



DEPARTMENT OF PHYSICS AND ASTRONOMY

COLLOQUIUM **IN-PERSON ONLY EVENT**



Astrochemistry as a tool to study Star Formation in the Galaxy and opportunities

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The most important factor deciding the fate of a star and its surroundings is its initial mass. The relative number of high- and low-mass stars decides how much light and mass escape from a population of stars. This distribution, the stellar initial mass function, is often assumed to be universally invariant, though we have plenty of reason to believe it varies with environment. I will present results from ALMA and JWST observations of high-mass star-forming regions showing both typical and peculiar chemistry. I will show how we use molecules, and mostly ignore chemical processes, in determining the mass and luminosity of young stars. I'll present these results within a visual tour through the Galaxy at infrared and radio wavelengths, covering local regions, the Galactic plane, and the Galactic Center. I'll mix in some surprising discoveries we've made in these projects, including salts in protostellar disks and the millimeter ultra-broadline object (MUBLO).



Thursday, October 24, at 3:55 PM

IN-PERSON EVENT ROOM 202

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