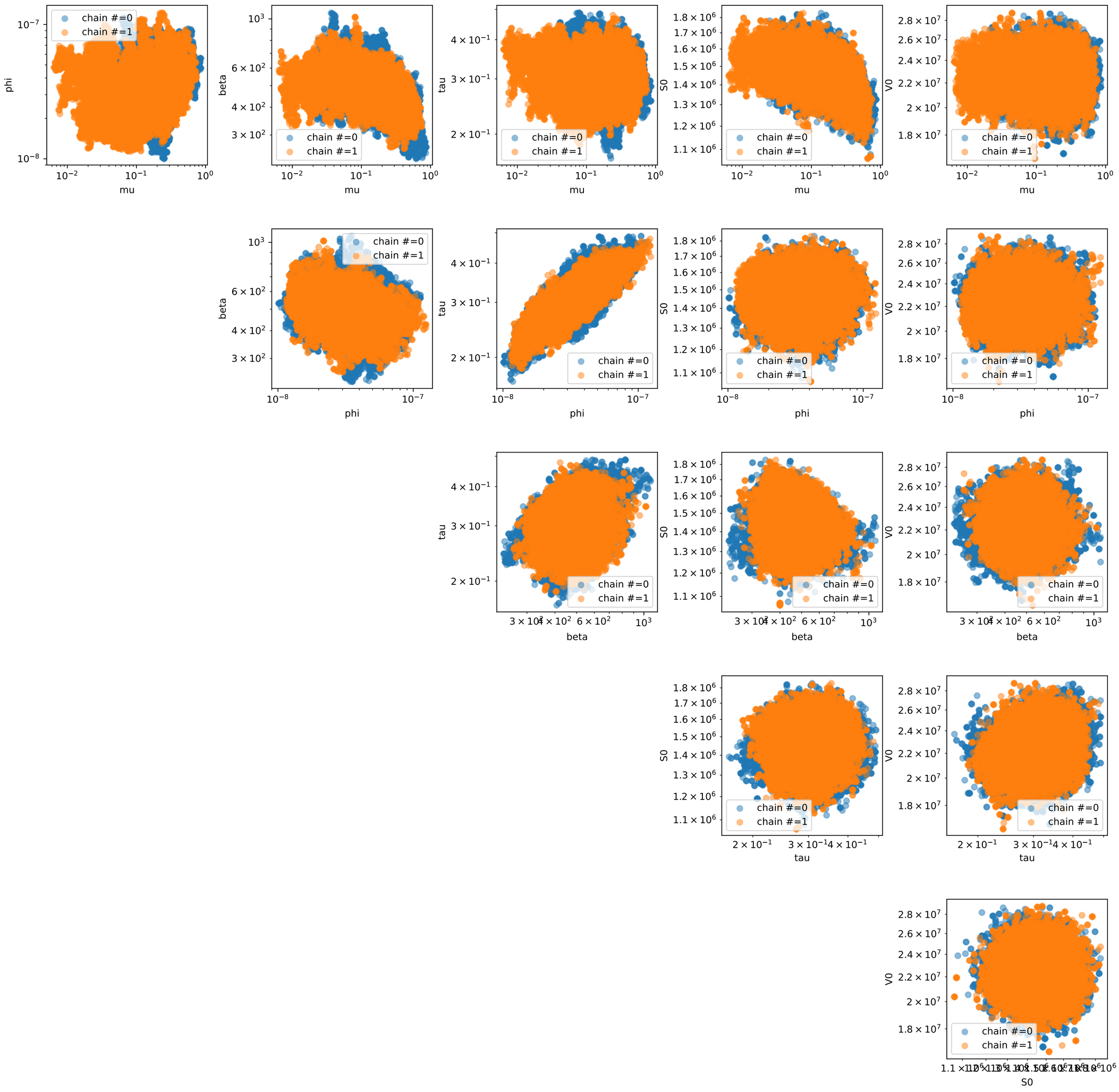

chain #=0
chain #=1
frequency
beta

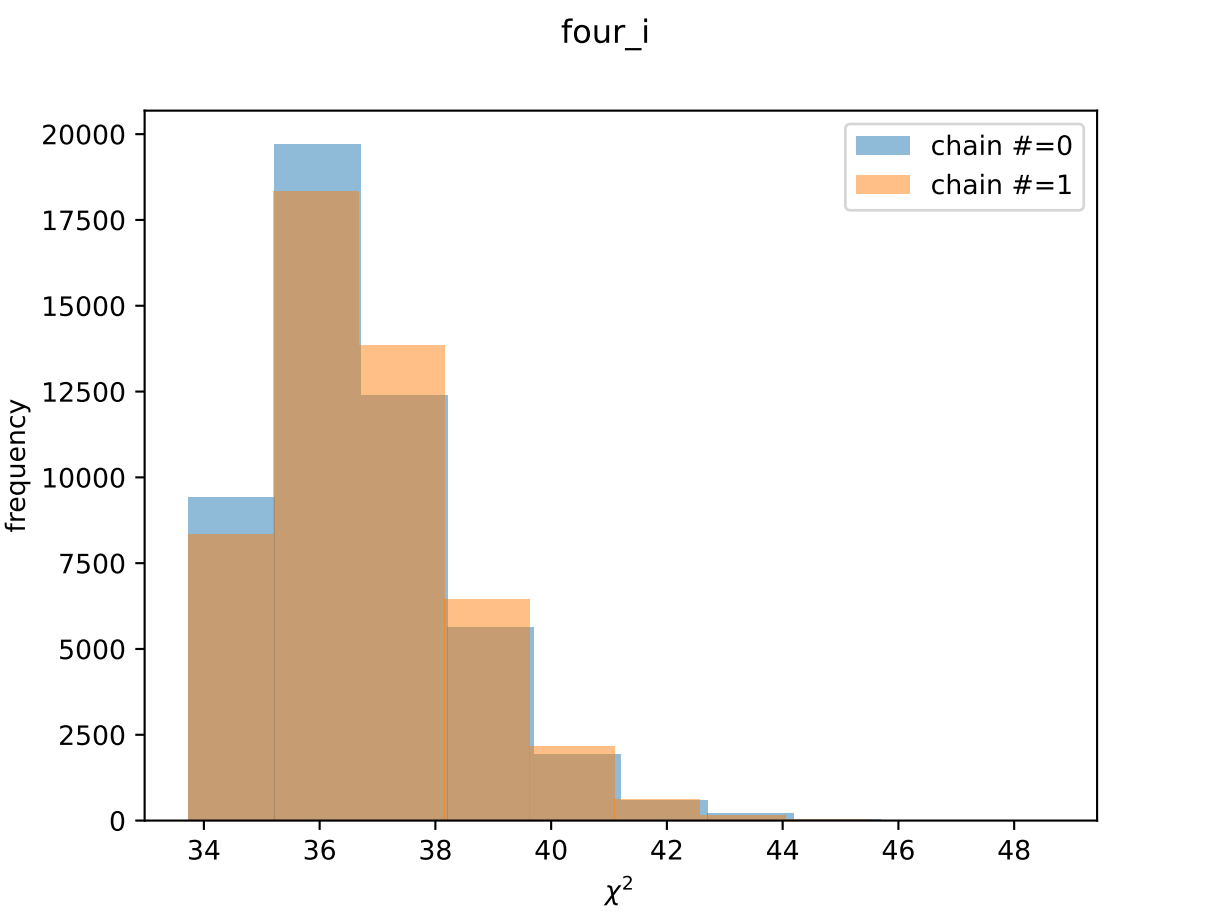

chain #=0
chain #=1
frequency
tau

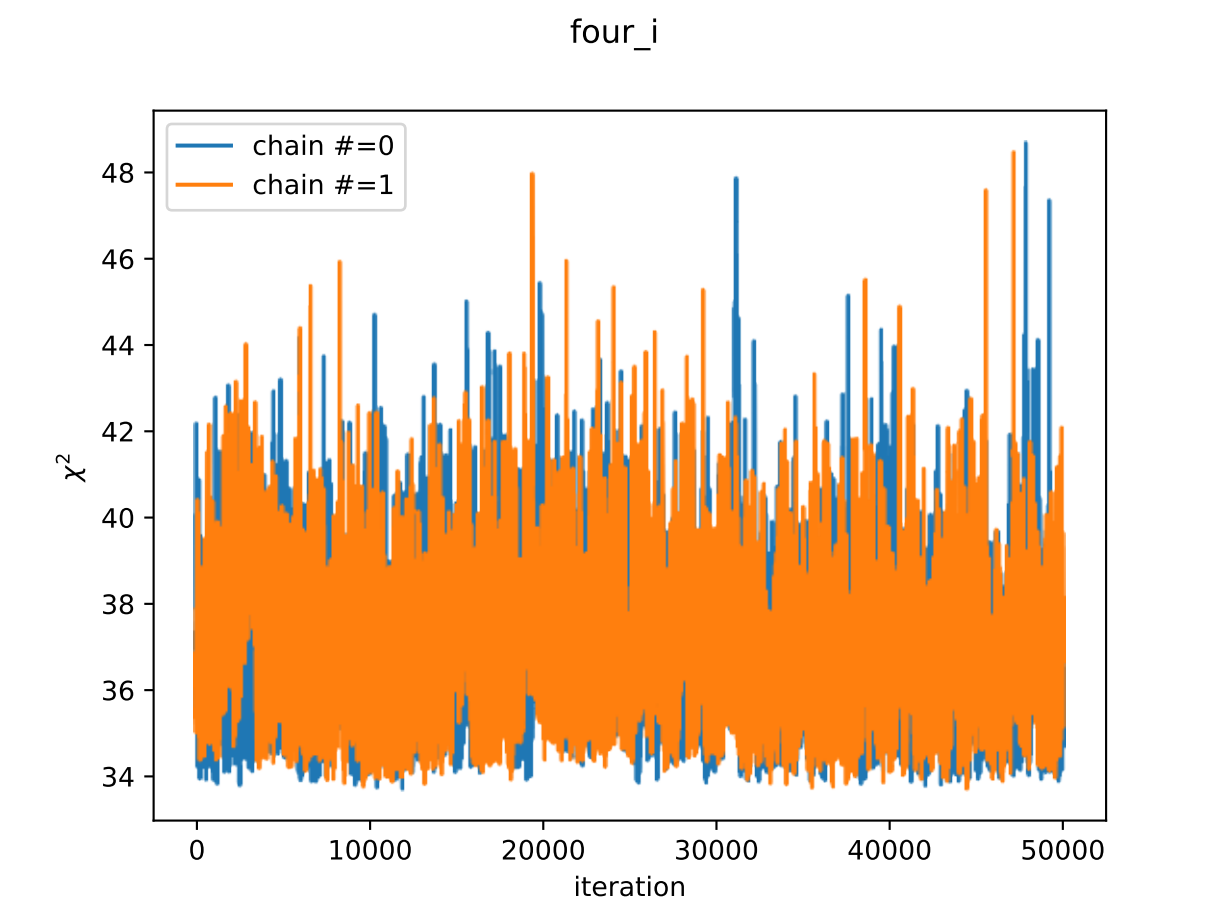

chain #=0
chain #=1
frequency
S0
1e6


chain #=0
chain #=1
frequency
V0
1e7

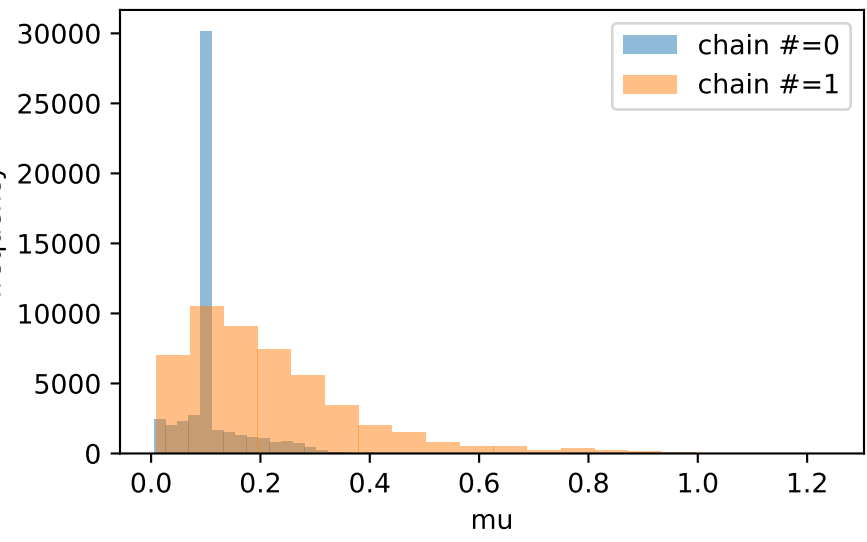
four_i

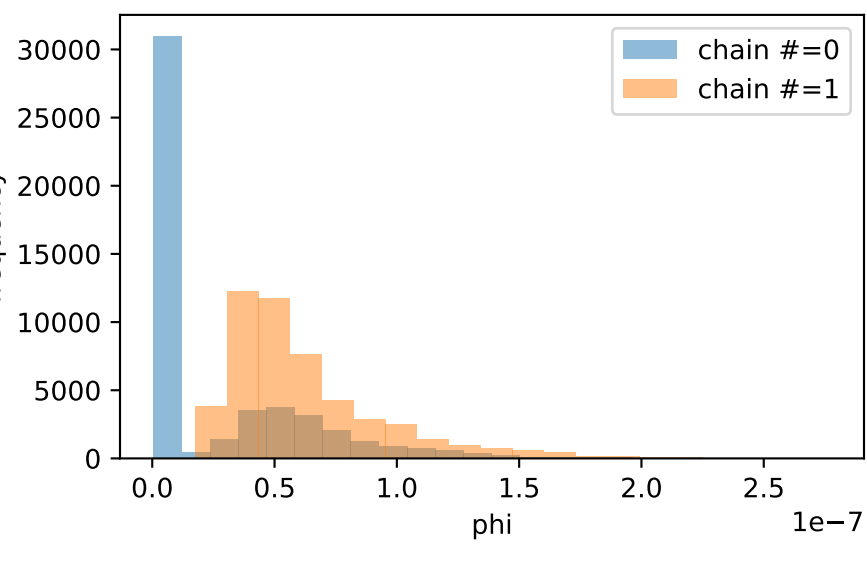


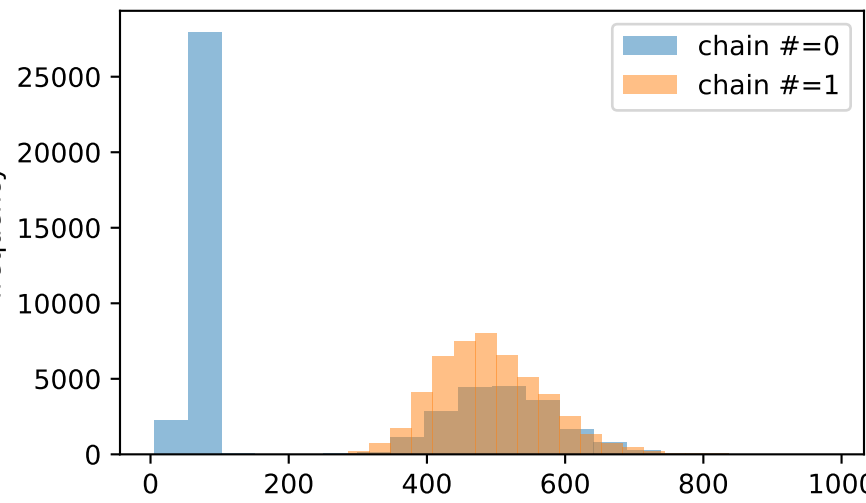

four_i
chain #=0
chain #=1
frequency
20000
17500
15000
12500
10000
7500
5000
2500
0
34
36
38
40
42
44
46
48
χ^2

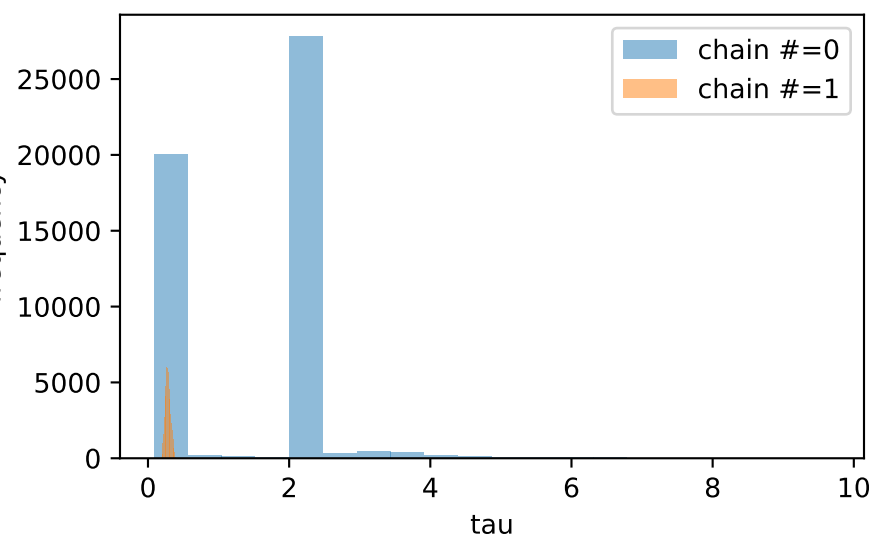

four_i
chain #=0
chain #=1
48
46
44
42
40
38
36
34
χ^2
0
10000
20000
30000
40000
50000
iteration

