

Curriculum Vitae of Justin Bankert

Department of Physics and Geosciences
Angelo State University
2601 W. Avenue N San Angelo, Texas 76909

Office: Vincent 123
Email: jbankert@angelo.edu
Phone: (317) 504-5109

Education

Degree	Field	Institute	Year Conferred
Ph.D.	Physics	Johns Hopkins University	2017
M.A.	Physics	Johns Hopkins University	2012
B.S.	Physics, Math	Purdue University	2010

Ph.D. Thesis Title: Evolution of Binary Systems Embedded in Circumbinary Accretion Disks

Teaching Experience

Position	Institute	Dates
Visiting Assistant Professor	Angelo State University	Aug. 2017 - Present
Instructor of Record	Johns Hopkins University	Jun. 2016
Graduate Teaching Assistant	Johns Hopkins University	Sep. 2010 - Dec. 2010, Jun. 2015 - May 2017
Undergrad. Teaching Assistant	Purdue University	Dec. 2006 - May 2010

Classes Taught as Instructor of Record

Course Title	Term(s) Taught
Astronomy of the Solar System	Fall 2017, Spring 2018, Summer 2018 (Online)
Compact Objects for Non-Science Majors	Summer 2016
Computational Astrophysics (Research Course)	Spring 2018
Fundamentals of Astronomy	Summer 2018 (Online), Fall 2018, Spring 2019
Fundamentals of Physics I Lab (Calculus Based)	Spring 2018
Fundamentals of Physics II (Calculus Based)	Spring 2018
General Physics I Lab (Non-Calculus Based)	Fall 2017 ($\times 2$), Fall 2018
General Physics II (Non-Calculus Based)	Spring 2019
General Physics II Lab (Non-Calculus Based)	Spring 2018
General Relativity (Research Course)	Spring 2019
Introduction to Physical Science I	Fall 2017, Fall 2018
Introduction to Physical Science I Laboratory	Fall 2017 ($\times 2$), Fall 2018
Introduction to Physical Science II	Spring 2019
Introduction to Physical Science II Laboratory	Spring 2018, Spring 2019 ($\times 2$)
Physical Science Concepts I	Fall 2018
Stellar Astronomy Laboratory	Spring 2019
Theoretical Astrophysics (Research Course)	Fall 2018

Service

- I created a recurring workshop to teach undergraduate students the basics of Python programming.
- I worked with Texas region 15 teachers in Summer 2018 to teach them about balloon based science.
- I created assessment activities for ASU dual-credit high school partner classrooms.
- I helped to design and run a rocketry camp for 4H students in the San Angelo area.
- I am currently the chemical safety officer for the ASU Physics Department classroom chemical storeroom.
- I have presented shows for local area schools at the ASU planetarium.

Research Experience

Position	Institute	Dates
Visiting Assistant Professor	Angelo State University	Aug. 2017 - Present

Research

I directly advised two undergraduate students in research into circumbinary accretion disks. I assisted the research of two other students investigating the orbital dynamics of stellar populations in the Milky Way from catalog data. I am currently directly advising a student who is working to develop an orbit integrator program to simulate stellar motion in the Milky Way potential. I am also currently assisting Dr. Kenneth Carrell and his students in a project to map the diffuse sky brightness around San Angelo Texas.

Position	Institute	Dates
Graduate Research Assistant	The Johns Hopkins University	Feb. 2011 - Aug. 2017

Research

I used 3D MHD simulations of circumbinary accretion disks to investigate the effects of circumbinary disks on the evolution of central binary systems.

Position	Institute	Dates
Undergraduate Research Assistant	Purdue University	Jan. 2007 - May 2010

Research

I worked on creating catalogs of galaxy clusters. I was also a member of the image simulation team for the Large Synoptic Survey Telescope simulating background light on computer generated telescope images.

Research Interests

- High Energy Astrophysics
- High Performance Computing
- Accretion Disk Physics
- General Relativity

Publications

1. Bankert, Justin; Krolik, Julian H, *Eccentric Binaries Embedded in Prograde Circumbinary Accretion Disks*, (Work in Progress)
2. Bankert, Justin; Krolik, Julian H.; Shi, Jiming, *Structure of Retrograde Circumbinary Accretion Disks*, The Astrophysical Journal, Volume 801, Issue 2, article id. 114, 10 pp. (2015)
3. Peterson, J. G. Jernigan, R. R. Gupta, J. Bankert, S. M. Kahn; ApJ/300413/ART/189990; 22 October 2009
4. Contributing Author: LSST Science Book

Professional Organization Memberships

American Astronomical Society (AAS)

Certificates

Preparing Future Faculty Teaching Academy, The Johns Hopkins University, 2016

Computer Skills

Operating Systems	Linux, Unix, Windows, Mac
Programming Languages	Fortran 77/90/95 (MPI), C/C++ (MPI), Python, IDL, Bash, Latex