



# XXIV QUARK MATTER DARMSTADT 2014

Contribution ID: 594

Type: **Poster**

## **Strange and electromagnetic probes of dense nuclear matter at SIS**

*Tuesday 20 May 2014 16:30 (2 hours)*

We present transport-model simulations of proton-nucleus and nucleus-nucleus collisions at SIS energies, primarily focusing on electromagnetic and strange observables in order to learn about the properties of mesons in a dense nuclear medium. Dilepton and kaon spectra measured by the HADES detector at GSI are being confronted with transport simulations obtained with the GiBUU model. In this way we find indications for a nonzero kaon potential in p+Nb as well as the need for significant in-medium modifications of the  $\rho$  meson's spectral function in Ar+KCl collisions. Further, we discuss the intricacies of handling such in-medium effects in a transport approach.

### **On behalf of collaboration:**

None

**Author:** Dr WEIL, Janus (FIAS)

**Co-authors:** VAN HEES, Hendrik (Goethe University Frankfurt); BLEICHER, Marcus (Uni Frankfurt); MOSEL, Ulrich (JLU Giessen)

**Presenter:** Dr WEIL, Janus (FIAS)

**Session Classification:** Poster session

**Track Classification:** Electromagnetic Probes