

MAR13-2012-020474

Abstract for an Invited Paper
for the MAR13 Meeting of
the American Physical Society

Conformal and near-conformal field theories

ANNA HASENFRATZ¹, University of Colorado Boulder

Non-Abelian gauge fermion systems could be chirally broken and confining or conformal, depending on the number of fermions and their representation. Models near the conformal boundary are important as they could be relevant in describing physics beyond the Standard Model. These models are strongly coupled and require non-perturbative investigations. Lattice techniques that were developed for QCD studies can be used to simulate these systems but there is growing evidence that new observables, new approaches are needed to study the properties of conformal or near conformal models. In this talk I will briefly summarize the most promising models and describe some standard and some promising new methods to study their properties.

¹Department of Physics