



# PHYSICS COLLOQUIUM:

## Spiral Arms in Galaxies

**Karen Masters**

Professor, Astronomy and Physics  
Haverford College

### About The Speaker:

KAREN L. MASTERS is a Professor in Astronomy and Physics at Haverford College. In her research Prof. Masters seeks to use large surveys (both in optical and radio wavelengths) to understand how galaxies in our Universe form and evolve. She is the Project Scientist for the successful, Galaxy Zoo project ([www.galaxyzoo.org](http://www.galaxyzoo.org)) - one of the most productive citizen science projects in existence which crowdsources the morphology of galaxies. Dr Masters is also Spokesperson for the Fourth phase of the Sloan Digital Sky Survey (SDSS-IV; [www.sdss.org](http://www.sdss.org)).



Previously, Dr. Masters was on the faculty at Portsmouth University in the UK, where she was original hired as a postdoc (2008), then promoted to Assistant Prof in 2014, and Associate Prof in 2015 before moving to Haverford in 2018. Her PhD is in Astronomy from Cornell University (2005). Dr. Masters was the 2014 “Women of the Future” in Science (a UK based award) and also one of the BBC 100 Women of 2014. She is a Co-Chair of the AAS (American Astronomical Society) Education Committee and Nominating Committee.

### Abstract:

The iconic spiral arms that decorate the disks of massive galaxies (like our own Milky Way) have been studied since they were first recorded (Rosse 1843), nevertheless the exact details of their nature remains elusive. I will review what is known observationally about spiral arms, including result from the citizen science project Galaxy Zoo ([www.galaxyzoo.org](http://www.galaxyzoo.org)). I will discuss how these observational data can be used to constrain the variety of different physical models which have been proposed to explain spiral arms in galaxies.



### Date:

3/11/2022

### Time:

10:30 AM - 11:50 AM

### Link:

Please contact  
[snsgradstaff@ucmerced.edu](mailto:snsgradstaff@ucmerced.edu) for  
the Zoom information.

For more information, contact : Sarah Loebman  
[sloebman@ucmerced.edu](mailto:sloebman@ucmerced.edu)