

Christopher N. Beaumont

Curriculum Vitae

Contact

Graduate Student

Institute for Astronomy
2680 Woodlawn Drive
Honolulu, HI 96822
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Smithsonian Predoctoral Fellow

Harvard-Smithsonian Center for Astrophysics
60 Garden St.
Cambridge, MA 02138
cbeaumont@cfa.harvard.edu

<http://www.ifa.hawaii.edu/users/beaumont>

Research Interests

Molecular cloud morphology, star formation, software development, astrophysical image analysis

Education

Institute for Astronomy, University of Hawai'i at Manoa Honolulu, HI

Ph.D Astronomy
Spring 2013 (Expected)
Dissertation Topic:

Morphological Diagnostics of Star Formation in Molecular Clouds (*Advisors: Jonathan P. Williams and Alyssa A. Goodman*)

Institute for Astronomy, University of Hawai'i at Manoa Honolulu, HI

M.S. Astronomy
Fall 2009
Research:

Molecular Rings around Interstellar Bubbles, and the Thickness of Star Forming Clouds (*Advisor: Jonathan P. Williams*)

Astrometric Data Analysis in the Era of All Sky Surveys (*Advisor: Eugene A. Magnier*)

Calvin College Grand Rapids, MI

B.S. Physics
May 2007
Minors in Mathematics and Astronomy
GPA 3.94 (Overall), 3.99 (Major)
Graduated with Honors

Honors

ARCS (*Achievement Rewards for College Scientists*) Foundation – Honolulu Chapter
Awarded in 2012

Harvard Institute for Applied Computational Science:
2012 Computational Challenge Winner

Awarded in 2012 for developing a new, efficient strategy for clearing debris off city roads after natural disasters.

PiCloud Academic Research Grant

Awarded in 2011

Smithsonian Astrophysical Observatory Predoctoral Fellowship

Awarded in 2011

Friends of the IFA Award for Excellent Masters-Level Research

Awarded in 2008

Barry M. Goldwater Scholarship Honorable Mention

Awarded in 2006

Calvin College McGregor Sophomore Scholar

Awarded in 2004

Calvin College Presidential Scholarship

Awarded in 2003

Howard Hughes Medical Institute Scholarship

Awarded in 2003

Employment

- 09/2010–Present **Harvard-Smithsonian Center for Astrophysics**
Predoctoral Research Fellow (*Advisor: Alyssa A. Goodman*)
- 09/2007–Present **University of Hawai'i at Manoa**
Undergraduate astronomy T.A. and Lab Assistant (9/2007 – 5/2008)
Research Assistant (*Advisor: Jonathan P. Williams*)
Research Assistant (*Advisor: Eugene A. Magnier*)
- 01/2012–06/2012 **Harvard University**
Teaching Fellow, EMR 19 *The Art of Numbers*
An undergraduate-level data visualization course for non-science majors
Professor: Alyssa Goodman
- 01/2011–06/2011 **Harvard-Smithsonian Center for Astrophysics**
Teaching Fellow, AY 201B *The Interstellar Medium*
Graduate-level course on the interstellar medium and star formation
Professor: Alyssa Goodman
- 06/2006–08/2008 **MIT Haystack Observatory**
REU Student
Title: SiO Masers in the Orion BN-KL Outflow
Advisor: Shep Doeleman
- 06/2005–08/2005 **National Solar Observatory**
REU Student
Title: Supernovae Detection Techniques for Small Robotic Telescopes
Advisor: Mark Giampapa

09/2003–05/2007 **Calvin College**
Physics, Astronomy, and Mathematics Tutor
Observatory Assistant
Head Student Observer (2004–2005)
Physics Lab Assistant / Grader

Publications

Journal Papers

“A Simple Perspective on the Mass-Area Relationship in Molecular Clouds”

Beaumont, Christopher N.; Goodman, Alyssa A.; Alves, João F.; Lombardi, Marco; Román-Zúñiga, Carlos G.; Kauffmann, Jens; Lada, Charles J. 2012 MNRAS in press

“A Bubbling Nearby Molecular Cloud: COMPLETE Shells in Perseus”

Arce, Hector G.; Borkin, Michelle A.; Goodman, Alyssa A.; Pineda, Jaime E.; **Beaumont, Christopher N.** 2011, ApJ, 742, 105

“Classifying Structures in the ISM with Support Vector Machines:
The G16.05-0.57 Supernova Remnant”

Beaumont, Christopher N.; Williams, Jonathan P.; Goodman, Alyssa A. 2011, ApJ, 741, 14B

“Building an Optimal Census of the Solar Neighborhood with Pan-STARRS Data”

Beaumont, Christopher N.; Magnier, Eugene A. 2010, PASP, 122, 1389

“Molecular Rings around Interstellar Bubbles and the Thickness of Star-Forming Clouds”

Beaumont, Christopher N.; Williams, Jonathan P. 2010, ApJ, 709, 791

“Discerning the Form of the Dense Core Mass Function”

Swift, Jonathan J.; **Beaumont, Christopher N.** 2010, PASP, 122, 224

“Diverse Protostellar Evolutionary States in the Young Cluster AFGL961”

Williams, J. P.; Mann, R. K.; **Beaumont, C. N.**; Swift, J. S.; Adams, J. D.; Hora, J.; Kassis, M.; Lada, E. A.; Roman-Zuniga, C. G. 2009, ApJ, 699, 1300-1306

“Lightcurve Analysis of a Magnitude Limited Asteroid Sample”

Molnar, L.A.; Haegert, M.J.; **Beaumont, C.N.** et al. 2008 Minor Planet Bulletin 35, 9M

Conference Presentations

“Linked Data Visualization in Astrophysics”

Beaumont, Christopher N.; Goodman, Alyssa A.; Borkin, Michelle A.; Robitaille, Thomas P
NRAO ALMA Software Workshop 2011

“Classifying Structures in the ISM with Machine Learning Techniques”

Beaumont, Christopher N.; Goodman, Alyssa A.; Williams, Jonathan P. AAS 2011

“SiO Masers in the Orion BN-KL Outflow”

Beaumont, Christopher N.; Doeleman, Sheperd S. AAS 2007