Abstract Submitted
for the APR18 Meeting of
The American Physical Society

Constraining the nuclear equation of state with multiple observational channels RICHARD O'SHAUGHNESSY, Rochester Inst of Tech, JOCELYN READ, California State University, Fullerton, MONICA RIZZO, Rochester Institute of Technology, ANDREW STEINER, University of Tennessee, Knoxville, LES WADE, Kenyon College, DANIEL WYSOCKI, Rochester Institute of Technology — In the next few years, both gravitational wave observations and X-ray timing observations will provide complementary ways to measure the nuclear equation of state. Projecting forward to the future based on plausible astrophysical populations and measurement opportunities available in the next few years, we show that multi-messenger and multi-object observations will allow us to constrain the nuclear equation of state to O(30%) just above the nuclear saturation density.

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Date submitted: 16 Jan 2018 Electronic form version 1.4