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## Confronting fluctuations of conserved charges in central nuclear collisions at the LHC with predictions from Lattice QCD

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We construct net baryon number and strangeness susceptibilities as well as correlations between electric charge, strangeness and baryon number from experimental data on the particle production yields at midrapidity of the ALICE Collaboration at CERN. The data were taken in central Pb-Pb collisions at  $\sqrt{s_{NN}}=2.76$  TeV and cover one unit of rapidity. The resulting fluctuations and correlations are consistent with Lattice QCD results at the chiral crossover pseudocritical temperature  $T_c \approx 155$  MeV. This agreement lends strong support to the assumption that the fireball created in these collisions is of thermal origin and exhibits characteristic properties expected in QCD at the transition from the quark gluon plasma to the hadronic phase. Since Lattice QCD calculations are performed at a baryochemical potential of  $\mu_B = 0$ , the comparisons with LHC data are the most direct due to the vanishing baryon transport to midrapidity at these high energies. As an outlook, we will also present the applicability of our approach to RHIC data thus extending the comparisons to non-zero baryochemical potentials.

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