

Dr. David R. Ciardi

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Education

- **1997** Ph.D., Physics, University of Wyoming, Laramie, WY
- **1991** B.A., Astronomy & Physics, Boston University, Boston, MA (*cum laude*)

Scientific Interests

- Molecular clouds, core formation and evolution
- Circumstellar stellar material around young stellar objects and planet formation
- Formation and evolution of low mass and sub-stellar objects

2008 – Present: Associate Research Scientist, Caltech/NExSci, Pasadena, CA.

- Research focused on interstellar medium, stellar formation, young stellar object evolution, and planetary formation and frequency, interacting binaries, and stellar astrophysics. Techniques include radio imaging spectroscopy, mid-infrared imaging and spectroscopy, near-infrared interferometry, optical and near-infrared photometry and spectroscopy, and high precision photometry planetary transit searches.
- *Archives/NStED Project Scientist.* Duties include management and oversight of scientific direction of the NExSci archives in particular the NASA Star and Exoplanet Database, including the NASA/CNES NStED-CoRoT collaboration and Project Scientist for the Kepler Science Analysis System.

Previous Positions

2006 – 2008: Assistant Research Scientist, NExSci/Caltech, Pasadena, CA

2002 – 2006: Assistant Staff Scientist, NExSci/Caltech, Pasadena, CA

2000 – 2002: Assistant Scientist, University of Florida, Gainesville, FL

1998 – 2000: Postdoctoral Research Associate, Elizabeth Lada, University of Florida

1996 – 1998: Postdoctoral Research Associate, Steve Howell, University of Wyoming

Major Research Collaborations

Associate Astronomer to the CoRoT Science Team

Member of the Palomar Transient Factory Science Team

Member of the Herschel Key Project: “Gas in Planetary Systems”

Member of the Spitzer Exploration Key Program: “Young Stellar Object Variability”

Member of the CanariCam Science Team

Students and Postdocs

2003 – 2006: Dr. Cynthia Gomez-Martin (with Telesco), graduate student, U. Florida

2005 – 2007: Ms. Samantha Lawler (with Beichman), undergraduate, Caltech

2007 – 2009: Dr. Peter Plavchan (with Werner), postdoctoral scholar, Caltech

2009 – Present: Dr. Julian van Eyken, postdoctoral scholar, Caltech

Refereed Publications (42 Total)

- “Interferometric Evidence for Resolved Warm Dust in the DQ Tau System,” Boden, A., Akeson, R. L., Sargent, A. I., Carpenter, J. M., **Ciardi, D. R.**, Bary, J. S., & Strutskie, M. F. 2009, *ApJ*, 696, 111
- “Observations of V592 Cassiopeiae with the Spitzer Space Telescope: Dust in the Mid-Infrared,” Hoard, D. W., Kafka, S., Wachter, S., Howell, S. B., Brinkworth, C. S., **Ciardi, D. R.**, Szkody, P., Belle, K., Froning, C., & van Belle, G. 2009, *ApJ*, 693, 236
- “Dust in the inner regions of debris disks around a stars,” Akeson, R. L., **Ciardi, D. R.**, Millan-Gabet, R., Merand, A., di Folco, E., Monnier, J. D., Beichman, C. A., Absil, O., Aufdenberg, J., & McAlister, H., 2009, *ApJ*, 691, 1896
- “The Palomar Testbed Interferometer Calibrator Catalog,” van Belle, G. T.; van Belle, G.; Creech-Eakman, M. J.; Coyne, J.; Boden, A. F.; Akeson, R. L.; **Ciardi, D. R.**; Rykoski, K. M.; Thompson, R. R.; Lane, B. F. 2008, *ApJS*, 176, 276
- “Spitzer 24 μ m Time Series Observations of the Eclipsing M Dwarf Binary GU Boötis,” von Braun, K., van Belle, G. T., **Ciardi, D. R.**, Lopéz-Morales, M, Hoard, D. W., & Wachter, S. 2008, *ApJ*, 677, 545
- “Taking the Measure of the Universe: Precision Astrometry with SIM PlanetQuest,” Unwin, S. C. et al. 2008, *PASP*, 120, 38
- “The Mid-Infrared Spectrum of the Short Period Polar EF Eridani from the Spitzer Space Telescope,” Hoard, D. W., Howell, S. B., Brinkworth, C. S., **Ciardi, D. R.**, & Wachter, S. 2007, *ApJ*, 671, 743
- “Star Formation in the Bok Globule CB54,” **Ciardi, D. R.** & Gómez Martin, C. 2007, *ApJ*, 664, 377
- “Born-Again Protoplanetary Disk Around Mira B,” Ireland, M. J. et al. 2007, *ApJ*, 662, 651
- “The Angular Diameter of λ Boötis,” **Ciardi, D. R.**, et al. 2007, *ApJ*, 659, 1623
- “Spitzer Space Telescope Observations of Magnetic Cataclysmic Variables: Possibilities for the Presence of Dust in Polars,” Brinkworth, C. S., Hoard, D. W., Wachter, S., Howell, S. B., **Ciardi, D. R.**, Szkody, P. Harrison, T. E., van Belle, G. T., & Esin, A. A., *ApJ*, 659, 1541
- “Measurement of the Surface Gravity of η Boo,” van Belle, G. T., **Ciardi, D. R.** & Boden, A. F. 2006, *ApJ*, 657, 1058

