Title: Imaging the Shadow of a Supermassive Black Hole with the Event Horizon Telescope

Abstract: Using Very Long Baseline Interferometry at 1.3mm wavelength, the Event Horizon Telescope (EHT) Collaboration has recently published images of the supermassive black hole in M87. I will discuss the breakthroughs in VLBI instrumentation and techniques that made these images possible and their implications for direct studies of black holes. I will also discuss the emerging capabilities of the EHT to study relativistic dynamics of accretion flows, to elucidate the role of magnetic fields in jet launching, and to enable precision tests of General Relativity.

Short Bio: Michael Johnson is an astrophysicist at the Center for Astrophysics | Harvard & Smithsonian. He is also a Lecturer in the Harvard Department of Astronomy, and an inaugural member of the Harvard Black Hole Initiative. Michael received BS degrees in mathematics and physics from the University of Southern California in 2007, and a PhD in physics from UCSB in 2013. He joined the Event Horizon Telescope in 2013 and currently co-leads the EHT Imaging Working Group.