

"Comparing Diffuse Dark Gas Tracers in the Perseus Giant Molecular Cloud"

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Stars and planetary systems form in the densest parts of giant molecular clouds, but how do such clouds come into existence? Due to Hydrogen's abundance, molecular hydrogen (two hydrogen atoms covalently bonded together) is the most abundant molecule in the universe by a factor of 10⁵. This molecule defines cloud boundaries and makes up the bulk of the interstellar medium but emits light in only the most particular of circumstances. My research aims to help refine methods of finding and quantifying this "invisible" molecule through the observation of other molecules. In this talk I will discuss the efficacy of different dark gas tracers, including C⁺, OH, CO, and CH.

> Thursday, November 8, 2023 4:00 - 5:20PM MND1015 Open & Free to all students, faculty and public