

Fundamental Physics with Pulsar Timing Arrays

Friday 11 July 2025 09:00 (30 minutes)

Pulsar timing array (PTA) experiments aim to detect nHz-frequency gravitational waves using high-precision timing of millisecond pulsars. Multiple PTA collaborations have recently reported evidence for a stochastic gravitational wave background (SGWB), expected to arise predominantly from a population of inspiraling supermassive black hole binaries. In this talk, I will discuss how PTA experiments characterize the expected signal of the SGWB and present a new analysis technique, which may better facilitate tests of general relativity with future data.

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