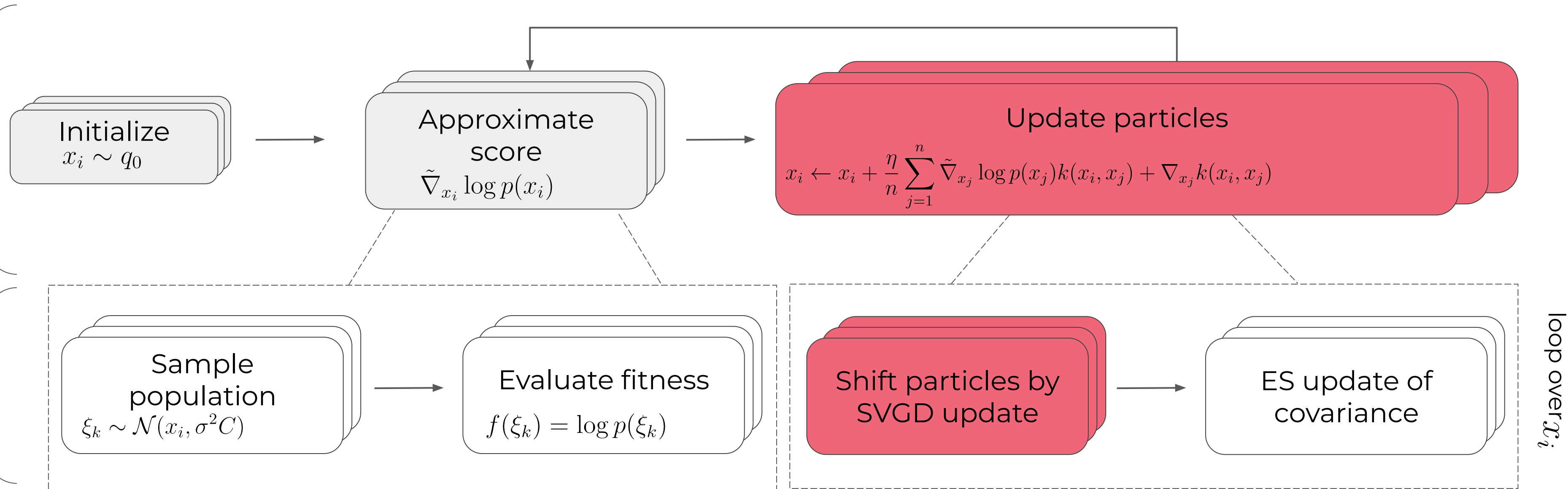
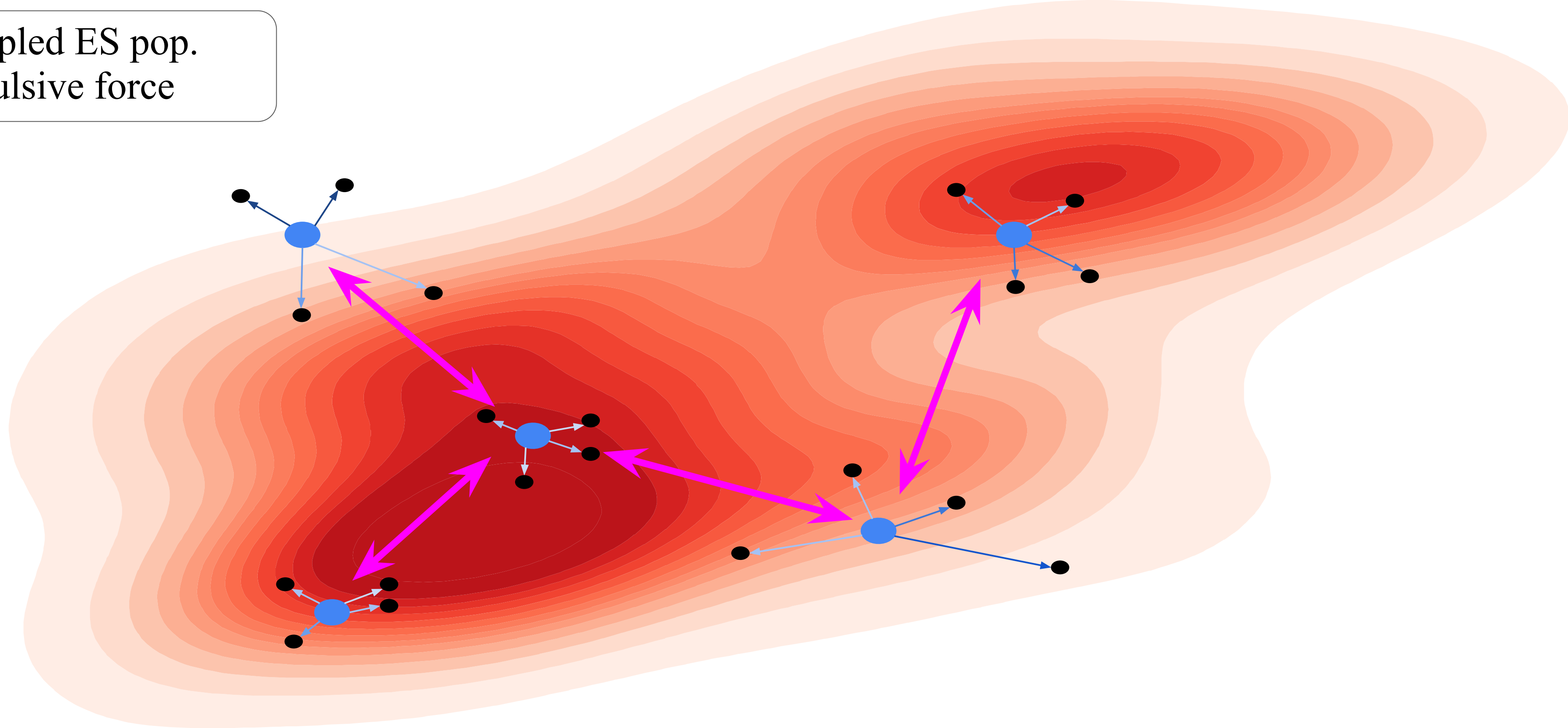
