

FAST Proposal Coverpage

Last updated: 02/28/2019

Project Name:

Detect complex organic molecules in different astrophysical environments

Project Summary:

We propose FAST observations to detect complex organic molecules of C_3H_2 and CH_3C_7N in three chemically rich regions, namely TMC-1, Orion-KL hot core, and starburst galaxy Arp 220. The three objects have different physical conditions and have given rise to many discoveries of new space molecules and transitions. The observations proposed here will shed lights into how these molecules are produced in different environments and how physical conditions affect molecular synthesis. This data set will also prepare us for searching for new Complex Organic Molecules (COMs) in space in FAST bands and help us understand potential condition for origin of life in space.