

Fall 2018 Colloquium

Department of Physics & Astronomy, TAMU-Commerce

Oct 18, Thursday, 4-5 PM in Science Building 127

(coffee and cookies will be served at 3:50 PM)

Astrophysics

Supermassive Black Holes in Nearby Galaxies

Dr. Jonelle Walsh

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Dr. Jonelle Walsh earned a B.A. (2005) in Physics from Bowdoin College, and M.S. (2007) and Ph.D. (2011) degrees in Physics from the University of California, Irvine. She spent three years as a National Science Foundation Astronomy and Astrophysics Postdoctoral Fellow at the University of Texas, Austin, and three years as a Mitchell Postdoctoral Fellow in Astronomy at Texas A&M University, College Station. In 2017, Dr. Walsh began her appointment as an assistant professor at Texas A&M, where she is currently doing research in astrophysics. Her research focuses on studying supermassive black holes in nearby galaxies with the goal of understanding how black holes and their host galaxies form and

evolve together. More information about Dr. Walsh and her research can be found at <https://jonellewalsh.weebly.com>

Abstract

Over the past 15 years it has become increasingly clear that supermassive (greater than a million solar mass) black holes are essential components of galaxies, as demonstrated by the empirical correlations connecting black hole masses and large-scale galaxy properties. Although about ~ 100 dynamical black hole mass measurements have been made to date, the local black hole mass census is highly incomplete. Gaining a more complete picture of black hole demographics and a deeper understanding of the mechanisms that drive black hole/galaxy evolution requires the measurement of black holes in a wider range of galaxy types with diverse evolutionary histories. In this talk, I will discuss the measurement of black holes in an exciting population of local galaxies that show remarkable similarities to galaxies observed at earlier epochs in the Universe. I will also describe a Gemini Large and Long Program aimed at addressing a bias in the types of galaxies for which dynamical black hole mass measurements have been made.