# John Beaver

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## **Professional Preparation**

Youngstown State University	Physics and Astronomy	B.S., 1985
Ohio State University	Astronomy	PhD, 1992

### **Appointments**

2019 – present	Professor of Physics and Astronomy	Univ. of Wisconsin Oshkosh
2014 - 2019	Professor of Physics and Astronomy	Univ. of Wisconsin - Fox Valley
2003 - 2014	Associate Professor of Physics and Astronomy	Univ. of Wisconsin - Fox Valley
1997 - 2003	Assistant Professor of Physics and Astronomy	Univ. of Wisconsin – Fox Valley
1996 – 1997	Adjunct Assistant Professor (Physics)	Wichita State University
1993 – 1996	Assistant Director for Programs & Facilities	Lake Afton Public Observatory
1992 - 1993	Instructor, Dept. of Physics and Astronomy	Denison University
1991 – 1992	Lecturer, Department of Astronomy	Ohio State University
1988 - 1990	Summer Research Associate	Lowell Observatory
1986 – 1991	Graduate Teaching Associate	Ohio State University
1985 – 1986	Limited Service Faculty (Physics)	Youngstown State University

#### **Publications**

- Beaver, John 2023 (contracted, in preparation) LoFi Photography: Art from Do-it-Yourself Chemistry and Physics (Cambridge: Royal Society of Chemistry)
- Beaver, John 2022 *Photography: Physics and Art in Focus, Second Edition* (Bristol: Institute of Physics).
- Beaver, John 2020, 2022 *The Big Picture: The Universe in Five S.T.E.P.S.* (San Rafael: Morgan and Claypool; Switzerland AG: Springer Nature)
- Beaver, John 2018 The Physics and Art of Photography, Volume 1: Geometry and the Nature of Light (San Rafael: Morgan and Claypool)
- Beaver, John 2018 *The Physics and Art of Photography, Volume 2: Energy and Color* (San Rafael: Morgan and Claypool)
- Beaver, John 2019 The Physics and Art of Photography, Volume 3: Detectors and the Meaning of Digital (San Rafael: Morgan and Claypool)
- "Strömgren-Hβ CCD Photometry of The Rich Open Cluster NGC 6705 (M 11)," John Beaver, Nadia Kaltcheva, Michael Briley and Dan Piehl, *Publications of the Astronomical Society of the Pacific*, **125**, pp. 1412-1420 (2013).
- "A Virtual Astronomical Research Machine in No Time (VARMiNT)," John Beaver, in *Society for Astronomical Sciences 31st Annual Symposium on Telescope Science*, pp 203-207 (2012).

- "Extremely Low-Cost Point-Source Spectrophotometry (ELCPSS)," John Beaver and Charles Conger, in *Society for Astronomical Sciences 31st Annual Symposium on Telescope Science*, pp 113-120 (2012).
- "A CCD Spectrometer for One Dollar," John Beaver and Dominique Robert in *Earth and Space Science: Making Connections in Education and Public Outreach*, ASP Conference Series, **433**, p. 425. (2011)
- "Emergence: A Planetarium and Art Gallery Collaboration Between Artist, Astronomer and Musician," John Beaver, Judith Baker Waller and Matt Turner in *Earth and Space Science: Making Connections in Education and Public Outreach*, ASP Conference Series, **433**, p 215. (2011)
- "Using Art as a Point of Departure for Teaching Astronomy to Non-Science Majors," John Beaver, in *Cosmos in the Classroom 2007: Handouts and Papers*, ed. Andrew Fraknoi, (Astronomical Society of the Pacific, 2008)
- "Collaborating with an Artist: The Lost Art of Slides," John E. Beaver, *Proceedings of the 2002 Great Lakes Planetarium Association Conference*, ed. Dale Smith (2002)
- "The Speed of Light with a Shortwave Radio," John Beaver, The Physics Teacher, March 2000
- "Scaling the Solar System at Lake Afton Public Observatory," John Beaver, W.Scott Kardel, and Greg Novacek, in *Astronomy Education: Current Developments, Future Coordination*, ed. John R. Percy, (Astronomical Society of the Pacific), p 167. (1996)
- "A Scale Model of the Solar System at Lake Afton Public Observatory," John Beaver, W. Scott Kardel, and Greg Novacek, *Bulletin of the American Astronomical Society*, **27**, 888. (1995)
- "The Cold, Ionized Shell Around the Old Nova DQ Herculis," J.E. Beaver, Ph.D. Dissertation, The Ohio State University. (1992)
- "Anomalous Molecular Abundances and the Depletion of NH<sub>2</sub> in Comet P/Giacobini-Zinner," John E. Beaver, R. Mark Wagner, David G. Schleicher, and Barry L. Lutz, *The Astrophysical Journal*, **360**, 696. (1990)
- "Identification of a Red Optical Counterpart of Cygnus X-3," R. Mark Wagner, Tobias J. Kreidl, Phillip J. Martell, and John E. Beaver, in *CCDs in Astronomy*, ed. G.H. Jacoby (Astronomical Society of the Pacific), p 361. (1990)
- "Periodic Comet Brorsen-Metcalf (1989o)," David G. Schleicher, D. J. Osip, Robert L. Millis, R. Mark Wagner, Ray Bertram, John E. Beaver, Barry L. Lutz, H. Spinrad, M. Dickinson, R. Dey, C. S. Morris, D. A. J. Seargent, D. W. E. Green, and J. E. Bortle, *International Astronomical Union Circular*, no. 4810. (1989)
- "Spectrophotometry of Comet P/Giacobini-Zinner (1985 XIII)," John E. Beaver, R. Mark Wagner, David G. Schleicher, and Barry L. Lutz, *Bulletin of the American Astronomical Society*, **21**, 938. (1989)

