

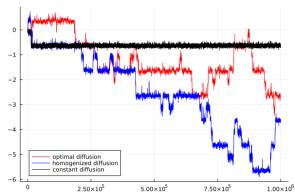
Optimizing overdamped Langevin dynamics

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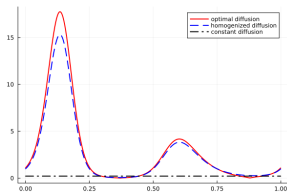
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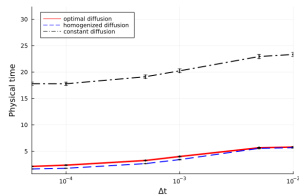
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Markov chains



Diffusion coefficients



Transition times

$$dq_t = (-\mathcal{D}(q_t)\nabla V(q_t) + \beta^{-1} \operatorname{div} \mathcal{D}(q_t)) dt + \sqrt{2\beta^{-1}\mathcal{D}(q_t)} dW_t$$

Improve sampling
efficiency for
metastable dynamics

$$\frac{1}{N} \sum_{i=1}^N f(q^i) \xrightarrow{N \rightarrow +\infty} \mathbb{E}_\pi[f], \quad \pi \propto e^{-\beta V}$$