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Non-Gravitational Wave Physics and Astrophysics from NANOGrav[1] SCOTT RANSOM, National Radio Astronomy Observatory, NANOGRAV COLLABORATION — The NANOGrav collaboration just released its 11 year timing data set as part of its efforts to detect nHz gravitational waves with a pulsar timing array. While the new stochastic background limits are constraining the astrophysics of supermassive black hole growth and galaxy mergers, there is an incredible amount of ancillary science that we get from the high-precision timing of scores of millisecond pulsars. In this talk I'll describe some of this science, such as unique constraints on the interstellar medium, new neutron star masses, better statistics on the velocity distribution of recycled pulsars, and tests of alternative theories of gravity.

[1]NSF Physics Frontiers Center 1430284

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