

Proposal Abstract:

Recent observations have confirmed magnetic cataclysmic variables (mCVs) as highly circularly polarized radio emitters where the origin was proposed as the electron-cyclotron maser emission (ECME) from their fast spinning companions. However, no polarized radio emission has been observed for non-magnetic CVs which also harbor fast spinning companion stars. Here we propose FAST targeted observations to detect possible circularly polarized radio emission from 3 previously unobserved nearby CVs. The possible detection will provide key evidence to distinguish the origin of the emission, and help measure the surface magnetic field strength of the companion stars.