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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 pilot search from the HI4PI survey indicates even more outflowing clouds at higher Galactic scale height. Here we request FAST observations to 1) confirm these new HI outflowing clouds driven by the Galactic nuclear wind; 2) detect overall velocity and spatial structures on large scales, and 3). obtaining kinetic energy of Galactic nuclear outflows.