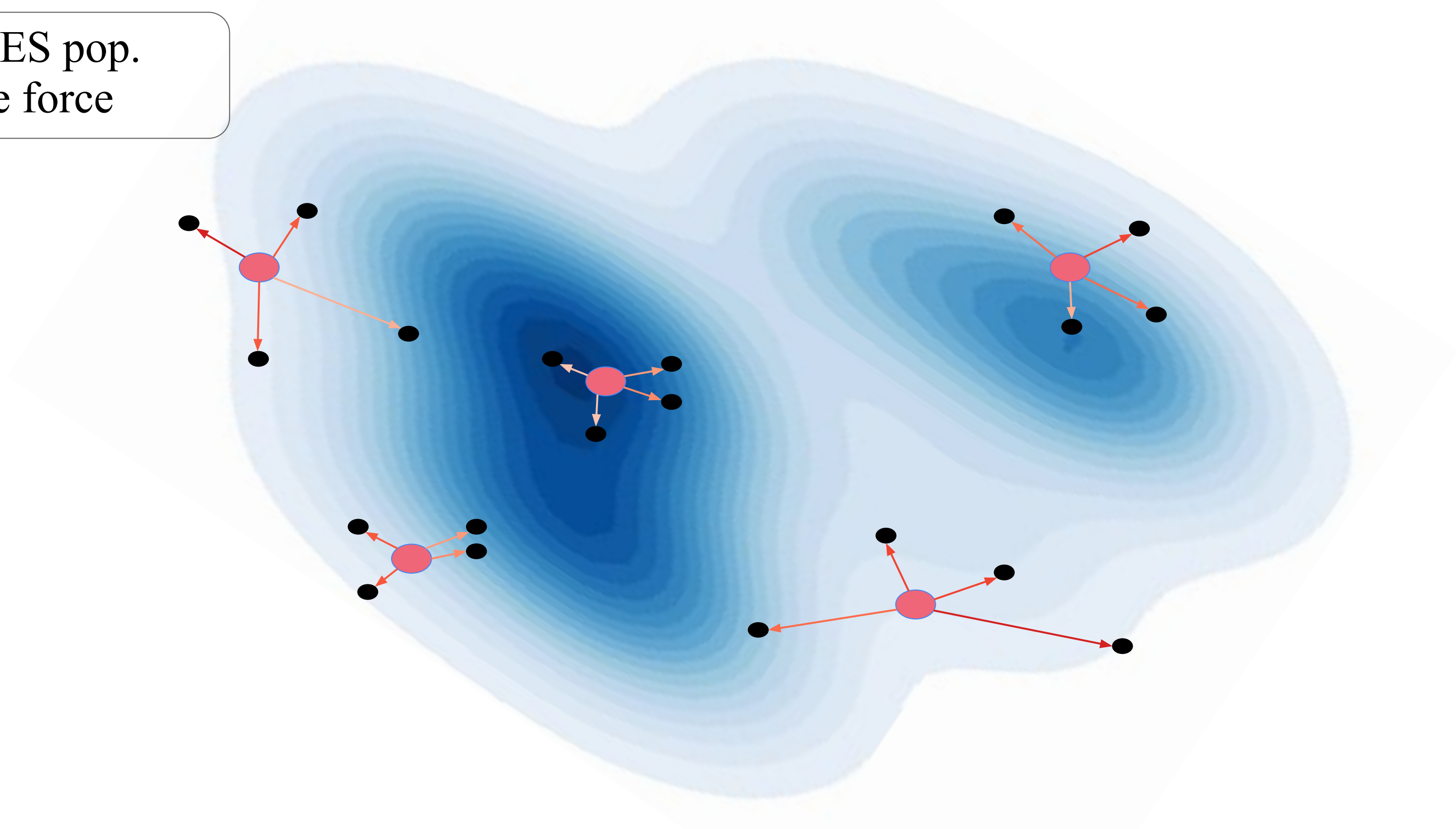


