PHYSICS COLLOQUIUM:
The Milky Way In Motion

Gurtina Besla
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University of Arizona

Date:
11/20/2020

Time:
10:30 AM-11:50 AM

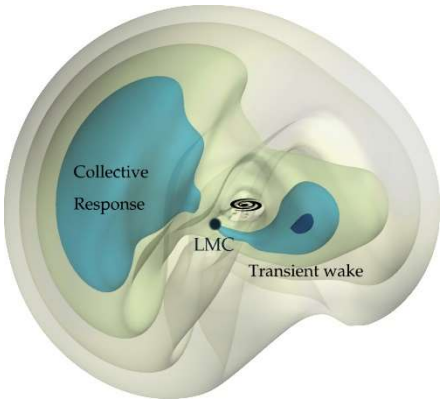
Link:
Please email snsgradstaff@ucmerced.edu for Zoom link and passcode.

About The Speaker:

Dr. Gurtina Besla is an Associate Professor in the Department of Astronomy and Steward Observatory at the University of Arizona. She is a theoretical astrophysicist studying the evolution of our Milky Way and neighboring galaxies in order to constrain the distribution of dark matter about our Galaxy. She is also a world expert in the study of the evolution of the Magellanic Clouds. Readily seen by the naked eye in the southern hemisphere, the Magellanic Clouds are the largest satellite galaxies orbiting our Milky Way. For her seminal contributions to the field of galactic dynamics, Dr. Besla was awarded the Dr. Vera Rubin Early Career Prize by the Division on Dynamical Astronomy of the American Astronomical Society. Dr. Besla is committed to creating a supportive community for students pursuing degrees in STEM at U. Arizona. Among her efforts is the development of the TIMESTEP program, which offers professional development, internships and mentorship to help students navigate their degrees and pursue careers in academia or industry. Dr. Besla holds a BSc in Astronomy & Physics from the University of Toronto, and she earned her PhD in Astronomy in 2011 at Harvard University. She started at U. Arizona in 2014.

Abstract:

Our understanding of the motions of stars within our Milky Way and of the many small galaxies that orbit around it has changed dramatically over the past few years owing to new observational surveys and significant advancements in our understanding of galaxy structure. Specifically, new surveys now enable us to precisely measure the motions of objects that orbit our Galaxy, like clusters of stars, satellite galaxies and stellar streams. The motions of these objects trace the so-called “dark matter” distribution, the unseen material that is expected to exist within and around our Galaxy, making up the bulk of its mass. I will provide an overview of this evolving picture and how we can use such data to test the cold dark matter paradigm in the near future using next-generation instruments and models.



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