

Plenarvortrag PV V Di 11:00 RW 1
Quark-Gluon Plasma at the LHC — ●SILVIA MASCIOCCHI — GSI,
Darmstadt, Germany

After two years of very successful operation with lead beams at the LHC, the characterization of the Quark-Gluon Plasma, the deconfined state of matter produced now at unprecedented high-energy collisions of heavy ions, comprises many exciting results. I will discuss results for global observables which describe properties of the hot fireball, the study of energy loss in the medium for both light and heavy flavors, as

well as heavy quarkonia. There are interesting news from the description of initial state fluctuations, and the modification of jets in the dense QGP. In addition, the comparison with previous results from heavy-ion collisions at lower energies helps the understanding of the matter believed to be existing few microseconds after the big bang. Finally, the LHC plans a significant increase of the collision rate for 2018-9. This opens fascinating perspectives of new physics reaches, extending the potential of the present experiments. I give a brief look into these exciting plans.