

**Proposal Abstract:**

Recent studies indicate that pulsar glitches may subtly influence magnetospheric behavior. PSR J2021+3651 experienced a new glitch five months ago, and the next glitch for PSR J2229+6114 is predicted by the vortex creep model to occur in January 2025. This proposal aims to utilize the FAST telescope to observe and analyze the behavior of single pulses from two gamma-ray pulsars, PSRs J2021+3651 and J2229+6114, before and after their (estimated) glitches. By employing advanced machine learning techniques, including Variational Auto Encoders and Self-Organizing Maps, we plan to conduct detailed per-pulse clustering to detect and examine any anomalies or changes associated with these glitches. This study will deepen our understanding of glitch impacts on the magnetosphere.