

LEGO: A Cloud-Scale Line Survey to constrain Cosmic Star Formation

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Star formation is the key astrophysical process that converts baryonic matter into the stars and planets that form the backbone of galaxy structure. Many details of the star formation process can only be investigated in the Milky Way. Such research thus provides us with important information about the evolution of the gas and the stars in galaxies over cosmic time.

I will present results from the LEGO Large Program on the IRAM 30m-telescope, which obtains the most comprehensive wide-field spectroscopic views of molecular clouds available to date. Such work shows us how we can characterize spatially unresolved gas in other galaxies, and it reveals the astrochemistry of star and planet formation at an unprecedented level of detail.