

Nuclear Experiment

First ALICE results from heavy-ion collisions at the LHC

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The ALICE detector recorded Pb-Pb collisions at $\sqrt{s_{NN}} = 2.76$ TeV at the LHC in November-December 2010. We present the results of the measurements that provide a first characterization of the hot and dense state of strongly-interacting matter produced in heavy-ion collisions at these energies. In particular, we describe the measurements of the particle multiplicity, collective flow, Bose-Einstein correlations, high-momentum suppression, and their dependence on the collision centrality. These observables are related to the energy density, the size, the viscosity, and the opacity of the system. Finally, we give an outlook on the upcoming results, with emphasis on heavy flavour production.

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