

Abstract Submitted  
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**Microscopic calculations in isospin-asymmetric nuclear matter<sup>1</sup>**

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University of Idaho — A topic of contemporary interest in nuclear physics is the investigation of the effective nucleon-nucleon interaction in a dense hadronic environment. In particular, inclusion of isospin asymmetry is of great interest at this time because of the opportunity to study collisions of neutron-rich nuclei at RIA energies. Based on our previous calculations of the equation of state for neutron-rich matter, we will present microscopic predictions of the (isoscalar and isovector) single-nucleon potentials and two-body cross sections in the isospin-asymmetric nuclear medium. Both are crucial input for isospin-dependent transport model simulations of heavy ion collisions.

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