Scaling limits of reversible processes with log-concave invariant measures

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We study Markov processes associated with stochastic differential equations, whose non-linearities are gradients of convex functionals. The main result is a stability property: if the associated invariant measures converge weakly, then the Markov processes converge in law. The proofs are based on the interpretation of the associated Fokker-Planck equation as the steepest descent flow of the relative Entropy functional in the space of probability measures, endowed with the Wasserstein distance. Applications include stochastic partial differential equations and scaling limits of equilibrium fluctuations for a class of random interfaces.