

# Fiona McCluskey

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## Education

### University of California, Davis

PhD in Physics

Davis, CA

September 2019 – Present

### Bryn Mawr College

BA in Physics

Magna Cum Laude

Bryn Mawr, PA

September 2015 – May 2019

## Research experience

### Graduate Research

Advisor: Andrew Wetzel (UC Davis)

Fall 2019 – Present

I use hydrodynamic zoom-in simulations to model the cosmological formation of the disks of Milky Way-mass galaxies, including the roles of disk settling and dynamical heating over cosmic time.

### Undergraduate Reserach

Advisor: Kate Daniel (Bryn Mawr College)

Summer 2017 – Spring 2019

I used analytical simulations to constrain the process of radial migration/cold-torquing in galactic disks and investigated the dynamical response of stars to overlapping resonances.

## Publications

### Disc settling and dynamical heating: histories of Milky Way-mass stellar discs across cosmic time in the FIRE simulations

McCluskey F., Wetzel A., Loebman S. R., Moreno J., Faucher-Giguere C.-A., Hopkins P. F., 2024, *MNRAS*, 527, 6926

### The proto-galaxy of Milky Way-mass haloes in the FIRE simulations

Horta D., Cunningham E.C., Sanderson R., Johnston K.V., Deason A., Wetzel A., McCluskey F., Garavito-Camargo N., Necib L., Faucher-Giguère C.A., Arora A., Gandhi P.J., 2024, *MNRAS*, 527, 981

### When Cold Radial Migration is Hot: Constraints from Resonant Overlap

Daniel K. J., Schaffner D. A., McCluskey F., Fiedler Kawaguchi C., Loebman S., 2019, *ApJ*, 882, 111

## Teaching experience

### Lead Teaching assistant, University of California, Davis

Undergraduate Astronomy Lab

Fall 2021, Spring 2023

Undergraduate Introductory Galactic Astronomy

Spring 2024

### Teaching assistant, UC Davis

General Physics 1

Fall 2019

General Physics 2

Fall 2020, Spring 2021

General Physics 3

Spring 2020

**Teaching assistant, Bryn Mawr**

Calculus II	Fall 2016
Calculus III	Spring 2017
Introductory Physics Lab	Spring 2018, Fall 2018
Advanced Physics Lab	Spring 2019

**Grants**

<b>NASA FINESST</b> (totalling \$100,000)	September 2024-2026
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**Talks**

Surveying the Milky Way: The Universe in Our Own Backyard – Pasadena CA	Fall 2023
GalFRESCA – Riverside CA	Fall 2023
Santa Cruz Galaxy Workshop – Santa Cruz CA	Summer 2023
Wide-Field Spectroscopy vs Galaxy Formation Theory Workshop - Tucson AZ	March 2023
Disk Formation Workshop - Irvine CA	September 2022

**Related Experience**

<b>Journal Club:</b> Hosting and facilitating discussions of recently submitted research papers for the physics and astronomy department at UC Davis.	June 2023 -
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