

# Star Formation in the Milky Way

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**Abstract:** How and where do stars form? One of the challenges in star formation theory today is describing the different processes by which stars form. They form not only in isolation, but also in groups of 10-100 stars and in clusters of more than 100 stars. The particular mode of star formation may depend on the initial conditions. Stars form in molecular clouds, regions of dense gas and dust, that can be categorized as dark cloud complexes where low-mass star formation occurs, and as giant molecular clouds where both low- and high-mass star formation occur. Surveys of stars forming over entire giant molecular clouds have shown that the majority of stars form in clusters. Therefore it has become increasingly important to observe and understand star formation in the clustered environment. Similarly, it has been demonstrated that young stellar clusters contain substantial numbers of brown dwarfs, with claims that 20% of the total cluster population consists of substellar objects. As such, it has also become increasingly important to observe young embedded stars and stellar clusters in detail in order to understand the initial conditions for star (and brown dwarf) formation. I am involved with several programs studying the populations of young stellar objects and brown dwarfs in nearby star-forming regions. Specifically, I will discuss results obtained as part of my work on three Spitzer Space Telescope programs: the Young Cluster Survey, the Gould Belt Legacy Survey, and a survey for isolated clusters in Bok globules.