

## Eric L. N. Jensen

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### Education

Ph.D. in Astronomy, University of Wisconsin-Madison, August 1996; dissertation supervised by Robert Mathieu.

Master of Science in Astronomy, University of Wisconsin-Madison, August 1992.

Additional study of physics, astronomy, and mathematics, University of Minnesota, 1989 – 1990; Dean's list Fall 1989.

Bachelor of Arts in Physics, Carleton College, 1987. Graduated *magna cum laude* with distinction in Physics.

### Teaching and Research Experience

Associate Professor of Astronomy, Swarthmore College, March 2004 – present. (Assistant Professor Sept. 1998–Feb. 2004). Teaching introductory and advanced astronomy and physics courses, and conducting research with undergraduates into planet formation in binary and single star systems. Revising astronomy curriculum, including designing and teaching new courses and labs.

Instructor, Arizona State University, Aug. 1996 – Aug. 1998. Taught introductory astronomy laboratory courses Fall 1996 and Spring 1997; developed new lab exercises and supervised eight teaching assistants. Taught a graduate course, "Research Techniques in Observational Astronomy," Spring 1998.

Visiting Research Associate, Arizona State University, Aug. 1996 – Aug. 1998. Conducted observational studies of pre-main-sequence binary stars and their influence on planet formation.

Teaching Assistant, University of Wisconsin-Madison, Sept. – Dec. 1990, Jan. – May 1996. Helped implement new computer-based introductory astronomy lab course.

Research Assistant, UW-Madison, June 1991 – August 1996. Prof. Robert Mathieu, supervisor. Observations and modeling of the disks around pre-main-sequence binary stars.

Instructor in physics, astronomy, and mathematics, Lake Forest Academy, Lake Forest, Illinois, 1987 – 1989. Initiated and designed a new astronomy course.

## Grants

- “A New Observatory for Undergraduate Training and Faculty Research at Swarthmore College,” \$310,109 from the National Science Foundation’s Program for Research and Education with Small Telescopes (PREST), August 2007–July 2010.
- “The Angular Momentum Evolution of Young, Low Mass Stars: Probing Magnetic Star-Disk Coupling Through Modeling and Analysis of Circumstellar Disk Structure,” \$11,637 from NASA’s Spitzer Space Telescope, June 2005–June 2006.
- “Searching for the Nearest Young Stars,” \$153,116 from the National Science Foundation, May 2003–May 2006.
- “Constraining the T Tauri Star X-ray Emission Mechanism: High-Resolution Spectroscopy of the Young Star DoAr 21”, \$65,657 from NASA’s *Chandra* X-ray Observatory, May 2003–May 2005.
- “Prospects for Life on Planets in Binary Star Systems,” \$180,000 from the National Science Foundation’s *Life in Extreme Environments* Program, Sept. 1997–Dec. 2001.

## Honors

- James A. Michener Faculty Fellowship, Swarthmore College, 2001–2002.  
Wisconsin Space Grant Consortium Graduate Fellow, 1993–1995.  
Member of Sigma Xi, 1993; recipient of two Sigma Xi Grants-in-Aid of Research, 1992.  
Member of Phi Beta Kappa, 1987.  
National Merit Scholar, 1983.

## Astronomical observing experience

I have authored successful proposals for and been a guest observer on the following telescopes:

### *Ground based:*

- James Clerk Maxwell Telescope, Mauna Kea, Hawaii;
- Kitt Peak National Observatory Coudé Feed and 4 meter, Kitt Peak, Arizona;
- Cerro Tololo Interamerican Observatory 1.5 meter and 4 meter, Chile;
- Gemini South 8-meter, Chile;
- Owens Valley Radio Observatory Millimeter Interferometer, Big Pine, California;
- United Kingdom Infrared Telescope, Mauna Kea, Hawaii;
- Very Large Array, Socorro, New Mexico.

