

Dr. Kenneth W. Cavagnolo Curriculum Vitae

Last updated November 30, 2009; [Hyperlinks colored blue](#)

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

Office: 519-888-4567 ext. 35074
Home: 517-285-9062
E-mail: kencavagnolo@gmail.com
Web: 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"> • Active galactic nuclei and jets • Galaxy clusters and groups • Black hole formation and evolution • Galaxy evolution and formation • 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
	• American Physical Society Member	2002 - Present
	• ΣΠΣ National Physics Honor Society Member	2001 - Present
	• ΣΞ National Scientific Research Society Member	2009 - Present
	• Perimeter Institute Black Hole Reading Group Member	2009 - Present
	• Dean's List, Georgia Inst. of Tech.	1998-2002

Scientific Skills	<ul style="list-style-type: none"> • Extensive experience with X-ray and radio data analysis • Familiarity with infrared, optical, and UV data analysis • Understanding of AIPS, CASA, CIAO, and IRAF 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) 59 hours observing 13 galaxy groups	Jan. 2010
	GMRT 109 hours observing 20 galaxy clusters	Feb. 2010
	Chandra X-ray Observatory (CXO) 21 hours observing 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 Quantifying Cluster Temperature Substructure PI: Dr. Mark Voit, <i>Mich. St. Univ.</i>	2007
	VLA A-configuration Cycle, Co-I Radio Feedback in Clusters and Galaxies PI: Dr. Brian McNamara, <i>Univ. Waterloo</i>	2007
Public Outreach	Astronomers Without Borders (AWB) Organized the affiliate chapter of AWB at the University of Waterloo.	2009-present
	International Year of Astronomy (IYA) Helped with events in Waterloo, Ontario for IYA such as observing nights, public talks, and workshops.	2009
Teaching Experience	Substitute Instructor Course: “Visions of the Universe”	Fall 2006
	Honors Physics Tutor Course: “Introductory Honors Physics I & II”	Summer 2003
	Graduate Teaching Assistant Course: “Visions of the Universe”	2002 - 2003
References (ordered by preference)	Dr. Megan Donahue, donahue@pa.msu.edu Tenured professor, Michigan State University	+00-1-517-884-5618
	Dr. Brian McNamara, mcnamara@uwaterloo.ca Tenured professor, University of Waterloo	+00-1-519-888-4567 ext. 38170
	Dr. G. Mark Voit, voit@pa.msu.edu Tenured professor, Michigan State University	+00-1-517-884-5619
	Dr. Chris Carilli, ccarilli@nrao.edu National Radio Astronomy Observatory Chief Scientist	+00-1-505-835-7000
	Dr. Jack Baldwin, baldwin@pa.msu.edu Associate Chair for Astronomy, Michigan State University	+00-1-517-884-5611
	Dr. Paul Nulsen, pnulsen@cfa.harvard.edu Research Scientist, Center for Astrophysics at Harvard University	+00-1-617-495-7043
	Dr. Mike Wise, wise@science.uva.nl LOFAR Radio Observatory Chief Scientist	+31-0-521-595-564
Personal Interests	<ul style="list-style-type: none"> • Academic: Environmental sciences, “Cradle2Cradle” design, and urban planning • Athletics: Triathlons, baseball, rock climbing, and Georgia Tech sports • Hobbies: Backpacking, reading, building model airplanes, and raising bonsai trees 	