High level: SVGD

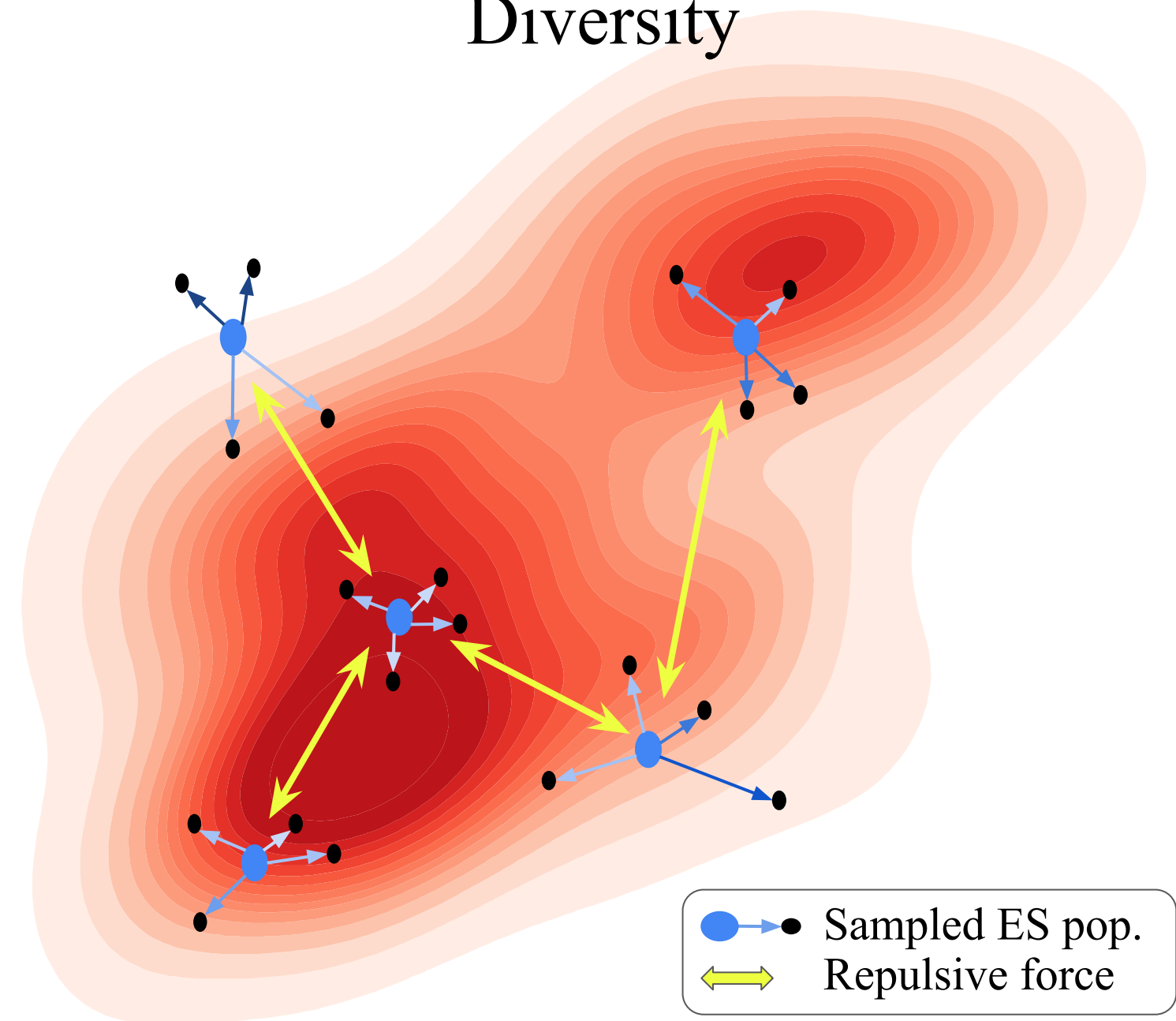
Low level: ES





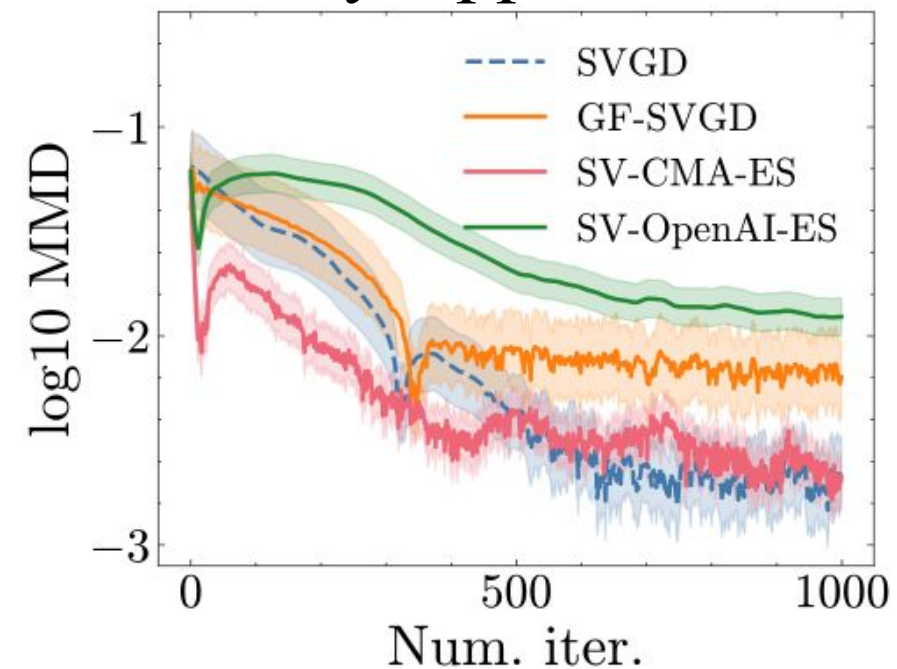


a) Stein Variational CMA-ES (SV-CMA-ES): Multiple ES Populations Optimize Fitness and Diversity