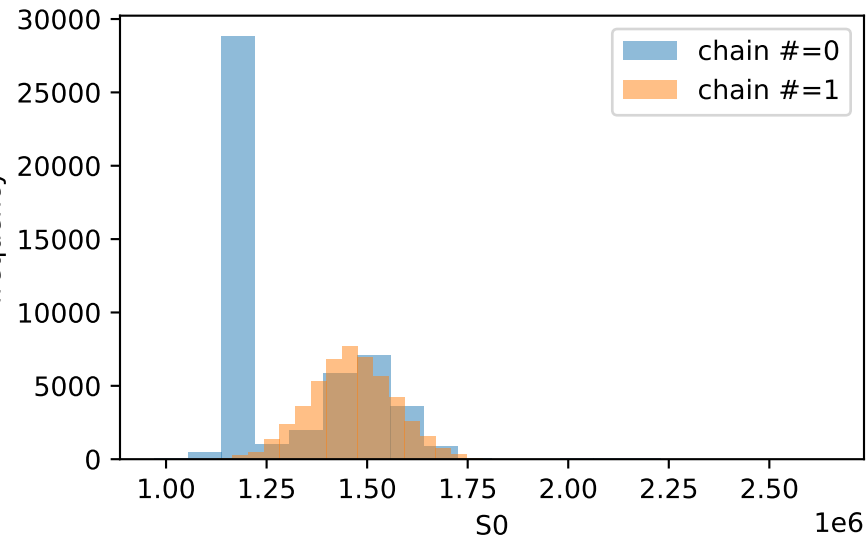
five_i

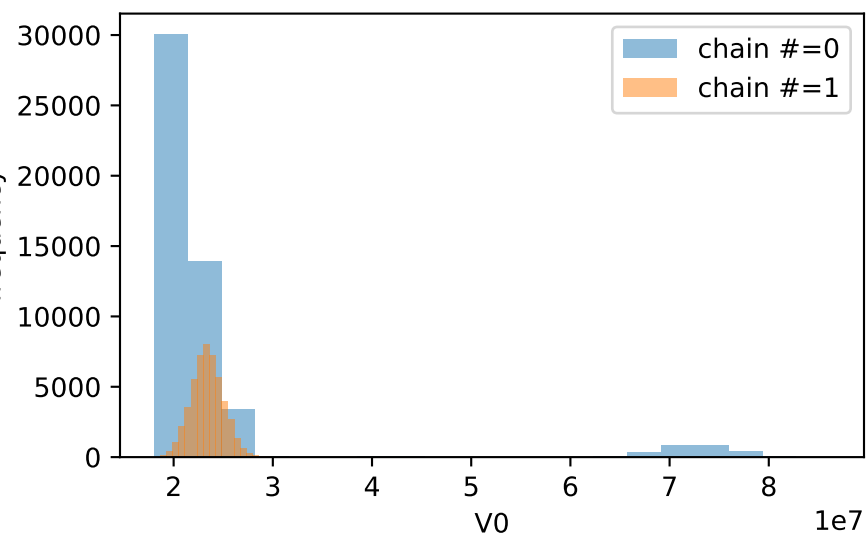

chain #=0
chain #=1
30000
25000
20000
15000
10000
5000
0
0.0
0.2
0.4
0.6
0.8
1.0
1.2
mu


chain #=0
chain #=1
30000
25000
20000
15000
10000
5000
0
0.0
0.5
1.0
1.5
2.0
2.5
phi
1e−7

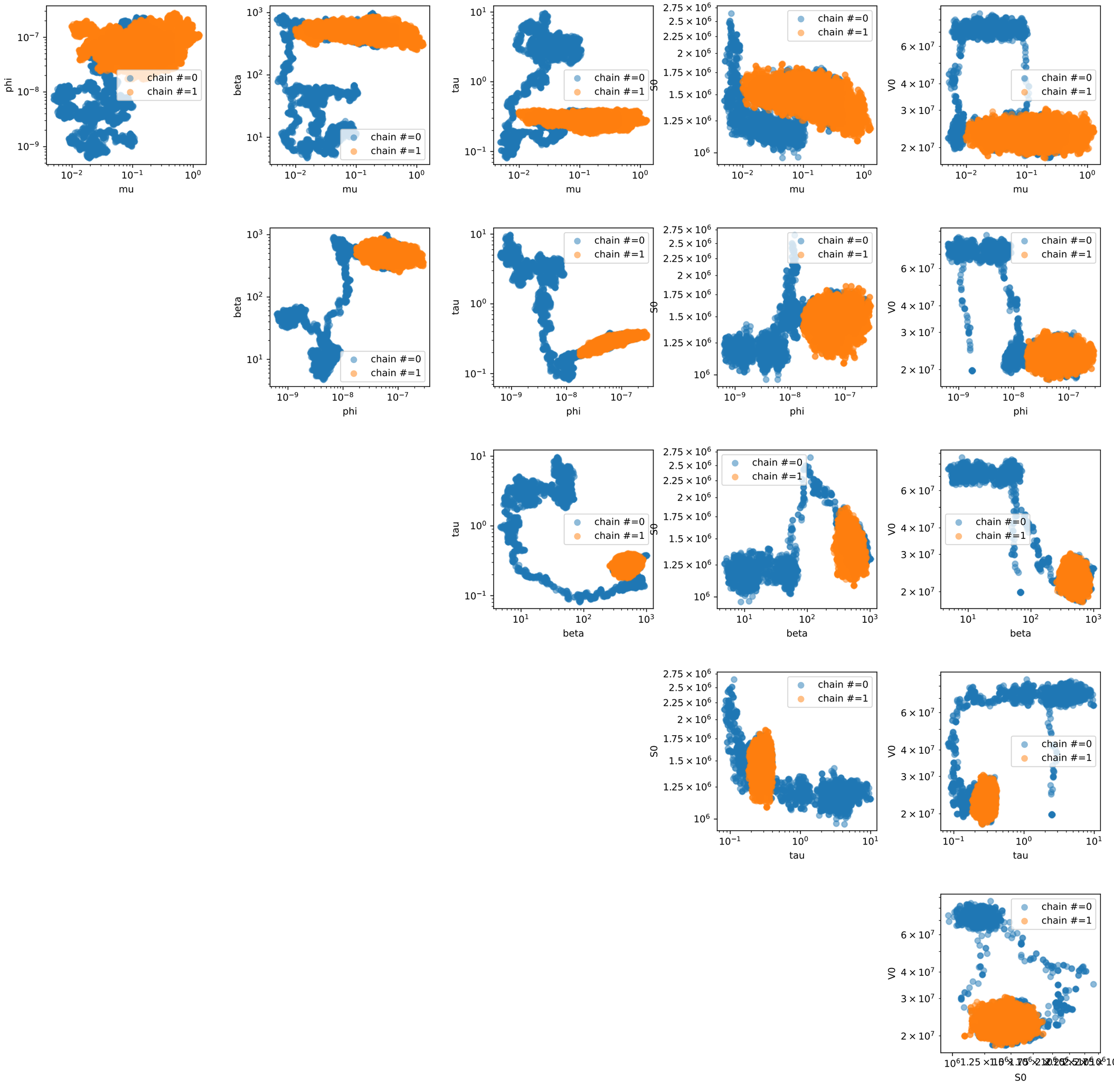

chain #=0
chain #=1
25000
20000
15000
10000
5000
0
0
200
400
600
800
1000
beta

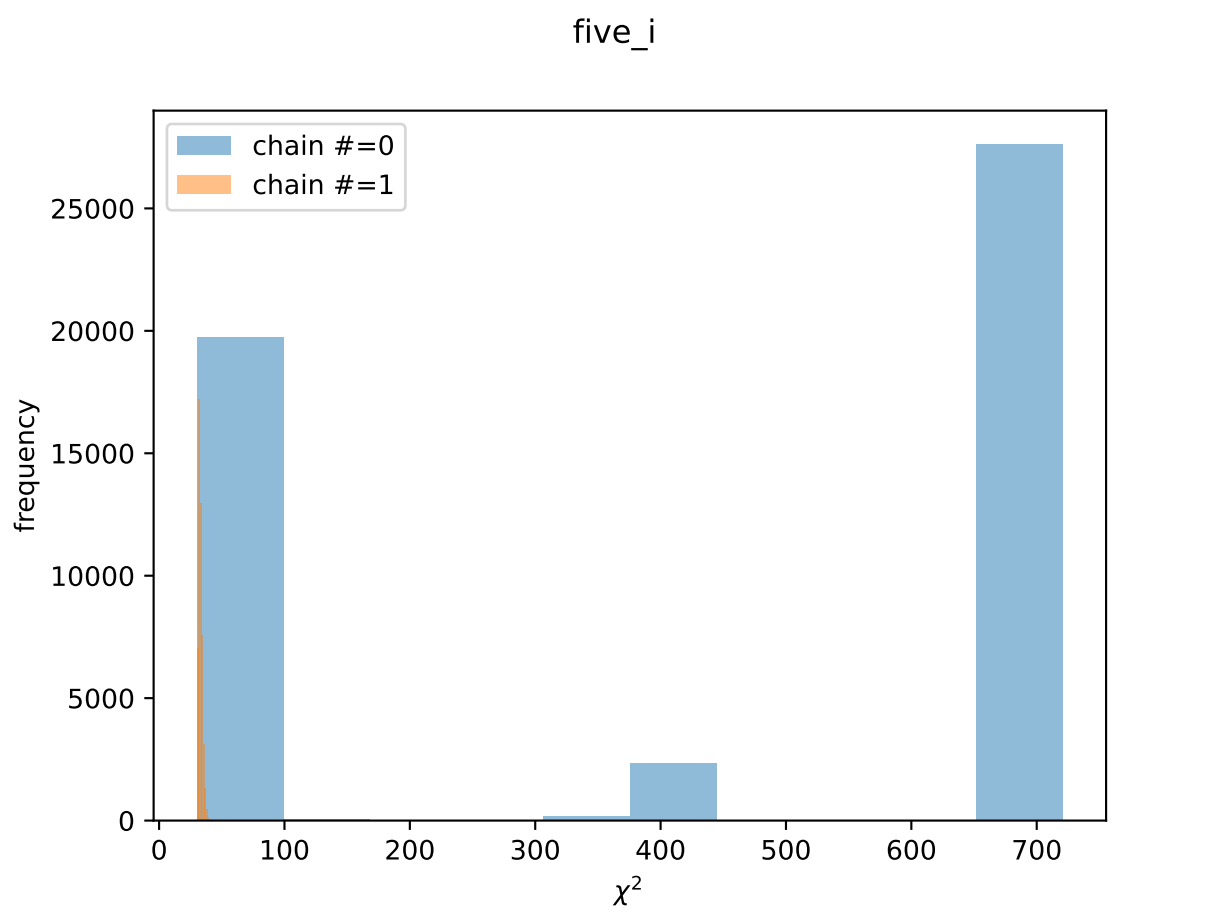

chain #=0
chain #=1
25000
20000
15000
10000
5000
0
0
2
4
6
8
10
tau

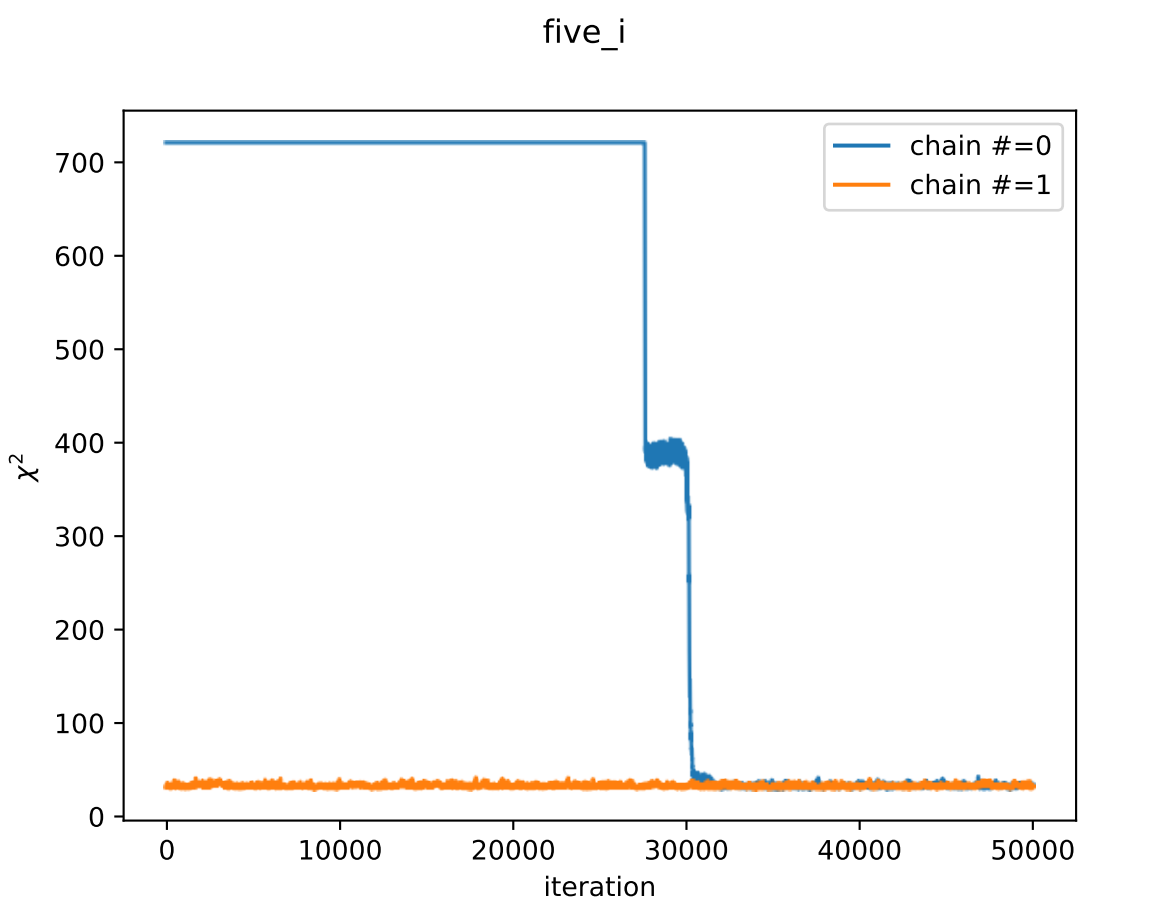

chain #=0
chain #=1
30000
25000
20000
15000
10000
5000
0
1.00
1.25
1.50
1.75
2.00
2.25
2.50
S0
1e6


chain #=0
chain #=1
30000
25000
20000
15000
10000
5000
0
2
3
4
5
6
7
8
V0
1e7

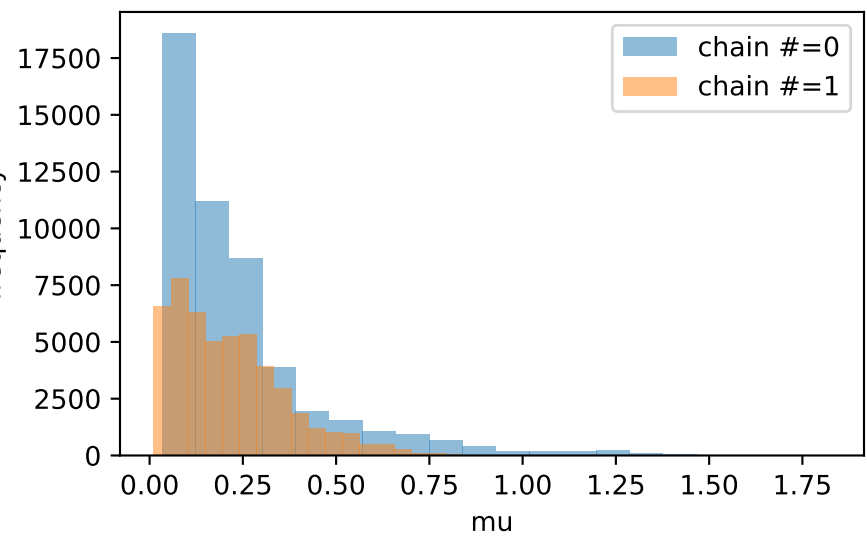
five_i

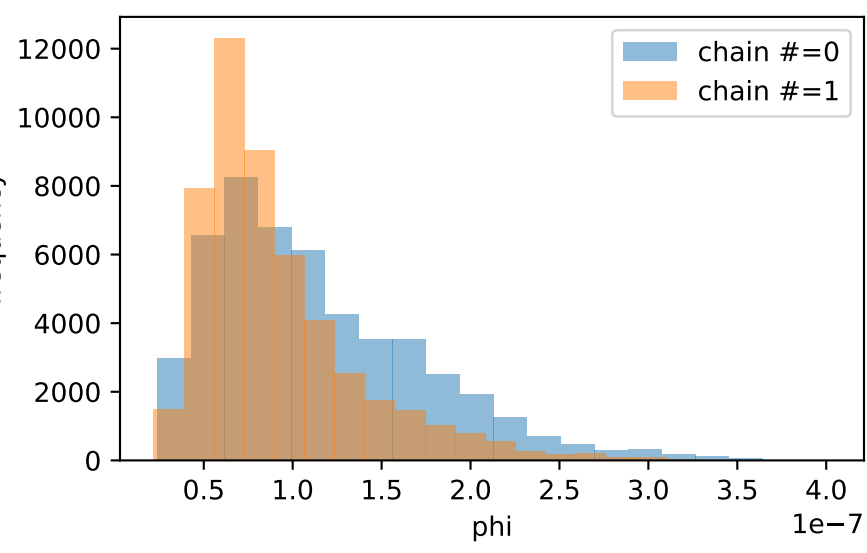

phi
mu
beta
mu
tau
mu
S0
mu
V0
mu
beta
phi
tau
phi
S0
phi
V0
phi
tau
beta
S0
beta
V0
beta
S0
tau
V0
tau
V0
S0
chain #=0
chain #=1

