

# ROBERT S. WHARTON

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## EDUCATION AND EXPERIENCE

2021-2024 Postdoc at NASA Jet Propulsion Laboratory

2017-2021 Postdoc at Max-Planck-Institut für Radioastronomie

2017 Ph.D. in Physics, Cornell University

2009 B.Sc. in Physics and Mathematics, Pennsylvania State University

## EXPERTISE

Radio Astronomy • Single Dish Telescopes • Interferometric Arrays • Pulsar Astronomy  
• Novel Pulsar Search Strategies • High Precision Pulsar Timing • Fast Radio Bursts •  
The Galactic Center • Large Astronomical Data Sets

## PROGRAMMING

GENERAL: Python • (astropy, numpy, matplotlib) • C • git • docker •  $\text{\LaTeX}$

ASTRONOMY: PRESTO • dspsr • PSRCHIVE • tempo / tempo2 / pint • CASA

## RESEARCH

My research is largely focused on high time resolution studies of pulsars, magnetars, and fast radio bursts. By recording data at time resolutions down to  $\sim 10$  nanoseconds, we explore length scales down to a few meters for objects at astronomical distances. However, to do this we must record, process, and search huge data sets.

Some of my research projects:

RECENT: High Frequency FRB Searches • Pulsar Timing using the Deep Space Network • Radar Monitoring of Space Debris in LEO

PAST: Interferometric Imaging of FRBs • Imaging Search for Pulsars • Pulsars around the Supermassive Black Hole Sgr A\*