- “Spitzer Observations of Var Her 04: Possible Detection of Dust Formation in a Super-Outbursting TOAD,” **Ciardi, D. R.**, et al. 2006, *AJ*, 132, 1989
- “First Spitzer Space Telescope Observations of Magnetic Cataclysmic Variables: Evidence for Excess Emission at 3 – 8 μm ,” Howell, S. B., Brinkworth, C., Hoard, D. W., Wachter, S., Harrison, T., Chun, H., Thomas, B., Stefaniak, L., **Ciardi, D. R.**, Szkody, P., & van Belle, G. 2006, *ApJL*, 646, 65L
- “First Results from the CHARA Array. III. Oblateness, Rotational Velocity and Gravity Darkening of Alderamin,” van Belle, G. T., **Ciardi, D. R.** et al. 2005, *ApJ*, 637, 494
- “Crystalline Silicate Emission in the Protostellar Binary Serpens–SVS20,” **Ciardi, D. R.**, Telesco, C. M., Packham, C. P., GomezMartin, C., DeBuizer, J., Phillips, C. & Harker, D. E. 2005, *ApJ*, 629, 897
- “Simultaneous X-Ray and Optical Observations of EX Hydrae,” Belle, K. E., Howell, S. B., Mukai, K., Szkody, P., Nishikida, K., **Ciardi, D. R.**, Fried, R. E., Oliver, J. P. 2005, *AJ*, 129, 1985
- “Observations and Modeling of the Inner Disk Region of T Tauri Stars,” Akeson, R. L., Walker, C. H., Wood, K., Eisner, J. A., Scire, E., Penprase, B., **Ciardi, D. R.**, van Belle, G. T., Whitney, B., Bjorkman, J. E. 2005, *ApJ*, 622, 440
- “INGRID: A Near-Infrared Camera for the WHT,” Packham, C., Thompson, K., Knapen, J., Zurita, A., Smail, I., Greimel, R., Folha, D., Humphrey, A., Rutten, R., Ciardi, D., Bec, M., Bingham, R., Craig, S., Dee, K., Ives, D., Jolley, P., Moore, P., Puig, M., Rees, S., Talbot, G., Worswick, S. 2003, *MNRAS*, 345, 395
- “Mid-Infrared Imaging of the Protostellar Binary L1448N-IRS3(A,B),” **Ciardi, D. R.**, Williams, J. P., Telesco, C. M., Fisher, R. S., Packham, C., Pina, R., & Radomski, J. 2003, *ApJ*, 585, 392
- “Stellar Variability in a Survey of Field Stars,” Everett, M. E., Howell, S. B., van Belle, G. T., & **Ciardi, D. R.** 2002, *PASP*, 114, 656
- “Constraints on Circumstellar Disk Parameters From Multi-Wavelength Observations: T Tau and SU Aur,” Akeson, R. L., **Ciardi, D. R.**, van Belle, G. T., & Creech-Eakman, 2001, *ApJ*, 566, 1124
- “Simultaneous EUV and IR Observations of the Eclipsing Polar HU Aqr,” Howell, S. B., **Ciardi, D. R.**, Sirk, M., & Schwobe, A. D. 2001, *AJ*, 123, 420
- “Altair's Oblateness and Rotational Velocity from Long-Baseline Interferometry,” van Belle, G. T., **Ciardi, D. R.**, Thompson, R. R., Akeson, R. L., & Lada, E. A. 2001, *ApJ*, 559, 1147