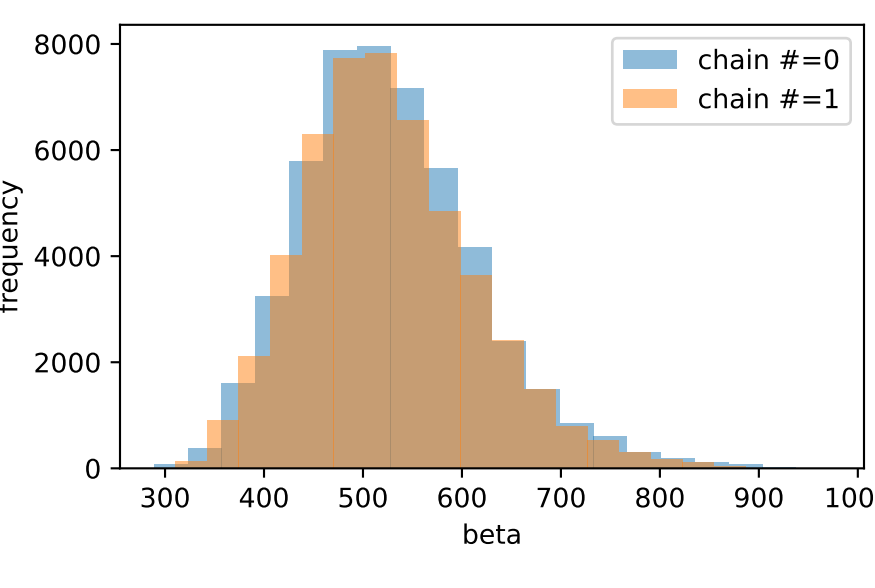

five_i
chain #=0
chain #=1
frequency
25000
20000
15000
10000
5000
0
0
100
200
300
400
500
600
700
χ^2

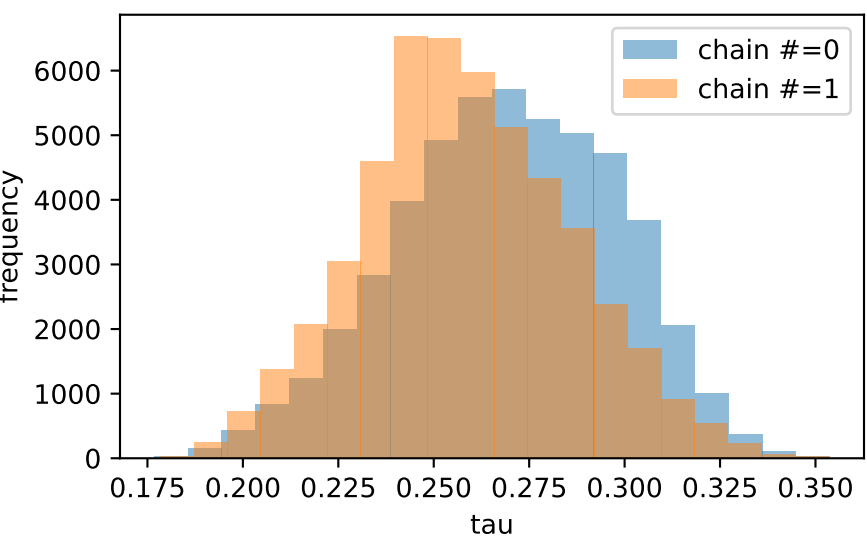

five_i
chain #=0
chain #=1
χ^2
0
100
200
300
400
500
600
700
0
10000
20000
30000
40000
50000
iteration

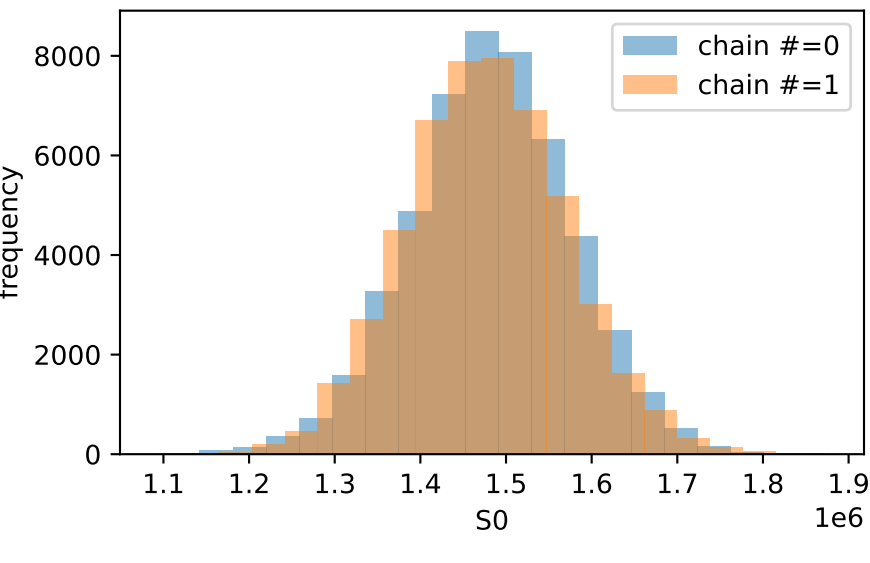
six_i

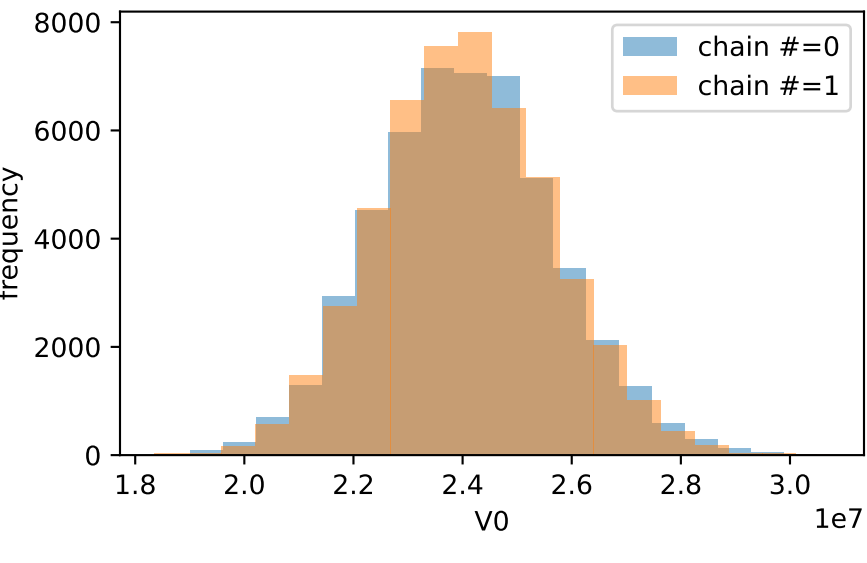

chain #=0
chain #=1
17500
15000
12500
10000
7500
5000
2500
0
0.00
0.25
0.50
0.75
1.00
1.25
1.50
1.75
mu


chain #=0
chain #=1
12000
10000
8000
6000
4000
2000
0
0.5
1.0
1.5
2.0
2.5
3.0
3.5
4.0
1e−7
phi

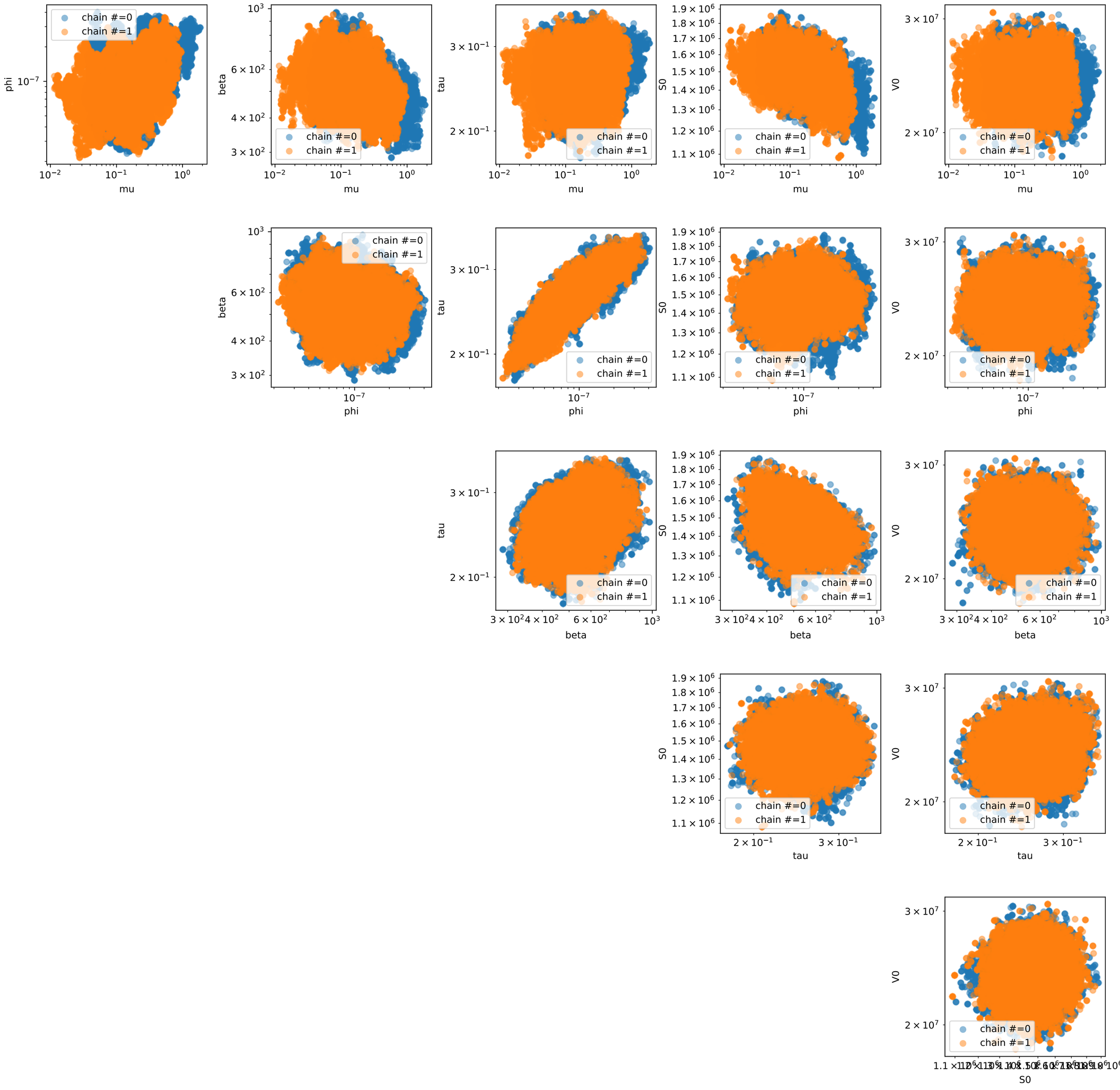

chain #=0
chain #=1
8000
6000
4000
2000
0
frequency
300
400
500
600
700
800
900
1000
beta

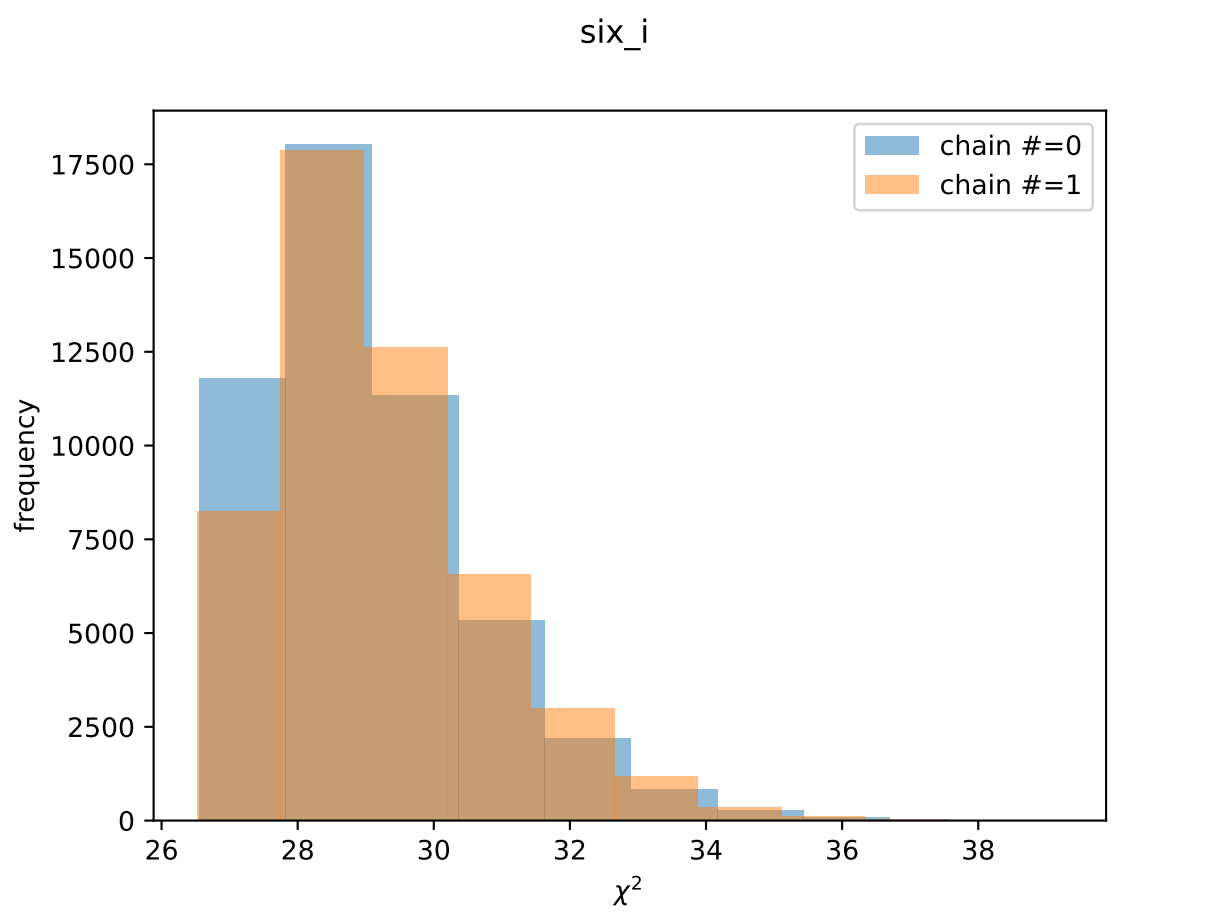

chain #=0
chain #=1
6000
5000
4000
3000
2000
1000
0
frequency
0.175
0.200
0.225
0.250
0.275
0.300
0.325
0.350
tau

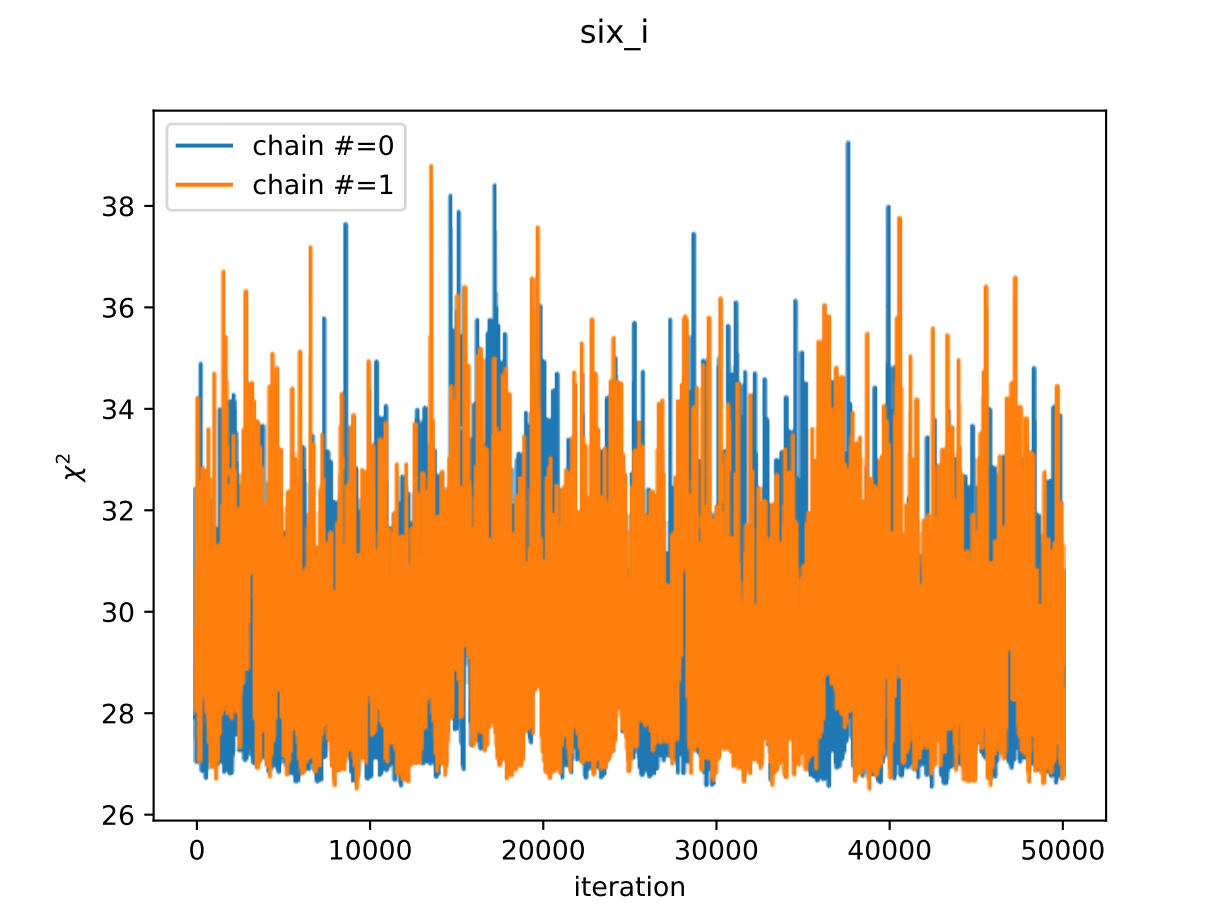

chain #=0
chain #=1
8000
6000
4000
2000
0
frequency
1.1
1.2
1.3
1.4
1.5
1.6
1.7
1.8
1.9
1e6
S0


chain #=0
chain #=1
8000
6000
4000
2000
0
frequency
1.8
2.0
2.2
2.4
2.6
2.8
3.0
1e7
V0

