Abstract Submitted
for the APR20 Meeting of
The American Physical Society

Predicting the Sensitivity of NANOGrav into the Next Decades[1]
JEFFREY HAZBOUN, University of Washington, Bothell, NANOGRAV PHYSICS FRONTIERS CENTER COLLABORATION — The North American Nanohertz Observatory for Gravitational Waves (NANOGrav) is a pulsar timing array collaboration working to detect the stochastic background of gravitational waves (GWs) from super massive binary black holes (SMBBHs). In order to robustly predict our PTA's evolving sensitivity various astrophysical details of the galactic millisecond pulsar population are needed, as well as a detailed understanding of how those characteristics combine in our gravitational wave analysis. Here we discuss the work needed to accurately predict the sensitivity of NANOGrav to GWs from SMBBHs into the next decades using sophisticated simulation pipelines.

[1]The NANOGrav Physics Frontiers Center is supported by NSF award number 1430284

Jeffrey Hazboun
University of Washington, Bothell

Date submitted: 11 Jan 2020 Electronic form version 1.4