

Contribution ID : 115

Universal Properties of the Chiral Transition

Content :

We will present evidence, obtained from Lattice QCD studies using improved staggered fermion actions, that the chiral transition in QCD belongs to the $O(N)$ universality class. We will show how these universal scaling properties can be used to quantify the chiral crossover temperature of QCD with physical quark mass. We will also discuss the universal properties of the chiral transition in presence of small non-vanishing chemical potential and present results for the curvature of the line of chiral transitions in the temperature--chemical potential plane.

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Session classification : --not yet classified--

Track classification : --not yet classified--

Type : --not specified--