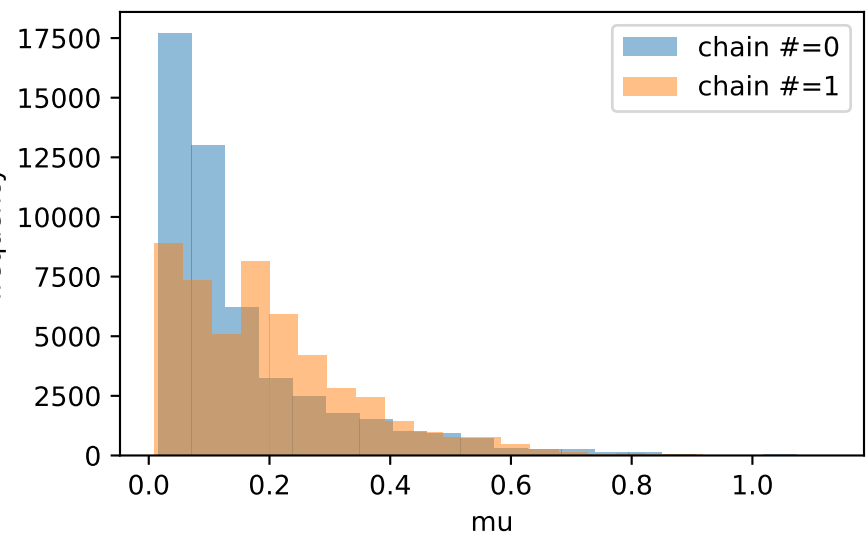
six_i

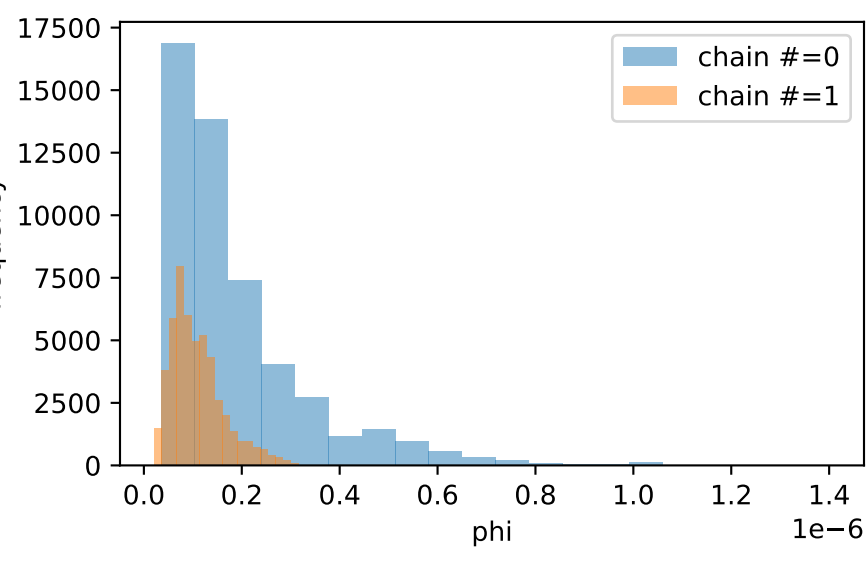


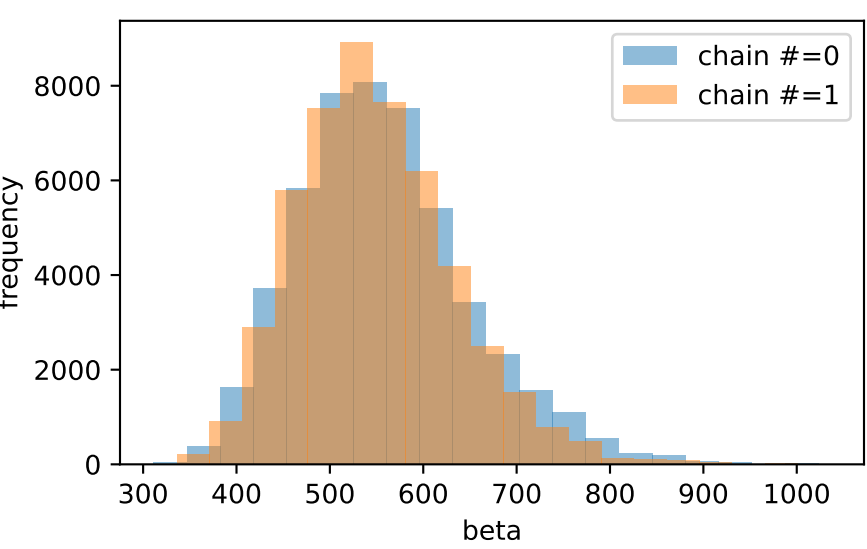

six_i
chain #=0
chain #=1
frequency
17500
15000
12500
10000
7500
5000
2500
0
26
28
30
32
34
36
38
χ^2

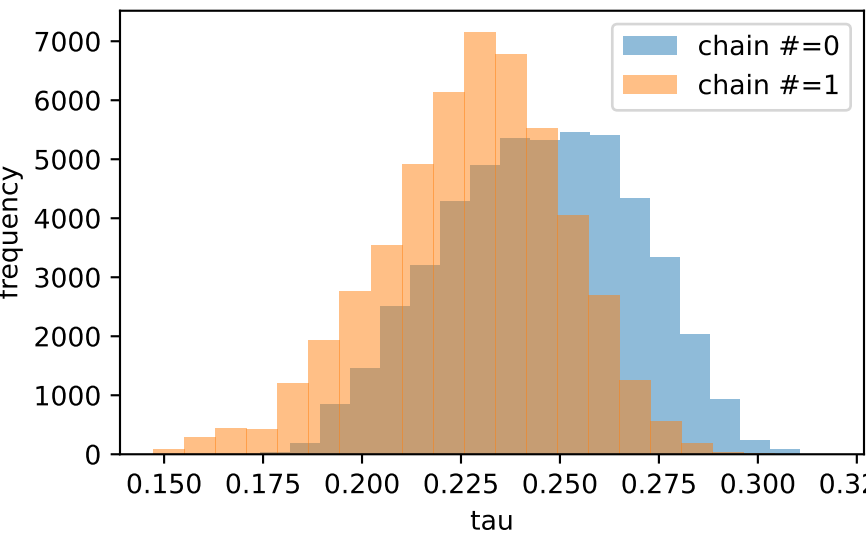

six_i
chain #=0
chain #=1
38
36
34
32
30
28
26
χ^2
0
10000
20000
30000
40000
50000
iteration

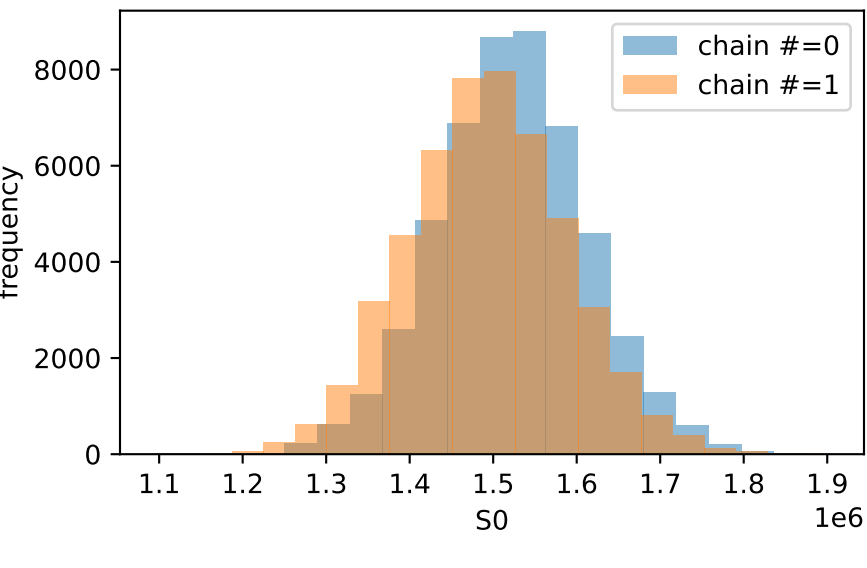
seven_i

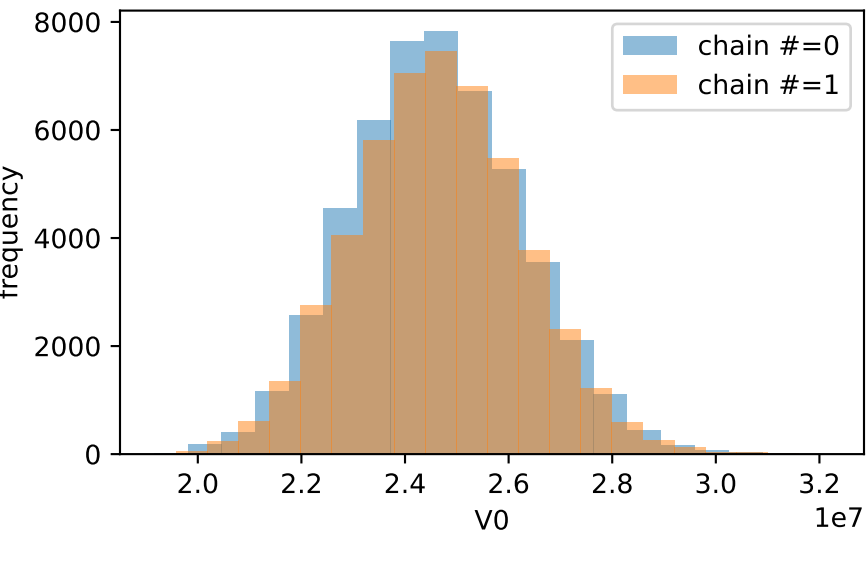

chain #=0
chain #=1
17500
15000
12500
10000
7500
5000
2500
0
0.0
0.2
0.4
0.6
0.8
1.0
mu


chain #=0
chain #=1
17500
15000
12500
10000
7500
5000
2500
0
0.0
0.2
0.4
0.6
0.8
1.0
1.2
1.4
phi
1e−6

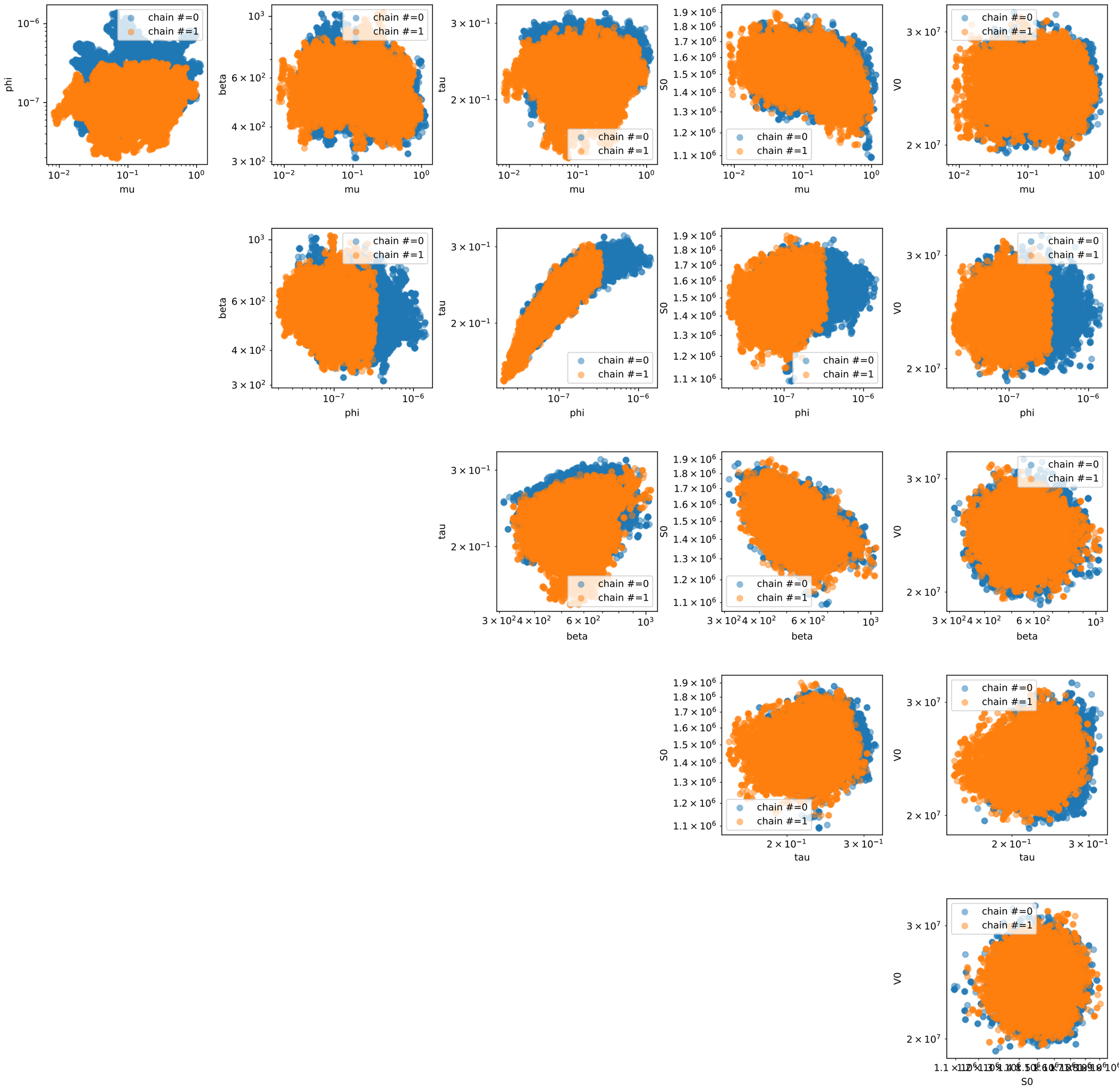

chain #=0
chain #=1
8000
6000
4000
2000
0
frequency
300
400
500
600
700
800
900
1000
beta

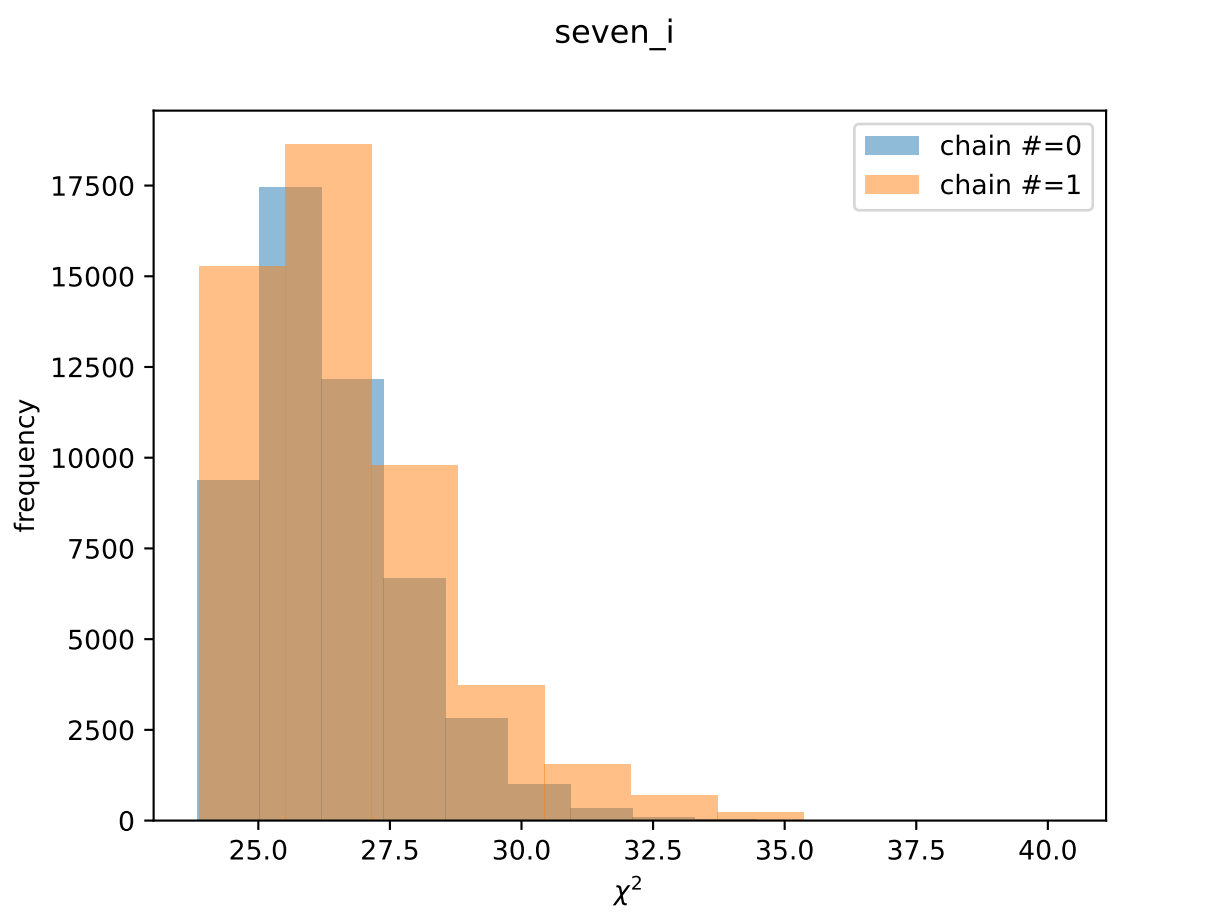

chain #=0
chain #=1
7000
6000
5000
4000
3000
2000
1000
0
frequency
0.150
0.175
0.200
0.225
0.250
0.275
0.300
0.325
tau

