

JACQUELINE K FAHERTY  
*Curriculum Vitae*

Universidad de Chile, Cerro Calan  
Department of Astronomy  
Camino El Observatorio # 1515 Casilla 36-D  
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**Education**      STONY BROOK UNIVERSITY  
M.A Physics, 2006  
Ph.D. Physics & Astronomy, 2010  
Thesis Advisors: A. Burgasser (UCSD), M. Shara (AMNH), F. Walter (SBU)

UNIVERSITY OF NOTRE DAME  
B.S. Physics , 2001

**Honors and Awards**

Student Commencement Speaker at Stony Brook University's PhD Convocation, 2011  
Stony Brook President's Award for Distinguished Doctoral Students, 2011  
Astronomical Society of New York Graduate Dissertation Award, 2010  
Best Poster Award: Cool Stars 15, 2008  
Ford Pre Doctoral Fellowship Honorable Mention, 2007  
Semi-finalist NASA JFPF Graduate Student fellowship, 2006, 2007  
Outstanding Teaching Assistant Award, Stony Brook University, 2006  
Teaching Materials Award of Distinction (for DTU Teachers Manual), AMNH, 2002  
Outstanding Undergraduate Research Award, University of Notre Dame, 2001  
Fulbright Grant Semi-Finalist, 2001  
New York State Regents Scholar Award, 1996  
New York State Scholar Athlete Award, 1996

**Grants**

University of New South Wales (UNSW) Visiting Scientist Fellowship 2012 (\$10,000)  
NASA Astrophysics Data Analysis Program 2011 (PI E. Rice; Collaborator Faherty \$181,647)  
NSF International Postdoctoral Research Fellowship Program Award, 2010 (\$125,000)  
AAS Rodger Doxsey Dissertation Travel Award, 2010 (\$500)  
American Museum of Natural History Research Fellowship recipient, 2008 (\$35,000)  
Peter B Kahn Fellowship for travel to an International Conference, 2007 (\$1,500)  
Northwestern REU Fellow 1999 (\$8,000)

**Postdoctoral Experience**      POSTDOCTORAL FELLOW, UNIVERSIDAD DE CHILE CERRO CALAN      Sept. 2011 – Aug, 2013  
Santiago, Chile  
Host: Maria Teresa Ruiz

POSTDOCTORAL FELLOW, AMNH      Sept. 2010 – Aug, 2011  
New York, NY, USA  
Supervisor: Sebastien Lepine

**Research Interests**      Properties of brown dwarfs and hot extrasolar planets  
Kinematics, Astrometry  
Star and Planet Formation  
Wolf-Rayet Stars, Emission Line Stars, Planetary Nebulae

**Refereed Publications** *Twenty refereed journal papers published or accepted to date (17 since PhD completion in 2010), garnering 251 citations, 152 of which are for first author papers) leading to an H-index of 9.*

**20.** A WISE SEARCH FOR VERY LATE OBJECTS DETECTED ONLY IN THE W2-BAND

D. J. Pinfield, J. Gomes, A. C. Day-Jones, T. Cattermole, C. Cardoso, **J. Faherty**, M. T. Ruiz, R. Kurtev, J. R. A. Clarke, B. Burningham, L. Smith, R. Smart, P. W. Lucas, N. Lodieu, M. C. Galvez-Ortiz, J. S. Jenkins, S. Folkes, H. R. A. Jones, R. Rebolo, V. J. S. Bejar, B. Gauza, MNRAS, Submitted.

**19.** THE HETU'U GLOBAL NETWORK: MEASURING THE DISTANCE TO THE SUN USING THE JUNE 5TH/6TH TRANSIT OF VENUS

**Faherty, Jacqueline K.**; Rodriguez, David R.; Miller, Scott T., AER, Accepted

**18.** WISE J163940.83-684738.6: A Y DWARF IDENTIFIED BY METHANE IMAGING

Tinney, Cris. G.; **Faherty, Jacqueline K.**; Kirkpatrick, J. Davy; Wright, Edward L.; Gelino, Christopher R.; Cushing, Michael C.; Griffith, Roger L.; Salter, Graeme, ApJ, in press (arXiv 1209.6123).

