Workshop for young scientists with research interests focused on physics at FAIR



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Strange and heavy mesons in hadronic matter

Wednesday, 18 September 2013 09:00 (45 minutes)

We discuss recent results on the properties of strange and heavy flavored mesons in hot hadronic matter. The strange meson sector is studied within a chiral unitary approach in coupled channels for kaon/antikaon nucleon interactions. As an application, we focus on the in-medium cross sections in several channels (such as Kbar N -> pi Sigma), which are of particular interest for microscopic transport simulations of strangeness production in heavy-ion collisions.

Regarding heavy flavored mesons, triggered by a sizable dispersion of results in the literature, we present a study of charm and bottom transport coefficients in a hot meson gas such as is formed in the hadronic phase of heavy ion collisions. We emphasize on the relevance of using realistic models for the interaction of heavy mesons with the constituents of the medium (mostly pions). Implications for heavy meson spectrum observables in Heavy Ion Collisions are discussed.

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