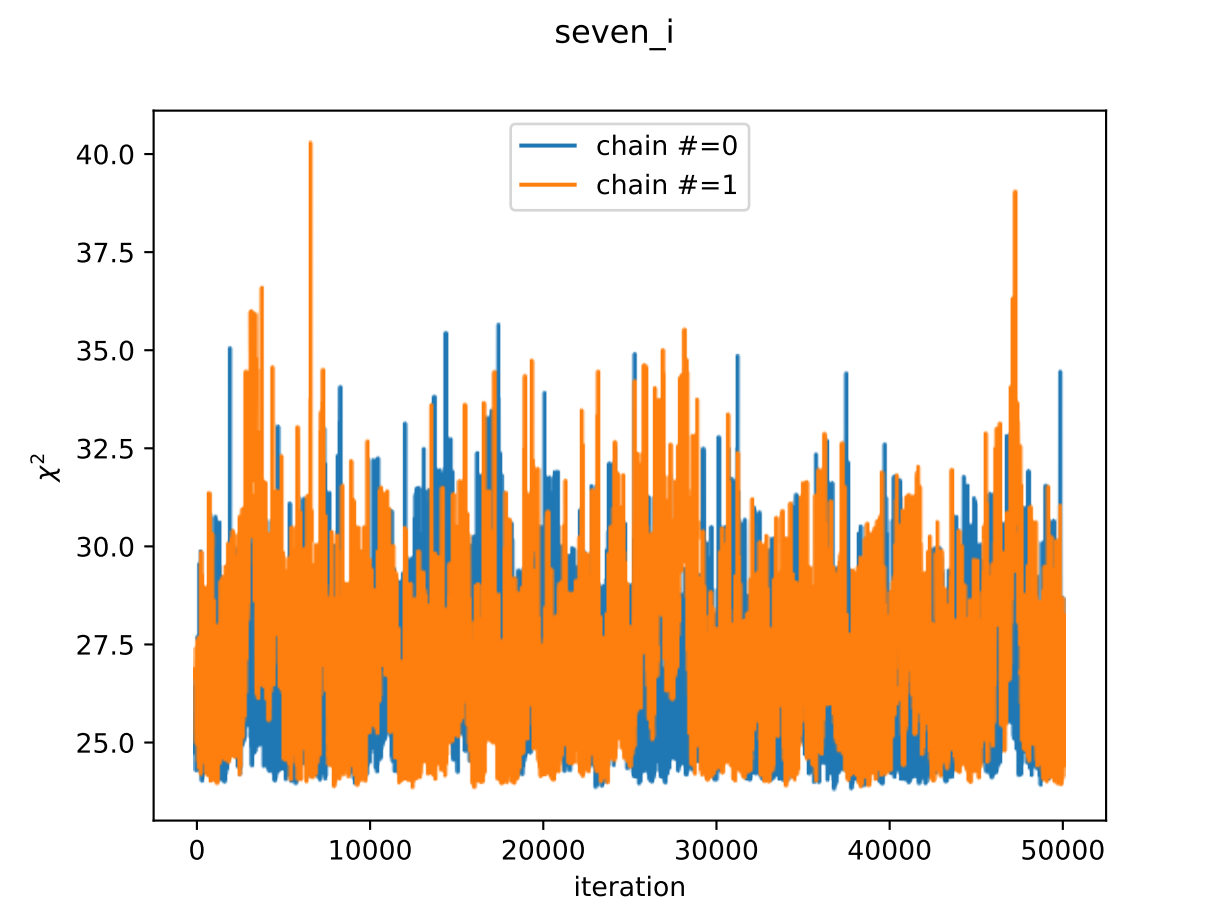

chain #=0
chain #=1
8000
6000
4000
2000
0
frequency
1.1
1.2
1.3
1.4
1.5
1.6
1.7
1.8
1.9
S0
1e6


chain #=0
chain #=1
8000
6000
4000
2000
0
frequency
2.0
2.2
2.4
2.6
2.8
3.0
3.2
V0
1e7

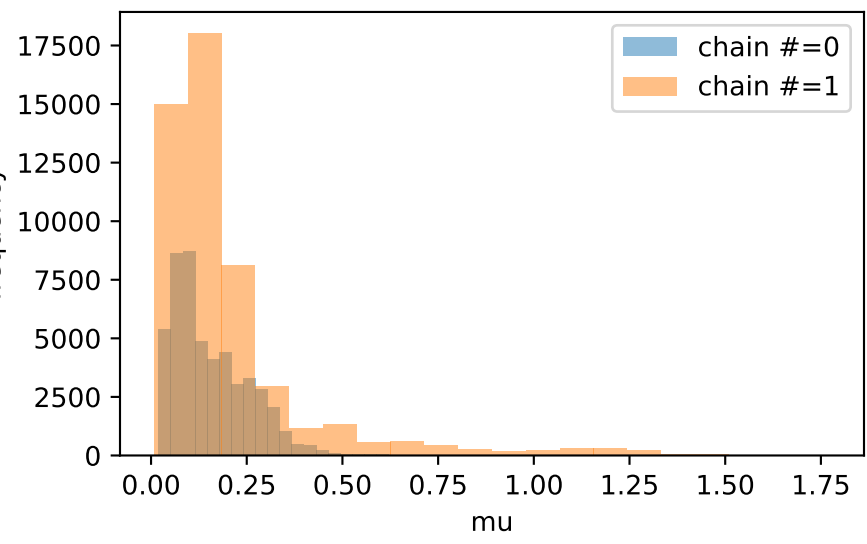
seven_i

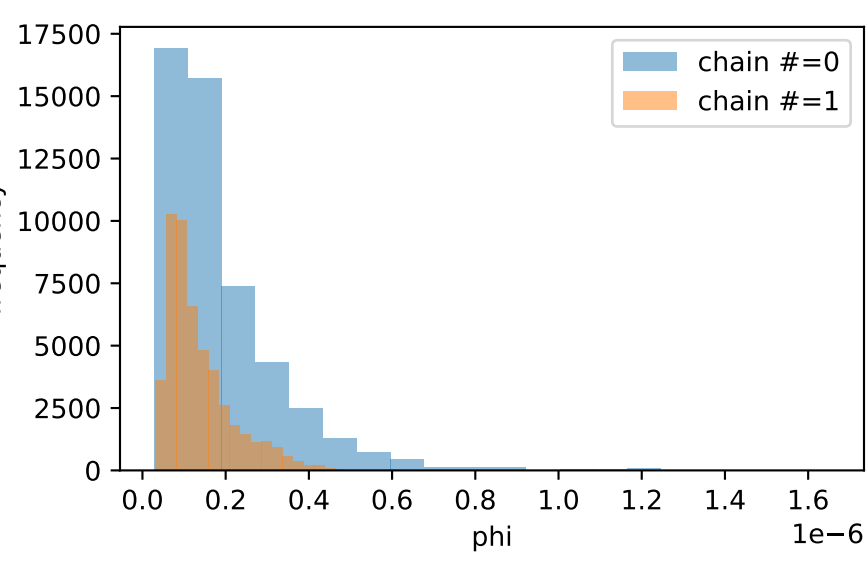


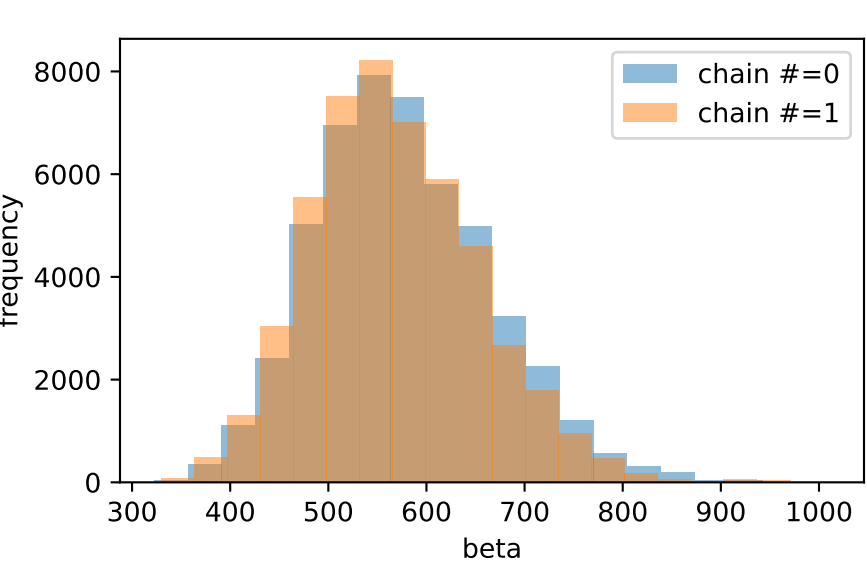

seven_i
chain #=0
chain #=1
frequency
17500
15000
12500
10000
7500
5000
2500
0
25.0
27.5
30.0
32.5
35.0
37.5
40.0
χ^2

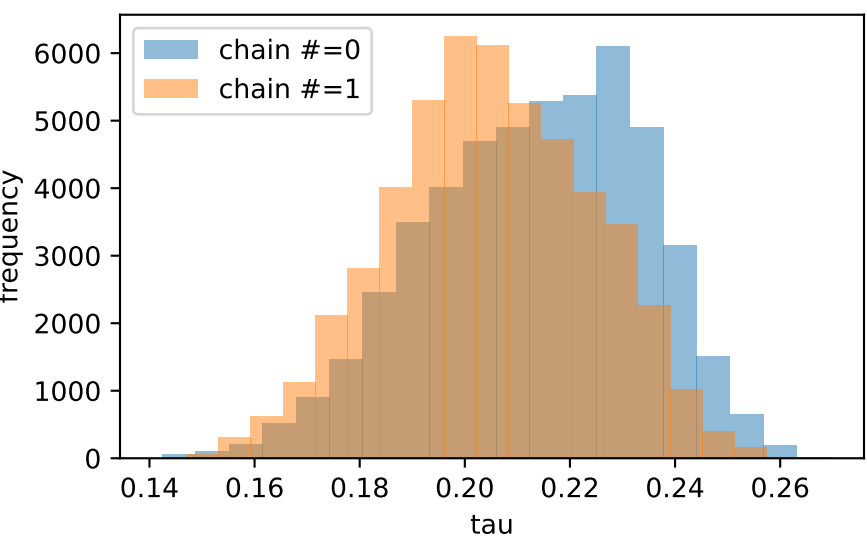

seven_i
chain #=0
chain #=1
40.0
37.5
35.0
32.5
30.0
27.5
25.0
χ^2
0
10000
20000
30000
40000
50000
iteration

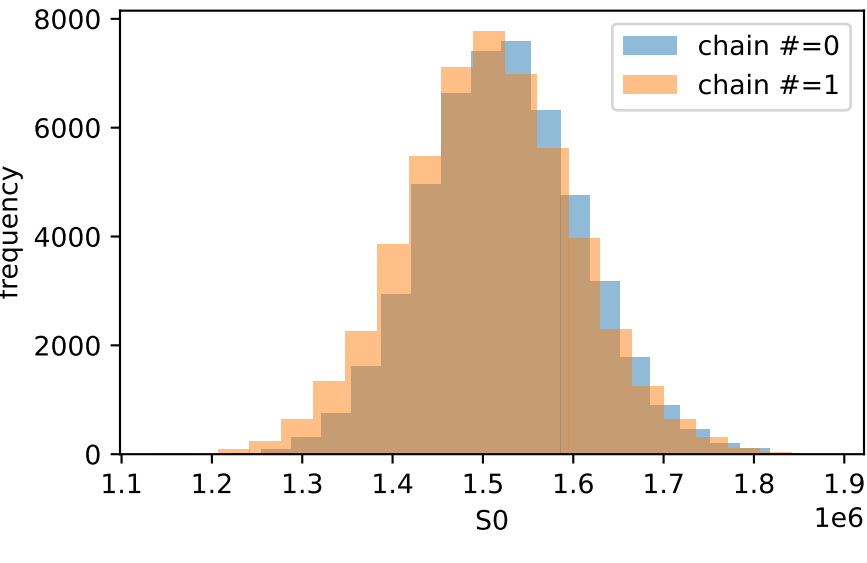
eight_i

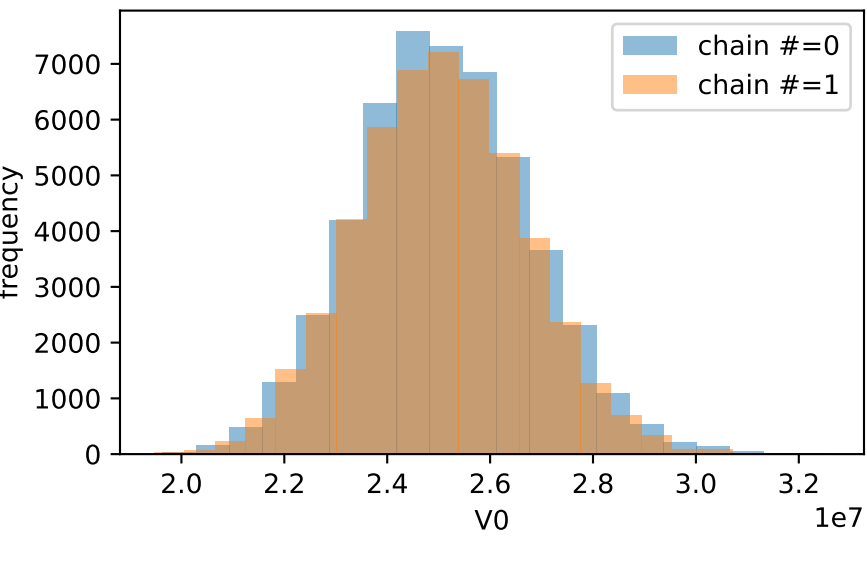

chain #=0
chain #=1
17500
15000
12500
10000
7500
5000
2500
0
0.00
0.25
0.50
0.75
1.00
1.25
1.50
1.75
mu


chain #=0
chain #=1
17500
15000
12500
10000
7500
5000
2500
0
0.0
0.2
0.4
0.6
0.8
1.0
1.2
1.4
1.6
phi
1e−6