**17.** 2MASSJ035523.51+113337.4: A YOUNG, DUSTY, NEARBY, ISOLATED BROWN DWARF RESEMBLING A GIANT EXOPLANET

**Faherty, Jacqueline K.**; Rice, Emily L.; Cruz, Kelle L.; Mamajek, Eric E.; Nez, Alejandro; 2012, AJ, in press (arXiv 1206.5519F).

**16.** DEEP SEARCH FOR COMPANIONS TO PROBABLE YOUNG BROWN DWARFS

G. Chauvin, **J. Faherty**, A. Boccaletti, K. Cruz, A.-M. Lagrange, B. Zuckerman, M. S. Bessell, J.-L. Beuzit, M. Bonnefoy, C. Dumas, P. Lowrance, D. Mouille, and I. Song; 2012, A&A in press (arXiv 1208.3092C).

**15.** DISCOVERY OF TWO VERY WIDE BINARIES WITH ULTRACOOL COMPANIONS AND A NEW BROWN DWARF AT THE L/T TRANSITION

Koraljka Muzic, Jacqueline Radigan, Ray Jayawardhana, Valentin D. Ivanov, **Jacqueline K. Faherty**, Radostin G. Kurtev, Alejandro Nunez, Henri M. J. Boffin, Olivier Hainaut, Kelle Cruz, David Jones, Stanimir Metchev, Amy Tyndall, Jura Borissova; 2012, ApJ, in press (arXiv 1205.0818M)

**14.** DISCOVERY OF AN UNUSUALLY RED L-TYPE BROWN DWARF

John E. Gizis, **Jacqueline K. Faherty**, Michael C. Liu, Philip J. Castro, John D. Shaw, Frederick J. Vrba, Hugh C. Harris, Kimberly M. Aller, Niall R. Deacon; 2012, AJ in press (arXiv 1207.4012G).

**13.** THE BROWN DWARF KINEMATICS PROJECT (BDKP). III. PARALLAXES FOR 70 ULTRACOOL DWARFS.

**Faherty, Jacqueline K.**; Burgasser, Adam J.; Walter, Frederick M.; van der Bliik, Nicole S., Shara, Michael M.; Cruz, Kelle L., West, Andrew A.; Vrba, Frederick J. ; Anglada-Escude, Guillem; 2012, ApJ, 752, 56F.

**12.** A NEAR-INFRARED SURVEY OF THE INNER GALACTIC PLANE FOR WOLF-RAYET STARS II. GOING FAINTER: 72 MORE NEW WR STARS

Shara, Michael M.; **Faherty, Jacqueline K.**; Zurek, David; Moffat, Anthony F. J.; Gerke, Jill; Doyon, Ren; Artigau, Etienne; Drissen, Laurent; 2012, AJ, 143, 149S.

**11.** LOW-MASS TERTIARY COMPANIONS TO SPECTROSCOPIC BINARIES I: COMMON PROPER MOTION SURVEY FOR WIDE COMPANIONS USING 2MASS Allen, Peter; Burgasser, Adam J.; **Faherty, Jacqueline K.**; Kirkpatrick, Davy; 2012, AJ, 144, 62A.

