

PROMOTION RECOMMENDATION  
The University of Michigan  
College of Literature, Science, and the Arts

John D. Monnier, assistant professor of astronomy, College of Literature, Science and the Arts, is recommended for promotion to associate professor of astronomy, with tenure, College of Literature, Science and the Arts.

Academic Degrees:

Ph.D.	1999	University of California, Berkeley
M.A.	1996	University of California, Berkeley
B.S.	1993	Purdue University

Professional Record:

2002 – present	Assistant Professor, Department of Astronomy, University of Michigan
1999 – 2002	Postdoctoral Fellow, Harvard-Smithsonian Center for Astrophysics

Summary of Evaluation:

Teaching – Professor Monnier is an effective and innovative instructor who performs well at all levels of instruction. He has played a major role in updating undergraduate and graduate classes, bringing modern astronomical technology into the classroom. Student ratings show that he is a popular and successful instructor. He has been an enthusiastic mentor to undergraduate students in his laboratory and many of them have gone on to excellent graduate programs. He was a leader in systematizing Astronomy's program of research experiences for entering graduate students and in recruiting graduate students.

Research – Professor Monnier is a world leader in interferometrically combining light from multiple mirrors or from different segments of a single large mirror. This technique permits the observer to realize the full theoretical angular resolution limit of a large mirror or to exceed it by combining light from multiple mirrors. This technology facilitates the observation of very fine detail in astronomical objects. Through his technical skills he has characterized outflows from young stars, made the first picture of the photosphere of a main-sequence star other than the sun, and has applied the technique with great effect to the planet forming regions of debris disks around young stars.

Recent and Significant Publications:

“Imaging the surface of Altair,” with M. Zhao, et al., *Science*, 317, 5836, 2007, pp. 342-345.  
“The Inner Rim of YSO Disks: Effects of dust grain evolution,” with A. Tannirkulam, et al., *Astrophysical Journal*, 661, 2007, pp. 374-384.  
“The near-infrared size-luminosity relations for Herbig Ae/Be disks,” with R. Millan-Gabet, et al., *Astrophysical Journal*, 624, 2005, pp. 832-840.  
“Review of optical interferometry in astronomy,” *Reports on Progress in Physics*, 66, 2003, pp. 789-857.

Service – Professor Monnier's service has been exemplary. He chaired the Graduate Admissions Committee and the Pre-candidate Research Program, modernizing the evaluation of pre-

candidate research activities. He served on several search and evaluation committees. At the national level he served on many National Aeronautics and Space Administration committees, including the Terrestrial Planet Finder working group. He planned an international meeting on Stellar Interferometry for the Society of Photonic and Optical Engineers and co-authored the current standard for storing interferometric data.

External Reviews:

Reviewer (A)

“... he has matured into one of the leading authorities in what is still a very young field... Many of Monnier’s papers and review articles would appear on my list of the most significant publications to appear in this field in the last 10 years. ... There is no question that Monnier’s accomplishments would qualify him for promotion and tenure at my institution...”

Reviewer (B)

“Within the specialty, Dr. Monnier is a major player nationally and internationally, using and developing instrumentation for all the world’s major facilities.”

Reviewer (C)

“...[Monnier] provides scientific imagination, analytical skills and a taste for problems ripe for solutions. The list of topics he has addressed is, of course, defined by capabilities of the instruments he uses or develops, but the observational problems addressed in more than 18 first-author, refereed papers (and 45 more non-first-author ones) represent milestones in the observational study of stellar evolution and stellar astrophysics...”

Reviewer (D)

“John is one of those rare individuals who can identify a scientific need, design and build an instrument to address that need, and observe with [the] instrument to do and publish interesting science.”

Reviewer (E)

“He has done a terrific job during his tenure at U. Michigan and has firmly established himself as one of the very best astronomers [of his generation] in his field... I can firmly state that if Monnier were at [my institution] he would be promoted to a permanent position. ... His scholarship and stature in the community are outstanding and he will make major contributions to our field for many years to come.”

Reviewer (F)

“John Monnier is...arguably the best of his generation. ... He has an impressive well-rounded dossier. He is defining the future of one of the most exciting areas of astronomy and astrophysics. You are all lucky to have him!”

Reviewer (G)

“With his combination of brilliance, drive, and productivity, there is absolutely no doubt in my mind the Dr. Monnier would be promoted and tenured at my institution, and I cannot imagine that his record of achievement would not warrant such acknowledgement at any institution in this country.”

Reviewer (H)

“John’s strength is the combination of good theoretical capabilities...with a deep knowledge of the interferometric techniques and instrumentation. John’s paper ‘review of Optical Interferometry in Astronomy’... is excellent, and I have used it often (myself and my students).”

Reviewer (I)

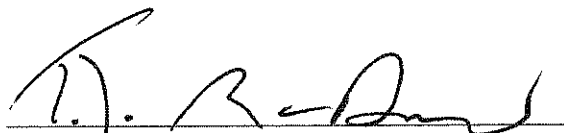
“John is very smart, has a deep understanding of his field, has a rare and important talent for instrument design and construction, concentrates relentlessly on solving whatever problem he needs to overcome, is quite articulate, and calls upon a great supply of energy in focused pursuit of his research agenda.”

Reviewer (J)

“The review that follows is glowing and positive because the case leaves little to criticize and has much to praise. ... Simply put, the University of Michigan has a precious commodity in their employ.”

Summary of Recommendation:

Professor Monnier is an excellent scientist, a superb teacher, and an asset to the Department of Astronomy. The Executive Committee of the College of Literature, Science, and the Arts and I recommend that Assistant Professor John D. Monnier be promoted to the rank of associate professor of astronomy, with tenure, in the College of Literature, Science, and the Arts.



Terrence J. McDonald  
Arthur F. Thurnau Professor,  
Professor of History, and Dean  
College of Literature, Science, and the Arts

May 2008