



PHYSICS AND ASTRONOMY SEMINAR

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“Extremely metal-poor (carbon-enhanced) stars as probes of the Early Universe”

Abstract

Our Milky Way still hosts remnants from the era of first star formation in the form of extremely metal-poor stars, which we can study in detail. The chemical compositions of these stars give indirect insight into the properties of the very first generation of stars. In the first part of my talk I will focus on a sub-class of extremely metal-poor stars, the carbon-enhanced metal-poor (CEMP) stars. The fraction of stars enhanced in carbon increases dramatically at the lowest metallicities, and they can place additional constraints on the properties of the first generation of stars. I will discuss recent results about the binarity of CEMP-no stars, from our radial velocity monitoring program. In the second part of the talk, I will discuss recent results of the Pristine Bulge survey, which is a photometric survey aiming to significantly extend the number of known extremely metal-poor stars in the center of the Milky Way, a largely unstudied population in our Galaxy.

Monday, October 01, 2018

3:30 p.m.

Elliott Building – Room 061