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CURRENT POSITION

National Science Foundation Postdoctoral Fellow, Princeton University (2009-present)

EDUCATION

Ph.D. (Astronomy), Harvard University <i>Advisors: David Charbonneau and David W. Latham</i>	June 2009
A.M. (Astronomy), Harvard University	June 2006
A.B. with honors (Astrophysics), Princeton University <i>Advisors: Bohdan Paczynski and David Spergel</i>	June 2003

PRIMARY RESEARCH AND EDUCATIONAL INTERESTS

- Detection and characterization of planets orbiting small stars
- Low-mass stars and brown dwarfs
- Binary stars and eclipsing binaries
- Robotic instrumentation in the near infrared and optical
- Massive variability surveys and the search for transient astrophysical phenomena
- Increasing involvement of high school students in astronomy research

FELLOWSHIPS, AWARDS & HONORS

NSF Astronomy and Astrophysics Postdoctoral Fellowship (2009-2012)
Princeton Society of Fellows Cotsen Fellowship (2009-2012)
Henry Norris Russell Fellowship (honorary)
Harvard Origins of Life in the Universe Graduate Fellowship (2006-2009)
Certificate of Distinction in Teaching, Harvard University (2006)
MacKracken Senior Thesis Prize, Princeton University (2003)
Intel-Westinghouse Science Talent Search, 11th place (1999)

TEACHING AND MENTORING EXPERIENCE

Co-organizer, Princeton Astrophysics Undergraduate Summer Research Program, 2011

Research mentor to Benjamin Clark, high school student, Siemens Science Competition, 1st place; Intel Science Talent Search, 7th place, 2009-2010

Teaching Fellow, Harvard University, “Tools and Techniques of Astronomical Measurements”, 2007-2008

Teaching Fellow, Harvard University, “Cosmic Connections,” 2006

Teaching Assistant, Princeton University, “The Universe,” 2001-2002

REFEREED PUBLICATIONS (35)

35. “*The Close Binary Fraction of Dwarf M Stars,*” Clark, B.M., **Blake, C.H.**, & Knapp, G.R., 2011, *ApJ* (submitted)

34. “*High Precision Infrared Radial Velocities with Keck/NIRSPEC and the Search for Young Planets,*” Bailey, J.I., White, R.J., **Blake, C.H.**, Charbonneau, D., Barman, T.S., Tanner, A.M., & Torres, G., 2011, *ApJ* (submitted)

33. “*PTF10FQS: A Luminous Red Nova in the Spiral Galaxy Messier 99,*” Kasliwal, M. M. et al. 2011, *ApJ*, 730, 134

32. “*The NIRSEPC Ultracool Dwarf Radial Velocity Survey,*” **Blake, C.H.**, Charboneau, D., & White, R. J., 2010, *ApJ*, 723, 684

31. “*Characterizing Transiting Extrasolar Planets with Narrow-Band Photometry and GTC/OSIRIS,*” Colon, K.D., Ford, E.B., Lee, B., Mahadevan, S., & **Blake, C.H.**, 2010, *MNRAS*, 408, 1494

30. “*GJ 3236: A New Bright, Very Low Mass Eclipsing Binary Discovered by the MEARTH Observatory,*” Irwin, J., Charbonneau, D., Berta, Z.K., Quinn, S.N., Latham, D.W., Torres, G., **Blake, C.H.**, Burke, C.J., Esquerdo, G.A., Furesz, G., Mink, D.J., Nutzman, P., Szentgyrgyi, A.H., Calkins, M.L., Falco, E.E., Bloom, J.S., & Starr, D.L. 2009, *ApJ*, 701, 1436

