

# Physics & Astronomy Colloquium

Presents



## Vivienne Baldassare

Assistant Professor  
Washington State University

Thursday, January 12, 2023  
12:10 pm, Webster Room 11

*Please meet our guest speaker and share in refreshments 11:45 a.m. -12:10 p.m. in the foyer on floor G above the lecture hall*

## “A Census of Massive Black Holes in Dwarf Galaxies”

The present-day population of supermassive black holes in low-mass galaxies offers a window into massive black hole formation in the early universe. While we cannot yet observe the formation of "black hole seeds" at high redshift, the fraction of small galaxies that host a massive black hole -- and the properties of those black holes -- are thought to depend on the mechanism by which these they form. In the last several years, there have been several hundred black holes discovered in small galaxies. However, for the field to progress, we need to move past studies of individual objects towards a complete census. I will describe ongoing and upcoming work targeted at completing a census of black holes in small galaxies in order to constrain theories of black hole formation.