KMI Special Lectures

"Infrared fixed points on the lattice"

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Abstract:
The existence of infrared fixed points in gauge theories minimally coupled to fermions has interesting consequences for model building. Lattice investigations can provide valuable insight into the nonperturbative dynamics of such theories. In these lectures we develop some of the tools needed to identify and characterize IR fixed points from numerical simulations of the theories defined on the lattice.

The lectures will cover:

1. RG flow, fixed points and lattice simulations
2. Scaling of physical observables
3. Numerical studies of RG flows