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**The NANOGrav search for nanohertz gravitational waves<sup>1</sup>**

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Supermassive black hole binaries (SMBHBs), and possibly other sources, generate gravitational waves in the nanohertz part of the spectrum. For over a decade the North American Nanohertz Observatory for Gravitational Waves (NANOGrav) has been using the Green Bank Telescope, the Arecibo Observatory, and, more recently, the Very Large Array to observe millisecond pulsars. Our goal is to directly detect nanohertz gravitational waves, which cause small correlated changes to the times of arrival of radio pulses from millisecond pulsars. We currently monitor almost 80 millisecond pulsars with sub-microsecond precision and weekly to monthly cadences. A detection of the stochastic gravitational-wave background produced by all the SMBHBs in the universe is close at hand. I will present an overview of NANOGrav Physics Frontiers Center (PFC) activities and summarize our most recent gravitational-wave search results.

<sup>1</sup>NSF Physics Frontiers Center