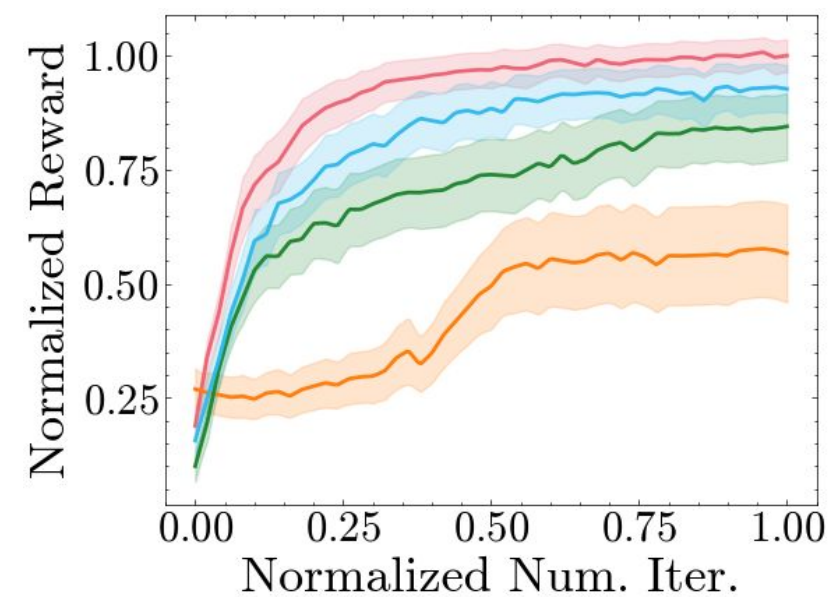


b) Qualitative Performance

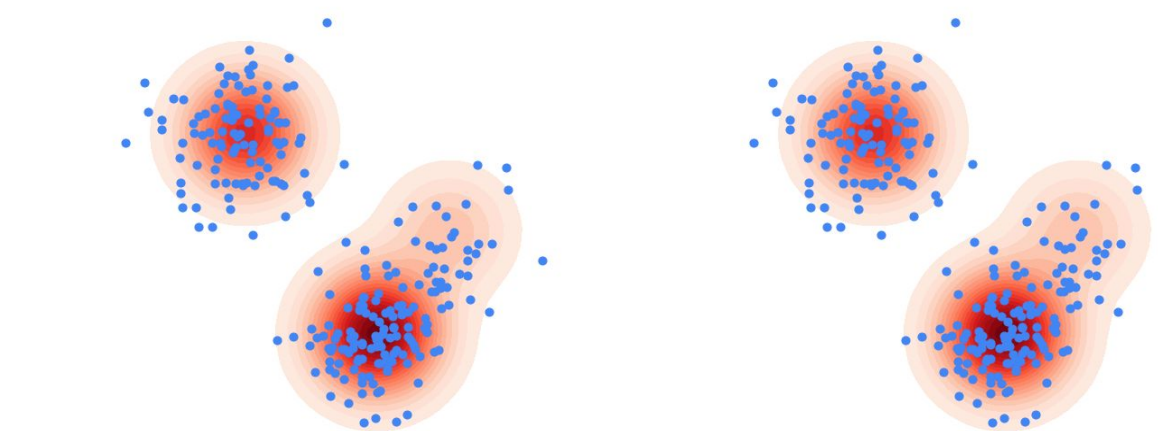
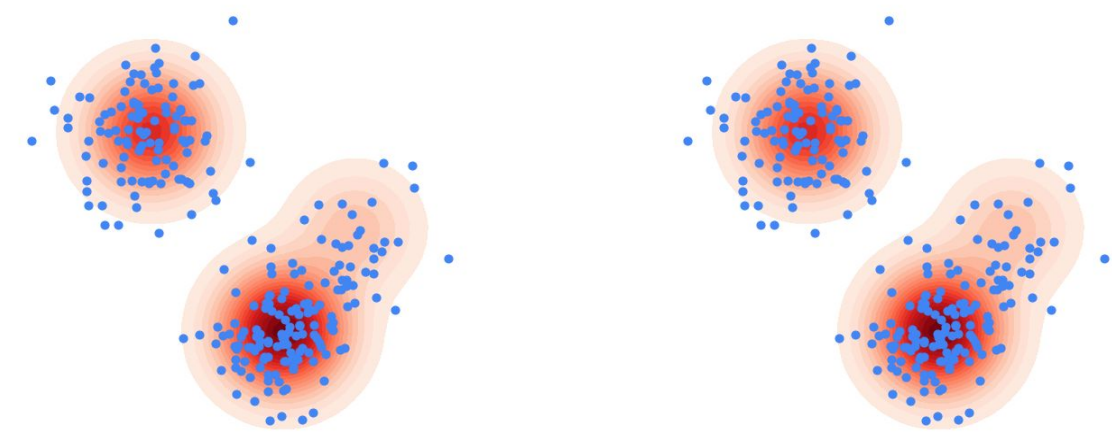
Density Approximation



