

Colloquium

SFB 956

Conditions and Impact of Star Formation

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Videostream

Ilse Cleeves

Department of Astronomy, University of Virginia, USA

The Key Role of Astrochemistry in driving Planet Formation and Habitability

Historically, our perspective on how planets form and obtain their compositions has been motivated by our Solar System. However, we are just one system, and missions like Kepler and TESS have revealed a variety of planetary types and architectures. How do we fit in? In the last five years, the Atacama Large Millimeter Array has revolutionized our understanding of planet formation by observing the process at high spatial resolution (reaching in some cases \sim AU scales) matched with unprecedented sensitivity at radio wavelengths. In this presentation, I will review recent highlights from the TW Hya as a Chemical Rosetta Stone ALMA project and discuss how these findings both confirm and, in some ways, challenge our current picture of the chemistry of planet formation.