### *Space based:*

- Infrared Space Observatory (ISO); Röntgen Satellite (ROSAT x-ray telescope); Chandra X-ray Observatory; Spitzer Space Telescope; Suzaku X-ray Observatory.

## Service

### *Swarthmore College:*

Chair, Division of Natural Sciences and Engineering, 2007–2008.  
Council on Educational Policy (elected committee), 2005–2007.  
Faculty observer, Board of Managers meetings, 2005–2007.  
Electronic Privacy committee, 2003–2004  
Intellectual Property task force (drafted a new IP policy), 2000–2003.

### *Professional astronomical community:*

Panel member, NSF Stellar Astronomy, NASA Astrobiology Institute CAN, NASA *Origins of Solar Systems*, NSF Program for Research and Education with Small Telescopes (PREST), Chandra X-ray Observatory, Hubble Space Telescope, Spitzer Space Telescope.  
Proposal referee, NASA *Origins of Solar Systems*, NSF Stellar Astronomy, CRDF Cooperative Grants program.  
Paper referee for *Astronomical Journal*, *Astrophysical Journal*, *Astrophysical Journal Letters*, *American Journal of Physics*, and *Nature*.  
Textbook and book proposal reviewer for Cambridge University Press and Princeton University Press.

## Undergraduate research students supervised

Swarthmore students: Beth Biller '00, Allyn Dullighan '01, Brendan Karch '02, Rabi Whitaker '03, Matt Miller '04, Cameron Higby-Naquin '05, Miranda Peters '05, Katharine Schlesinger '05, Victoria Swisher '06, Andy Skemer '06, Saurav Dhital '06, Blair Reaser '07, Jennifer Yee, '07, Emily Hager '10, Colin Schimmelfing '10. Advised undergraduate theses by Biller, Miller, Higby-Naquin, Schlesinger, Dhital, and Skemer.

Non-Swarthmore students, through the Keck Northeast Astronomy Consortium exchange:  
Arianne Donar, Wesleyan '01; Mary Hui, Wesleyan '05; Marty Mudd, Williams '04;  
Matthew Richardson, Fisk '08.

## Publications, Eric L. N. Jensen

Undergraduate co-authors are denoted by asterisks in the lists below.

### Papers in preparation for submission to refereed journals

Jensen, E.L.N., Cohen, D. H., Gagné, M., and \*Swisher, V. 2008, “An Extended Disk Around a Weak-Line T Tauri Star: Accretion, Infrared Excess, and X-rays from DoAr 21,” to be submitted to the *Astrophysical Journal*.

\*Yee, J. C. and Jensen, E.L.N. 2008, “Lithium Depletion in the  $\beta$  Pic Moving Group,” to be submitted to the *Astrophysical Journal*.

### Refereed papers

Cohen, D. H., \*Kuhn, M. A., Gagné, M., Jensen, E. L. N., and Miller, N. A. 2008. “*Chandra* spectroscopy of the hot star  $\beta$  Crucis and the discovery of a pre-main-sequence companion,” accepted by *Monthly Notices of the Royal Astronomical Society*.

Patience, J., Akeson, R. L., and Jensen, E. L. N. 2008. “The Evolution of Circumstellar Disks in Ophiuchus Binaries,” *Astrophysical Journal*, 677, 616.

Jensen, E.L.N., \*Dhital, S., Stassun, K., Patience, J., Herbst, W., Walter, F., Simon, M., and Basri, G. 2007. “Periodic Accretion from a Circumbinary Disk in the Young Binary UZ Tau E,” *Astronomical Journal*, 134, 241.

Jensen, E.L.N., Mathieu, R.D., \*Donar, A. X., and \*Dullighan, A. 2004. “Testing Protoplanetary Disk Alignment in Young Binaries,” *Astrophysical Journal*, 600, 789.

Jensen, E.L.N., and Akeson, R.L., 2003. “Protoplanetary Disk Mass Distribution in Young Binaries,” *Astrophysical Journal*, 584, 875.

