

The Lattice Study of SU(2) with Many Fermions

Friday 6 December 2019 10:30 (1 hour)

Depending on the number of Fermions a gauge theory can have a behavior ranging from asymptotic freedom to asymptotic safety. I show the behavior of SU(2) gauge theory with 4,6,8,24, and 48 fermions measured from lattice field theory simulations. We observe limits for the lower and upper edge of the conformal window and measure anomalous dimensions for mass and coupling. We also try to understand the behavior with very high number of fermions, possibly leading to second conformal window.

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Session Classification: Morning session