

## Dr. Kenneth W. Cavagnolo List of Publications

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*Last updated January 1, 2010; [Hyperlinks colored blue](#)*

<b>In Preparation</b>	<p><i>“A Relationship Between AGN Jet Power and Radio Luminosity”</i>  <b>K. Cavagnolo</b>, B. McNamara, P. Nulsen, C. Carilli, C. Jones, W. Forman, &amp; L. Birzan          In prep. for ApJ</p> <p><i>“Gas Uplift and AGN Heating from the Quasar in IRAS 09104+4109”</i>  <b>K. Cavagnolo</b>, M. Donahue, B. McNamara, &amp; G.M. Voit          In prep. for MNRAS</p> <p><i>“A Multiwavelength Analysis of the Galaxy Cluster RBS 797: Evidence for a Cluster-scale Line-of-Sight AGN Outburst”</i>  <b>K. Cavagnolo</b>, B. McNamara, P. Nulsen, M. Wise, M. Gitti, &amp; M. Brüggen          In prep. for ApJ</p> <p><i>“Entropy Scaling Relations of ACCEPT Galaxy Clusters”</i>  <b>K. Cavagnolo</b>, G.M. Voit, &amp; M. Donahue          In prep. for ApJL</p> <p><i>“Normalization and Scatter of the Mass-Temperature relation for Supermassive Galaxy Clusters”</i>          R. Mandelbaum, R. Nakajima, G. Bernstein, <b>K. Cavagnolo</b>, M. Donahue, C. Keeton, J. Hughes, N. Bahcall, T. Schrabback, N. Padmanabhan, S. Miyazaki, &amp; A. Kravtsov          In prep. for ApJ</p> <p><i>“Constraining the Spin of Supermassive Black Holes Using Measured AGN Jet Powers”</i>          M. Rohanizadegan, B. McNamara, F. Kazemzadeh, P. Nulsen, &amp; <b>K. Cavagnolo</b>          In prep. for ApJ</p>
<b>First Author Refereed Papers</b>	<p><i>“Intracluster Medium Entropy Profiles for a Chandra Archival Sample Of Galaxy Clusters”</i>  <b>K. Cavagnolo</b>, M. Donahue, G.M. Voit, &amp; M. Sun  <a href="#">ApJ Accepted, 2009</a></p> <p><i>“An Entropy Threshold for Strong H<math>\alpha</math> and Radio Emission in the Cores of Galaxy Clusters”</i>  <b>K. Cavagnolo</b>, M. Donahue, G.M. Voit, &amp; M. Sun  <a href="#">ApJ Accepted, 2008</a></p> <p><i>“Bandpass Dependence of X-Ray Temperatures in Galaxy Clusters”</i>  <b>K. Cavagnolo</b>, M. Donahue, G.M. Voit, &amp; M. Sun  <a href="#">ApJ Accepted, 2008</a></p>
<b>Co-Author Refereed Papers</b>	<p><i>“Direct Evidence for an Outflow of Metal-Enriched Gas Along the Radio Jets of Hydra A”</i></p>

C. Kirkpatrick, M. Gitti, **K. Cavagnolo**, B. McNamara, L. David, P. Nulsen, & M. Wise  
[ApJL Accepted, 2009](#)

*“A Chandra X-ray Analysis of Abell 1664: Cooling, Feedback and Star Formation in the Central Cluster Galaxy”*

C. Kirkpatrick, B. McNamara, D. Rafferty, P. Nulsen, L. Birzan, F. Kazemzadeh, M. Wise, M. Gitti, & **K. Cavagnolo**  
[ApJ Accepted, 2009](#)

*“Conduction and the Star Formation Threshold in Brightest Cluster Galaxies”*

G.M. Voit, **K. Cavagnolo**, M. Donahue, D. Rafferty, B. McNamara, & P. Nulsen  
[ApJ Accepted, 2008](#)

*“Star Formation, Radio Sources, Cooling X-Ray Gas and Galaxy Interactions in the Brightest Cluster Galaxy in 2A0335+096”*

M. Donahue, M. Sun, C. O’Dea, G.M. Voit, & **K. Cavagnolo**  
[AJ Accepted, 2007](#)

*“s-Process Abundances in Planetary Nebulae”*

B. Sharpee, Y. Zhang, R. Williams, E. Pellegrini, **K. Cavagnolo**, J. Baldwin, M. Phillips, & X. Liu

[ApJ Accepted, 2007](#)

*“Entropy Profiles in the Cores of Cooling Flow Clusters of Galaxies”*

M. Donahue, D. Horner, **K. Cavagnolo**, & G.M. Voit  
[ApJ Accepted, 2006](#)

#### **Presented Work & Talks**

TBD: *“IRAS 09104+4109: At the Cross-roads of Massive Galaxy Formation?”*

Jun. 2010 – From Massive Galaxy Formation to Dark Energy; University of Tokyo-Kashiwa

INVITED TALK: *“Toward a Universal Relation of AGN Kinetic-Radio Luminosity”*

Jan. 2010 – National Centre for Radio Astrophysics; Tata Institute

TALK: *“The AGN Jet Power and Radio Power Relationship for Isolated Giant Elliptical Galaxies”*

Jun. 2009 – The Monster’s Fiery Breath: Feedback in galaxies, groups, and clusters; University of Wisconsin-Madison

INVITED TALK: *“Using Galaxy Clusters as Galaxy Formation Labs”*

Oct. 2008 – Undergraduate Seminar Series; University of Waterloo

INVITED TALK: *“Understanding Cluster Cores: The Role of Core Entropy”*

Sep. 2008 – The Cool, Cooler and Cold - Cluster Cooling Flows in a New Light; Leiden University

INVITED TALK: *“Investigating Feedback and Relaxation in Clusters of Galaxies”*

Jul. 2008 – Center for Study of Cosmic Evolution; Michigan State University

INVITED TALK: “*From Cluster Cosmology to Galaxy Formation in Under One Hour*”  
Mar. 2008 – Astrophysics Seminar; University of Waterloo

INVITED TALK: “*The Effect of Cluster Feedback on High-Precision Cosmology*”  
Feb. 2008 – NASA Space Science and Technology Center; University of Alabama-Huntsville

INVITED TALK: “*Understanding Feedback in Galaxy Clusters*”  
Jan. 2008 – Center for Study of Cosmic Evolution; Michigan State University

INVITED TALK: “*Band Dependence of X-ray Temperatures*”  
Oct. 2007 – Astrophysics Seminar; University of Michigan

POSTER: “*The Entropy-Feedback Connection and Quantifying Cluster Virialization*”  
Oct. 2007 – Eight Years of Science with Chandra; University of Alabama-Huntsville

POSTER: “*Chandra Studies of Dark Matter and Galaxy Formation: Signatures from the Intracluster Medium*”  
Dec. 2006 – American Astronomical Society Meeting

PROCEEDING: “*Abundances of s-process elements in planetary nebulae: Br, Kr & Xe*”  
Jul. 2006 – International Astronomical Union Symposium

POSTER: “*Studies of Entropy Distributions in X-ray Luminous Clusters of Galaxies*”  
Dec. 2005 – American Astronomical Society Meeting

POSTER: “*Entropy Distributions in the Cores of Nearby X-ray Luminous Clusters of Galaxies*”  
Dec. 2004 – American Astronomical Society Meeting

POSTER: “*Radio-Free Cluster Cooling Flows*”  
Dec. 2004 – American Astronomical Society Meeting