

## PHYSICS COLLOQUIUM: Mapping the Galaxy with the H3 Survey

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<u>Date:</u> 3/5/2021

<u>Time:</u> 10:30 AM-11:50 AM

## <u>Link:</u>

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

## About The Speaker:

I am a Professor of Astronomy at Harvard University and a senior member of the Institute for Theory and Computation (ITC) at the Center for Astrophysics (CfA). In 2013 I was awarded an Alfred P. Sloan Research Fellowship and a Packard Fellowship in Science and Engineering and in 2017 I was awarded the Helen B. Warner Prize from the AAS.

## Abstract:

I will review ongoing work aimed at understanding when and how the major structural components of our Galaxy came into place. The H3 Survey is collecting high resolution spectra for 200,000 stars at high latitudes. In combination with Gaia astrometry, these data are providing a detailed view of the phase space structure of our Galaxy. The survey has revealed that the stellar halo contains a remarkable degree of structure, and appears to have formed partially by dynamical processes within the disk, and partially from accreted dwarf galaxies. Meanwhile, the star formation history within the disk suggests direct connections between the assembly of the stellar halo and the formation of various components of the disk. I will conclude with prospects for the future.