Koerner, D.W., Jensen, E.L.N., \*Cruz, K., \*Guild, T., and \*Gultekin, K. 2000. “A Single Circumbinary Disk in the HD 98800 Quadruple System,” *Astrophysical Journal Letters*, 533, L37.

Jensen, E.L.N., Cohen, D.H., and Neuhäuser, R. 1998. “*ROSAT* and *Hipparcos* Observations of Isolated Pre–Main-Sequence Stars Near HD 98800,” *Astronomical Journal*, 116, 414.

Akeson, R.L., Koerner, D.W., and Jensen, E.L.N. 1998. “A Circumstellar Dust Disk Around T Tauri N: Sub-arcsecond Imaging at  $\lambda = 3$  mm,” *Astrophysical Journal*, 505, 358.

Jensen, E.L.N., and Mathieu, R.D. 1997. “Evidence for Cleared Regions in the Disks Around Pre-Main-Sequence Spectroscopic Binaries,” *Astronomical Journal*, 114, 301.

Mathieu, R. D., Stassun, K., Basri, G., Jensen, E.L.N., Johns-Krull, C.M., Valenti, J., and Hartmann, L.W. 1997. “The Classical T Tauri Spectroscopic Binary DQ Tau. I. Orbital Elements and Photometric Behavior,” *Astronomical Journal*, 113, 1841.

- Jensen, E.L.N., Koerner, D.W., and Mathieu, R.D. 1996. “High-Resolution Imaging of Circumstellar Gas and Dust in UZ Tauri: Comparing Binary and Single-Star Disk Properties,” *Astronomical Journal*, 111, 2431.
- Jensen, E.L.N., Mathieu, R.D., and Fuller, G.A. 1996. “The Connection Between Submillimeter Continuum Flux and Separation in Young Binaries: Evidence of Interaction Between Stars and Disks,” *Astrophysical Journal*, 458, 312.
- Mathieu, R.D., Adams, F.C., Fuller, G.A., Jensen, E.L.N., Koerner, D.W., and Sargent, A.I. 1995. “Submillimeter Continuum Observations of the T Tauri Spectroscopic Binary GW Orionis,” *Astronomical Journal*, 109, 2655.
- Jensen, E.L.N., Mathieu, R.D., and Fuller, G.A. 1994. “A Connection Between Submillimeter Continuum Flux and Separation in Young Binaries,” *Astrophysical Journal Letters*, 429, L29.

### Review articles

- Mamajek, E. E., Barrado y Navascues, D., Randich, S., Jensen, E. L. N., Young, P. A., Miglio, A., and Barnes, S. A., 2008. “A Splinter Session on the Thorny Problem of Stellar Ages,” in *14th Cambridge Workshop on Cool Stars, Stellar Systems and the Sun*, ed. G. van Belle (San Francisco: Astronomical Society of the Pacific).
- Jensen, E.L.N. 2001. “Can Post T Tauri Stars be Found? Yes!” in *Young Stars Near Earth*, eds. R. Jayawardhana & T. Greene (San Francisco: Astronomical Society of the Pacific), pp. 3–8.
- Jensen, E.L.N. 2001. “Disks in Young Binary Systems: Unresolved Millimeter-Wave Observations,” in *The Formation of Binary Stars*, proceedings of IAU Symposium 200, eds. H. Zinnecker & R. Mathieu (San Francisco: Astronomical Society of the Pacific), pp. 285–294.
- Jensen, E.L.N. 2001. “Disk Clearing in the Young Binary System AK Sco,” in *The Formation of Binary Stars*, proceedings of IAU Symposium 200, eds. H. Zinnecker & R. Mathieu (San Francisco: Astronomical Society of the Pacific), pp. 342–345.
- Mathieu, R.D., Ghez, A.M., Jensen, E.L.N., and Simon, M. 2000. “Young Binary Stars and Associated Disks,” in *Protostars and Planets IV*, eds. V. Mannings, A. Boss, and S. Russell (Tucson: Univ. of Arizona Press), pp. 703–730.

