

Colloquium

SFB 956

Conditions and Impact of Star Formation

29 April 2019

Monday 3:00 pm

Physikalische Institute Köln

Lecture Hall III

Zùlpicher Straße 77 | 50937 Köln

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Cosmic Star Formation as Seen from the Milky Way

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 discuss two studies of star formation in the Milky Way that seek to advance our understanding of cosmic star formation. First, I will talk about research into Galactic Center molecular clouds with ALMA and other interferometers. This informs us about star formation under extreme conditions, resembling those found in starburst galaxies. Second, 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.

