

Abstract for an Invited Paper
for the PSF11 Meeting of
The American Physical Society

Seeing through the dust: Unveiling massive star formation with ALMA

CHARLES KERTON, Iowa State University

Compared to stars like our Sun massive stars are relatively rare, evolve more rapidly, and form in more highly obscured environments. The result is that our understanding of massive star formation is at a much more rudimentary state compared with our view of how lower mass stars form. Transforming our understanding of this process is just one of the science goals of the Atacama Large Millimeter Array (ALMA). This new international radio observatory has just started early science observations and will be used for astrophysical studies ranging from the exploration of the dark ages of our Universe's history to mapping plumes from volcanic eruptions on Io. This talk will focus how astrophysicists plan to use the unique capabilities of ALMA to explore the birthplaces of massive stars in our Galaxy.