

PHYSICS AND ASTRONOMY SEMINAR

Dr. Erik Rosolowsky

University of Alberta

“Finding the Recipe for Star Formation”

Abstract

Star formation is governed by a combination of physical processes with turbulent fluid flow, magnetic fields, and gravitation thought to be the most important effects. Studying the non-linear interaction between these effects requires numerical simulations. Modern simulations produce high resolution emulations of the star forming interstellar medium, but it remains unclear how to evaluate their results. Which mix of initial conditions best reproduces the conditions found in the interstellar medium? In this talk, I will discuss the general problem of comparing simulations to observations and will review tools from the literature that have been proposed to solve the problem and I will show how to test such tools. Finally, I will discuss future prospects for using this proven toolset to deduce the recipe for star formation.

Friday, August 8, 2014
11:00 a.m.
Clearihue Building
Room A203