

# Karl E. Haisch Jr.

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## EDUCATION

- |           |   |                        |
|-----------|---|------------------------|
| 1994-2000 | <b>UNIVERSITY OF FLORIDA</b><br>Department of Astronomy.<br>Doctor of Philosophy degree (Astronomy), December 2000<br>Advisor: Dr. Elizabeth Lada       | <b>Gainesville, FL</b> |
| 1994-1998 | <b>UNIVERSITY OF FLORIDA</b><br>Department of Astronomy.<br>Master of Science degree (Astronomy), May 1998.<br>Advisor: Dr. Elizabeth Lada              | <b>Gainesville, FL</b> |
| 1989-1991 | <b>MICHIGAN STATE UNIVERSITY</b><br>Department of Physics and Astronomy.<br>Master of Science degree (Physics), June 1991.<br>Advisor: Dr. Susan Simkin | <b>E. Lansing, MI</b>  |
| 1985-1989 | <b>MICHIGAN STATE UNIVERSITY</b><br>Bachelor of Science degree (Astrophysics).  | <b>E. Lansing, MI</b>  |

## AWARDS AND HONORS

Top 1000 Most Cited published journal papers in the history of astronomy and physics (Haisch, Lada, & Lada 2001, *Astronomical Journal*, 553, L153) 2008 - present

Hubble Space Telescope General Observer Research Grant 2017 - 2019

NASA Chandra X-Ray Observatory Grant 2005-2006

American Astronomical Society International Travel Grant, March 2003, 2004

SIRTF Fellowship Alternate, February 2002

National Research Council Resident Research Award  
Awarded by the National Research Council and NASA  
NASA Ames Research Center, January 2001

Phi Kappa Phi Honor Society - Lifetime member

NASA Graduate Student Research Program Fellow Honorable Mention.  
Awarded by NASA, Spring, 1998

NASA Florida Space Grant Fellowship.  
Awarded by NASA and the Florida Space Grant Consortium  
University of Florida, May, 1995

National Science Foundation International Travel Award.  
Awarded by the National Science Foundation  
Spring, 1998

Sigma Xi Grants in Aid of Research Award  
Awarded by Sigma Xi  
Spring, 1995

## **MEDIA COVERAGE FOR RESEARCH**

Circumstellar disk lifetimes and planet-formation timescales in young clusters:  
featured on/in *CNN*, *New York Times*, *Sky & Telescope*, *Science*, *The Economist*,  
*National Public Radio*, *Space.com*, and other print and electronic media around  
the world, May - June 2003.

The Birth of Brown Dwarfs: featured in *Mercury*, November - December 2003.

## **PROFESSIONAL SOCIETY AND COMMITTEE MEMBERSHIP**

American Astronomical Society-Full Member.  
International Astronomical Union  
Peer Reviewer for the *Astronomical Journal*  
NOAO Telescope Time Allocation Committee  
National Science Foundation Star Formation Proposal Funding Committee  
NASA Proposal Funding External Reviewer  
Planet Finding Working Group Committee for Gemini Observatory  
UVU College of Science and Health Curriculum Committee  
Capitol Reef Field Station Users Committee  
Textbook peer reviewer for Norton and McGraw Hill Publishers

## **RESEARCH INTERESTS**

Star Formation and Evolution  
Circumstellar Disks  
Binary Star Formation  
Brown Dwarfs and Planetary Mass Objects

## **RESEARCH EXPERIENCE**

Aug 2004 - Present **Professor of Physics and Astronomy** **Orem, UT**  
*Utah Valley University*  
Initiated a methane imaging survey of five young star forming regions to identify  
candidate very-low-mass and planetary mass objects. I am also currently involved in

projects regarding the properties of molecular outflows from young stellar objects, and using the properties of the youngest binary stars as a chronometer for planet-forming disks.

