

**BEN R. OPPENHEIMER**  
ASSISTANT CURATOR  
DEPARTMENT OF ASTROPHYSICS  
DIVISION OF PHYSICAL SCIENCES  
Phone: 212.313.7921 Fax: 212.769.5007 [bro@amnh.org](mailto:bro@amnh.org)

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**HIGHEST DEGREE EARNED**

Ph.D.

**AREA OF SPECIALIZATION**

Comparative exoplanetary science, brown dwarfs, white dwarfs, adaptive optics

**EDUCATIONAL EXPERIENCE**

Ph.D. in Astronomy, California Institute of Technology, 1999  
B.A. in Physics, Columbia College, Columbia University, 1994

**PREVIOUS EXPERIENCE IN DOCTORAL EDUCATION**

**FACULTY APPOINTMENTS**

Adjunct Assistant Professor of Astronomy, Columbia University, 2004-present  
Adjunct Lecturer and Visiting Scientist, Cambridge University, 2004, 2006

**COURSES TAUGHT**

Exoplanetary Science, Graduate level, Kobe University International Summer School,  
July 2005

**GRADUATE COMMITTEES**

Gail Schaeffer, State University of New York at Stony Brook, 2004  
Sarah Tuttle, Columbia University, 2007-present  
Emily Rauscher, Columbia University, 2007-present

**GRADUATE ADVISEES**

Sasha Hinkley, Columbia University, 2005-present  
Neil Zimmerman, Columbia University, 2006-present  
Destry Saul, Columbia University, 2007-present

**RESEARCH GRANT SUPPORT**

**FEDERAL SOURCES**

National Science Foundation, Development of Integral Field Spectroscopy for  
Exoplanetary Science, \$1,332,702, August 1, 2005-July 31, 2008.  
National Aeronautics and Space Administration, The Lyot Project: Surveying TPF Target  
Stars and Pioneering TPF Techniques, \$374,994, June 1, 2005-May 31, 2008.  
National Science Foundation, NSF/AFOSR Astronomy: The Lyot Project: Optimized,  
Diffraction-Limited Coronagraphy, \$304,726, September 15, 2003-August 31,  
2006.

National Science Foundation, Development of a Precision Stellar Coronagraph for Imaging Exoplanets, Brown Dwarfs and Disks, \$524,120, September 1, 2002-August 31, 2006.

#### **RECENT ARTICLES IN REFEREED JOURNALS**

- Makidon, R.B., A. Sivaramakrishnan, M.D. Perrin, L.C. Roberts, Jr., R. Soummer, B.R. Oppenheimer, and J.R. Graham. 2005. An Analysis of Fundamental Waffle Mode in Early AEOS Adaptive Optics Images. Publications of the Astronomical Society of the Pacific. In press.
- Beuzit, J.-L., D. Mouillet, B. R. Oppenheimer, and J. D. Monnier. 2007. Direct detection of exoplanets. *In* B. Reipurth, D. Jewitt, and K. Keil (editors), *Protostars and Planets V: 717-732*. Tucson: University of Arizona Press.
- Hinkley\*, S., B. R. Oppenheimer, R. Soummer, A. Sivaramakrishnan, L. C. Roberts Jr., J. Kuhn, R. B. Makidon, M. D. Perrin, J. P. Lloyd, K. Kratter, and D. Brenner. 2007. Temporal evolution of coronagraphic dynamic range and constraints on companions to Vega. *Astrophysical Journal* 654: 633-640. (Sponsor: B. R. Oppenheimer)
- Digby, A., S. Hinkley, B. Oppenheimer, A. Sivaramakrishnan, J. Lloyd, M. Perrin, L. Roberts, R. Soummer, D. Brenner, R. Makidon, M. Shara, J. Graham, P. Kalas, J. Kuhn, and L. Newburgh. 2006. The challenges of coronagraphic astrometry. *Astrophysical Journal* 650: 484-496.
- Macintosh, B., J. Graham, D. Palmer, R. Doyon, D. Gavel, J. Larkin, B. Oppenheimer, L. Saddlemyer, J. K. Wallace, B. Bauman, J. Evans, D. Erikson, K. Morzinski, D. Phillion, L. Poyneer, A. Sivaramakrishnan, R. Soummer, S. Thibault, and J.-P. Veran. 2006. The Gemini planet imager. *In* B.L. Ellerbroek and D. Bonaccini Calia (editors), *Advances in Adaptive Optics II 6272: 62720L*. Bellingham, WA: SPIE.
- Sivaramakrishnan, A., and B. R. Oppenheimer. 2006. Astrometry and photometry with coronagraphs. *Astrophysical Journal* 647: 620-629.
- Soummer, R., A. Sivaramakrishnan, B. R. Oppenheimer, B. A. Macintosh, and GPI team. 2006. (Abstract) The Gemini planet imager apodized pupil Lyot coronagraph. *Bulletin of the American Astronomical Society* 209:154.10.
- Traub, W. A., M. Levine, S. Shaklan, J. Kasting, J. R. Angel, M. E. Brown, R. A. Brown, C. Burrows, M. Clampin, A. Dressler, H. C. Ferguson, H. B. Hammel, S. R. Heap, S. D. Horner, G. D. Illingworth, N. J. Kasdin, M. J. Kuchner, D. Lin, M. S. Marley, V. Meadows, C. Noecker, B. R. Oppenheimer, S. Seager, M. Shao, K. R. Stapelfeldt, and J. T. Trauger. 2006. TPF-C: status and recent progress. *In* J.D. Monnier, M. Scholler, and W. C. Danchi (editors), *Advances in Stellar Interferometry 6268: 62680T*. Bellingham, WA: SPIE.
- Breckinridge, J.B. and B. R. Oppenheimer. 2004. Polarization Effects in Reflecting Coronagraphs for White Light Applications in Astronomy. *The Astrophysical Journal*, Vol. 600, p. 1091-1098.

