## Abstract Submitted for the APR21 Meeting of The American Physical Society

Galactic white dwarf binary population from LISA Data Challenge Radler data set KRISTEN LACKEOS, USRA/NASA Marshall Space Flight Center, Max Planck Institute for Radio Astronomy, TYSON LITTENBERG, NASA Marshall Space Flight Center, NEIL CORNISH, Montana State University, JAMES THORPE, NASA Goddard Space Flight Center — Here we present an analysis of a simulated Laser Interferometer Space Antenna data stream from one year's worth of observing time. The data stream is comprised entirely of white dwarf galactic binaries, generated as part of the LISA Data Challenges Radler data set. We use the end-to-end analysis pipeline presented in Littenberg et al. 2020 to resolve thousands of galactic binaries and characterize the residual of the unresolved galactic foreground. The analysis is done successively for segments of one, 3, 6 and finally 12 months of observing time. Each analysis builds on the proposal distributions constructed from a catalog of resolved binaries produced from analysis results immediately preceding. The catalog for each observation time is presented along with quantification of the detection efficacy of the pipeline and the robustness of parameter estimation over time. We discuss and compare our results to those inferred from galactic binary population statistics extracted from the same Radler data set and statistics found in the literature.

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Date submitted: 07 Jan 2021 Electronic form version 1.4