Relations between the pulsar timing data and the planetary ephemerides

E. M. Standish
Caltech / Jet Propulsion Laboratory

Pulsar timing data contain information about the inherent properties of the pulsar, about its position and motion through space, and about the position and motion of the earth. Consequently, the timing observations may be used to improve determinations of all of the above features. There are, however, strong correlations between a number of the parameters which may be lessened by improvements to the observational data, the physical modeling of the pulsar, and the earth's ephemeris. This paper shows the signatures introduced by uncertainties in the earth's ephemeris and how recent developments have reduced a number of these uncertainties.

ABSTRACT

SESSION

PULSARS