Contribution ID : **97** Type : **not specified**

Equation of state constraints from NICER

One of the primary goals of NICER, the Neutron Star Interior Composition Explorer, is to measure the masses and radii of several relatively bright, thermally-emitting, rotation powered millisecond pulsars. To achieve this the NICER team is using the waveform (or pulse profile) modelling technique: exploiting the effects of General and Special Relativity on the rotationally-modulated radiation emitted from the pulsars' hot polar caps. On behalf of the team, I will review the target selection and data processing methodology, the models and statistical inference tools being used, and the process by which we have tested and verified our analysis procedures and codes. I will then present the mass-radius results obtained by the mission to date, and discuss the implications for our understanding of the ultradense matter in neutron star cores.

Primary author(s) : Dr WATTS, Anna (University of Amsterdam)

Presenter(s) : Dr WATTS, Anna (University of Amsterdam)