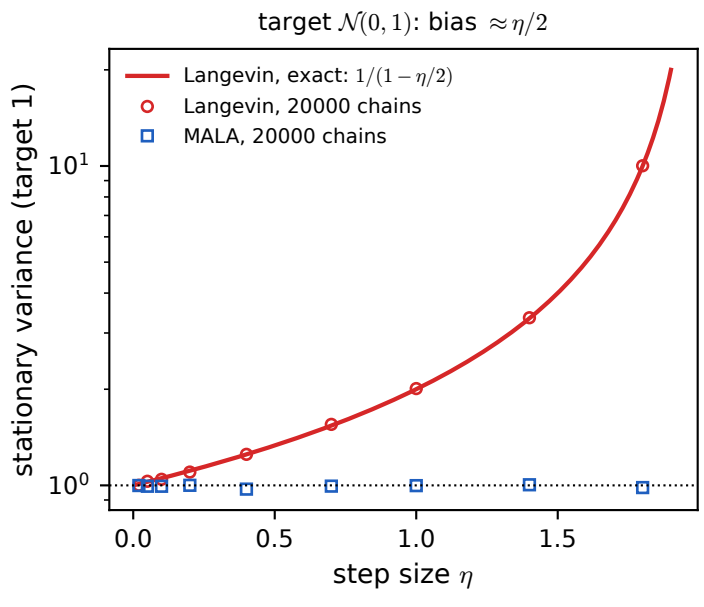
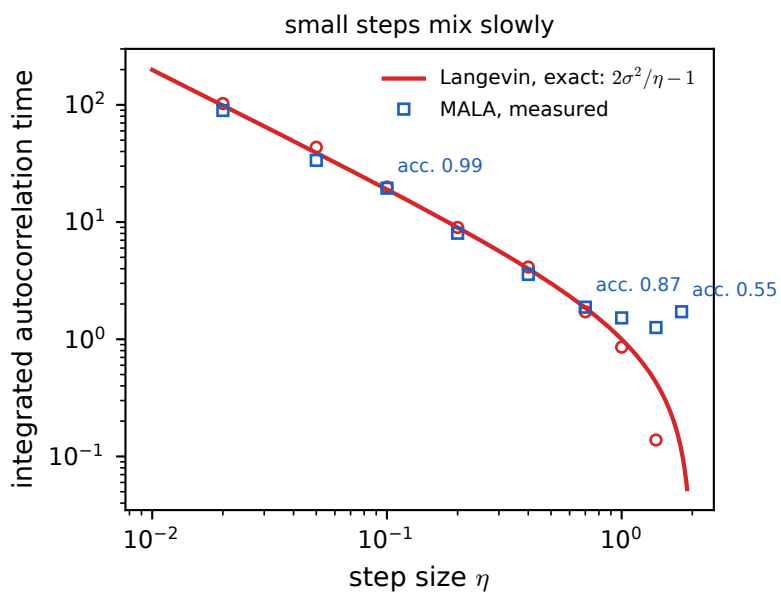
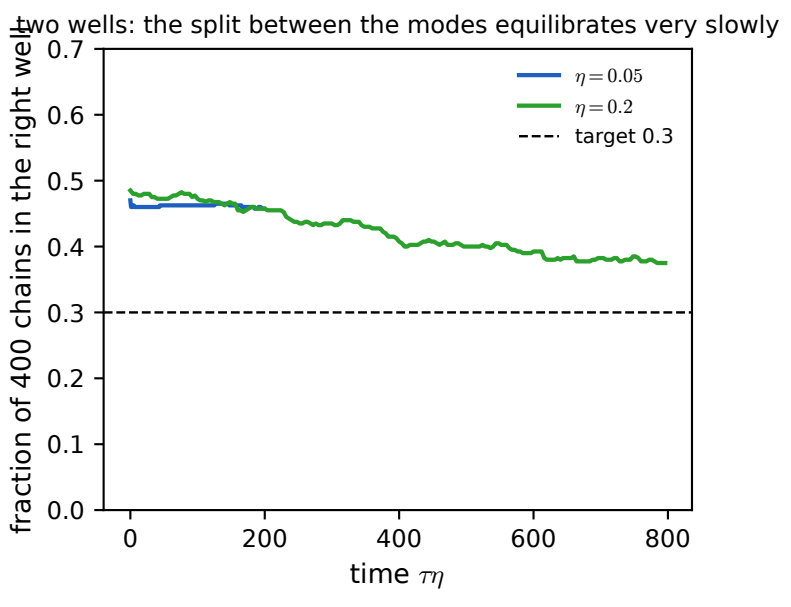

target $\mathcal{N}(0,1)$: bias $\approx \eta/2$
Langevin, exact: $1/(1-\eta/2)$
Langevin, 20000 chains
MALA, 20000 chains
stationary variance (target 1)
10^1
10^0
0.0
0.5
1.0
1.5
step size η


small steps mix slowly
Langevin, exact: $2\sigma^2/\eta - 1$
MALA, measured
acc. 0.99
acc. 0.87
acc. 0.55
integrated autocorrelation time
10^2
10^1
10^0
10^{-1}
10^{-2}
10^{-1}
10^0
step size η


two wells: the split between the modes equilibrates very slowly
$\eta = 0.05$
$\eta = 0.2$
target 0.3
fraction of 400 chains in the right well
0.7
0.6
0.5
0.4
0.3
0.2
0.1
0.0
0
200
400
600
800
time $\tau\eta$