Lisa A. Prato

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RESEARCH

- *Techniques:* Infrared astronomy, high- and low-resolution spectroscopy, adaptive optics, interferometry
- *Interests:* star and planet formation processes; measuring young star and brown dwarf masses; circumstellar disk structure and evolution; rotation, accretion, and magnetic fields of young stars

EDUCATION

- Ph.D. Astronomy, State University of New York, Stony Brook
Pre−Main-Sequence Binaries and Evolution of their Disks
- B.S. Astronomy, University of Massachusetts, Amherst

EMPLOYMENT

- Assistant Astronomer, Lowell Observatory, 2004−present
- Postdoctoral Researcher, UCLA, 1998−2004
- Research Assistant, SUNY, Stony Brook, 1992−1998
- Teaching Assistant, SUNY, Stony Brook, 1991−1992
- Instructor, Univ. Industrial de Santander, Colombia, 1989−1991
- Summer Research Assistant, Univ. of Mass, Amherst, 1989, 1990

SERVICE & PROFESSIONAL EXPERIENCE

- Member, American Astronomical Society (AAS)
- Referee, Astrophysical Journal, Astronomical Journal
- Co-I, Space Interferometry Mission Key Project: *The Search for Young Planetary Systems and the Evolution of Young Stars*

SELECTED RESEARCH ACCOMPLISHMENTS

- Published first study revealing concurrent evolution of circumstellar disks in close, young star binaries (Prato & Simon 1997)
- Developed new, infrared spectroscopic technique for measuring small mass ratios to study binary formation and calibrate models of young star evolution (Ph.D. Thesis 1998; Prato et al. 2002a, b)
- Characterized the HD 98800B circumbinary disk in detail and outlined evolutionary model for quadruple system (Prato et al. 2001)
- Designed innovative approach to determining young binary star spectral types, extinction, and accretion excess using both line and continuum IR spectral properties (Prato et al. 2003)
- Showed that spectroscopic secondary star IMF differs markedly from that of field stars, revealing that star formation within and without binaries is distinct (Mazeh, Simon, Prato et al. 2003)

RECENT INVITED TALKS

- Univ. of California, Riverside, March, 2004
- Keck Science Meeting, October, 2003
- Univ. of Hawaii, Manoa, Colloquium, May, 2003
- Univ. of Wisconsin, Madison, Colloquium, November, 2002
- Univ. of California, Los Angeles, Colloquium, October, 2001

REFEREED PUBLICATIONS

Bender,C., M. Simon,L. Prato,T. Mazeh, & S. Zucker 2005. An Upper Bound on the 1.6 Micron Flux Ratio of the Companion to rho Coronae Borealis, *AJ*, **129**, 402

Beck,T.L., G. H. Schaefer, M. Simon, L. Prato, J. A. Stoesz,& R. R. Howell 2004. A High Spatial Resolution Infrared View of the T Tauri Multiple System, *ApJ*, **614**, 235

Simon, M., & L. Prato 2004. The Double-lined Spectroscopic Binary Haro 1-14c, *ApJ*, **613**, L69

Burgasser, A. J., J. D. Kirkpatrick, M. R. McGovern, I. S. McLean, L. Prato, & I. N. Reid 2004. S Orionis 70: Just a Foreground Field Brown Dwarf?, *ApJ*, **604**, 827

McGovern, M., J. D. Kirkpatrick, I. S. McLean, A. J. Burgasser, L. Prato, & P. J. Lowrance 2003. Identifying Young Brown Dwarfs Using Gravity-Sensitive Spectral Features, *ApJ*, **600**, 1020

Mazeh, T., M. Simon, L. Prato, B. Markus, & S. Zucker 2003. The Mass Ratio Distribution in Main-Sequence Spectroscopic Binaries Measured by IR Spectroscopy, *ApJ*, **599**, 1344

McLean, I. S., M. R. McGovern, A. J. Burgasser, J. D. Kirkpatrick, L. Prato, & S. S. Kim 2003. The Nirspec Brown Dwarf Spectroscopic Survey I. Low Resolution Near-Infrared Spectra, *ApJ*, **596**, 561