#### **Professional Presentations**

- "Ephemeral-Process Photography" invited workshop presentation, John Beaver, *EXP.22 Experimental Photography Festival*, Barcelona, Spain, July, 2022.
- "New Resinotype: A New Way to Make Pictures on Nearly Any Surface" invited workshop presentation, John Beaver, *EXP.22 Experimental Photography Festival*, Barcelona, Spain, July, 2022.
- "Art + Science" invited conference presentation, John Beaver (conference leader), Felicita Russo, Leandro Tosi, Alex Kantaros, and Maciej Zapiór, *EXP.22 Experimental Photography Festival*, Barcelona, Spain, July, 2022.
- "The Image, the Object, and the Process" invited conference presentation, John Beaver, Ivona Tau, and Andrey Piletsky, *EXP.22 Experimental Photography Festival*, Barcelona, Spain, July, 2022.
- "Ephemeral-Process Photography: A New Way to Make Color Photographs with Old B&W Emulsions," John Beaver, *Color: Pixels Palletes and Perception*, Discovery Institute, Madison, WI, April, 2018.
- "Filming the Eclipse with Antiquarian Photography: Art Meets Astronomy," John Beaver and Anne Haydock, American Association of Physics Teachers Winter Meeting, January, 2018.
- "Using New-Antiquarian Photographic Processes to Integrate Art and Science," Winter Meeting of the American Geophysical Union, December 14, 2017.
- "Ephemeral Process Photography," Hannah Fudge and John Beaver, *Research in the Rotunda*, Madison, WI (April, 2017)
- "Ephemeral Process Photography," Workshop led at Minneapolis Community and Technical College Department of Art, Minneapolis, MN (April, 2017)
- "Teaching Photography in Scotland," UW Colleges Department of Art, Fond du Lac, WI (2016)
- "Photography with Detectors of Very Low Sensitivity," UW Colleges Department of Computer Science, Engineering, Physics and Astronomy, Fond du Lac, WI (2016)
- "The Art and Physics of Photography: An Interdisciplinary Course," *American Association of Physics Teachers Winter Meeting*, New Orleans, LA (2016)
- "The Art and Science of Photography," UW Colleges Department of Computer Science, Engineering, Physics and Astronomy, Green Lake, WI (2015)
- "Stromgren-Hβ Photometry of the Open Cluster NGC 7209," John Beaver, Nadia Kaltcheva, and Michael Briley, *Landoldt Standards and 21st Century Photometry*, Baton Rouge, LA (2015).
- "Stromgren-Hβ Photometry of the Young Open Cluster NGC 6913," Nadia Kaltcheva, John Beaver, Valeri Golev, Steven Lund, and Michael Briley, *Landoldt Standards and 21st Century Photometry*, Baton Rouge, LA (2015).

- "Stromgren-Hβ Photometry of the Young Open Cluster M 29," Nadia Kaltcheva, Valeri Golev, John Beaver, Steven Lund and Michael Briley, American Astronomical Society, IAU General Assembly, Meeting #29, id.2246891(2015).
- "Open Cluster Populations in Scutum," Nadia Kaltcheva, John Beaver and Michael Briley, European Astronomical Society, EWASS Meeting, Turku, Finland (2013)
- "The Three Worlds," John Beaver and Diana Ludwig, *Aylward Gallery*, UW Fox Valley, Menasha, WI (2013)
- "Strömgren-Hβ Photometry of the Galactic Open Cluster M 11," John Beaver, Michael Briley, Nadia Kaltcheva, Charles Conger and Dan Piehl, *American Astronomical Society*, AAS Meeting #221, #331.01 (2013)
- "Extremely Low-cost Point-Source Spectrophotometry," *Joint Meeting of the Society for Astronomical Sciences and the American Association of Variable Star Observers*, Big Bear Lake, CA (2012)