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What can we learn from microscopic studies of dense nuclear matter?¹ FRANCESCA SAMMARRUCA, University of Idaho — Recent efforts in my group have been aimed at exploring nuclear interactions in the medium through a broad spectrum of microscopic theoretical studies of the properties of dense and strongly asymmetric nuclear matter, where asymmetry may refer to isospin and/or spin. An example is the possible existence of a transition to a ferromagnetic state in spin-polarized nuclear/neutron matter. I will present and discuss recent progress and its relevance with respect to a better understanding of the nuclear force in dense matter.

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