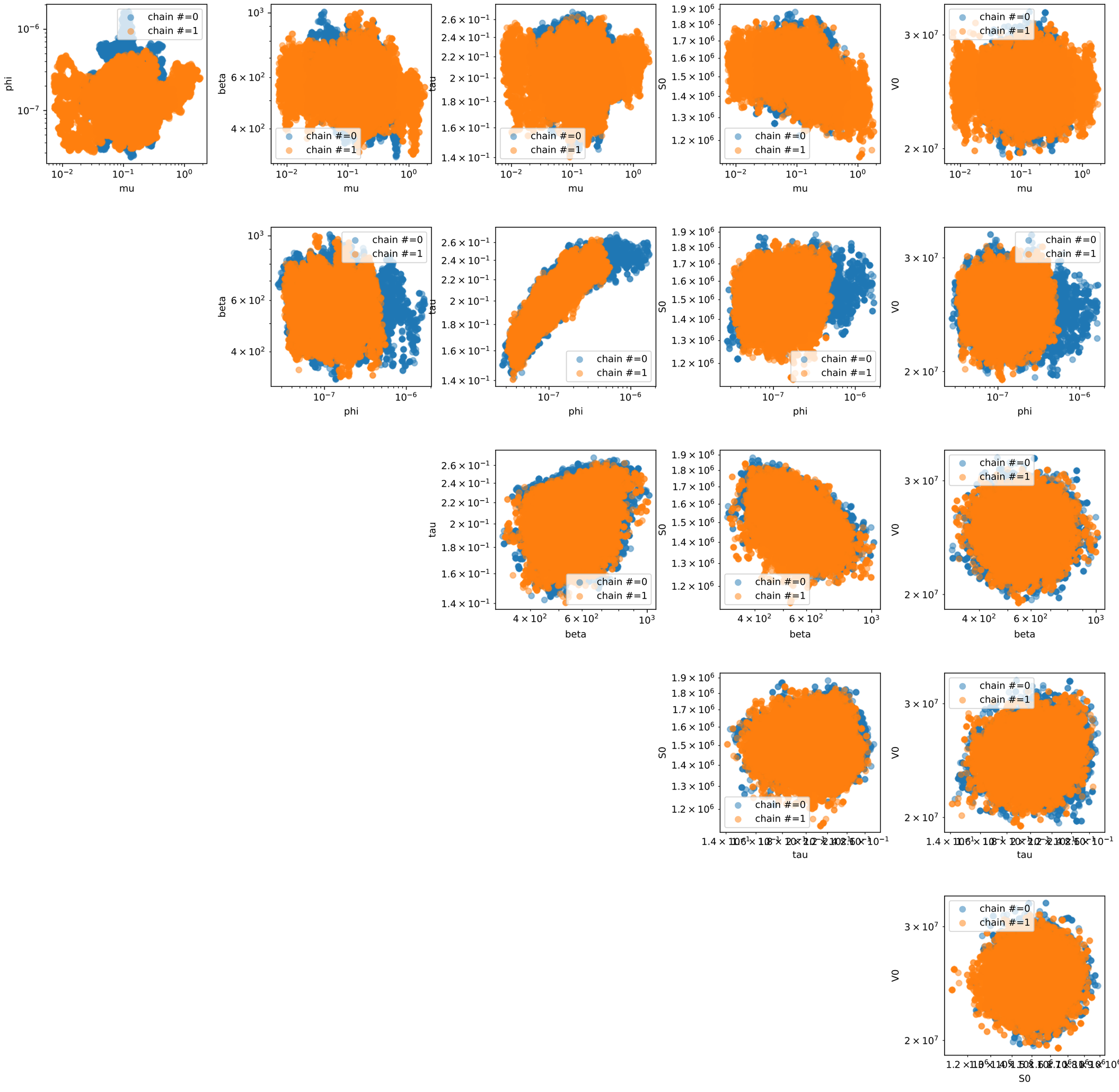

chain #=0
chain #=1
8000
6000
4000
2000
0
frequency
300
400
500
600
700
800
900
1000
beta

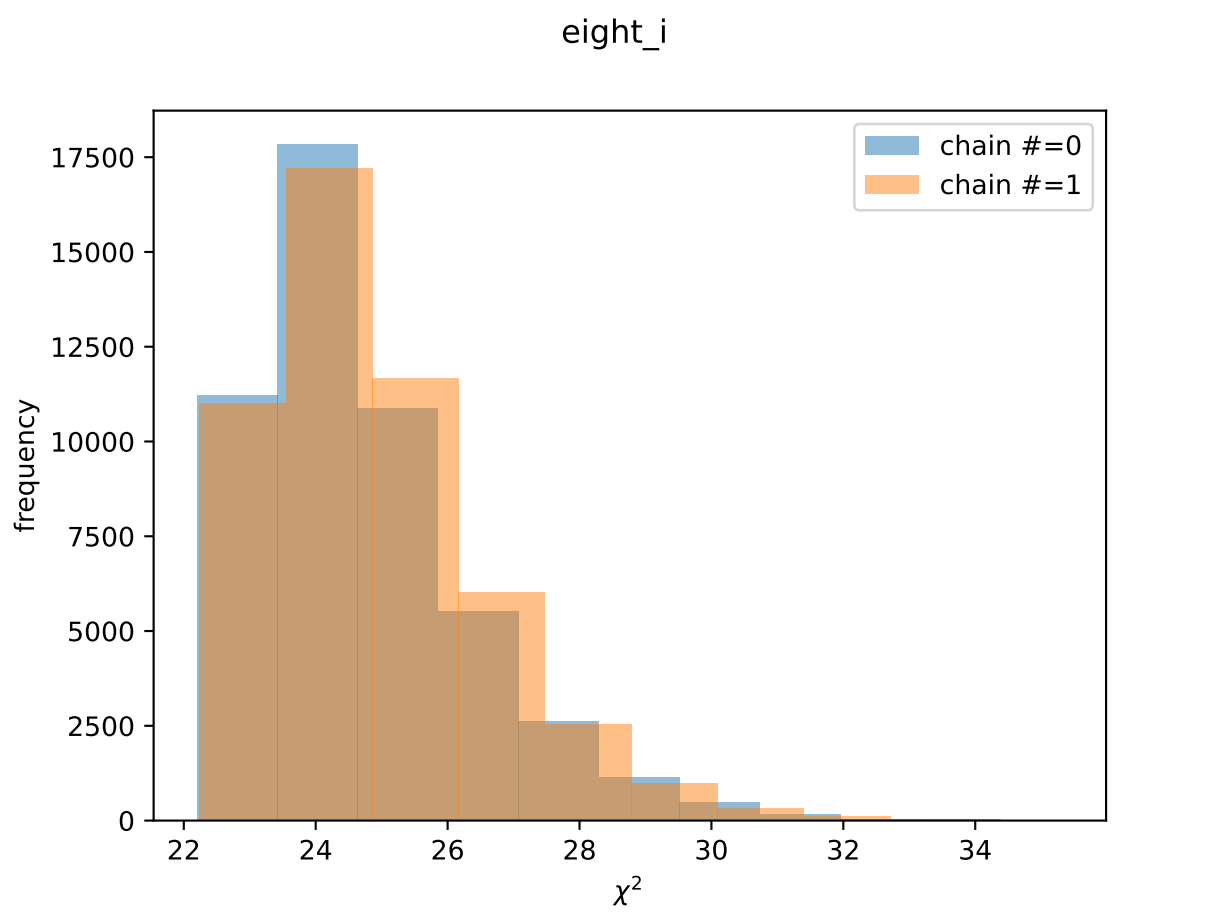

chain #=0
chain #=1
6000
5000
4000
3000
2000
1000
0
frequency
0.14
0.16
0.18
0.20
0.22
0.24
0.26
tau

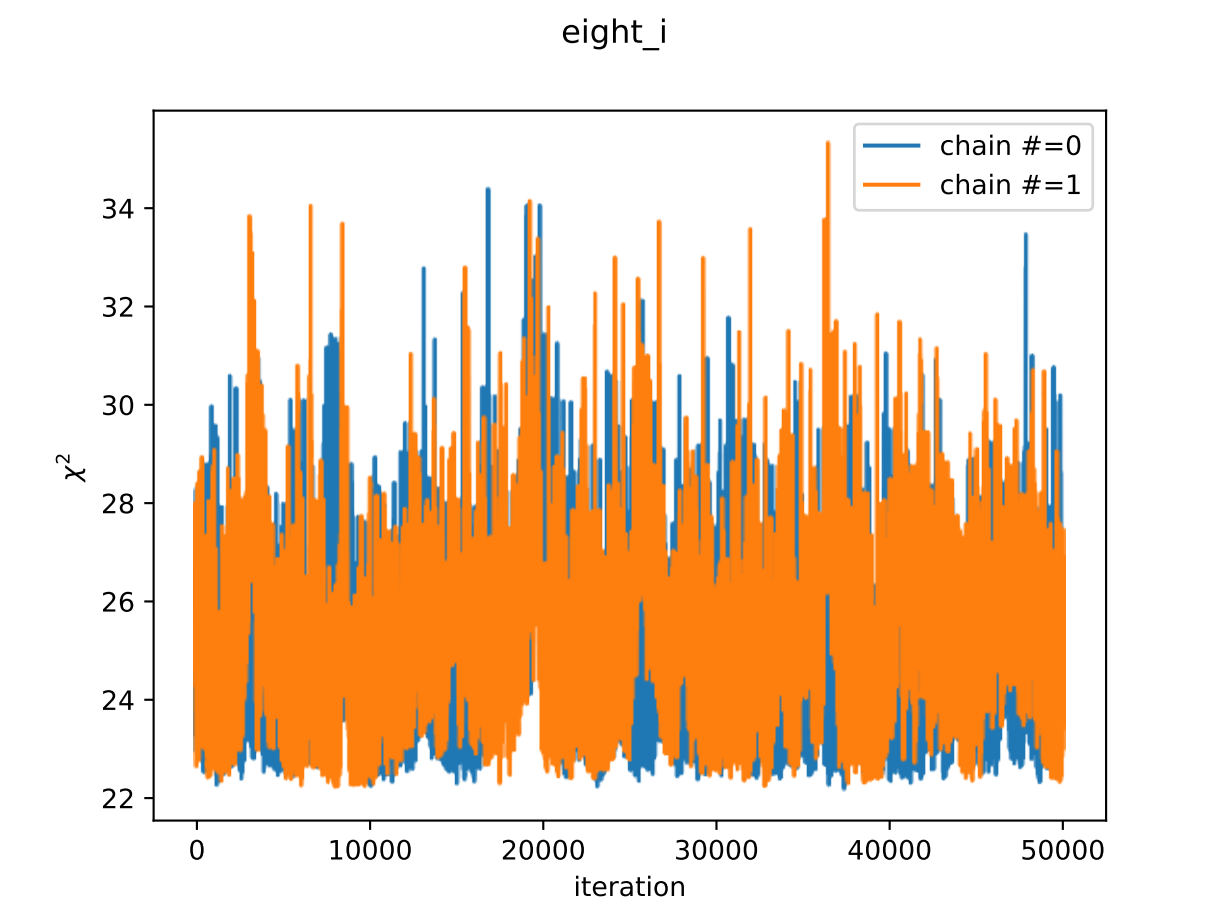

chain #=0
chain #=1
8000
6000
4000
2000
0
frequency
1.1
1.2
1.3
1.4
1.5
1.6
1.7
1.8
1.9
S0
1e6


chain #=0
chain #=1
7000
6000
5000
4000
3000
2000
1000
0
frequency
2.0
2.2
2.4
2.6
2.8
3.0
3.2
V0
1e7

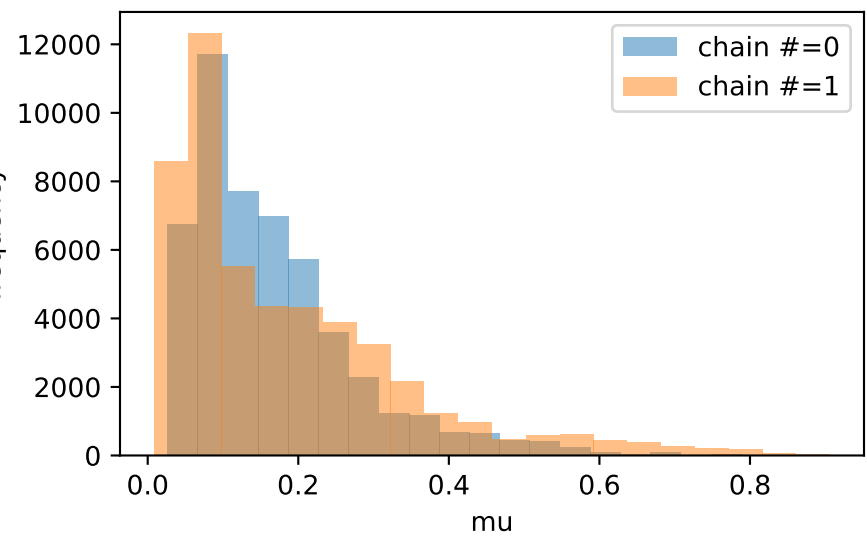
eight_i

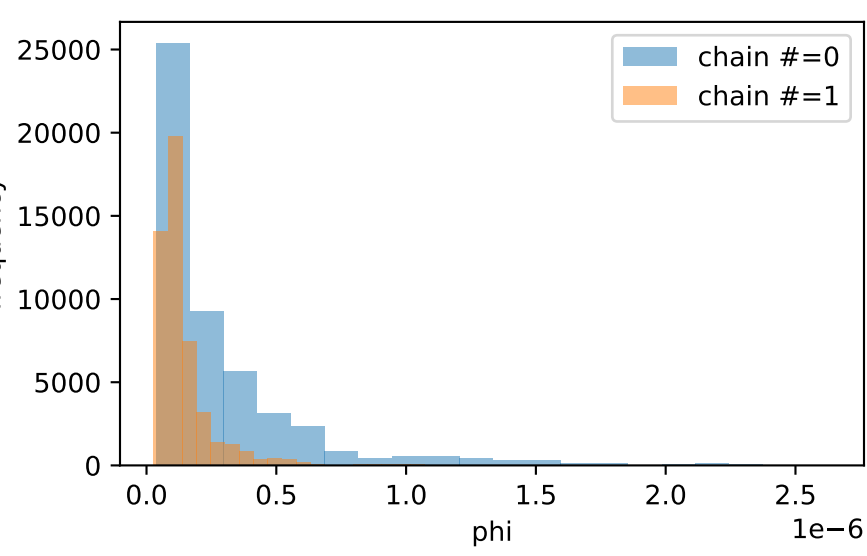


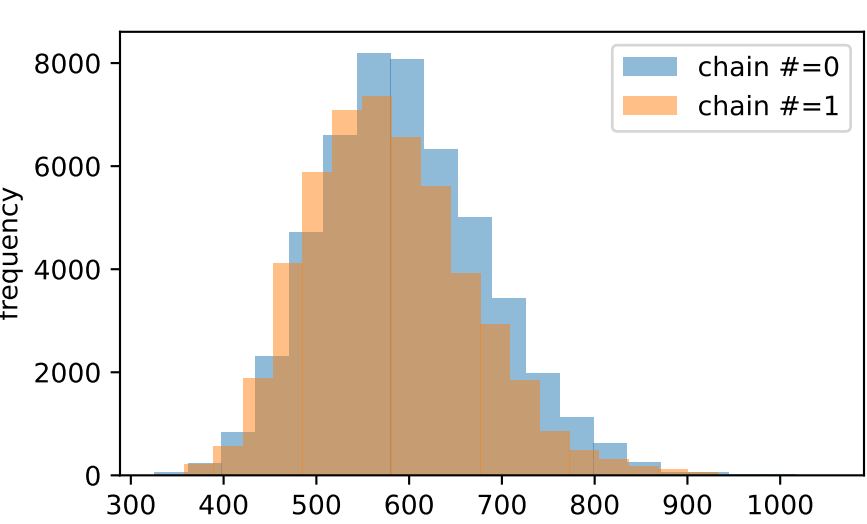

eight_i
chain #=0
chain #=1
frequency
17500
15000
12500
10000
7500
5000
2500
0
22
24
26
28
30
32
34
χ^2

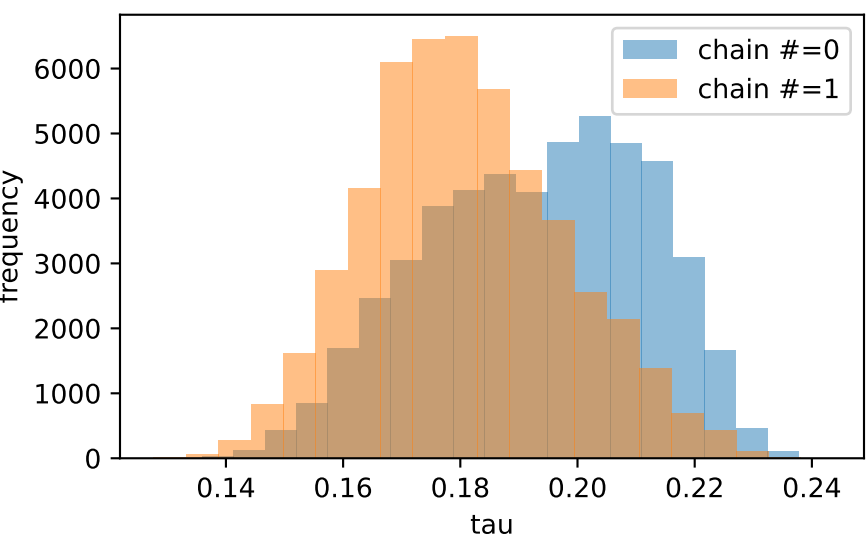

eight_i
chain #=0
chain #=1
34
32
30
28
26
24
22
χ^2
0
10000
20000
30000
40000
50000
iteration