### Invited conference talks

- “The Search for Post T-Tauri Stars” at *Young Stars Near Earth*, NASA/Ames, March 2001.
- “Unresolved millimeter-wave observations of disks” at *Formation of Binary Stars*, Potsdam, Germany, April 2000.
- “Disks in Young Binary Systems” at *Planetary Formation in the Binary Environment*, Stony Brook, NY, June 1996.

## American Astronomical Society meeting presentations

- \*Skemer, A.J., Jensen, E. L. N. 2005. "Mass Limits of Circumstellar Disks from Spitzer Legacy Data", *BAAS*, 207, 74.20.
- \*Dhital, S., Jensen, E. L. N., Patience, J., Akeson, R.L., Herbst, W. 2005. "Pulsed Accretion in the Young Binary UZ Tau E", *BAAS*, 207, 74.20.
- Jensen, E. L. N., \*Schlesinger, K. J., \*Higby-Naquin, C. T. 2004. "Newly-discovered young stars in Carina and Vela", *BAAS*, 205, 15.04.
- \*Swisher, V., Jensen, E. L. N., Cohen, D. H., Gagné, M. 2004. "High-resolution x-ray spectroscopy of the accreting weak-line T Tauri star DoAr 21", *BAAS*, 205, 16.02.
- \*Miller, M. J., Stassun, K. G., and Jensen, E.L.N. 2003. "Photospheric Spot Temperature Models of Young Stars in the Orion Nebula Cluster", *BAAS*, 203, 05.11.
- \*Whitaker, R. S and Jensen, E.L.N. 2002. "Newly-Discovered Young, Nearby Stars", *BAAS*, 201, 93.18.
- Jensen, E.L.N, \*Biller, B. A., Koerner, D. W., \*Whitaker, R. S., \*Bonaventura, N. R., \*Dullighan, A. 2001. "A Systematic Survey for Nearby Young Stars", *BAAS*, 199, 04.16.
- Jensen, E.L.N. 2000. "An Introduction to Isolated Young Stars and the TW Hya Association," invited talk for Jan. 2000 AAS special session on the TW Hya association, *BAAS*, 195, 32.01
- \*Donar, A., Jensen, E.L.N., and Mathieu, R.D. 2000. "Protoplanetary Disks in Young Binaries: Testing Coplanarity," *BAAS*, 195, 79.04 (based on Summer '99 work by Keck student Arianne Donar).
- Jensen, E.L.N. 1996. "Disks in Young Binary Systems: Evidence for Star-Disk Interactions and Implications for Star and Planet Formation," *BAAS*, 27, 1446.
- Jensen, E.L.N., Mathieu, R.D., and Fuller, G.A. 1994. "A Connection Between Submillimeter Flux and Binary Separation II. The Scorpius-Ophiuchus Star-Forming Region," *BAAS*, 26, 933.
- Jensen, E.L.N., Mathieu, R.D., and Fuller, G.A. 1993. "A Connection Between Disk Mass and Binary Separation," *BAAS*, 25, 907.

## Other presentations

Research results presented at the following conferences not listed above:

- Gordon Conference on *Origins of the Solar System*, Mt. Holyoke, MA, Summer 2007.
- Cool Stars, Stellar Systems, and the Sun 14*, Pasadena, CA, November 2006.
- A Decade of Extrasolar Planets Around Normal Stars*, Space Tel. Science Institute, May 2005
- Protostars and Planets IV*, Santa Barbara, CA, Summer 1998.
- Gordon Conference on *Origins of the Solar System*, New Hampton, NH, Summer 1995.
- NASA-CfA Star Formation Workshops, Summers 1993, 1994, and 1997.
- Dispersal of Protoplanetary Disks*, Santa Barbara, CA, Summer 1992.