**Kenneth W. Cavagnolo**
101 N. Blount St. Apt. 101
Madison, WI 53703
Mobile: 6084380209
Email: kencavagnolo@gmail.com

**Social Security Number:** XXX-XX-7263
**Announcement:** NDU-11-024-423999
**Application Date:** Thursday, January 13, 2011 12:19 PM
**Country of Citizenship:** United States of America
**Veterans Preference:** No
**Registered for Selective Service**

## AVAILABILITY

**Job Type:** Permanent
Temporary
Term
**Work Schedule:** Full Time

## Career Patterns

Post-graduate
New Professional
Term
Mission-Focused
Experienced Professionals
Telework
Graduate
Mid-Career Professional
Requires Flexibilities

## TARGET LOCATIONS

US

## WORK EXPERIENCE

**Observatoire de la Cote d'Azur**
**Nice, PACA**
**France**
**9/2010 to Present**
**Salary:** 38,000 EUR Per Year
**Hours per week:** 80
**Postdoctoral Fellow**
Test theoretical models regarding the origin of the non-thermal emission from clusters of galaxies and understand the relation to evolutionary cosmological physics. We exploited the capabilities of modern low-frequency radio telescopes (e.g. LOFAR and LWA), and complementary X-ray and gamma-ray observations, to fully-characterize cluster non-thermal physics.
(Contact Supervisor: Yes , Supervisor's Name: Chiara Ferrari, Supervisor's Phone: +33 04 92 00 30 62 )

**University of Waterloo**
**Waterloo, Ontario Canada**
**9/2008 to 8/2010**
**Salary:** 48,000 CAD Per Year
**Hours per week:** 80
**Postdoctoral Fellow**
I am responsible for the execution of research projects initiated by myself and my advisor, planning future projects, acquiring funding for future projects, assisting in the guidance of the research team, writing and publishing papers detailing my research, and presenting our work at conferences and other universities. Our group has been awarded observing time on all three of NASA's currently flying Great Observatories (Hubble, Chandra, and Spitzer), in addition to being given time on the VLA, ESO's XMM-Newton, and being part of a key project for the Herschel mission which flew in 2009. I have extensive

computer programming, organizational, and mathematical skills.

Studied the properties of supermassive black holes, galaxy formation, and clusters of galaxies using state-of-the-art astronomical techniques. My duties were to design, implement, and execute research projects using data acquired from X-ray, radio, and optical observatories. Reduction and interpretation of the data necessitated the creation of novel computer program suites that were flexible, extensible, and useful for modeling.
(Contact Supervisor: Yes , Supervisor's Name: Brian McNamara, Supervisor's Phone: (519) 888-4567 ext. 38170 )

**Michigan State University**
**East Lansing, MI US**
**7/2002 to 8/2008**
**Hours per week:** > 90
**Graudate Research Assistant**
I studied clusters of galaxies via their X-ray properties to investigate feedback mechanisms (e.g. active galactic nuclei and star formation), galaxy evolution, and the process of cluster virialization. My primary role was to complete long-term goals set forth by myself and my advisor with the overall purpose of my attaining a Ph.D. in astrophysics. In my ~6 years at MSU I: wrote three first author papers, co-authored four papers, gave 16 talks regarding my work, received ~45K in grant money to observe with the Chandra X-ray Observatory, was awarded the Sherwood K. Haynes Award for Outstanding Graduate Student, became an MSU College of Natural Science Dissertation Fellow, was granted membership to the American Astronomical Society, the American Physical Society, and National Physics Honor Society. In addition, I acquired profound skills in reducing and analyzing data taken with Chandra X-ray Telescope, became fluent in PERL, IDL, LATEX and HTML, attained working knowledge of C, FLASH, FORTRAN, MYSQL, SUPERMONGO, and TCL, and mastered multiple computing architectures: DOS, Linux, Macintosh, and Windows.
(Contact Supervisor: Yes , Supervisor's Name: Dr. Megan Donahue, Supervisor's Phone: 517-355-9200 x2418 )

