

Dr. Kenneth W. Cavagnolo Curriculum Vitae

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University of Waterloo
Department of Physics & Astronomy
200 University Avenue West
Waterloo, Ontario, Canada N2L 3G1

517-285-9062
519-888-4567 ext. 35074
kencavagnolo@gmail.com
www.pa.msu.edu/people/cavagnolo/

Education	Michigan State University Ph.D., Astronomy & Astrophysics	2005 - 2008
	Michigan State University M.S., Astronomy & Astrophysics	2002 - 2005
	Georgia Institute of Technology B.S., Physics	1998 - 2002
Research Experience	Postdoctoral Fellow Supervisor: Dr. Brian McNamara, <i>Univ. of Waterloo</i>	2008 - Present
	Graduate Research Assistant Supervisor: Dr. Megan Donahue, <i>Mich. St. Univ.</i>	2003 - 2008
	Graduate Research Assistant Supervisor: Dr. Jack Baldwin, <i>Mich. St. Univ.</i>	2002 - 2003
	Undergraduate Research Assistant Supervisor: Dr. James Sowell, <i>Geor. Inst. of Tech.</i>	2000 - 2002
Research Interests	<ul style="list-style-type: none"> • Galaxy clusters and groups • Galaxy evolution and formation • Active galactic nuclei and jets • Black hole formation and evolution • Large scale structure and cosmology 	
Honors	• Referee for ApJ, AJ, and CanTAC	2008 - Present
	• Sherwood K. Haynes Award for Outstanding Graduate Student	2008
	• MSU College of Natural Science Dissertation Fellow	2007 - 2008
	• $\Sigma\Xi$ National Scientific Research Society Member	2009 - Present
	• $\Sigma\Pi\Sigma$ National Physics Honor Society Member	2001 - Present
	• American Astronomical Society Member	2002 - Present
	• American Physical Society Member	2002 - Present
	• Perimeter Institute Black Hole Reading Group Member	2009 - Present
	• Dean's List, Georgia Tech	1998-2002

Scientific Skills	• Extensive experience with X-ray and radio data analysis	
	• Familiarity with infrared, optical, and UV data analysis	
	• Understanding of AIPS, CASA, CIAO, IRAF, OSA, and SAS analysis software	
	• Fluent in HTML, IDL, \LaTeX , and PERL programming languages	
	• Worked with C, FLASH, FORTRAN, MYSQL, PYTHON, SUPERMONGO, and TCL	
	• Mastery of DOS, Linux, Macintosh, and Windows computing architectures	
	• Expert of computer maintenance, system construction, and troubleshooting	
Observing Experience	Giant Metrewave Radio Telescope (GMRT) 168 hours observing 13 galaxy groups and 20 galaxy clusters	Jan. 2010
	Chandra X-ray Observatory (CXO) 21 hours queued observation of IRAS 09104+4109	Jan. 2009
	Very Large Array Radio Telescope (VLA) 39 hours observing 13 giant ellipticals	Dec. 2008
Proposals & Grants	GMRT Cycle 17, Co-I The Power and Particle Content of Extragalactic Radio Sources PI: Dr. Somak Raychaudhury, <i>Univ. Birmingham</i>	2009
	GMRT Cycle 17, Co-I The Morphology of Steepest Spectrum Radio Sources in Galaxy Cluster Cores PI: Dr. Alastair Edge, <i>Durham Univ.</i>	2009
	GMRT Cycle 16, Co-I The Content of Giant Cavities in the IGM of Galaxy Clusters PI: Dr. Somak Raychaudhury, <i>Univ. Birmingham</i>	2008
	CXO Cycle 10, PI IRAS 09104+4109: An Extreme Brightest Cluster Galaxy	2008
	CXO Cycle 10, Co-I Conduction and Multiphase Structure in the ICM PI: Dr. Mark Voit, <i>Mich. St. Univ.</i>	2008
	Spitzer Cycle 5, Co-I Star Formation and AGN Feedback in BCGs PI: Dr. Megan Donahue, <i>Mich. St. Univ.</i>	2008
	Spitzer Cycle 5, Co-I Infrared Properties of a Control Sample of Brightest Cluster Galaxies PI: Dr. Megan Donahue, <i>Mich. St. Univ.</i>	2008
	NSF Grant, Co-I Star Formation in the Universe's Largest Galaxies PI: Dr. Mark Voit, <i>Mich. St. Univ.</i>	2008

CXO Cycle 9, Co-I 2007
 Quantifying Cluster Temperature Substructure
 PI: Dr. Mark Voit, *Mich. St. Univ.*

VLA A-configuration Cycle, Co-I 2007
 Radio Feedback in Clusters and Galaxies
 PI: Dr. Brian McNamara, *Univ. Waterloo*

Teaching Experience Substitute Instructor Fall 2006
 Course: “Visions of the Universe”

Honors Physics Tutor Summer 2003
 Course: “Introductory Honors Physics I & II”

Graduate Teaching Assistant 2002 - 2003
 Course: “Visions of the Universe”

References Megan Donahue, donahue@pa.msu.edu +00-1-517-884-5618
 Tenured professor, Michigan State University

Brian McNamara, mcnamara@uwaterloo.ca +00-1-519-888-4567 ext. 38170
 Tenured professor, University of Waterloo

G. Mark Voit, voit@pa.msu.edu +00-1-517-884-5619
 Tenured professor, Michigan State University

Chris Carilli, ccarilli@nrao.edu +00-1-505-835-7000
 National Radio Astronomy Observatory Chief Scientist

Jack Baldwin, baldwin@pa.msu.edu +00-1-517-884-5611
 Associate Chair for Astronomy, Michigan State University

Paul Nulsen, pnulsen@cfa.harvard.edu +00-1-617-495-7043
 Research Scientist, Center for Astrophysics at Harvard University

Mike Wise, wise@science.uva.nl +31-0-521-595-564
 LOFAR Radio Observatory Chief Scientist

Personal Interests

- Academic: Environmental sciences, “Cradle2Cradle” design, and urban planning.
- Athletics: Triathlons, baseball, rock climbing, and Georgia Tech athletics.
- Hobbies: Backpacking, reading, building model airplanes, and raising bonsai trees.