10. WISEP J180026.60+013453.1: A NEARBY LATE L DWARF NEAR THE GALACTIC PLANE  
Gizis, John E.; Burgasser, Adam J.; **Faherty, Jacqueline K.**; Castro, Philip J.; Shara, Michael M.; 2011, AJ, 142, 171G.
9. IDENTIFICATION OF A WIDE, LOW-MASS MULTIPLE SYSTEM CONTAINING THE BROWN DWARF 2MASS J0850359+105716  
**Faherty, Jacqueline K.**; Burgasser, Adam J.; Bochanski, John J. ; Looper, Dagny L. ; West, Andrew A.; van der Bliek, Nicole S.; 2011, AJ, 141, 71F.
8. A WIDELY SEPARATED, HIGHLY OCCLUDED COMPANION TO THE NEARBY LOW-MASS T TAURI STAR TWA 30  
Looper, Dagny L.; Bochanski, John J.; Burgasser, Adam J.; Mohanty, Subhanjoy; Mamajek, Eric E.; **Faherty, Jacqueline K.**, West, Andrew A.; Pitts, Mark A.; 2010, AJ, 140, 1486L.
7. THE LOWEST-MASS MEMBER OF THE  $\beta$  PICTORIS MOVING GROUP  
Rice, Emily L.; **Faherty, Jacqueline K.**, Cruz, Kelle L.; 2010, ApJ, 715L, 165R.
6. THE ENIGMATIC YOUNG, LOW-MASS VARIABLE TWA 30  
Looper, Dagny L.; Bochanski, John J.; Mohanty, Subhanjoy; Burgasser, Adam J.; Mamajek, Eric E.; Herczeg, Gregory J.; West, Andrew A.; **Faherty, Jacqueline K.**, Rayner, John; Pitts, Mark A.; Kirkpatrick, J. Davy; 2010, ApJ, 714, 45L.
5. SPEX SPECTROSCOPY OF UNRESOLVED VERY LOW-MASS BINARIES. I. IDENTIFICATION OF SEVENTEEN CANDIDATE BINARIES STRADDLING THE L DWARF/T DWARF TRANSITION  
Burgasser, Adam J.; Cruz, Kelle L.; Cushing, Michael; Gelino, Chris R.; Looper, Dagny L.; **Faherty, Jacqueline K.**; Kirkpatrick, J. Davy; Reid; I. Neill; 2010, ApJ, 710, 1142B.
4. THE BROWN DWARF KINEMATICS PROJECT II. DETAILS ON NINE WIDE COMMON PROPER MOTION VERY LOW-MASS COMPANIONS TO NEARBY STARS.  
**Faherty, Jacqueline K.**; Burgasser, Adam J.; Andrew A. West; John J. Bochanski; Cruz, Kelle L.; Shara, Michael M.; Walter, Frederick M.; 2010, AJ, 139, 176F.
3. 2MASS J061640066407194: THE FIRST OUTER HALO L SUBDWARF  
Cushing, Michael C. ; Looper, Dagny.; Burgasser, Adam J.; Kirkpatrick, Davy; **Faherty, Jacqueline K.**; Cruz, Kelle.; Sweet, Anne; Sanderson, Robyn E.; 2009, ApJ, 696, 986.
2. THE BROWN DWARF KINEMATICS PROJECT I. PROPER MOTIONS AND TANGENTIAL VELOCITIES FOR A LARGE SAMPLE OF LATE-TYPE M, L, AND T DWARFS.  
**Faherty, Jacqueline K.**; Burgasser, Adam J.; Cruz, Kelle L.; Shara, Michael M.; Walter, Frederick M.; Gelino, Christopher R. 2009, AJ, 137, 1F.
1. THE TRIGONOMETRIC PARALLAX OF THE NEUTRON STAR GEMINGA  
**Faherty, Jacqueline K.**; Walter, Frederick.; Anderson, Jay.; 2007, Astrophysics and Space Science 308, 225

## Conference Proceedings

7. THE KINEMATICS OF VERY LOW MASS DWARFS: SPLINTER SESSION SUMMARY Burgasser, Adam J., **Faherty, Jacqueline K.**, Schmidt, Sarah, West, Andrew A., Zapatero Osorio, Maria Rosa, Pineda, J. Sebastian, Burningham, Ben, Nicholls, Christine, Sanderson, Robyn, Shkolnik, Evgenya, Rodriguez, David, Riedel, Adric, and Joergens, Viki. 2012, Proceedings on the 17th Cambridge Workshop on Cool Stars, Submitted.

6. JUVENILE ULTRACOOL DWARFS Rice, Emily L., **Faherty, Jacqueline K.**, Cruz, Kelle, Barman, Travis, Looper, Dagny, Malo, Lison, Mamajek, Eric, Metchev, Stanimir, Shkolnik, Evgenya. 2010, Proceedings on the 16th Cambridge Workshop on Cool Stars, 448, 481R.
5. THE BROWN DWARF KINEMATICS PROJECT III. PRELIMINARY PARALLAX RESULTS **Faherty, Jacqueline K.**, Burgasser, Adam., Walter, Frederick., van der Blik, Nicole S., & Shara, Michael., Cruz, Kelle L. 2010, Proceedings on the 16th Cambridge Workshop on Cool Stars, Proceedings on the 16th Cambridge Workshop on Cool Stars, 448, 1343F.
4. PROPER MOTIONS AND TANGENTIAL VELOCITIES FOR A LARGE SAMPLE OF LATE-TYPE M, L AND T DWARFS **Faherty, Jacqueline K.**; Burgasser, Adam J.; Cruz, Kelle L.; Shara, Michael M.; Walter, Frederick M.; Gelino, Christopher R. 2009, Proceedings on the 15th Cambridge Workshop on Cool Stars, 1094, 517.
3. VERY LOW MASS OBJECTS IN ORION OB1A AND B Walter, Frederick M., **Faherty, Jacqueline K.**; Sherry, William H.; Brittain, Sean; 2009, Proceedings on the 15th Cambridge Workshop on Cool Stars, 1094, 568.
2. A NEW POPULATION OF YOUNG BROWN DWARFS Cruz, Kelle L. , Kirkpatrick, Davy.; Burgasser, Adam J., Looper, Dagny; Mohanty, Subhanjoy, Prato, Lisa; **Faherty, Jacqueline K.**, Solomon, Adam. 2008, Proceedings on the 14th Cambridge Workshop on Cool Stars, 384, 119.
1. BROWN DWARF KINEMATICS PROJECT **Faherty, Jacqueline K.**, Cruz, Kelle., Burgasser, Adam., Walter, Frederick., & Shara, Michael. 2008, IAU Symposium, Vol. 248, IAU Symposium, ed. W. J. Jin, I. Platais, & M. A. C. Perryman, 102103

