

Proposal Abstract:

Galactic outflows have significant influence on the evolution of the host galaxy, by regulating the mass, feeding back to star formation, and injecting energy and momentum to the interstellar medium (ISM). The Fermi Bubble indicates intense activities in the nuclear region of the Milky Way a few Myrs ago, which are still regulating the morphology and kinematics of ISM near the Galactic Center. Previous GBT observations show outflowing HI clouds in this region, associated with molecular gas. Our previous FAST observation found 30 HVCs at higher latitude spatially associated with Galactic Center outflows. However, their relatively lower velocities make it less convincing to be associated with Galactic outflows. Extending observation towards the central axis direction of the outflow will help reduce influence of the projection angle. With more detections of neutral clouds in outflow wind, we can 1) reveal the whole structure of neutral gas outflow; 2) obtain overall clouds motion features; 3) obtain more detailed clouds kinematic structures.