



PHYSICS COLLOQUIUM: Connecting Across Scales: Simulating and Understanding the Evolving Milky Way

Sarah Loebman

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University of California, Merced

Date:

4/30/2021

Time:

10:30 AM-11:50 AM

Link:

Please contact
snsgradstaff@ucmerced.edu
for the Zoom link and
passcode.

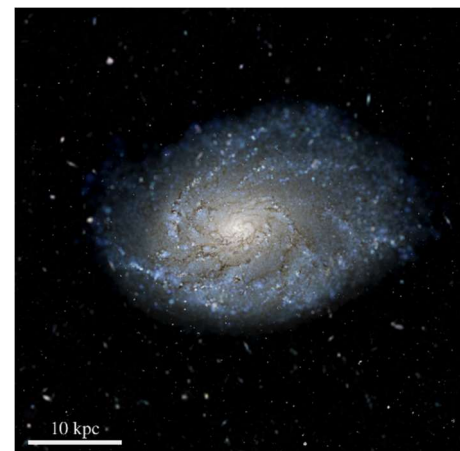
About the Speaker:

Dr. Sarah Loebman is a new assistant professor of astrophysics at UC Merced. Her primary research interests are in galaxy evolution, dark matter, and chemo-dynamics in the Local Universe. Her current work focuses on Galactic archaeology: using the present day movement and chemistry of stars to understand how our Milky Way formed. She uses high resolution galaxy simulations, survey data, and Big Data tools and techniques to conduct her research. She is also a devoted teacher and student advocate, committed to supporting Diversity, Equity, and Inclusion efforts in astrophysics.



Abstract:

We live inside a truly exciting astrophysical laboratory- the Milky Way galaxy- which provides a unique detailed perspective into the dynamics of stars and the physics of galaxy formation. Characterizing the stellar and dark matter content of the Milky Way and uncovering the Milky Way's formation history are key science goals of major ongoing and upcoming surveys such as SDSS-IV & V, Gaia, and LSST. However, observations of the Milky Way span a complex multi-dimensional space which necessitates sophisticated modeling to interpret. In this talk, I will highlight some recent achievements from my group that utilize state-of-the-art simulations to provide deep insight into the Milky Way's content, formation, and evolution.



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