

Title

**Improving the mass measurement of PSR J1902-5105**

Abstract

We propose to use MeerKAT to improve the mass measurement of PSR J1902-5105, a millisecond pulsar (MSP) with a mass of  $2.13 \pm 0.07$  solar masses measured via Shapiro delay in previous MeerKAT data. Confirming this value, and improving its precision, is of great importance for constraining the equation of state of matter at densities above that of the atomic nucleus (EoS), a topic with major implications for many areas in astrophysics and fundamental physics.