Contribution ID: **59** Type: **not specified**

Investigation of near-conformal anomalous dimensions using gradient-flow RG

Friday, 26 April 2019 15:35 (5 minutes)

As the number of fermion degrees of freedom in a gauge theory increases, a phase transition is known to occur to an infrared-conformal phase lacking confinement and chiral symmetry breaking. Uncovering the nature of this transition and the properties of the non-trivial four-dimensional CFTs occurring inside the "conformal window" is a long-standing and active research question in lattice gauge theory, with deep connections to composite models of new physics. We propose a set of calculations to determine the spectrum of anomalous dimensions for SU(3) gauge theory with N f = 10 fundamental fermions, using a new method we have developed based on the gradient flow that allows a continuous Monte Carlo Renormalization Group procedure.

Summary

Presenter: HASENFRATZ, Anna (UColorado Boulder)

Session Classification: Poster Session w/ Coffee