February 22, 2011


Dear Sir or Madam:

While successful in my career as a researcher, it is clear that the aspects of my work which I find most rewarding are many of the very same objectives listed for employment with RES as an Energy Resource Engineer (ref# 6022): data analysis, project design/development, and effective professional communication. While at first glance my application may differ from a typical candidate's profile, I bring to the table a unique skill set that is both transferable and relevant to the needs of RES:

- High-level understanding of physics, computing, and complex mathematics
- Self-motivated, fast, independent, and enthusiastic learner
- Demonstrated success in communicating and working with diverse personalities and groups
- A desire to use my time and abilities to improve my work environment and the quality of service to customers

I thrive in dynamic work environments emphasizing creative thinking, attention to detail, and collaborative efforts, and your team will find me to be a valuable, motivated, and fully dedicated addition. Should you have any further questions regarding my candidacy, please contact me via phone (+33954444887) or email (kencavagnolo@gmail.com). I welcome the opportunity to further pursue this position and look forward to hearing from you.

Thank you for your consideration.


Sincerely,
Kenneth Cavagnolo

# Kenneth W. Cavagnolo

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## Objective

To earn employment in a dynamic environment where I can apply my analytic and computational skills to constructing creative solutions for complex problems.

## Professional Profile

- Excellent professional record of verbal and written communication skills.
- Profound skills in reducing, analyzing, interpreting, and presenting data.
- Trained in quantitative analysis, designing research projects, and creative problem solving.
- Formal graduate level education in applied mathematics, probability, and statistics.
- Mastery of classical mechanics, electromagnetism, and statistical mechanics.
- Strong programming abilities in IDL, Perl, Python, Tcl, C; fluent in HTML, Flash, LaTeX.
- Extensive experience with MS Office, OpenOffice, Adobe Suite, iLife, and X11.
- Mastery of MS Windows, Unix/Linux/Ubuntu, and Macintosh computing architectures.
- Expert in computer systems troubleshooting, maintenance, and construction.
- Comfortable with large collaborations, building professional relationships, and peer communication.

## Education

| | |
|---|---|
| **Ph.D. Astrophysics** • Michigan State University | **2005 - 2008** |
| **M.S. Astrophysics** • Michigan State University | **2002 - 2005** |
| **B.S. Physics** • Georgia Institute of Technology | **1998 - 2002** |
| **College Preparatory Degree** • South Forsyth High School | **1994 - 1998** |

## Professional Experience

| | |
|---|---|
| **Postdoctoral Research Fellow** • Observatoire de la Côte d'Azur | **2010 - present** |
| **Postdoctoral Research Fellow** • University of Waterloo | **2008 - 2010** |
| **Graduate Research Assistant** • Michigan State University | **2003 - 2008** |
| **Substitute Instructor** • Michigan State University | **2006** |
| **Honors Physics Tutor** • Michigan State University | **2003** |
| **Graduate Teaching Assistant** • Michigan State University | **2002 - 2003** |
| **Undergraduate Research Assistant** • Georgia Institute of Technology | **2000 - 2002** |

## Awards and Honors

- Referee for premier professional astronomical publications *e.g.* ApJ, AJ, MNRAS
- Sherwood K. Haynes Award for Outstanding Graduate Student
- MSU College of Natural Science Dissertation Fellow
- American Astronomical Society Member
- American Physical Society Member
- Sigma Xi Member, National Honors Research Society
- Sigma Pi Sigma Member, National Physics Honor Society
- Four Year Dean's List at Georgia Institute of Technology

## Selected Professional Publications (hyperlinked)

- "A Relationship Between AGN Jet Power and Radio Power" ApJ 2010
- "Intracluster Medium Entropy Profiles for a Chandra Archival Sample of Galaxy Clusters" ApJ 2009
- "An Entropy Threshold for Strong Hα and Radio Emission in the Cores of Galaxy Clusters" ApJ 2008
- "Bandpass Dependence of X-Ray Temperatures in Galaxy Clusters" ApJ 2008