



PHYSICS AND ASTRONOMY SEMINAR

Dr. Robert Andrassy

Department of Physics and Astronomy, University of Victoria; CITA National Fellow

“Convective Overshooting in Stellar Interiors”

Abstract

Hydrodynamic mixing processes are modelled very crudely in stellar-evolution codes, although they have a significant impact on stellar evolution and nucleosynthesis. There is ample observational evidence that some form of mixing extends beyond the formal boundaries of stellar convection zones. This "overshoot" can be provided by several physical mechanisms, depending on the type of convection zone in question. I will focus on two of them, which have been paid little attention to so far: the "convective settling" process could explain the lithium and beryllium depletion observed in low mass stars, while the "differential heating" process could provide some mixing at the boundaries of stellar convective cores and shells."

Tuesday, October 20, 2015

11:30 a.m.

Maclaurin Building

Room D103