#### Selected Scientific Talks

ADVANCEMENTS IN ASTROMETRY: FROM BROWN DWARFS TO GIANT EXOPLANETS  
University of Hertfordshire, Hatfield UK, 2012, Review talk at Cool Stars 17 Ultracool Dwarf Kinematics Splinter Session Barcelona, Spain, 2012

THE BROWN DWARF KINEMATICS PROJECT  
Universidad de Chile, Cerro Calan Santiago, Chile 2011, Universidad Catolica Santiago, Chile 2011, European Southern Observatory Santiago, Chile 2011

THE BROWN DWARF KINEMATICS PROJECT: HOW DISTANCES BOTH ADVANCE AND COMPLICATE OUR UNDERSTANDING OF THE BROWN DWARF POPULATION  
AAS 2011 Roger Doxsey Thesis Prize Presentation, Lehman College Astronomy 2011 Seminar, Penn State Astronomy Seminar 2011, Delaware Astronomy Seminar 2011, ASNY Graduate Thesis Prize Invited Talk 2011

LEARNING FROM THE MOTIONS OF ULTRACOOL DWARFS: COMPANIONS, AGES, HIGHER ORDER MULTIPLICITY  
Recipes for Making Brownies: Theory vs. Observations, Netherlands 2009

MEETING OUR COOL, FAST, BROWN DWARF NEIGHBORS  
MDM Consortium Meeting, New York 2009

LEARNING FROM THE MOTIONS OF ULTRACOOL DWARFS  
National Society of Black and Hispanic Physicist Annual Meeting, Nashville, 2009  
New York Workshop on Computer, Earth, and Space Sciences, New York 2009

A NEW POPULATION OF SUBSTELLAR MASS OBJECTS IN ORION  
Astronomical Society of New York Annual Meeting, 2007

