

Abstract Submitted
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Modeling nuclear stopping with in-medium modifications of nucleon-nucleon cross sections.¹ BRENT BARKER, PAWEL DANIELEWICZ, NSCL and Department of Physics and Astronomy, Michigan State University — Stopping in heavy ion collisions is investigated with the aim of understanding microscopic dynamics of collisions and transport properties of nuclear matter. Boltzmann-equation simulations are compared to available data on stopping in the energy range between 0.02 A and 1.5 A GeV. Stopping observables used include momentum anisotropy, linear momentum transfer, and isospin tracing. The data clearly shows that modeling the transport with free elementary cross-sections is inaccurate and reduced cross-sections are required. Reduction of the cross-sections produce an increase in transport coefficients of nuclear matter, compared to calculations based on free cross-sections.

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