Physics & Astronomy Colloquium

Presents

Vivienne Baldassare

Faculty Candidate

Thursday, November 21st, 2019
4:10 pm, Webster Room 17

"No shortcuts to the top: formation and growth of supermassive black holes"

All galaxies like our Milky Way contain a supermassive black hole at their center. These black holes weigh millions or billions of times the mass of our Sun, and despite their ubiquity, many open questions remain. How do supermassive black holes form? How do they grow? While we cannot yet observe supermassive black hole formation in the early universe, clues can be found in the population of black holes residing in the smallest galaxies at present day. In particular, the fraction of small galaxies that host a supermassive black hole -- and the properties of those black holes -- are thought to depend on the mechanism by which these monsters form. However, black holes in the smallest galaxies can be difficult to find, requiring creative new approaches. I will discuss my efforts to find and characterize elusive supermassive black holes in small galaxies, with the goal of understanding black hole formation and growth over cosmic time. I am especially interested in using the wealth of recent time domain observations to search for and study these systems.

Please meet our guest speaker and share in refreshments 3:45-4:10 p.m. in the foyer on floor G above the lecture hall

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