Prato, L., T. P. Greene, & M. Simon 2003. Astrophysics of Young Star Binaries, *ApJ*, **584**, 853

Patience, J., *et al.* 2002. Stellar Companions to Stars with Planets, *ApJ*, **581**, 654

Prato, L., M. Simon, T. Mazeh, S. Zucker, & I. S. McLean 2002. Component Masses of the Young Spectroscopic Binary UZ Tau E, *ApJ*, **579**, L99

Rodriguez-Ardila, A., S. M. Viegas, M. G. Pastoriza, L. Prato, & C. J. Donzelli 2002. The OI Line Emission in Active Galactic Nuclei Revisited, *ApJ*, **572**, 94

Prato, L., M. Simon, T. Mazeh, I. S. McLean, D. Norman, & S. Zucker 2002. The Smallest Mass Ratio Young Star Spectroscopic Binaries, *ApJ*, **569**, 863

Rodriguez-Ardila, A., S. M. Viegas, M. G. Pastoriza, & L. Prato 2002. Infrared FeII Emission in Narrow-Line Seyfert 1 Galaxies, *ApJ*, **565**, 140

Mazeh, T., L. Prato, M. Simon, E. Goldberg, D. Norman, & S. Zucker 2002. IR Detection of Low-Mass Secondaries in Spectroscopic Binaries, *ApJ*, **564**, 1007

McLean, I. S., L. Prato, S. S. Kim, M. K. Wilcox, J. D. Kirkpatrick, & A. Burgasser 2001. Near-Infrared Spectroscopy of Brown Dwarfs: Methane and the Transition Between the L and T Spectral Types, *ApJ*, **561**, L115

Steffen, A. T., R. D. Mathieu, M. G. Lattanzi, D. W. Latham, T. Mazeh, L. Prato, M. Simon, H. Zinnecker, & D. Loreggia 2001. A Dynamical Mass Constraint for Pre-Main-Sequence Evolutionary Tracks: The Binary NTT 045251+3016, *AJ*, **122**, 997

Beck, T. L., L. Prato, & M. Simon 2001. Evidence for Extinction and Accretion Variability in T Tau S, *ApJ*, **551**, 1031

Prato, L., *et al.* 2001. Keck Diffraction-Limited Imaging of the Young Quadruple Star System HD 98800, *ApJ*, **549**, 590

Telesco, C. M., *et al.* 2000. Deep 10 and 18 Micron Imaging of the HR 4796A Circumstellar Disk: Transient Dust Particles and Tentative Evidence for a Brightness Asymmetry, *ApJ*, **530**, 329

Simon, M., T. L. Beck, T. P. Greene, R. R. Howell, S. Lumsden, & L. Prato 1999. Lunar Occultations of Young Stars in Southern Taurus, *AJ*, **117**, 1594

Dutrey, A., S. Guilloteau, L. Prato, M. Simon, G. Duvert, K. Schuster, & F. Menard 1998. CO Study of the GM Aurigae Keplerian Disk, *A&A*, **338**, L63

Duvert, G., A. Dutrey, S. Guilloteau, F. Menard, K. Schuster, L. Prato, & M. Simon 1998. Disks in the UY Aurigae Binary, *A&A*, **332**, 867

Prato, L., & M. Simon 1997. Are Both Stars in a Classic T Tauri Binary Classic T Tauris? *ApJ*, **474**, 455

Dutrey, A., S. Guilloteau, G. Duvert, L. Prato, M. Simon, K. Schuster, & F. Menard 1996. Dust and Gas Distribution around T Tauri Stars in Taurus-Auriga. I. Interferometric 2.7mm Continuum and ^{13}CO J=1-0 Observations, *A&A*, **309**, 493

Simon, M., & L. Prato 1995. Disk Dissipation in Single and Binary Young Star Systems in Taurus, *ApJ*, **450**, 824