

KENNETH W. CAVAGNOLO

Office Address

Michigan State University
 Department of Physics & Astronomy
 3265 Biomedical Physical Sciences Building
 East Lansing, MI 48824-2320

Contact Information

Office: (517)-355-9200 ext.2443
 Home: (517)-285-9062
 Fax: (517)-353-4500
 E-mail: cavagnolo@pa.msu.edu
 Web: www.pa.msu.edu/people/cavagnolo/

Education	Michigan State University	2005 - Present
	Ph.D. Astrophysics, Expected May-August 2008	
	Thesis Title: "Virialization, Entropy, and Feedback in Clusters of Galaxies" Thesis Advisors: Dr. Megan Donahue & Dr. G. Mark Voit	
	Michigan State University	2002 - 2005
	M.S. Astrophysics	
	Georgia Institute of Technology	1998 - 2002
	B.S. Physics <i>Cum Laude</i>	
Research Experience	Graduate Research Assistant	2003 - Present
	Supervisor: Dr. Megan Donahue, <i>Mich. St. Univ.</i> Studying clusters of galaxies via their X-ray properties to investigate feedback mechanisms, galaxy evolution, and the process of cluster virialization.	
	Graduate Research Assistant	2002 - 2003
	Supervisor: Dr. Jack Baldwin, <i>Mich. St. Univ.</i> Analyzing echelle spectra for use in studies of <i>s</i> -process abundances in planetary nebulae.	
	Undergraduate Research Assistant	2000 - 2002
	Supervisor: Dr. James Sowell, <i>Georgia Tech</i> Obtaining orbital solution for the eclipsing Algol binary ET Tau via UVB light curves and spectroscopic radial velocity curves.	
Research Interests	<ul style="list-style-type: none"> • GALAXY CLUSTER EVOLUTION • GALAXY FORMATION • FEEDBACK MECHANISMS IN GALAXY CLUSTERS • LARGE SCALE STRUCTURE FORMATION AND COSMOLOGY 	
Teaching Experience	Substitute Instructor	Fall 2006
	Course: "Visions of the Universe" Gave lectures covering stellar evolution, supernovae, white dwarves, neutron stars, and black holes.	
	Physics Tutor	Summer 2003
	Course: "Introductory Honors Physics I & II"	

Tutored physics students taking introductory physics courses such as classical mechanics, optics, and electromagnetism.

Graduate Teaching Assistant

2002 - 2003

Course: "Visions of the Universe"

Directed and supervised laboratories for non-calculus based astronomy course.

Honors

- College of Natural Science Dissertation Fellow 2007 - Present
- American Astronomical Society Member 2002 - Present
- American Physical Society Member 2002 - Present
- Sigma Pi Sigma National Honor Society 2001 - Present
- NASA Center for Astronomy Education Participant 2007
- Dean's List, Georgia Tech 1998-2002

Scientific Skills

- Profound skills in reducing and analyzing data taken with *Chandra* X-ray Telescope.
- Extensive experience with customizing and debugging CIAO and CALDB.
- Familiarity with multiwavelength analysis packages: AIPS, IRAF, and PyRAF.
- Fluent in Perl, IDL, L^AT_EX and HTML.
- Working knowledge of Bash, C, csh, Flash, Fortran, MySQL, Supermongo, and Tcl.
- Mastery of multiple computing architectures: DOS, Linux, Macintosh, and Windows.
- Expert of computer troubleshooting, maintenance, and system construction.

References

DR. MEGAN DONAHUE
Department of Physics & Astronomy
Michigan State University
East Lansing, MI 48823
(517)-355-9200 ext. 2418
donahue@pa.msu.edu

DR. G. MARK VOIT
Department of Physics & Astronomy
Michigan State University
East Lansing, MI 48823
(517)-355-9200 ext. 2419
voit@pa.msu.edu

DR. JACK BALDWIN
Department of Physics & Astronomy
Michigan State University
East Lansing, MI 48823
(517)-355-9200 ext. 2411
baldwin@pa.msu.edu

Personal Interests

- Academic: environmental sciences, "Cradle2Cradle" design, and urban planning.
- Athletics: triathlons, baseball, and everything Georgia Tech.
- Hobbies: reading, building model airplanes, and raising bonsai trees.