- Salim, S., R. M. Rich, B. M. Hansen, L. V. E. Koopmans, B. R. Oppenheimer, and R. D. Blandford. 2004. Cool White Dwarfs Revisited: New Spectroscopy and Photometry. *The Astrophysical Journal*, Vol. 601, p. 1075-1087.
- Perrin, M.D., A. Sivaramakrishnan, R. B. Makidon, B. R. Oppenheimer, and J. R. Graham. 2003. The Structure of High Strehl-Ratio Point Spread Functions. *The Astrophysical Journal*, Vol. 596, p. 702.
- Clarke, F.J., B. R. Oppenheimer, and C. G. Tinney. 2002. A Mini-Survey for Variability in Early L Dwarfs. *Monthly Notices of the Royal Astronomical Society*, Vol. 335, p. 1158.
- Lloyd, J.P., B. R. Oppenheimer, and J. R. Graham. 2002. The Potential of Differential Astrometric Interferometry from the High Antarctic Plateau. *Publications of the Astronomical Society of Australia*, Vol. 19, p. 318.
- Bloemhof, E.E., R. G. Dekany, M. Troy, and B. R. Oppenheimer. 2001. Behavior of Remnant Speckles in an Adaptively Corrected Imaging System. *The Astrophysical Journal Letters*, Vol. 558, p. L71.
- Oppenheimer, B.R., N. C. Hambly, A. P. Digby, S. T. Hodgkin, and D. Saumon. 2001. White Dwarfs and Dark Matter - Response to Technical Comments. *Science*, Vol. 292, p. U3.
- Oppenheimer, B.R., N. C. Hambly, A. P. Digby, S. T. Hodgkin, and D. Saumon. 2001. Direct Detection of Galactic Halo Dark Matter. *Science*, published online 22 March 2001; 10.1126/science.1059954, in print 27 April 2001, Vol. 292, p. 698-702.
- Oppenheimer, B.R., D. A. Golimowski, S. R. Kulkarni, K. Matthews, T. Nakajima, M. Creech-Eakman, and S. T. Durrance. 2001. Coronagraphic Survey for Companions of Stars within 8pc. *The Astronomical Journal*, Vol. 121, p. 2189.
- Oppenheimer, B.R., D. Saumon, S. T. Hodgkin, R. F. Jameson, N. C. Hambly, G. Chabrier, A. V. Filippenko, A. L. Coil, and M. E. Brown. 2001. Observations of Ultracool White Dwarfs. *The Astrophysical Journal*, Vol. 550, p. 448.

#### **SPECIAL RECOGNITION/AWARDS**

Kalbfleisch Research Fellow, American Museum of Natural History, 2002-2004  
Beckman Frontiers of Science Participant, National Academy of Sciences, 2002  
Hubble Postdoctoral Research Fellow, AMNH/UC Berkeley, 1999-2002  
Douglass Scholar, Steward Observatory, University of Arizona, Tucson, 2000  
National Science Foundation Graduate Research Fellow, 1994-1997