Benjamin Davis

Research Associate at New York University Abu Dhabi Center for Astro, Particle, and Planetary Physics Abu Dhabi, Abu Dhabi , United Arab Emirates

impactio.com/researcher/benjamin-davis

bendavis007@hotmail.com

P-8078-2019

I work at the Center for Astro, Particle, and Planetary Physics (CAP3) at New York University Abu Dhabi, where I am a CAP3 Fellow, Research Associate. My research involves studying the structure of spiral galaxies. To do this, I examine the geometry of spiral arms using a suite of custom software I helped design. I also perform multi-component decompositional analysis of the galaxies to separate them into their constituent components (i.e., bulge, disk, bar, spiral arms, nucleus, etc.). With this detailed knowledge of the galaxy composition and geometry, I can then construct accurate black hole mass scaling relations that can be used to predict the mass of the central massive black hole in galaxies. By conducting a census of black hole demography in galaxies, future studies can better understand the intimate relationship between central black holes and their host galaxies and garner information about their coevolution.

Research Interests

Science Education

Professional Skills

Galaxy Evolution Extragalactic Astronomy Astronomy Astronomy & Astrophysics Optical Astronomy Theoretical Astrophysics Galaxy Dark Matter Galaxy Formation Radio Astronomy

Research Experience

Aug 2008 - May 2015

Graduate Assistant

University of Arkansas

Work Experience

Sep 2020

Research Fellow

New York University Abu Dhabi

Aug 2016 - Jul 2020

Postdoctoral Research Fellow

Swinburne University of Technology

Aug 2015 - May 2016

Visiting Assistant Professor of Physics

Arkansas Tech University

Aug 2015 - Dec 2015

Visiting Assistant Professor of Physics

University of Arkansas

Education

2008 - 2015

University of Arkansas

Doctoral Degree

2003 - 2008

Pittsburg State University

Bachelor's Degree