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## Abstract:

Remarkable relativistic effects can be measured with great accuracy in most double neutron stars systems. Relativistic effects can be described with post-Keplerian (PK) parameters, and they can be used to determine the mass of two stars and test general relativity (GR) or other theory.

PSR J1933+2038, or gpps0041, is a binary MSP discovered in FAST GPPS survey. It has a 40ms spin period and a narrow pulse. Preliminary analysis of accumulated GPPS survey data has revealed its highly elliptical orbit (e~0.31) and 0.5366 days orbit period, which suggest that J1933+2038 is a double neutron stars system. The double NS system is an ideal lab to study gravitation theory and the evolution of massive binaries. With FAST's high sensitivity the PK effects of J1933+2038 can be detected with relatively high quality. But due to the lack of observations, we cannot find a phase coherent timing solution for its orbit, not to mention its PK parameters, which is essential to further study of this system. We apply long-term and frequent FAST observations in order to fully explore the scientific value in such a rare system.