Contribution ID: **12** Type: **not specified**

Dilepton production at SIS energies with the UrQMD model

Friday, 7 September 2012 17:30 (30 minutes)

Dilepton production in the SIS energy regime is analysed with the Ultra-relativistic Quantum Molecular Dynamics model. Invariant mass and transverse momentum spectra of electron-positron pairs in elementary and nucleus-nucleus collisions calculated with our transport approach are compared to the different experimental results published by the HADES collaboration. The model results give a good description of the data, however they show still discrepancies between experiment and theory. Therefore the dilepton contributions from mesonic and the Delta Dalitz decays are examined more deeply, and the different production channels as well as the respective cross-sections are investigated. A special focus is set on the rho meson properties and its production, as it is assumed to significantly change its properties in a medium as produced in nucleus-nucleus collisions.

Primary author: Mr ENDRES, Stephan (Frankfurt Institute for Advanced Studies / University of Frankfurt)

Presenter: Mr ENDRES, Stephan (Frankfurt Institute for Advanced Studies / University of Frankfurt)

Session Classification: Talks