29. “*Observations of the Naked-Eye GRB 080319B: Implications of Nature’s Brightest Explosion*,” Bloom, J.S., Perley, D., Li, W., Butler, N.R., Miller, A.A., Kocevski, D., Kann, D.A., Foley, R.J., Chen, H.-W., Filippenko, A.V., Starr, D.L., Macomber, B., Prochaska, J.X., Chornock, R., Poznanski, D., Klose, S., Skrutskie, M.F., Lopez, S., Hall, P., Glznerbrook, K., & **Blake, C.H.** 2009, *ApJ*, 691, 723
28. “*An Age Constraint for the Very Low-Mass Stellar/Brown Dwarf Binary 2MASS J03202839-0446358AB*,” Burgasser, A.J., & **Blake, C.H.**, 2009, *ApJ*, 137, 4621
27. “*From Shock Breakout to Peak and Beyond*,” Modjaz, M., Li, W., Butler, N., Chornock, R., Perley, D., Blondin, S., Bloom, J.S., Filippenko, A.V., Kirshner, R.P., Kocevski, D., Poznanski, D., Hicken, M., Foley, R.J., Stringfellow, G.S., Berlind, P., Barrado, D., **Blake, C.H.**, Bouy, H., Brown, W., Challis, P., Chen, H., de Vries, W.H., Durour, P., Falco, E.E., Friedman, A., Ganeshlingam, M., Garnavich, P., Holden, B., Illingworth, G., Liebert, J., Marion, G.H., Lee, N., Oliver, S.S., Olszewski, E., Prochaska, J.X., Silverman, J.M., Smith, N., Starr, D., Steele, T.N., Stockton, A., Williams, G.G., & Wood-Vasey, W.M. 2009, *ApJ*, 702, 226
26. “*The Rapidly Flaring Afterglow of the Very Bright and Energetic GRB 070125*,” Updike, A. C., Haislip, J.B., Nysewander, M.C., Fruchter, A.S., Kann, A.D., Klose, S., Milne, P.A., Williams, G.G., Zheng, W., Hergenrother, C.W., Prochaska, J.X., Halpern, J.P., Mirabal, N., Thorstensen, J.R., van der Horst, A.J., Starling, R.L.C., Racusin, J.L., Burrows, D.N., Kuin, N. P. M., Roming, P.W. A., Bellm, E., Hurley, K., Li, W., Filippenko, A.V., **Blake, C.H.**, Starr, D., Falco, E.E., Brown, W.R., Dai, X., Deng, J., Xin, L., Qiu, Y., Wei, J., Urata, Y., Nanni, D., Maiorano, E., Palazzi, E., Greco, G., Bartolini, C., Guarnieri, A., Piccioni, A., Pizzichini, G., Terra, F., Misra, K., Bhatt, B.C., Anupama, G. C., Fan, X., Jiang, L., Wijers, R.A.M.J., Reichart, D.E., Eid, H.A., Bryngelson, G., Puls, J., Goldthwaite, R.C., & Hartmann, D.H. 2008, *ApJ*, 685, 361
25. “*T-Lyr-17236: A Long-period Low-mass Eclipsing Binary*,” Devor, J., Charbonneau, D., Torres, G., **Blake, C.H.**, White, R.J., Rabus, M., O’Donovan, F.T., Mandushev, G., Bakos, G., Furesz, G., & Szentgyorgyi, A. 2008, *ApJ*, 687, 1253
24. “*A Spectroscopic Binary at the M/L Transition*,” **Blake, C.H.**, Charbonneau, D., White, R., Torres, G., Marley, M., & Saumon, D. 2008, *ApJL*, 678L, 125
23. “*A New Low-mass Eclipsing Binary from SDSS-II*,” **Blake, C.H.**, Torres, G., Bloom, J.S., & Gaudi, B.S. 2008, *ApJ*, 684, 635