<b>Professional Memberships</b>	American Astronomical Society National Society of Black Physicists American Association of University Women Association for Women in Science
<b>Observing Experience</b>	CTIO: Blanco 4.0m, 1.5m, 0.9m 1.3m with near-IR instruments ISPI, CPAPIR, ANDICAM optical imager CFIM; RC spectrograph; Echelle spectrograph LCO: Clay and Baade 6.5m with MagE, LDSS-3, FIRE Spectrographs; PANIC near-IR imager MDM: 1.3m, 2.4m with optical imager NELLIE, near-IR imager and spectrograph TIFKAM IRTF: 3.5m with SpeX near-IR spectrograph KECK: NIRSPEC La Silla: NTT with SofI
<b>Teaching and Outreach</b>	<p>ADJUNCT, CITY UNIVERSITY OF NEW YORK (CUNY) <span style="float: right;">Spring 2008- Present</span> Instructor for School of Professional Studies Space Time and Motion Course</p> <p>INSTRUCTOR, HAYDEN PLANETARIUM <span style="float: right;">Fall 2010 - Present</span> Instructor for the NASA High School After School Program</p> <p>LECTURER, HAYDEN PLANETARIUM <span style="float: right;">Summer 2004 - Present</span> Presenter for Virtual Universe and Celestial Highlights monthly Planetarium programs</p> <p>HAYDEN ASTROPHYSICS OUTREACH COORDINATOR, AMNH <span style="float: right;">Spring 2003 - Fall 2004</span> Created the Hayden Outreach program for middle-high school students.</p> <p>ASTRONOMY MOVEABLE MUSEUM COORDINATOR, AMNH <span style="float: right;">Winter 2002 - Spring 2003</span> Created teaching materials then instructed with the moveable at various schools in NYC</p> <p>INSTRUCTOR, AMNH <span style="float: right;">Fall 2002 - Present</span> Presenter with the Eugene Lang Middle School Outreach program</p> <p>TEACHING ASSISTANT, STONY BROOK UNIVERSITY <span style="float: right;">Fall 2004, Spring 2005</span> Led practical portion of Observational Astronomy for majors.</p> <p>INSTRUCTOR, AMATEUR ASTRONOMERS OF NEW YORK <span style="float: right;">Fall, Winter, Spring, 2002, 2003</span> Instructor for Introduction to Astronomy and Cosmology courses</p> <p>PROFESSIONAL DEVELOPMENT INSTRUCTOR, AMNH <span style="float: right;">Spring 2002 - Fall 2004</span> Designed workshops for teachers from NYC schools on how to use AMNH as an Astronomy resource.</p>
<b>Media Appearances</b>	WNYC Radio, NHK Japan TV interviews for July 11, 2012 Manhattanhenge event La Tercera, 24 horas, El Mercurio, RadioChile interviews for June 5th Transit of Venus event on Easter Island NPR Science Friday Radio, Televisa Mexico TV interviews for July 12th, 2011 Manhattanhenge event American Museum of Natural History Blog contributor
<b>Selected Public Talks</b>	ASTRONOMY LIVE: SKY TO SPACE MANHATTANHENG REVEALED! INSIGHTS FROM THE HUBBLE TELESCOPE THE EXPLOSIVE UNIVERSE OUR SOLAR NEIGHBORHOOD WHATS UP IN THE WINTER SKY? STARS, CONSTELLATIONS, AND LEGENDS IN THE SOUTHERN SKY

Virtual Universe and Celestial Highlights Talks at AMNH (6-10 each year)  
 EL FUTURO DE LOS VIAJES EN ESPACIO  
 Easter Island Museum, 2012  
 THE GOOD, THE BAD, AND THE UGLY: ASTRONOMY IN THE MEDIA  
 Columbia University Open Night, 2009  
 PLANETS, PLANETS EVERYWHERE!  
 Amateur Astronomers of New Jersey, 2009  
 ROBOTS ON MARS: THE STORY OF SPIRIT AND OPPORTUNITY  
 New School, 2006

**Diversity  
 Efforts**

ORGANIZER, EASTER ISLAND TRANSIT VIEWING Summer 2012  
 Organized a 2-day Astronomy outreach workshop at the Easter Island Museum and a visit by 9 professional astronomers to the 3 main schools on the island to promote the June 5th Transit of Venus. 20% of the island was present for the viewing I organized at the Ahu Tahai Moai alter site.

ORGANIZER, GLOBAL HETU'U VENUS TRANSIT VIEWING NETWORK Summer 2012  
 Organized a global network of school groups in Chile, China, Australia, Europe, Japan, Iran, USA, India and Colombia to view the June 5th/6th transit of venus and combine timing measurements to compute the distance to the Sun.

PANELIST, AMNH AWIS CHAPTER Winter 2011  
 Served on a lunch panel with 4 senior female faculty members to to discuss issues related to gender that arise while doing field work

MENTOR, HAYDEN PLANETARIUM Fall 2010 - Present  
 Mentor for three high school female students in the NASA Science and Research Mentoring Program (SRMP)

NATIONAL SOCIETY OF BLACK PHYSICISTS Winter 2009, 2010  
 Attended annual meeting to give scientific talk and forge mentorships.

PRESENTER, TRENDSETTERS NETWORK CONFERENCE Fall 2002  
 Speaker at an all girls event where female professionals look to mentor young women in Science

MENTOR, INTERMEDIATE SCHOOL 162 Fall 2003-Spring 2004  
 Arranged Astronomy activities for the after-school programs at IS162 in the Bronx

PRESENTER, KIDS CORP DAY CAMP Summer 2002  
 Provided Astronomy activities for students based in from NYC by aid societies to rural NJ

PRESENTER, WIZARDS OUTREACH PROGRAM Fall 2001  
 Mentored middle school females in Science through the WIZARDS outreach program