NO: PT2024_0112

Proposal Abstract:

FRB 20240114A is a highly active repeating FRB discovered by CHIME recently. FAST has been monitoring FRB 20240114A for over 100 days on a nearly one-week cadence, and detected nearly 10,000 bursts during the entire 24.5-hour observation spanning from January to May. The source has remained active so far, and particularly, kept a hyper-activity during March and April with a burst rate over 500 /hr. We propose a weekly continuous monitoring of FRB 20240114A during the 2024 FAST observing period to collecting the world's largest sample set of this repeating FRB -- the most stringent revealing of the energy origin of the central object. The continuous monitoring can also try to reveal the the intrinsic radiation origin of repeating FRBs through the temporal evolution of energy distribution and the yearly time-scale burst rate reveal the intrinsic radiation origin.