

KENNETH W. CAVAGNOLO

CURRICULUM VITAE

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Education	Michigan State University	2005 - Present
	Ph.D. Astrophysics, Expected August 2008 Thesis Title: "Virialization, Entropy, & Feedback in Clusters of Galaxies" Advisors: Dr. Megan Donahue & Dr. G. Mark Voit	
	Michigan State University	2002 - 2005
	M.S. Astrophysics, <i>Magna Cum Laude</i> Dissertation Title: "Entropy Profiles of Cooling Flow Clusters" Advisor: Dr. Megan Donahue	
	Georgia Institute of Technology	1998 - 2002
	B.S. Physics, <i>Magna Cum Laude</i> Senior Thesis: "Analysis of the Eclipsing Binary ET Tau" Advisor: Dr. James Sowell	
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 UBV light curves and spectroscopic radial velocity curves.	
Research Interests	<ul style="list-style-type: none"> • Feedback Mechanisms in Galaxy Clusters • Galaxy Cluster Evolution • Galaxy Formation • Large Scale Structure Formation and Cosmology • Supermassive Black Holes • AGN Accretion Physics 	

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	• MSU 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
	• Dean’s List, Georgia Tech	1998-2002
Scientific Skills	<ul style="list-style-type: none"> • Profound skills in reducing and analyzing data taken with <i>Chandra</i> 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 C, 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 (517)-355-9200 ext. 2418 donahue@pa.msu.edu Michigan State University	
	DR. G. MARK VOIT (517)-355-9200 ext. 2419 voit@pa.msu.edu Michigan State University	
	DR. JACK BALDWIN (517)-355-9200 ext. 2411 baldwin@pa.msu.edu Michigan State University	
Personal Interests	<ul style="list-style-type: none"> • Academic: environmental sciences, “Cradle2Cradle” design, and urban planning. • Athletics: triathlons, baseball, and everything Georgia Tech. • Hobbies: reading, building model airplanes, and raising bonsai trees. 	