

Steven Boada, Ph.D

CONTACT INFORMATION	Department of Physics and Astronomy 136 Frelinghuysen Rd Rutgers University Piscataway, NJ 08854	<i>Phone:</i> +1 (615) 200-0119 <i>E-mail:</i> boada@physics.rutgers.edu <i>WWW:</i> http://boada.github.io
RESEARCH INTERESTS	Observation Cosmology, Large-area Sky Surveys (e.g., DES, LSST, SDSS, ACT, SPT), Galaxy Clusters, High Performance Computing (HPC), Galaxy Evolution, Interacting Galaxies and Morphology.	
EDUCATION	Texas A&M University , College Station, Texas USA Ph.D., Physics (Astronomy focus), August, 2016 <ul style="list-style-type: none">• Dissertation Title: “Measuring the Scatter in the Cluster Optical Richness–Mass Relation with Machine Learning”• Advisor: Dr. Casey Papovich The University of Tennessee , Knoxville, Tennessee USA M.S., Physics (Computational Astrophysics), August, 2009 <ul style="list-style-type: none">• Thesis Title: “An Automated Approach to the Study and Classification of Colliding and Interacting Galaxies”• Advisor: Dr. Michael Guidry The University of Tennessee , Knoxville, Tennessee USA B.S., Physics, May, 2007	
PROFESSIONAL EXPERIENCE	Rutgers University , Piscataway, New Jersey USA <i>Postdoctoral Research Associate</i> September, 2016–Present Texas A&M University , College Station, Texas USA <i>Research Assistant</i> August, 2010 - 2016 The University of Tennessee , Knoxville, Tennessee USA <i>Research Assistant</i> August, 2007 - 2009 National Center for Computational Science , Oak Ridge National Laboratory, Oak Ridge, Tennessee USA <i>Visiting Scientist</i> May, 2007 - August, 2009 Carried out the computing projects required to complete Master’s, including modeling of interacting galaxy systems, machine learning, and other HPC tasks.	
OBSERVING EXPERIENCE	Proposals <ul style="list-style-type: none">• <i>Measuring the Masses of X-ray-Selected, Low-Mass Galaxy Clusters and Groups with Integral Field Spectroscopy</i> Co-I (PI: N. Mehrrens), McDonald Observatory, 4 nights awarded, 2013• <i>Measuring the Masses of Galaxy Clusters with Integral Field Spectroscopy</i> Co-I (PI: C. Papovich), McDonald Observatory, 9 nights awarded, 2012• <i>Measuring the Masses of Galaxy Clusters with Integral Field Spectroscopy</i> Co-I (PI: C. Papovich), McDonald Observatory, 5 nights awarded, 2012	

Telescopes

- Harlan J. Smith 2.7m Telescope, Mitchell Spectrograph (formerly VIRUS-P), 20+ nights Data Experience
- Integral Field Spectroscopy
- Hubble Space Telescope Imaging
- Sloan Digital Sky Survey Imaging and Spectroscopy

COMPUTING EXPERIENCE

Extensive experience in the processing and application of large astronomical data sets, including: the acquisition and reduction of optical integral field unit spectroscopy, querying large astronomical databases such as the Sloan Digital Sky Survey and the Millennium Simulation, analysis of multi-wavelength imaging from the Hubble Space Telescope. Key computing skills include: mastery of the Python language, and the interface with other languages and tools, considerable experience with large multiprocessor applications (e.g. Gadget-2) and high performance computing systems, supervised and unsupervised machine learning and optimization, GPGPU computing, and participation in open source and collaborative development environments, including version control. Contributor to ASTROPY. Co-author of ASTLIB python library, see <http://astlib.sourceforge.net>

TEACHING AND OUTREACH

Texas A&M University, College Station, Texas USA

Teaching Assistant

2010 - Spring, 2015

Supervised undergraduate students for weekly lab sessions, tutoring sessions, grading of homework and quizzes for Basic Astronomy, Overview of Modern Astronomy, and Survey of Astronomy.

Physics Festival

2010 - Present

Demonstrated physics and astronomy principles for students from elementary through high school and the general public.

Star Parties

2010 - Present

Discussed astronomical topics and operated telescopes for college students and the general public.

Nashville State Community College, Nashville, Tennessee USA

Adjunct Faculty

Spring, 2010

Primary instructor for introductory physics course, Conceptual Physics.

The University of Tennessee, Knoxville, Tennessee USA

Teaching Assistant

August, 2007 - 2009

Supervised laboratory experiences for undergraduate students in Introduction to Modern Physics, and Electricity and Magnetism for Engineering. Designed and taught laboratories for undergraduate Honors Astronomy.

ACADEMIC HONORS AND AWARDS

The University of Tennessee: graduated Magna Cum Laude, Phi Beta Kappa, Sigma Pi Sigma, President, Society of Physics Students 2006 thru 2007

GRANTS AND AWARDS	<ul style="list-style-type: none"> • <i>The Road to the Virgo Cluster: The DECam/IRAC Galaxy Environment Survey</i> Co-I (PI: C. Papovich), NSF Alliances for Graduate Education and the Professoriate, 2015 • <i>Graduate Student Presentation Grant</i> PI, Texas A&M University Office of Graduate and Professional Studies, 2015 • <i>Graduate Student Travel Grant</i> PI, Texas A&M University Department of Physics and Astronomy, 2015 		
POSTERS AND PRESENTATIONS	<p>Talk: 227th AAS Meeting, Kissimmee, FL January, 2016</p> <p>Talk: CANDELS Team Meeting, University of Santa Cruz, Santa Cruz, CA July, 2015</p> <p>Talk: CANDELS Team Meeting, STScI, Baltimore, MD July, 2014</p> <p>Poster: Bashfest Symposium, University of Texas, Austin, TX October, 2013</p> <p>Talk: CANDELS Team Meeting, University of Kentucky, Lexington, KY August, 2013</p> <p>Poster: GMT Science Meeting, University of Chicago, Chicago, IL June, 2013</p> <p>Talk: CANDELS Team Meeting, University of Santa Cruz, Santa Cruz, CA September, 2012</p> <p>Poster: 219th AAS Meeting, Austin, TX January, 2012</p> <p>Poster: Bashfest Symposium, University of Texas, Austin, TX October, 2011</p> <p>Talk: Texas A&M Astronomy Symposium, Texas A&M University, College Station, TX August, 2011–15</p>		
REFERENCES	<p>Dr. Casey Papovich Dept. of Physics & Astronomy 4242 TAMU Texas A&M University College Station, Texas 77843 papovich@physics.tamu.edu</p>	<p>Dr. Vithal Tilvi School of Earth & Space Ex- ploration P.O. Box 871404 Arizona State University Tempe, Arizona 85287 tilvi@asu.edu</p>	<p>Dr. Nicholas Suntzeff Dept. of Physics & Astronomy 4242 TAMU Texas A&M University College Station, Texas 77843 nsuntzeff@tamu.edu</p>