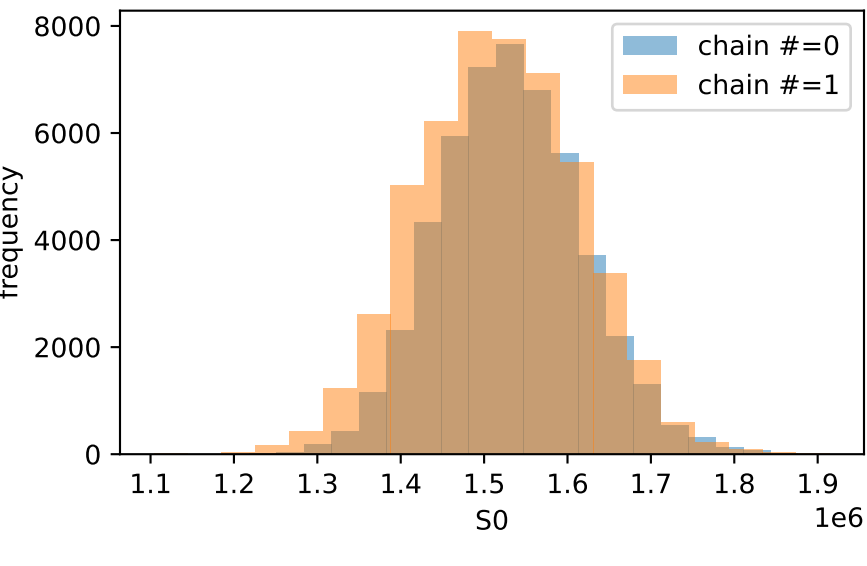
nine_i

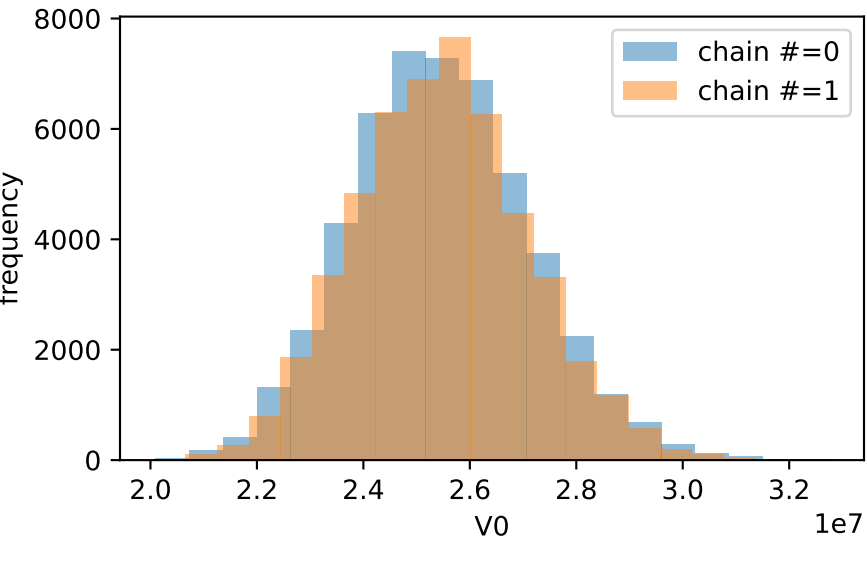

chain #=0
chain #=1
12000
10000
8000
6000
4000
2000
0
0.0
0.2
0.4
0.6
0.8
mu


chain #=0
chain #=1
25000
20000
15000
10000
5000
0
0.0
0.5
1.0
1.5
2.0
2.5
phi
1e−6

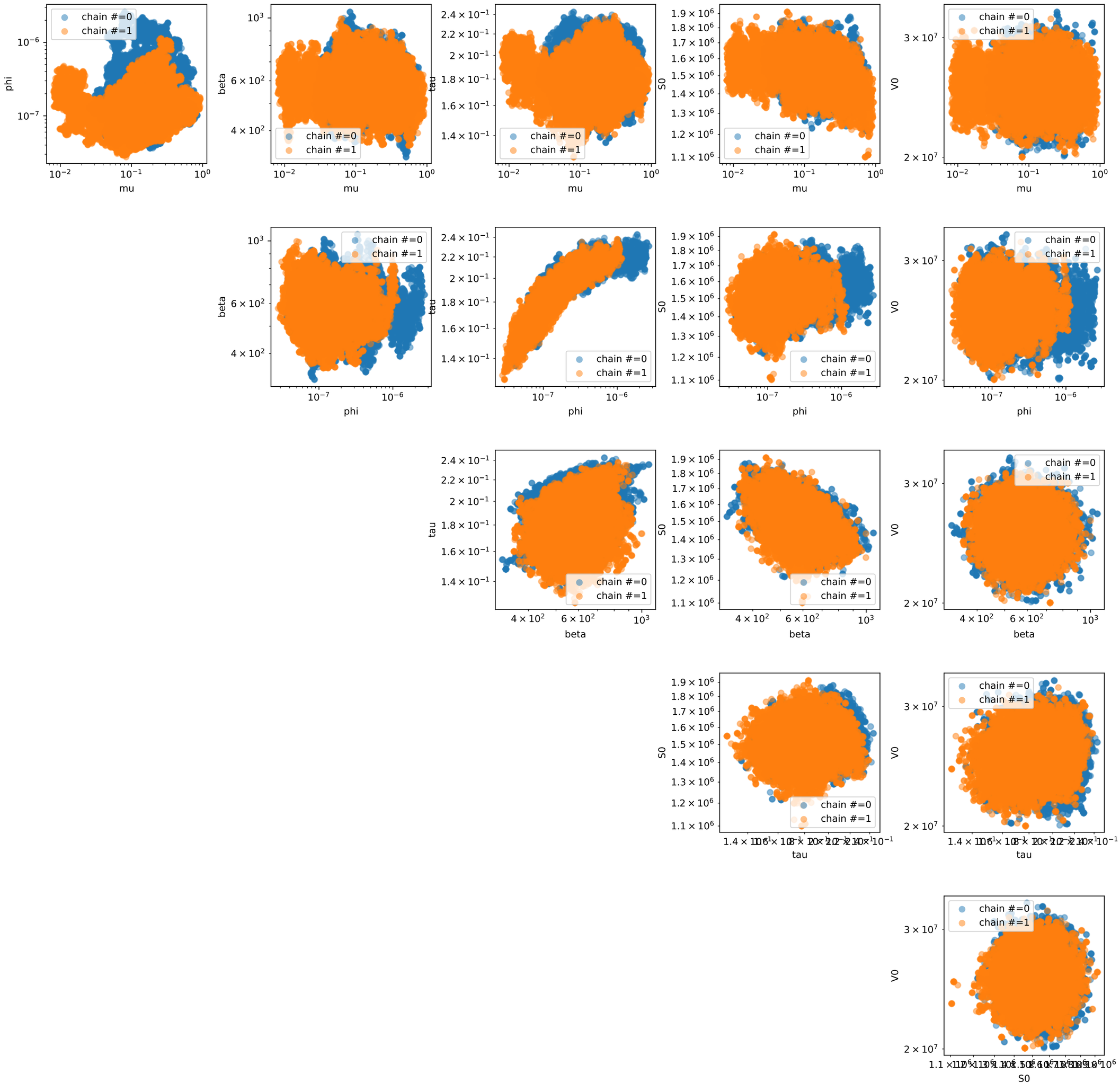

chain #=0
chain #=1
8000
6000
4000
2000
0
frequency
300
400
500
600
700
800
900
1000
beta

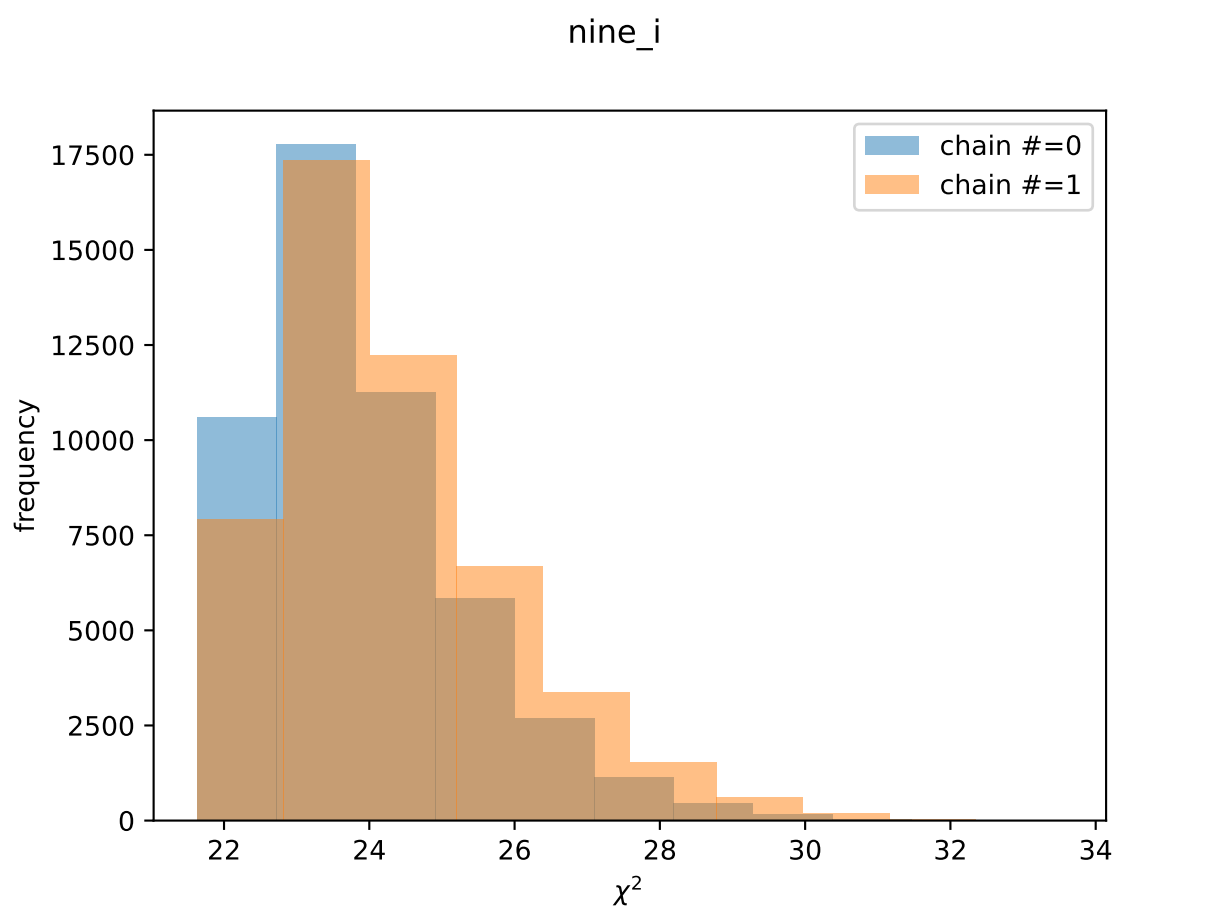

chain #=0
chain #=1
6000
5000
4000
3000
2000
1000
0
frequency
0.14
0.16
0.18
0.20
0.22
0.24
tau

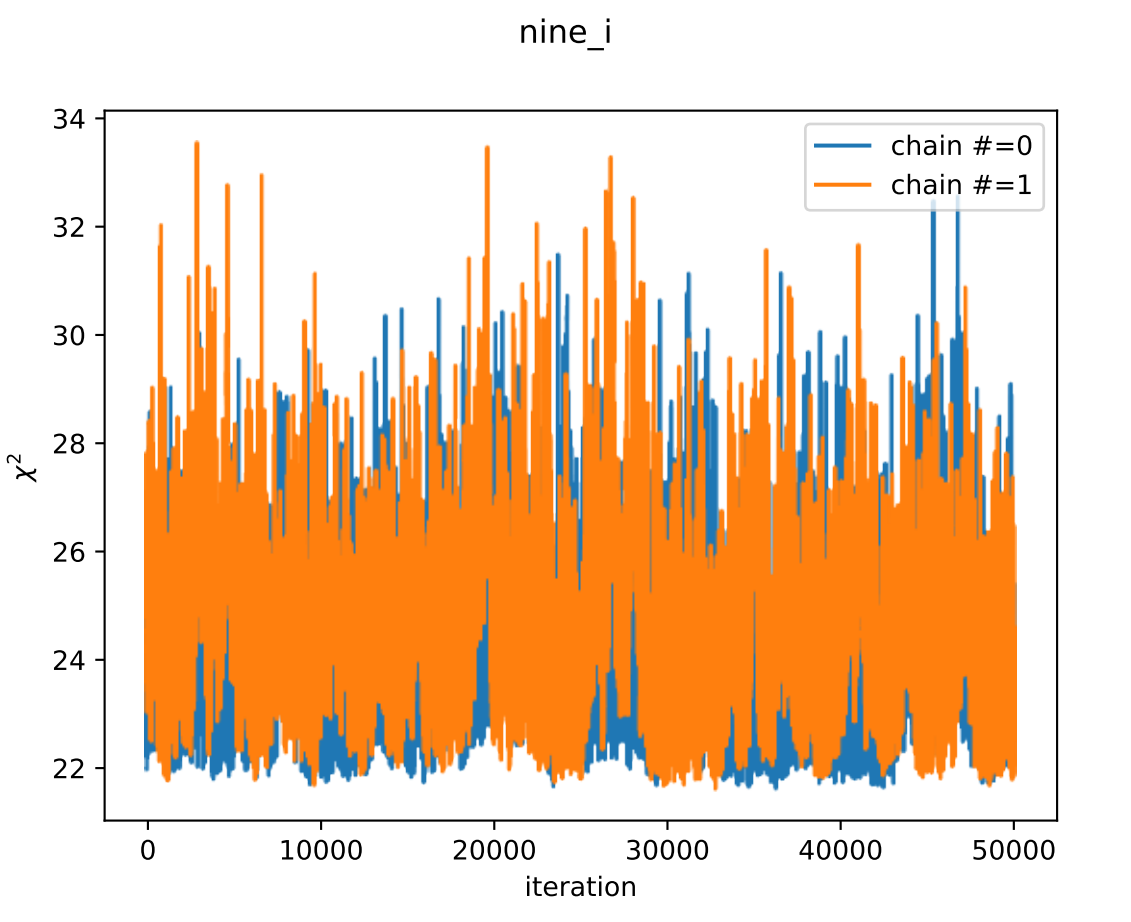

chain #=0
chain #=1
8000
6000
4000
2000
0
frequency
1.1
1.2
1.3
1.4
1.5
1.6
1.7
1.8
1.9
S0
1e6


chain #=0
chain #=1
8000
6000
4000
2000
0
frequency
2.0
2.2
2.4
2.6
2.8
3.0
3.2
V0
1e7

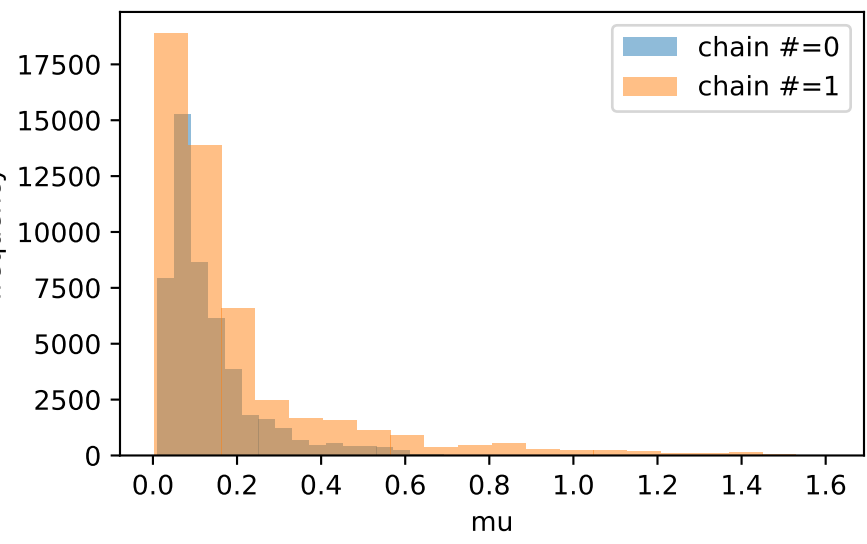
nine_i

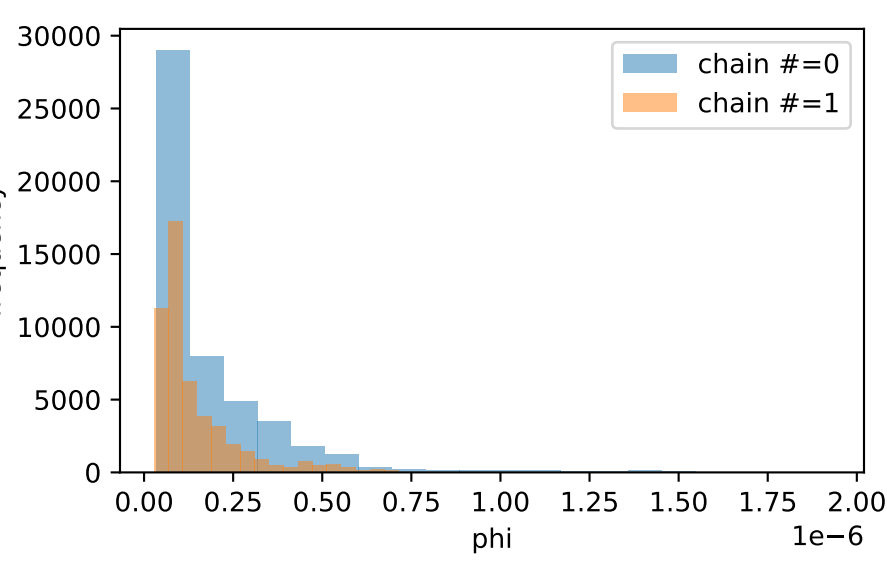


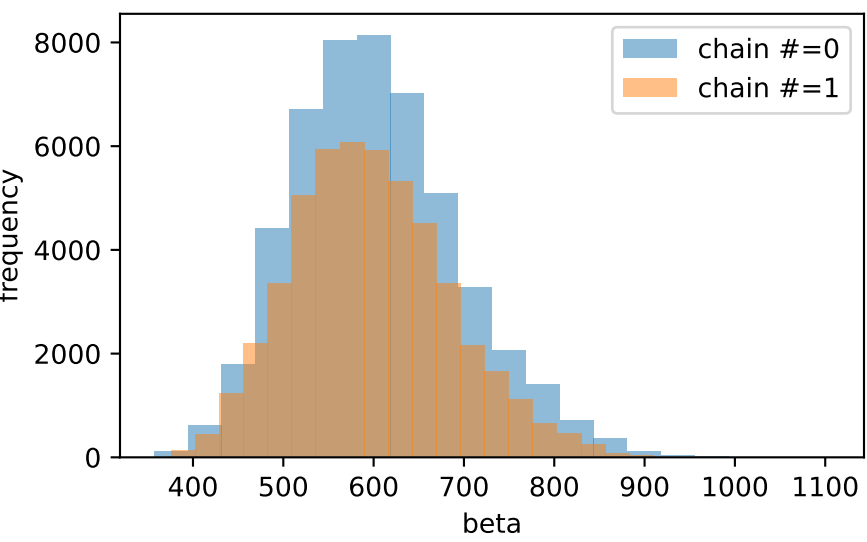

nine_i
chain #=0
chain #=1
frequency
17500
15000
12500
10000
7500
5000
2500
0
22
24
26
28
30
32
34
χ^2