22. “*The Troublesome Broadband Evolution of GRB 061126: Does a Grey Burst Imply Grey Dust?*” Perley, D.A., Bloom, J.S., Butler, N.R., Pollack, L.K., Holtzmn, J., **Blake, C.H.**, Kocevski, D., Vestrand, W.T., Li, W., Foley, R.J., Bellm, E., Chen, H.-W., Prochaksi, J.X., Starr, D., Filippenko, A.V., Falco, E.E., Szentgyorgyi, A.H., Wren, J., Wozniak, P.R., White, R., & Pergande, J. 2008, *ApJ*, 672, 449
21. “*Discovery of a Very Bright, Nearby Gravitational Microlensing Event,*” Gaudi, B.S., Patterson, J., Spiegel, D.A., Krajcic, T., Koff, R., Pojmanski, G., Dong, S., Gould, A., Prieto, J.L., **Blake, C.H.**, Roming, P.W.A., Bennett, D.P., Bloom, J.S., Boyd, D., Eyler, M.E., de Ponthiere, P., Mirabal, N., Morgan, C.W., Remillard, R.R., Vanmuster, T., Wagner, M.R., & Watson, L.C. 2008, *ApJ*, 677, 1268
20. “*Near Infrared Monitoring of Ultracool Dwarfs: Prospects for Searching for Transiting Companions,*” **Blake, C. H.**, Bloom, J.S., Latham, D., Szentgyorgyi, A., Skrutskie, M., Falco, E., & Starr, D. 2008, *PASP*, 120, 860
19. “*Type Ia Supernovae are Good Standard Candles in the Near Infrared: Evidence from PAIRITEL,*” Wood-Vasey, W.M., Friedman, A.S., Bloom, J.S., Hicken, M., Modjaz, M., Kirshner, R.P., Starr, D.L., **Blake, C.H.**, Falco, E.E., Szentgyorgyi, A., Challis, P., Blondin, S., & Rest, A. 2008, *ApJ*, 689, 377
18. “*Near-Infrared Interferometric, Spectroscopic, and Photometric Monitoring of T Tauri Inner Disks,*” Eisner, J.A., Hillenbrand, L., White, R., Bloom, J.S., Akerson, R.L., & **Blake, C.H.** 2007, *ApJ*, 669, 1072
17. “*Multicolor Infrared Observations of SN 2006aj: The Supernova Associated with XRF 060218,*” Kocevski, D., Modjaz, M., Bloom, J.S., Foley, R., Starr, D., **Blake, C.H.**, Falco, E.E., Butler, N.R., Skrutskie, M., & Szentgyorgyi, A. 2007, *ApJ*, 663, 1180
16. “*A Putative Early-Type Host Galaxy for GRB 060502B: Implications for the Progenitors of Short-Duration Hard-Spectrum Bursts,*” Bloom, J.S., Perley, D., Chen, H., Butler, N., Prochaska, J., Kocevski, D., **Blake, C.H.**, Szentgyorgyi, A., Falco, E., & Starr, D.L. 2007, *ApJ*, 654, 878
15. “*What Can the Cosmic Microwave Background Tell Us About the Outer Solar System?*” Babich, D., **Blake, C.H.**, & Steinhardt, C. 2007, *ApJ*, 669, 1406
14. “*Multiepoch Radial Velocity Observations of L Dwarfs,*” **Blake, C.H.**, Charbonneau, D. White, R. J., Marley, M.S., & Saumon, D. 2007, *ApJ*, 666, 1198

