

Proposal Abstract:

Fast Radio Bursts(FRBs) are cosmological millisecond-timescale radio bursts. Although magnetars is the leading model of FRBs, more and more evidences suggest multiple FRB progenitor classes, including young magnetar, and stellar-neutron star binaries and so on. While binary models predicts periodicity and dependency of environment on the activity, it is very useful to study the parameter such as rotation measure (RM), dispersion measure (DM) as a function of activity. FRB 20220529A was nearly restless after 10 month observation in FAST. Up to the end of March, it experienced two very active bursting phase. there are totally 1000+ bursts detected in 38.5 hours FAST observation. Its persistency provides a unique opportunity to study the variance of its magneto-ionic environment, such RM, DM and scintillation. And it is feasible in both low and high activity state. Here we propose to monitor it once per week with FAST, to examine the possible periods and models. The total requested time is 26 hours.