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**NANOGrav: prospects for the detection of a stochastic background of low-frequency gravitational waves** XAVIER SIEMENS, University of Wisconsin–Milwaukee, NANOGrAV COLLABORATION — For the better part of the last decade, the North American Nanohertz Observatory for Gravitational Waves (NANOGrav) has been using the Green Bank and Arecibo radio telescopes to monitor millisecond pulsars. NANOGrav aims to directly detect low-frequency gravitational waves which cause small changes to the times of arrival of radio pulses. In this talk I will discuss the work of the NANOGrav collaboration and recent progress made toward realistic simulations of our sensitivity to a stochastic background of gravitational waves. I will show that a detection is possible as early as 2017.

Xavier Siemens  
University of Wisconsin–Milwaukee

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