

Adric R. Riedel

17 Main Street, Apt. 1C
Hastings-on-Hudson, NY 10706
404-539-0868

Postdoctoral Researcher
The College of Staten Island, The City University of New York
Educator
The American Museum of Natural History

Education:

2012 PhD in Astronomy
Georgia State University, Atlanta, GA
Adviser: Todd J. Henry

2009 Masters of Science in Physics
Georgia State University, Atlanta, GA
Adviser: Todd J. Henry

2006 Bachelor's of Science in Astronomy and Astrophysics
Villanova University, Villanova, PA
Undergraduate Adviser: Edward F. Guinan

Research interests:

Local Galactic kinematics, low-mass stars, brown dwarfs, nearby stars, spectroscopy, astrometry, scientific visualizations.

Awards:

2012 Outstanding Advanced Graduate Student, Astronomy
2011 Doxsey Prize, American Astronomical Society
2009 Outstanding Second-Year Graduate Student, Astronomy
2006 Mendel Medal in Astronomy and Astrophysics
2005 Delaware Space Grant
2002 Edwin F. Bailey Award for Excellence

Service:

2012-present Scientific advising of undergraduates and a high school student in CUNY's BDNYC research group, organization and leading a semi-weekly journal club for the graduate students.
2009-2012 SMARTS (Small and Moderate Aperture Research Telescope System) Fellow.
Observation coordinator of the CTIO 0.9m telescope, responsible for interfacing between onsite staff and the astronomical community, observing program maintenance and vetting, and data retrieval.
2010-2012 Mentoring, advising and scientific instruction of three undergraduate students at GSU.

Teaching experience:

2013-present Instructor for the AMNH Lang Summer Science program
2013 Lab Instructor in Introductory Astronomy at Borough of Manhattan Community College
2012-present Astronomy Instructor in the AMNH Science and Research Mentoring Program

- 2006-2009 Lab instructor in Introductory Astronomy at Georgia State University
2003-2006 Lab instructor in Introductory Astronomy at Villanova University

Invited Colloquia:

- 2013 Université de Montreal Groupe D'Astrophysique
2013 State University of New York at Stony Brook, Department of Physics and Astronomy.

Educational/Outreach activities:

- 2014 Developed 3D movie of dust layers on brown dwarfs for the BDNyc group
(<http://www.bdnyc.org>)
2014 Developed 3D movie of the 25 parsec database for the RECONS group
(<http://www.recons.org>)
2014 Astronomy on Tap presenter
2013-2014 American Museum of Natural History Lang Science Program mentor
2012-present American Museum of Natural History Science Research Mentoring Program mentor
2011 Assistant at DragonCon Space Track
2010 Guest lecturer at Lenox Memorial High School, Lenox MA
2010 Visiting guest at Brumby Elementary School, Marietta, GA
2009 Guest lecturer at Lenox Memorial High School, Lenox MA
2009 Developed a fully 3D display of the solar neighborhood for the RECONS public pages
(<http://www.recons.org>; <http://www.astro.gsu.edu/~riedel/3D.html>)

Professional Organizational Activities:

- 2013-present Member, New York State Academy of Sciences
2005-present Member, American Astronomical Society

Administrative Experience:

- 2005-2006 President of the Villanova Astronomical Society

Public Press:

- 2013 "A Pair of Stellar Newborns Shine Brightly" by Ken Croswell, in Scientific American online. <http://www.scientificamerican.com/article.cfm?id=a-pair-of-stellar-newborns-shine-brightly> retrieved 2013-11-07
2011 "Baby Star found on Earth's Doorstep" by Ken Croswell, in ScienceNOW online mag. <http://news.sciencemag.org/sciencenow/2011/09/baby-star-found-on-earths-doorst.html> retrieved 2013-11-07
2011 "Baby star found close to Earth" by Beau Gamble, in Australian Geographic online. <http://www.australiangeographic.com.au/journal/baby-star-found-close-to-earth-ap-columbae.htm> Retrieved 2013-11-07

Funding:

Received as PI:
Confirmation of Young Brown Dwarfs in Nearby Moving Groups
\$16,000 from NASA for Keck Telescope Observation support

CUNY Postdoctoral Travel Grant
\$1,000 from the City University of New York

Received as Co-Investigator (PI: Angelle Tanner, MSU)
A Study of Cold Disks around M dwarfs and the Formation of Extrasolar Planets
\$104,093 from the NASA Herschel Science Center (maximum award; actual award depends on percentage of program observed)

Received as Co-Investigator (PI: Todd Henry, GSU)
The RECONS Survey of the Solar Neighborhood
\$581,591 from the National Science Foundation

Received as Co-Investigator (PI: Doug Gies, GSU)
Binaries at the Extremes of the H-R Diagram
\$265,995 from the Space Telescope Science Institute

