

Proposal Abstract:

In 2001, Stanbring et al. discovered that thin screens of the ionized interstellar medium (ISM) cause arc-like structures in the pulsar's secondary spectrum. Since then, the scintillation arcs have proven to be a powerful tool for pulsar and ISM studies. In this proposal, we plan to observe and search for scintillation arcs from another compact radio source, the quasars. Seven quasars are chosen because of their rapidly scintillating nature. If arcs are successfully detected, our observation will extend the pulsar observing techniques to quasars for the first time and also possibly open up a brand new avenue for studying local ISM structures. Through these observations, we expect to learn more about the local interstellar medium, i.e., the velocity and space distribution.