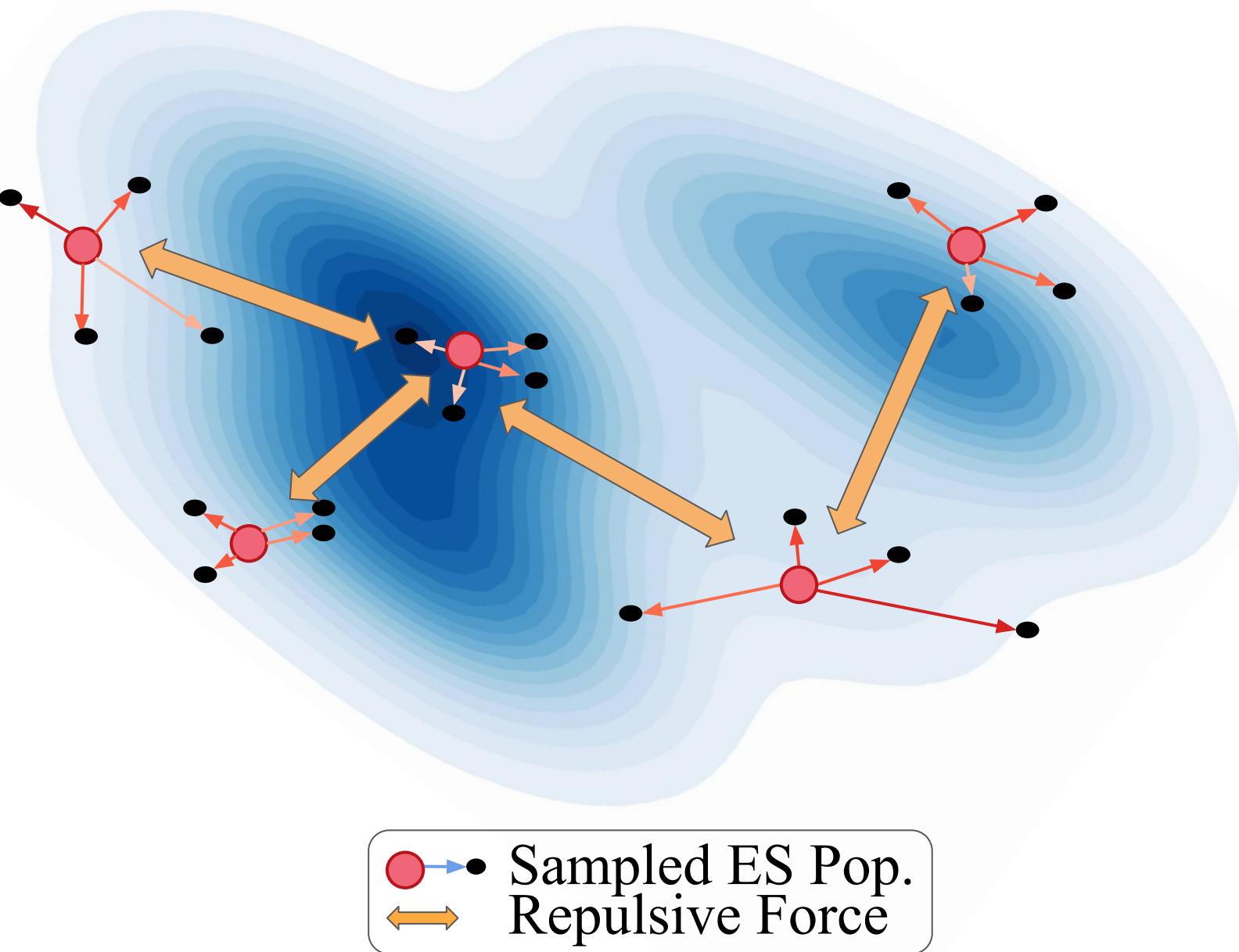
Reinforcement Learning



c) Qualitative Performance: Solution Quality & Diversity