- Oct 2002- Aug 2004 **Postdoctoral Research Fellow** **Ann Arbor, MI**  
*University of Michigan*  
Continued my study of the properties of protostellar binary systems. I also explored various topics related to star and planet formation, including adaptive optics searches for brown dwarfs and very low-mass stars in young, nearby clusters and the properties of molecular outflows from young stars.
- 2001-2002 **National Research Council Postdoctoral Fellow** **Moffett Field, CA**  
*NASA Ames Research Center*  
As an NRC Research Associate, I initiated a multiwavelength study of the properties of protostellar binary systems.
- 1996-2001 **Graduate Research Fellow/NRC Research Associate** **UF/NASA Ames**  
*University of Florida/NASA Ames Research Center*  
I conducted the analysis of a near-infrared photometric dataset for two young stellar clusters to search for small infrared excesses above the normal photospheric emission, which are potentially due to remnant circumstellar disks.
- 1995-2000 **NASA Florida Space Grant Fellow** **Gainesville, FL**  
*University of Florida*  
During my tenure as a graduate student at the University of Florida I conducted my dissertation research, entitled “An Investigation of Circumstellar Disk Properties in Cluster Environments”. I also participated in a project for the Absolute Calibration Program for the Infrared Space Observatory. I observed asteroids at Rosemary Hill Observatory in Bronson, FL.
- 1994-1995 **Graduate Research Assistant** **Gainesville, FL**  
*University of Florida*  
I conducted a survey to detect 21cm emission from shell elliptical galaxies.
- 1989-1991 **Graduate Research Assistant** **East Lansing, MI**  
*Michigan State University*  
I conducted my master’s thesis research to determine the effect of companion galaxies on Seyfert galaxy activity. In particular, I ran computer simulations to search for correlations between companion frequency, separation and angular momentum with Seyfert galaxy type.
- 1988-1989 **Undergraduate Research Assistant** **East Lansing, MI**  
*Michigan State University*  
For my undergraduate thesis, I observed Seyfert galaxies to search for bar-like structures in their nuclear regions. These structures are thought to be a mechanism for funneling material to smaller radii where it is eventually captured by a central supermassive black hole.

## TEACHING EXPERIENCE

- 2004-Present      **Professor of Physics and Astronomy**      **Orem, UT**  
*Utah Valley University*  
Responsible for teaching lower and upper division undergraduate physics and astronomy courses.
- 2003-2004      **Undergraduate Research Advisor**      **Ann Arbor, MI**  
*University of Michigan*  
I mentored an undergraduate astronomy student. She was responsible for the reduction and analysis of mid-infrared imaging data for my binary star research.
- 1994-1995      **Teaching Assistant**      **Gainesville, FL**  
*University of Florida*  
Responsibilities included teaching sections of introductory astronomy labs for non-science majors, participating in public night programs at the campus observatory, and assisting with public outreach programs for the general public and at local schools.
- 1991-1994      **Physics and Astronomy Instructor**      **East Peoria, IL**  
*Illinois Central College*  
Responsible for the overall physics and astronomy program, including the development and implementation of all course related material. Teaching duties included both large sections of general astronomy and physics, as well as smaller physics/astronomy courses for undergraduate physical science majors. In other areas, I taught chemistry labs and physical/environmental science courses.
- 1989-1991      **Teaching Assistant**      **East Lansing, MI**  
*Michigan State University*  
My primary duties involved teaching lecture and laboratory courses in physics and astronomy to both physics/astronomy majors and non-science majors. In addition, I assisted with the public night programs which were held at the campus observatory.

## MISCELLANEOUS SKILLS

### Relevant Miscellaneous Skills

I have extensive observing experience at optical, near/mid-infrared and millimeter (single dish and interferometric) wavelengths. In addition, I have extensive experience with many different data reduction/analysis procedures. Furthermore, I have been very successful with grant proposal and observing proposal writing.

## COMPUTER SKILLS

Extensive computing experience including programming with FORTRAN and IRAF; working knowledge of several image reduction packages including IRAF and IDL; familiarity with various operating systems including UNIX, DOS, WINDOWS and LINUX; a working knowledge of several word processing programs (WordPerfect and MicrosoftWord); Network editing (NetscapeComposer, HTML); typesetting programs (HTML, TeX and LaTeX).