

## Scale for the phase diagram of quantum chromodynamics

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We present a test of QCD in the non-perturbative domain through a comparison of thermodynamic fluctuations predicted in lattice computations with the experimental data of baryon distributions in high-energy heavy-ion collisions. This study provides evidence for thermalization in these collisions, and allow us to set a scale for the QCD phase diagram. The scale is the temperature for the cross over from normal nuclear matter to the deconfined quark gluon plasma phase. Extension of these techniques might allow the identification of the critical point of QCD.

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