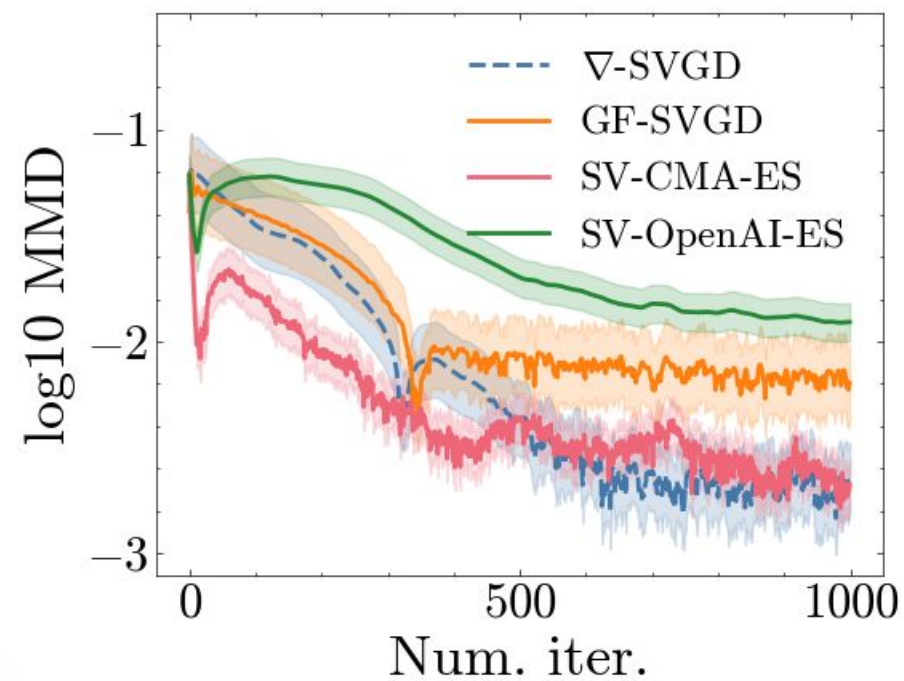


a) Stein Variational CMA-ES (SV-CMA-ES): Multiple ES Populations Optimize Fitness and Diversity

