

Abstract Submitted  
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**The Neutron Star Equation of State with NICER** SHARON MORSINK, University of Alberta — The dense interiors of neutron stars provide a window to the nature of cold matter at densities above nuclear that complements precision laboratory nuclear experiments. The uncertain physics at high density, leads to a range of possible equations of state (EOS). Since each potential EOS allows a different neutron star mass and radius curve, observations of many neutron star masses and radii provide important input that can constrain the supranuclear EOS. The Neutron Star Interior Composition Explorer (NICER) is a NASA X-ray telescope mounted on the International Space Station. NICER was designed to measure the mass and radius of millisecond period X-ray pulsars through a technique known as pulse-profile modelling. In this talk, I will give an overview about how NICER infers the radius (and mass) of a neutron star, along with the latest results and the planned future observations of other pulsars.

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