## EDUCATION

**Michigan State University**
East Lansing, MI United States
Doctorate - 8/2008
Major: Astrophysics
4.0 out of 4.0

**Michigan State University**
East Lansing, MI United States
Master's Degree - 5/2005
Major: Astronomy & Astrophysics
3.44 out of 4.0

**Georgia Institute of Technology**
Atlanta, GA United States
Bachelor's Degree - 5/2002
> 130 Semester Hours
Major: Physics
3.55 out of 4.0
magna cum laude

**South Forsyth High School**
Cumming, GA United States

High School or equivalent - 6/1998
unknown
Major: College Preparatory
Minor: N/A
3.8 out of 4.0

## LANGUAGES

**English**
**Spoken:** Advanced
**Written:** Advanced
**Read:** Advanced

**French**
**Spoken:** Novice
**Written:** Novice
**Read:** Novice

## AFFILIATIONS

American Astronomical Society - Member
American Physical Society - Member
Sigma Pi Sigma; National Physics Honor Society - Member
Bread and Roses Cooperative - Member

## PROFESSIONAL PUBLICATIONS

"The Edge-on Bubbles of RBS 797"
"X-ray and Entropy Scaling Relations in Galaxy Clusters"
"Intracluster Medium Entropy Profiles for a Chandra Archival Sample Of Galaxy Clusters"
"An Entropy Threshold for Strong Hα and Radio Emission in the Cores of Galaxy Clusters"
"Bandpass Dependence of X-Ray Temperatures in Galaxy Clusters"
"Conduction and the Star Formation Threshold in Brightest Cluster Galaxies"
"Star Formation, Radio Sources, Cooling X-Ray Gas and Galaxy Interactions in the Brightest Cluster Galaxy in 2A0335+096"
"Entropy Profiles in the Cores of Cooling Flow Clusters of Galaxies"
"s-Process Abundances in Planetary Nebulae"

## ADDITIONAL INFORMATION

• Sherwood K. Haynes Award for Outstanding Graduate Student 2008
• MSU College of Natural Science Dissertation Fellow 2007 - 2008
• American Astronomical Society Member 2002 - Present
• American Physical Society Member 2002 - Present
• Sigma Pi Sigma, National Physics Honor Society 2001 - Present
• Bread and Roses Cooperative 2008 - Present
• Dean's List, Georgia Tech 1998-2002
• Profound skills in reducing and analyzing data taken with Chandra X-ray Telescope.
• Extensive experience with customizing and debugging CI AO and CALDB.
• Familiarity with multiwavelength analysis packages: AIPS, IRAF, and PYRAF.
• Fluent in PERL, IDL, LATEX 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. Jack Baldwin** **Michigan State University** Tenured Professor
**Phone Number:** (517) 884-5611
**Email:** baldwin@pa.msu.edu
**Reference Type:** Professional

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|---|---|---|
| **Dr. Megan Donahue** | **Michigan State University** | Tenured Professor |
| **Phone Number:** | (517) 884-5618 | |
| **Email:** | donahue@pa.msu.edu | |
| **Reference Type:** | Professional | |

| | | |
|---|---|---|
| **Dr. Mark Voit** | **Michigan State University** | Tenured Professor |
| **Phone Number:** | (517) 884-5619 | |
| **Email:** | voit@pa.msu.edu | |
| **Reference Type:** | Professional | |

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|---|---|---|
| **Dr. Brian McNamara** | **University of Waterloo** | Tenured Professor |
| **Phone Number:** | 519-888-4567 x38170 | |
| **Email:** | mcnamara@scimail.uwaterloo.ca | |
| **Reference Type:** | Professional | |

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|---|---|
| **Josh Winston** | |
| **Phone Number:** | (505) 917-9957 |
| **Reference Type:** | Personal |

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|---|---|
| **Margaret Ann Roggenbuck** | |
| **Phone Number:** | (517) 372-9634 |
| **Reference Type:** | Personal |