Refereed Journal Publications *BDNYC collaborators are italicized.*

16. *Faherty, J.K.; Riedel, A.R.; Cruz, K.; Rice, E.L.; Rodriguez, D.R.; Baldassare, V.; Blunt, S.C.*; 2014. Young Brown Dwarfs at the Exoplanet Boundary. *In preparation.*
15. Malo, L.; Doyon, R., Feiden, G.A.; Albert, Loïc; Lafreniere, D.; Artigau, E; Gagne, J.; **Riedel, A.** 2014. BANYAN. IV. Fundamental Parameters of Low-mass Star Candidates in Nearby Young Stellar Kinematic Groups – Isochronal Age Determination using Magnetic Evolutionary Models. *Astrophysical Journal*. 792 37.
14. **Riedel, A.R.**; Finch, C.T.; Subasavage, J.P.; Henry, T.J.; Jao, W-C; Malo, L.; Rodriguez, D.R.; White, R.J.; Gies, D.R.; Dieterich, S.B.; Winters, J.G.; Davison, C.L.; Nelan, E.P.; *Blunt, S.C.; Cruz, K.L; Rice, E.L.*; Ianna, P.A. 2014. The Solar Neighborhood. XXXIII. Parallax Results from the CTIOPI 0.9-m Program: Trigonometric Parallaxes of Nearby Low-Mass Active and Young Systems. *Astronomical Journal* 147 85.
13. Dieterich, S.B.; Henry, T.J.; Jao, W-C.; Winters, J.G.; Hosey, A.A.; **Riedel, A.R.**; Subasavage, J.P. 2014. The Solar Neighborhood. XXXII. The Hydrogen Burning Limit. *Astronomical Journal* 147 94.
12. Davison, C.L.; White, R.J.; Jao, W-C.; Henry, T.J.; Bailey, J.I. III; Quinn, S.N.; Cantrell, J.R.; **Riedel, A.R.**; Subasavage, J.P.; Winters, J.G.; Crockett, C.J. 2014. The Closest M-dwarf Quadruple System to the Sun. *Astronomical Journal* 147 26.
11. Jao, W-C.; Henry, T.J.; Subasavage, J.P.; Winters, J.G.; Gies, D.R.; **Riedel, A.R.**; Ianna, P.A. 2014. The Solar Neighborhood XXXI: Discovery of an Unusual Red+White Dwarf Binary at ~25 Parsecs via Astrometry and UV Imaging. *Astronomical Journal* 147 21.
10. Mamajek, E.E.; Bartlett, J.L.; Seifhart, A.; Henry, T.J.; Dieterich, S.B.; Lurie, J.C.; Kenworthy, M.A.; Jao, W-C.; **Riedel, A.R.**; Subasavage, J.P.; Winters, J.G.; Finch, C.T.; Ianna, P.A.; Bean, J. 2013. The Solar Neighborhood. XXX. Fomalhaut C. *Astronomical Journal* 146 154.
9. Delorme, P.; Gagne, J.; Girard, J.H.; Lagrange, A.M.; Chauvin, G.; Naud, M-E.; Lafreniere, D.; Doyon, R.; **Riedel, A.**; Bonnefoy, M.; Malo, L. 2013. Direct imaging of a 12-14 Jupiter-mass object orbiting a young binary system of very low-mass stars. *Astronomy & Astrophysics* 553 5

