SES16-2016-000194

Abstract for an Invited Paper for the SES16 Meeting of the American Physical Society

The Remarkable Proto-planetary Disks HL Tau: Watching the Formation of Planets

CRYSTAL BROGAN, National Radio Astronomy Observatory

Spatially resolved ALMA studies of protoplanetary disks at millimeter wavelengths are revolutionizing the study of these precursors to solar systems. In this talk I will present results from observations of the protoplanetary disk HL Tau with 3.5 AU resolution. I will also review the diverse range of modeling work that has emerged to explain the remarkable dust ring structure of HL Tau. Finally, I will show tantalizing new observational results that suggest such structures may be ubiquitous.