variance-controlled estimator of  $\mathcal{D}_{KL}(\rho|\pi)$ requires effort that increases rapidly with  $\Delta t$ 10<sup>9</sup> scheme **ORVRO** computational effort (# trajectories × trajectory length) **OVRVO RVOVR VRORV** 10<sup>8</sup> 10<sup>7</sup>  $10^{6}$ 2 3 5 6

 $\Delta t$  (fs)