13. “*GRB 050408: A Bright Gamma-Ray Burst Probing an Atypical Galactic Environment*,” Foley, R.J., Perley, D.A., Pooley, D., Prochaska, J.X., Bloom, J.S., Li, W., Cobb, B., Chen, H.-W., Aldering, G., Baily, C., **Blake, C.H.**, Falco, E.E., Green, P.J., Kowalski, M.P., Perlmutter, S., Roth, K., & Volk, K. 2006, *ApJ*, 645, 450
12. “*The 2005 Outburst of the Halo Black Hole X-Ray Transient XTE J1118+480*,” Zurita, C., Toores, M.A.P., Steeghs, D., Rodriguez-Gil, P., Munoz-Darias, T., Casares, J., Shahbaz, T., Martinez-Pais, I.G., Zhao, P., Garcia, M.R., Piccioni, A., Bartolini, C., Guarnieri, A., Bloom, J.S., **Blake, C.H.**, Falco, E.E., Szentgyorgyi, A., & Skrutskie, M. 2006, *ApJ*, 644, 432
11. “*Closing in on a Short-Hard Burst Progenitor: Constraints from Early-Time Optical Imaging and Spectroscopy of a Possible Host Galaxy of GRB 050509b*,” Bloom, J.S., Prochaska, J.X., Pooley, D., **Blake, C.H.**, Foley, R.J., Jha, S., Ramirez-Ruiz, E., Filippenko, A.V., Sigurdsson, S., Barth, A., Chen, H.-W., Cooper, M.C., Falco, E.E., Gal, R.R., Gerke, B.F., Gladders, M.D., Greene, J.E., Hennawi, J., Ho, L.C., Hurley, K., Koester, B.P., Li, W., Lubin, L., Newman, J., Perley, D.A., Squires, G.K., & Wood-Vasey, W.M., 2006, *ApJ*, 638, 354
10. “*Optical Light Curve and Cooling Break of GRB 050502A*,” Yost, S.A., Alatalo, K., Rykoff, E.S., Aharonian, F., Akerlof, C.W., Ashley, M.C.B, **Blake, C.H.**, Bloom, J.S., Boettcher, M., Falco, E.E., Gogus, E., Guver, T., Halpern, J.P., Horns, D., Joshi, M., Kiziloglu, U., McKay, T.A., Mirabal, N., Ozel, M., Phillips, A., Quimby, R.M., Rujopakarn, W., Schaefer, B., Shields, J.C., Skrutskie, M., Smith, D.A., Starr, D.L., Swan, H.F., Szentgyorgyi, A., Vestrand, W.T., Wheeler, J.C., & Wren, J. 2006, *ApJ*, 636, 959
9. “*The Unique Type Ib Supernova 2005bf: A WN Star Explosion Model for Peculiar Light Curves and Spectra*,” Tominaga, N., Tanaka, M., Nomoto, K., Mazzali, P.A., Deng, J., Maeda, K., Umeda, H., Modjaz, M., Hicken, M., Chalis, P., Kirshner, R.P., Wood-Vasey, W.M., **Blake, C.H.**, Bloom, J.S., Skrutskie, M., Szentgyorgyi, A., Falco, E.E., Inada, N., Minezaki, T., Yoshii, Y., Kawabata, K., Iye, M., Anupama, G.C., Sahu, D.K., & Prabhi, T.P. 2005, *ApJ*, 633, 97
8. “*Systematic Errors in Weak Lensing: Application to SDSS Galaxy-galaxy Weak Lensing*,” Mandelbaum, R., Hirata, C., Seljak, U., Guzik, J., Padmanabhan, N., **Blake, C.H.**, Blanton, M., Lupton, R., & Brinkmann, J. 2005, *MNRAS*, 361, 1287
7. “*Automated Classification of Variable Stars for ASAS Data*,” Eyer, L. & **Blake, C.H.** 2005, *MNRAS*, 358, 30

6. “*An Infrared Flash Contemporaneous with the Gamma Rays of GRB 041219a*,” **Blake, C.H.**, Bloom, J.S., Starr, D.L., Falco, E.E., Skrutskie, M., Fenimore, E.E., Duchene, G., Szentgyorgyi, A., Hornstein, S., Prochaska, J.X., McCabe, C., Ghez, A., Konopacky, Q., Stapelfeldt, K., Hurley, K., Campbell, R., Kassis, M., Chafee, F., Gehrels, N., Barthelmy, S., Cummings, J.R., Hullinger, D., Krimm, H.A., Markwardt, C.B., Palmer, D., Parsons, A., McLean, K., & Tueller, J. 2005, *Nature*, 435, 181
5. “*Galaxy-galaxy Weak Lensing in the Sloan Digital Sky Survey: Intrinsic Alignments and Shear Calibration Errors*,” Hirata, C., Mandelbaum, R., Seljak, U., Guzik, J., Padmanabhan, N., **Blake, C.H.**, Scranton, R., & Szalay, A.S. 2004, *MNRAS*, 353, 529
4. “*Optical Limits on Precursor Emission from Gamma-Ray Bursts with Known Redshift*,” **Blake, C.H.** & Bloom, J.S. 2004, *ApJ*, 606, 1019
3. “*A Search for Period Changes in Delta Scuti Stars with the Super-LOTIS Sky Patrol System*,” **Blake, C.H.** Fox, D., Park, H.S., & Williams, G.G. 2003, *A&A*, 399, 365
2. “*The Princeton Variability Survey*,” **Blake, C.H.** 2003, *PASP*, 115, 104
1. “*V1162 Ori: A Multiperiodic Delta Scuti Star with Variable Period and Amplitude*,” Arentoft, T., Sterken, C., Hanler, G., Freyhammer, L., Bruch, A., Niarchos, P., Gazeas, K., Manimanis, V., Van Cauteren, P., Poretti, E., Dawson, D.W., Liu, Z.L., Zhou, A.Y., Du, B.T., Shobbrook, P.R., Garrido, R., Fried, R., Akan, M.C., Ibanoglu, C., Evren, S., Tas, G., Johnson, D., **Blake, C.H.**, & Kurtz, D.W. 2001, *A&A*, 374, 1056