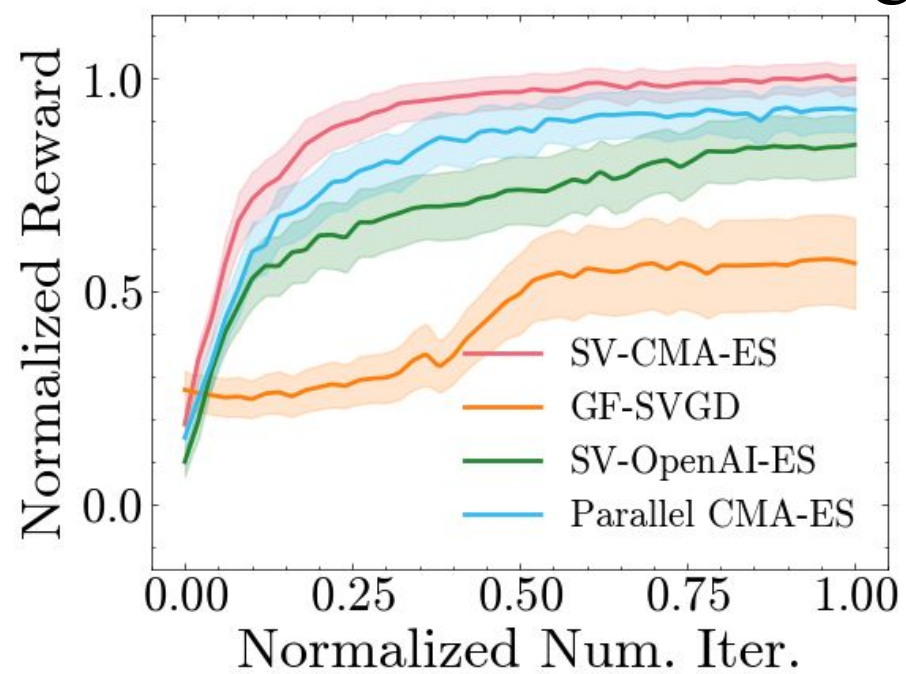


b) Quantitative Performance

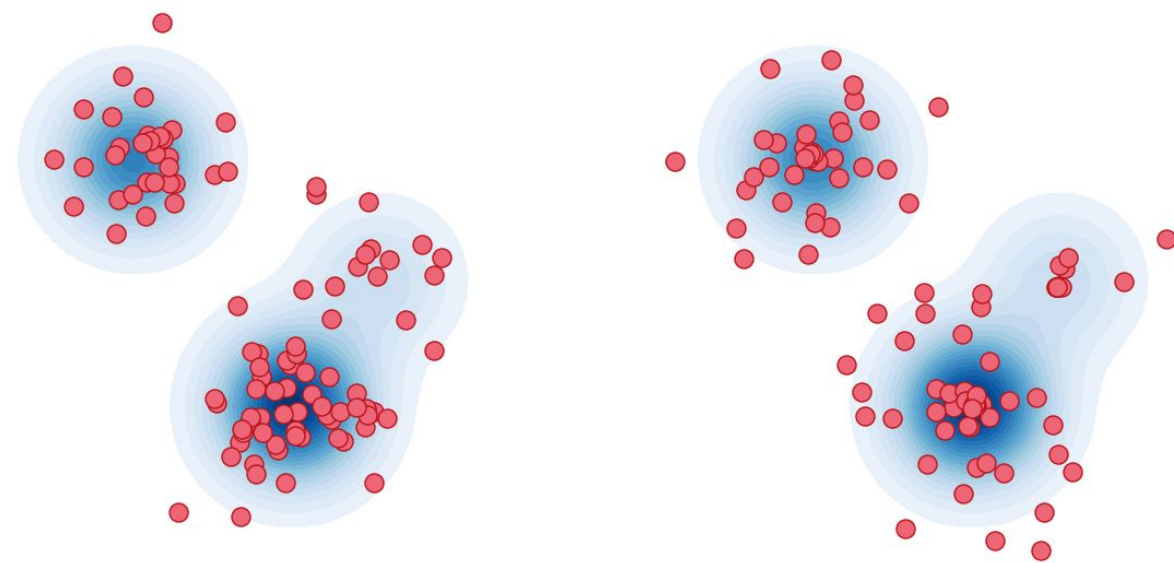
Density Approximation



Reinforcement Learning

