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Results from the search for very-low frequency gravitational waves with the EPTA DR2 and InPTA DR1

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The European Pulsar Timing Array (EPTA) and Indian Pulsar Timing Array (InPTA) collaborations have measured a very-low frequency (~ nano-Hertz) common signal with correlation properties compatible with a gravitational wave (GW) signal. In this talk, I will first describe the methodology and outcome of the pulsar timing and noise analysis applied to the EPTA and InPTA combined data. Then I will present the results from the GW search for either the stochastic background or a continuous GW search using this data set. I will conclude my presentation with prospects on the upcoming International Pulsar Timing Array Data Release 3 that will include data from Square Kilometer Array precursors.

Reasearch area

Gravitational Waves

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