

# Jennifer A. Piscionere

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## Education

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Degree	<b>Ph.D. in Physics &amp; Astronomy</b>	2008 — 2014
Thesis	<i>Very Small Scale Clustering of Galaxies</i>	
Advisor	<b>Andreas Berlind</b>	
University	<b>Vanderbilt University</b>	
Degree	<b>Bachelor of Arts in Astrophysics</b>	2004 — 2008
Project	<i>Locating and Observing Optical Counterparts to Unmodeled Pulses in Gravitational Waves</i>	
Advisor	<b>Szabolcs Márka</b>	
University	<b>Columbia University</b>	

## Research Interests

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- The very small scale clustering of galaxies as a way to model galaxy formation and evolution.
- Understanding the redshift evolution of the shape of dark matter halos.
- The interface between statistical methods and massively parallel computational environments.
- Modeling data systematics using numerical simulations.

## Research Experience

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<b>Research Assistant</b>	2008 — Present
<i>Supervisor: Andreas Berlind</i>	
<i>Department of Physics and Astronomy; Vanderbilt University</i>	
<ul style="list-style-type: none"><li>· Determined the density profile of galaxies in dark matter halos.</li><li>· Measured the very small scale clustering of SDSS Main Sample Galaxies.</li><li>· Modeled galaxy clustering using petascale computational resources.</li><li>· Measured the very small scale clustering of SDSS CMASS galaxies.</li><li>· Quantified the effect of fiber collisions on SDSS clustering measurements.</li><li>· Introduced fiber collisions into the numerical galaxy catalogues.</li></ul>	
<b>Summer School in Statistics for Astronomers VIII</b>	2012
<i>The Pennsylvania State University</i>	
<b>Undergraduate Research Assistant</b>	2006 — 2008
<i>Supervisor: Szabolcs Márka</i>	
<i>Department of Physics; Columbia University</i>	
<ul style="list-style-type: none"><li>· Created an observational pipeline for identifying optical companions to gravitational waves.</li><li>· Took high cadence photometric observations for 10 nights at the MDM Observatory.</li><li>· Observed for 14 nights at the Henrietta Swope Telescope, LasCampanas Observatory.</li></ul>	
<b>Undergraduate Research Assistant</b>	2006 — 2008
<i>Supervisor: Joe Patterson</i>	
<i>Department of Astronomy; Columbia University</i>	
<ul style="list-style-type: none"><li>· Observed cataclysmic variable stars over multi epochs.</li></ul>	

*Supervisor: Carl Pennyacker**Department: Lawrence Berkeley Labs*

- Found evidence for AGN activity in the Deep Lens Survey using the Hands on Universe software.
- Introduced the Hands on Universe program to high schoolers.

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 Computational Skills
 

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<b>Fluent Languages</b>	C, R, Bash, Supermongo, CSS, HTML
<b>Competency</b>	Python, C++, FORTRAN, Ruby
<b>Cluster Computing</b>	Stampede (TACC), Lonestar (TACC), Kraken (NICS)
<b>Tools</b>	Vim, Git, MySQL, L <sup>A</sup> T <sub>E</sub> X

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 Papers
 

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**The Spatial Distribution of Satellite Galaxies Within Halos: Measuring the Very Small Scale Angular Clustering of SDSS Galaxies**

**Piscionere, J.**, Berlind A., McBride, C.K., Scoccimarro, R.  
Submitted.

**The Very Small Scale Clustering of BOSS CMASS Galaxies.**

**Piscionere, J.**, Berlind, A.  
In Prep.

**LasDamas: An Accurate Suite of Simulations and Mock Galaxy Catalogs**

McBride, C. K., Berlind, A. A., Busha, M., Gardner, J., Manera, M., **Piscionere, J.**, Scoccimarro, R., van den Bosch, F. C., Wechsler, R.  
In Prep.

**LOOC UP: locating and observing optical counterparts to gravitational wave bursts**

Kanner, J.; Huard, T. L.; Marka, S.; Murphy, D. C.; **Piscionere, J.**; Reed, M; Shawhan, P  
Class. Quantum Grav. 2008

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 Talks & Posters
 

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**“The Very Small Scale Clustering of SDSS-II and SDSS-III Galaxies”**

*AAS*

January 2014

**“Modeling the Very Small Scale Angular Clustering of SDSS Galaxies.”**

*Galaxies within the Cosmic Web*

June 2013

**“First Results of the Very Small Scale Clustering of CMASS Galaxies”**

*SDSS Collaboration Meetings*

June 2013

**“Measuring the Very Small Scale Angular Clustering of SDSS Galaxies”**

*Cosmology on the Beach*

January 2011

**“The Effect of Fiber Collision on Very Small Scale Clustering”**

*ICTP Summer School in Cosmology*

August 2009

**“LOOC UP: Locating and Observing Optical Counterparts to Unmodeled Pulses in Gravitational Waves”**

*AAS*

January 2008

## Meetings

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<b>American Astronomical Society (AAS)</b> , National Harbor, MD	January 2014
<b>SDSS Baryonic Oscillation Spectroscopic Survey (BOSS)</b> , LBL	December 2013
<b>Galaxies within the Cosmic Web KICP</b>	June 2013
<b>SDSS Collaboration Meeting</b> , JHU	June 2013
<b>SDSS BOSS Meeting</b> , CMU	January 2012
<b>SDSS Collaboration Meeting</b> , Vanderbilt	June 2011
<i>Local Organizing Committee</i>	
<b>Cosmology on the Beach</b> Puerto Vallarta, Mexico	January 2011
<b>Women in Astronomy</b> College Park, VA	October 2009
<b>ICTP Summer School in Cosmology</b>	August 2009
<b>SDSS Collaboration Meeting</b> , Princeton	June 2009
<b>AAS</b> Dallas, Texas	January 2008

## Fellowships and Societies

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<b>American Astronomical Society, Junior Member</b>	2012 – Present
<b>GAANN Fellow</b>	2009 — 2011
<b>NASA/New York State Space Grant</b>	2006

## Teaching & Outreach

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<b>Graduate Teaching Associate</b>	2008 — 2010
<i>Department of Physics and Astronomy; Vanderbilt University</i>	
<b>QUARKNET at Vanderbilt Instructor: “BICEP2: The Search for Inflation”</b>	2014
<b>Vanderbilt Women in Physics Group; Chair</b>	2008 — Present
<b>Vanderbilt Dyer Observing Nights “Roving Astronomer”</b>	2008 — Present
<b>Scientist in the Classroom Guest Lecturer: “How Friendly is Your Galaxy?”</b>	2011
<b>Columbia Undergraduate Science Journal; Editor</b>	2006 — 2008

## References

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**Professor Andreas Berlind**

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**Professor Kelly Holley-Bockelmann**

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**Dr. Cameron McBride**

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