

## **Poster: Star formation feedback drives kinematics in the Galactic center**

**- Natalie Butterfield**

The environmental conditions in the center of the Milky Way galaxy (Galactic center) are much more extreme than in the disk of the galaxy. Additionally, the Galactic center hosts a large reservoir of molecular gas and several massive star clusters. However, the formation of stars in this extreme environment and how these massive stars influence the ISM is not well understood. I will present a case study of a few regions in the Galactic center using VLA continuum and spectral line observations. We find that the Quintuplet cluster is blowing a large cavity into the M0.20-0.033 molecular cloud. Additionally, the adjacent M0.10-0.08 cloud lies on the orbital stream, near the edge of the expanding bubble, and is interacting with the shock-front propagating outward from the Quintuplet cluster. I will show that clusters can interact with gas on the Galactic center orbital streams, changing their kinematics such that they no longer follow such streams. This finding suggests that simple orbital kinematics are an incomplete description of gas motion in the presence of star formation.

*Molecular Clouds*