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## Learning trivializing flows

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The recent introduction of machine learning techniques, especially normalizing flows, for the sampling of lattice gauge theories has shed some hope on improving the sampling efficiency of the traditional HMC algorithm. However, naive usage of normalizing flows has been shown to lead to bad scaling with the volume. In this talk we propose using local normalizing flows at a scale given by the correlation length. Even if naively these transformations have a very small acceptance, when combined with the HMC lead to algorithms with high acceptance and reduced autocorrelation times compared with HMC. Several scaling tests are performed in the  $\phi^4$  theory in 2D.

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