

## Experimental Investigations of the Nuclear Equation of State and Applications to Astrophysics

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Understanding the nuclear equation of state is relevant to a wide range of topics in astrophysics, including neutron star properties, black hole collapse, and the r-process. Details of recent experiments to study the asymmetry dependence of the nuclear equation of state will be presented, and theoretical and experimental needs will be discussed. Astrophysical applications of experimental and theoretical results will be presented. A phenomenological study will present results that may indicate that elemental abundances in metal-poor stars may also provide insight into the stiffness of the equation of state.