



PHYSICS AND ASTRONOMY SEMINAR

Dr. Chervin Laporte

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“Structures in the Galactic Anticenter and their relation to the Milky Way's accretion history”

Abstract

I will present self-consistent N-body models of the interaction between the Sagittarius dSph (Sgr) and the Milky Way and show how these relate to various observations of the Galactic Anticenter. In particular, I will show that the origin of these features come from torques acting on the stellar disc in a two-phase scenario: first through the wake Sgr excites in the MW's dark halo followed by a transition to the tides of Sgr acting on the disc during the last passages. I will also present new results from a spectroscopic campaign to measure chemical abundances and ages for some of the stars in TriAnd and A13 which demonstrate that these features are indeed belong to the disc and how their ages coincide with the timescales of Sgr's accretion. In the final part of this talk, I present some ongoing work trying to understand the origin of thin stream like features such as the many features seen in the Monoceros Ring (including the EBS and Anticenter stream) through the PanSTARRS data and possibly explaining some features in the PanAS field of streams and future prospects.

Friday, January 12, 2018

10:30 a.m.

MacLaurin Building

Room D109