Abstract for an Invited Paper for the DNP11 Meeting of The American Physical Society

First Results from the CMS Heavy Ion Program

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We will present an overview of the CMS results from PbPb collisions at $\sqrt{s_{NN}} = 2.76$ TeV, probing quark-gluon matter at unprecedented energy density. The CMS apparatus provides calorimetry, muon and tracking systems covering a large range in pseudorapidity, complemented by a flexible two-level trigger system. This allows for the study of the production of jets, photons, charged hadrons, quarkonia and vector bosons at large transverse momenta as a function of collision centrality. Results from the rare probe signals, alongside with measurements of particle correlations and collective flow over a broad kinematic range, would provide the means to characterize the properties of the produced medium.