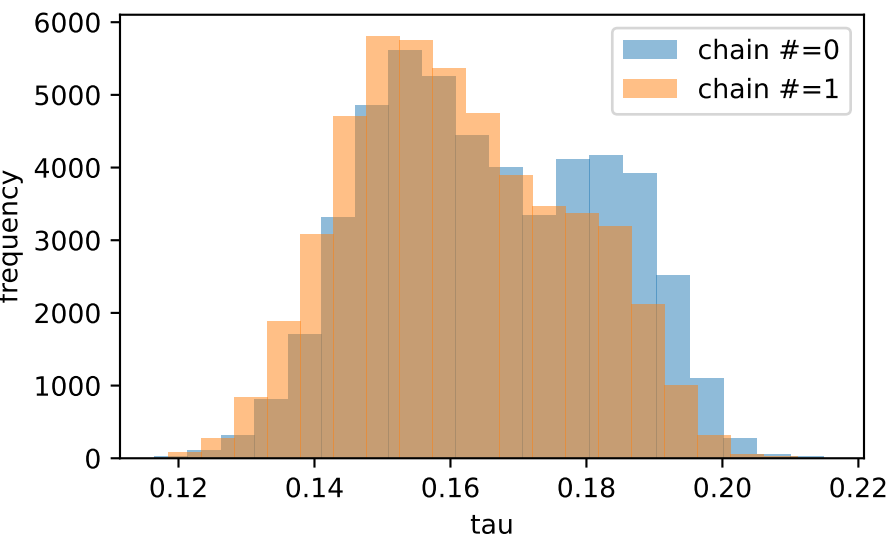

nine_i
chain #=0
chain #=1
34
32
30
28
26
24
22
χ^2
0
10000
20000
30000
40000
50000
iteration

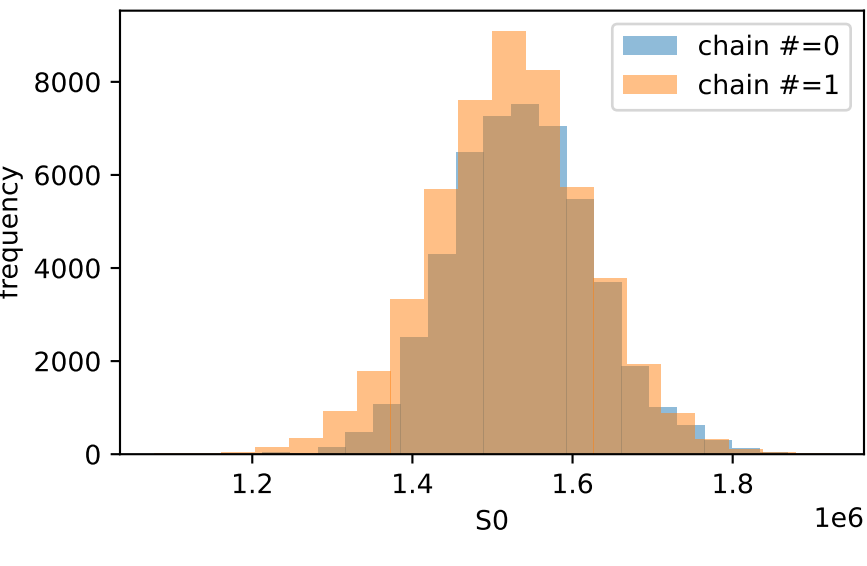
ten_i

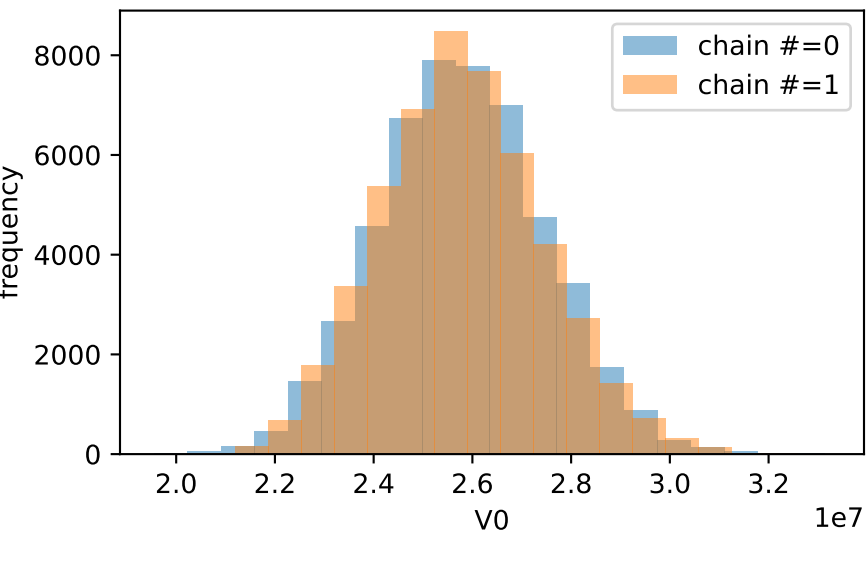

chain #=0
chain #=1
17500
15000
12500
10000
7500
5000
2500
0
0.0
0.2
0.4
0.6
0.8
1.0
1.2
1.4
1.6
mu


chain #=0
chain #=1
30000
25000
20000
15000
10000
5000
0
0.00
0.25
0.50
0.75
1.00
1.25
1.50
1.75
2.00
phi
1e−6

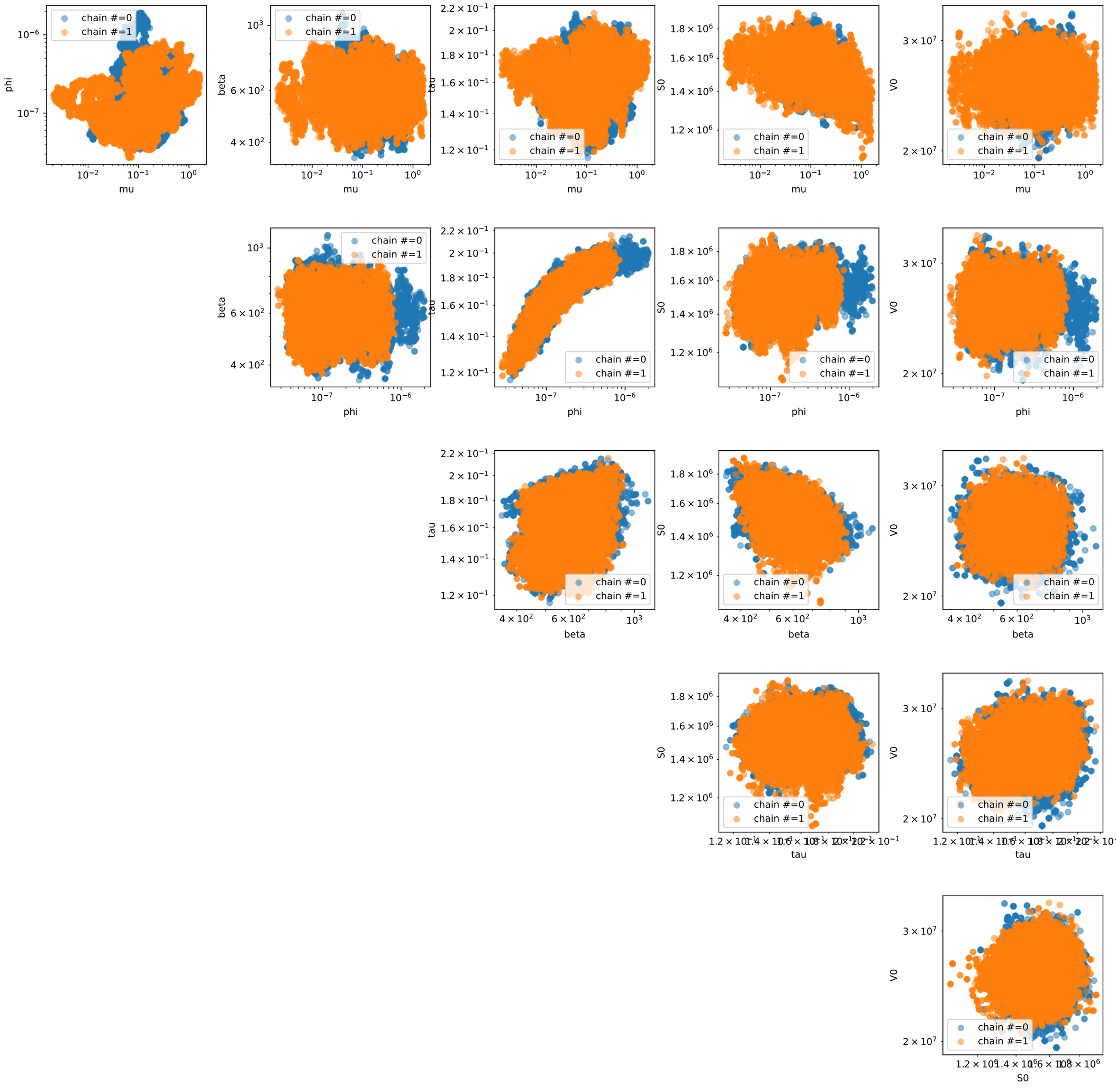

chain #=0
chain #=1
8000
6000
4000
2000
0
frequency
400
500
600
700
800
900
1000
1100
beta

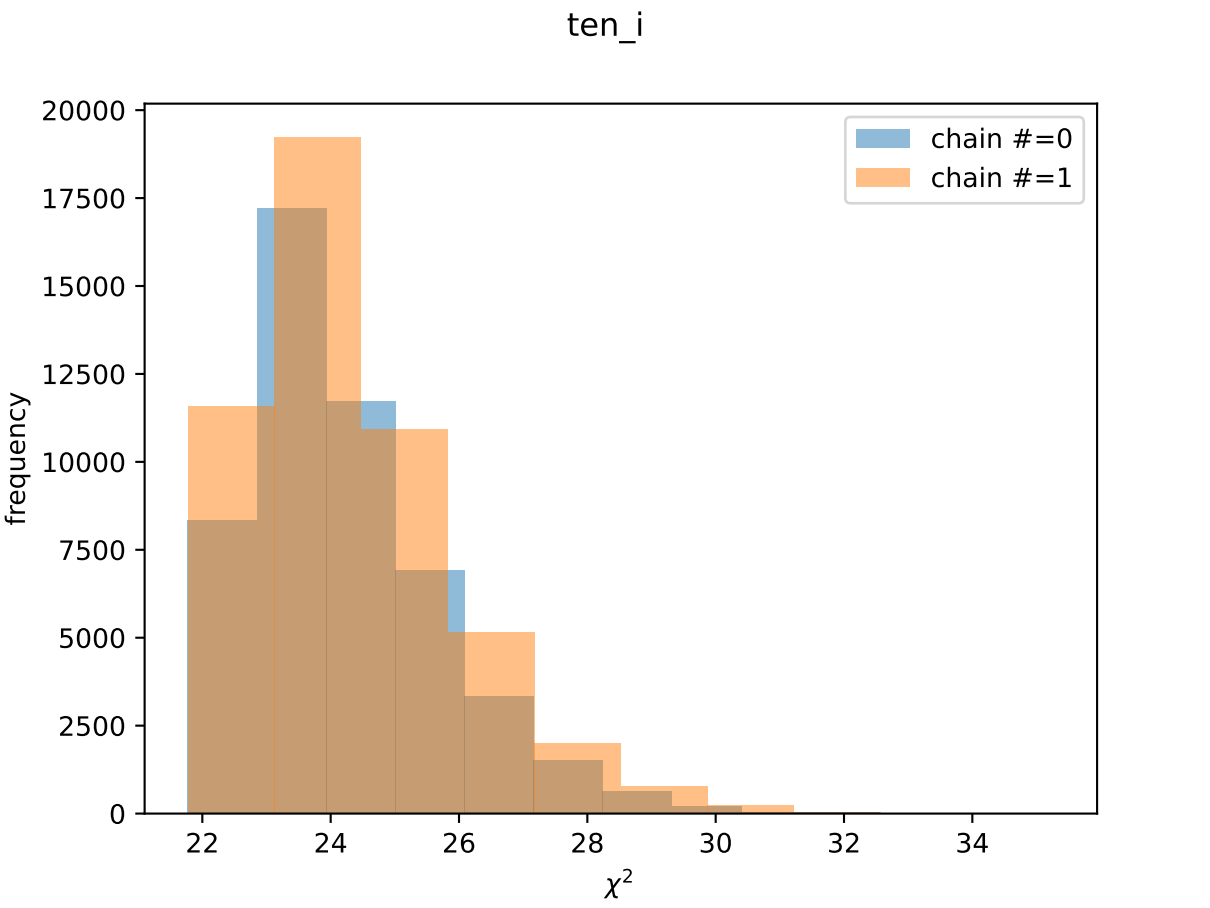

chain #=0
chain #=1
6000
5000
4000
3000
2000
1000
0
frequency
0.12
0.14
0.16
0.18
0.20
0.22
tau

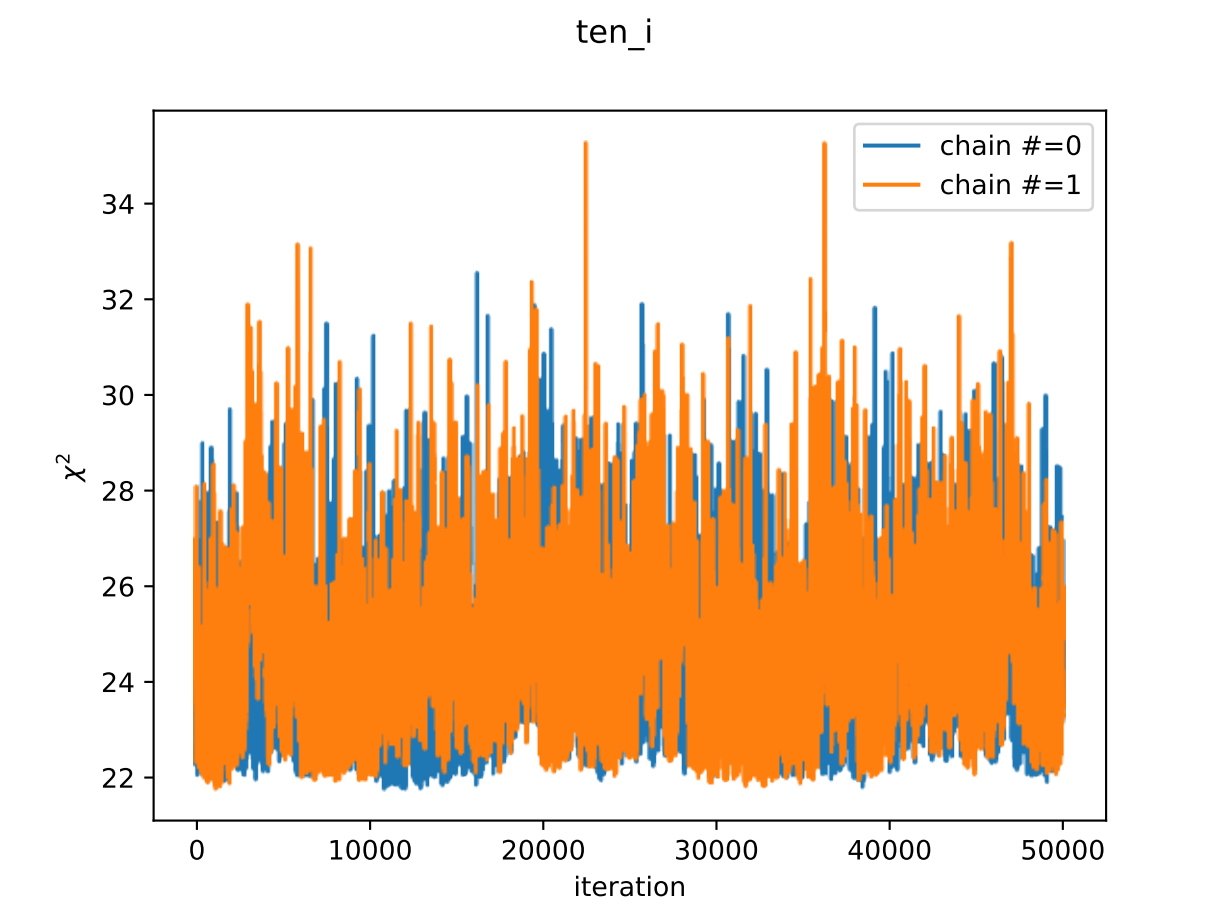

chain #=0
chain #=1
8000
6000
4000
2000
0
frequency
1.2
1.4
1.6
1.8
S0
1e6


chain #=0
chain #=1
8000
6000
4000
2000
0
frequency
2.0
2.2
2.4
2.6
2.8
3.0
3.2
V0
1e7

ten_i




ten_i
chain #=0
chain #=1
frequency
20000
17500
15000
12500
10000
7500
5000
2500
0
22
24
26
28
30
32
34
χ^2


ten_i
chain #=0
chain #=1
34
32
30
28
26
24
22
χ^2
0
10000
20000
30000
40000
50000
iteration