8. Malo, L.; Doyon, R.; Lafreniere, D.; Artigau, E.; Gagne, J.; Baron, F.; **Riedel, A.** 2013. Bayesian analysis to identify new star candidates in nearby young stellar kinematic groups. *Astrophysical Journal* 762 88.
7. Baines, E.K.; Huber, D.; White, R.J.; Jones, J.; Boyajian, T.; McAlister, H.A.; Brummelaar, T.; Turner, N.H.; Sturmann, J.; Sturmann, L.; Goldfinger, P.J.; Farrington, C.D.; **Riedel, A.R.**; Ireland, M.; von Braun, K.; Ridgeway, S.T. 2012. CHARA Array Measurements of HR 8799 and Their Implications For The Imaged Companions. *Astrophysical Journal* 761 57.
6. **Riedel, A.R.**; Murphy, S.; Henry, T.J.; Melis, C.; Jao, W-C; Subasavage, J.P. 2011. The Solar Neighborhood. XXVI. AP Col: The Closest (8.4 pc) Pre-main-sequence Star. *Astronomical Journal*. 142, 104.
5. Jao, Wei-Chun; Henry, T.J.; Subasavage, J.P., Winters, J.G., **Riedel, A.R.**; Ianna, P.A. 2011. The Solar Neighborhood XXIV. Parallax Results from the CTIOPI 0.9-m Program: Stars with $\mu \leq 1.0'' \text{ yr}^{-1}$ (MOTION Sample) and Subdwarfs. *Astronomical Journal*. 141, 117.
4. von Braun, K.; Boyajian, T.S.; Kane, S.R.; van Belle, G.T.; Ciardi, D.R.; López-Morales, M.; McAlister, H.A.; Henry, T.J.; Jao, W-C; **Riedel, A.R.**; Subasavage, J.P.; Schaefer, G.; ten Brummelaar, T.A.; Ridgway, S.; Sturmann, L.; Sturmann, J.; Mazingue, J.; Turner, N.H.; Farrington, C.; Goldfinger, P.J.; Boden, A.F. 2011. Astrophysical Parameters and Habitable Zone of the Exoplanet Hosting Star GJ 581. *Astrophysical Journal*. 729L, 26
3. **Riedel, A. R.**; Subasavage, J.P.; Finch, C.T.; Jao, W-C; Henry, T.J.; Winters, J.G; Brown, M.A.; Ianna, P.A., Costa, E.; Mendez, R.A. 2010. The Solar Neighborhood. XXII. Parallax Results from the CTIOPI 0.9m Program: Trigonometric Parallaxes of 64 Nearby Systems with $0.5'' \leq \mu \leq 1.00 \text{ yr}^{-1}$ (SLOWMO sample). *Astronomical Journal*. 140, 897
2. Gies, D. R.; Dieterich, S.; Richardson, N. D.; **Riedel, A.R.**; Team, B.L.; McAlister, H.A.; Bagnuolo, W.G., Jr.; Grundstrom, E.D.; Štefl, S.; Rivinius, Th.; Baade, D. 2008. A Spectroscopic Orbit for Regulus. *Astrophysical Journal*. 682, 117
1. Hamilton, Ryan T.; Urban, Joel A.; Sion, Edward M.; **Riedel, Adric R.**; Voyer, Elyse N.; Marcy, John T.; Lakatos, Sarah L. 2007. An International Ultraviolet Explorer Archival Study of Dwarf Novae in Outburst. *Astronomical Journal* 667, 1139

Book Chapters:

1. Henry, T.J., Gies, D.R., Jao, W.C., **Riedel, A.R.**, Subasavage, J.P., Benedict, G.F., Harris, H.C., Ianna, P.A., Thorstensen, J.R., Beichman, C., Prato, L., & Simon, M. 2009, *Stellar Maps with SIM Lite in NASA's SIM Lite Astrometric Observatory*, p 83-96

Conference Proceedings:

3. **Riedel, Adric R.** 2014. Kinematics and Luminosities of Brown Dwarfs with the BDNYS group. *Proceedings of Gaia and the Unseen: The Brown Dwarf Question*.
2. Burgasser, A.J.; Faherty, J.K.; Schmidt, S.; West, A.A.; Zapatero Osorio, M.R.; Pineda, J.S.; Burningham, B.; Nicholls, C.; Sanderson, R.; Shkolnik, E.; Rodriguez, D.; **Riedel, A.**; Joergens, V. 2013. The Kinematics of very low mass dwarfs: Splinter session summary. *Proceedings of Cool Stars 17 meeting*.

1. **Riedel, Adric R.**, Henry, Todd J., White, Russel J., Song, Inseok, Jensen, Eric L.N., Hambly, Nigel C. 2010. Nearby Motionless Stars, Proceedings of Cool Stars 16 meeting.

Abstracts:

6. **Riedel, A.R.**; Blunt, S.C.; Cruz, K.L.; Rice, E.L.; Faherty, J.K.; BDNYC. 2014. Our Youngest Neighbors: Brown Dwarfs in Nearby Moving Groups. AAS 223 345.21
5. **Riedel, A.R.**; Henry, T.J.; White, R.J.; Song, I; Jensen, Eric L.N.; Hambly, N.C.; RECONS. 2011. Nearby Motionless Stars. AAS 217 242.16
4. **Riedel, A.R.**; Henry, T.J.; White, R.J.; Song, I; Jensen, E.L.; RECONS. 2010. The CTIOPI Cradle: Young Stars with Parallaxes. AAS 215 429.22
3. **Riedel, A.R.**; Henry, T.J.; Winters, J.G.; Hambly, N.C.; RECONS. 2009. Stellar Slowpokes: Nearby Stars with Tiny Proper Motions. AAS 213 406.15
2. **Riedel, A.R.**; Beaulieu, T.; Henry, T.J.; Jao, W.; Gray, R.O.; Corbally, C.J.; Finch, C.; RECONS. 2007. Fingerprinting 85% of Galactic Suspects: A New K-M Dwarf Spectral Sequence. AAS 211 103.18
1. **Riedel, A.R.**; Guinan, E.F.; DeWarf, L.E.; Engle, S.G.; McCook, G.P. 2005. Barnard's Star as a Proxy for Old Disk dM Stars: Magnetic Activity, Light Variations, XUV Irradiances, and Planetary Habitable Zones. AAS 206 09.04