

Joint seminar of the NPI of the CAS

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Neutral meson flow and yield in AgAg@1.58 AGeV at HADES

The Dielectron Spectrometer HADES operated at the SIS18 synchrotron, GSI Darmstadt recently provided new intriguing results on production of electron pairs and of strangeness from nucleus-nucleus collisions, as well as from elementary reactions, in energy region of 1 - 2 A GeV. In 2019 the spectrometer was complemented by an electromagnetic calorimeter based on lead-glass modules, which allows us to measure photons, thus study production of the π^0 and eta mesons via their two-photon decay. The knowledge of the neutral meson production is a mandatory prerequisite for the interpretation of dielectron data and at the same time almost no respective data about their production in nucleus-nucleus collisions are presently available for this energy range.

Particularly, yield, directed and elliptic flow of neutral mesons will be shown with respect to transverse momentum and rapidity for different centrality classes in Ag + Ag collisions at 1.58 A GeV. Results of analysis corresponding to 14×10^9 events will be confronted with results of other experiments and with up-to-date model calculations.

The seminar will take place on Thursday, January 12, 2023 at 10:00 a.m. in the NPI meeting room (conference room).