

Critical point and onset of deconfinement

Editorial

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Since it started in 2005, the subfield of studying quantum chromodynamics (QCD) phase structure has developed very rapidly. This is partly because the discovery of the strongly interacting quark-gluon plasma (sQGP), at the vanishing net-baryon densities, at RHIC and LHC and partly due to the successful of the RHIC beam energy scan program. During November 7–11, 2011, the 7th International Workshop on Critical Point and Onset of Deconfinement (CPOD2011) was held at the College of Physical Science and Technology, Central China Normal University. More than two hundred participants attend this workshop and about eighty of them are graduate students or fresh postdocs. The focus of the workshop was the phase structure of the QCD matter. Recent progresses on experimental results of energy dependence of particle production, correlations and fluctuations, and on theoretical results from the Lattice QCD calculations and other other QCD model results were presented at the workshop. As the result of the discussion, this special issue of the Central European Journal of Physics collects more than forty papers focusing on the progress in the research of QCD

structures, especially at the non-zero net-baryon density region.

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