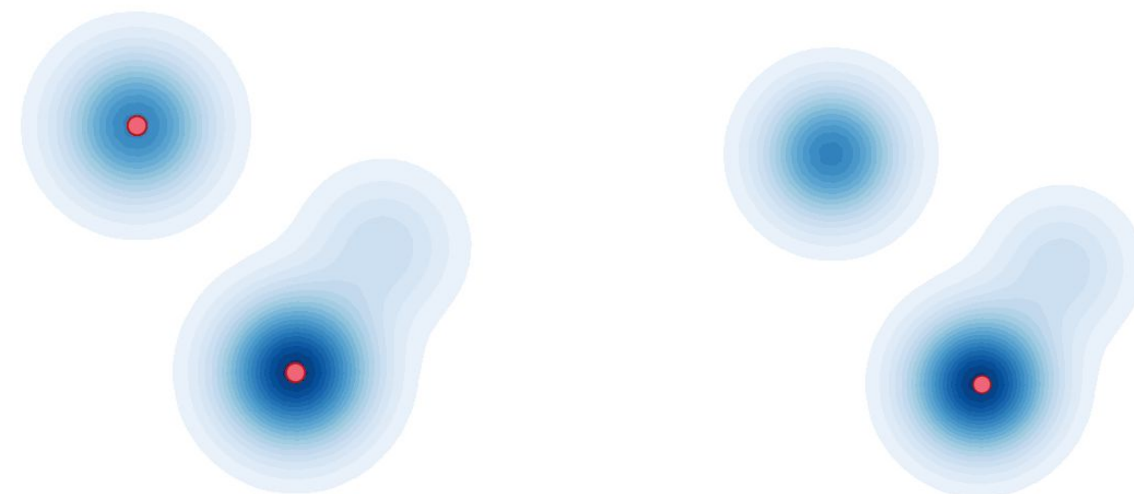


c) Qualitative Performance: Solution Quality & Diversity



Ground Truth

SV-CMA-ES



Multi-Pop. CMA-ES
(kernel-free)

CMA-ES