

Proposal Abstract:

The Fermi bubbles are two enormous structures extending to 55 deg above and below the Galactic center (GC) in the gamma-ray sky, with possible X-ray and radio counterparts. Although it has been discovered for more than 10 years, the origin of this structure is still not fully understood. The symmetry morphology of the bubbles above and below the Galactic Centre indicates they are associated with the GC region rather than from a region closer to Earth. The hard energy spectrum and the sharp edges favor a transient nature for the bubbles. The ISM propagation effect toward radio pulsars made them possible tracers to help unfold the mystery of the origin of the Fermi Bubble from another unique perspective. Due to the limited sensitivities of previous radio telescopes and the lack of interest in searching for pulsars outside the Galactic plane for previous researchers, there are very few known pulsars located in or behind the Fermi Bubbles. Benefiting from the high sensitivity of FAST, we propose a pilot search for pulsars on the edge of the Fermi Bubbles using FAST SnapShot mode.