- “On the Near-Infrared Size of Vega,” **Ciardi, D. R.**, van Belle, G. T., Akeson, R. L., Thompson, R. R., Howell, S. B., & Lada, E. A. 2001, *ApJ*, 559, 1147
- “Molecular Excitation and Differential Gas-Phase Depletion in the IC 5146 Dark Cloud,” Bergin, E. A, **Ciardi, D. R.**, Lada, C., J., Alves, J., & Lada, E. A. 2001, *ApJ*, 557, 209
- “Spectroscopic Discovery of Brown Dwarf-like Secondary Stars in the Cataclysmic Variable LL Andromedae and EF Eridani,” Howell, S. B. & **Ciardi, D. R.**, 2001, *ApJL*, L57
- “Infrared Interferometric Observations of Young Stellar Objects,” Akeson, R. L., **Ciardi, D. R.**, van Belle, G. T., Creech-Eakman, M., & Lada, E. A. 2000, *ApJ*, 543, 313
- “Investigating the Structure of the Accretion Disk in WZ Sge From Multi-Waveband Spectroscopic Observations: Paper II,” Mason, E., Skidmore, W., Howell, S. B., **Ciardi, D. R.**, Littlefair, S., & Dhillon, V. 2000, *MNRAS*, 318, 440
- “Investigating the Structure of the Accretion Disk in WZ Sge From Multi-Waveband Spectroscopic Observations: Paper I,” Skidmore, W., Mason, E., Howell, S. B., **Ciardi, D. R.**, Littlefair, S., & Dhillon, V. 2000, *MNRAS*, 318, 429
- “Morphology and Energetics of the Molecular Gas within a Core and a Diffuse Region in the Filamentary Dark Cloud GF-9,” **Ciardi, D. R.**, Woodward, C. E., Clemens, D. P., Harker, D. E., & Rudy, R. J. 2000, *AJ*, 120, 393
- “Infrared Spectroscopy of Cataclysmic Variables III. Dwarf Novae Below the Period Gap and Novalike Variables,” Dhillon, V. S., Littlefair, S. P., Howell, S. B., **Ciardi, D. R.**, Harrop-Allin, M. K., & Marsh, T. R. 2000, *MNRAS*, 314, 826
- “J-Band Spectroscopy of Short-Period Cataclysmic Variables - A Search for the Secondary Star,” Littlefair, S. P., Dhillon, V. S., Howell, S. B., & **Ciardi, D. R.** 2000, *MNRAS*, 313, 117
- “The Secondary Star in ST Leonis Minoris: Implications for Evolutionary Effects in Cataclysmic Variables,” Howell, S. B., **Ciardi, D. R.**, Dhillon, V. S., & Skidmore, W. 2000, *ApJ*, 530, 904
- “Multi-Wavelength Superoutburst Observations of T Leonis,” Howell, S. B, **Ciardi, D. R.**, Szkody, P., van Paradijs, J., Kuulkers, E., Cash, J., Sirk, M., & Long, K. S. 1999, *PASP*, 111, 342
- “Observations of the Polar ST LMi During an Extreme Low State: Identification of the Secondary Star,” **Ciardi, D. R.**, Howell, S. B., Dhillon, V. S., R. M. Wagner, Hauschildt, P. H., & Allard, F. 1998, *PASP*, 110, 1007

- “The Relative Contributions to the Near--Infrared Emission in Short Period Cataclysmic Variables,” **Ciardi, D. R.**, Howell, S. B., Hauschildt, P. H., & Allard, F. 1998, ApJ, 504, 450
- “A New Cataclysmic Variable RX J0757+6306: Candidate for the Shortest Period Intermediate Polar,” Tovmassian, G. H., Greiner, J., Kroll, P., Szkody, P., Mason, P. A., Zickgraf, F. J., Krautter, J., Thiering, I., Serrano, A., Howell, S., & **Ciardi, D. R.** 1998, A&A, 335, 227
- “Understanding the Star Formation Process in the Filamentary Dark Cloud GF-9: Near Infrared Observations,” **Ciardi, D. R.**, Woodward, C. E., Clemens, D. P., Harker, D. E., & Rudy, R. J. 1998, AJ, 116, 349
- “Photometry and Time--resolved Spectroscopy of the Cataclysmic Variable V592 Cas,” Huber, M. E., Howell, S. B., **Ciardi, D. R.**, & Fried, R. 1998, PASP, 110, 784
- “The Longitudinal Dependence of the Local I(60 μm) - I(100 μm) Flux Density Ratio at High Galactic Latitude,” **Ciardi, D. R.**, Canerna, R. W. & Woodward, C. E., 1996 AJ, 112, 700
- “The 2 M_{Sun} Bok Globule LBN 11: Sub-sonic Molecular Clumps in a Magnetic Environment,” Clemens, D. P., Dickman, R. L., & **Ciardi, D. R.** 1992, AJ, 104, 216