

# CURRICULUM VITAE

University of Idaho

**NAME:** Jason W. Barnes

**DATE:** 2012 July 21

**RANK:** Assistant Professor

**DEPARTMENT:** Physics

**OFFICE:** Engineering Physics Building  
Room 331  
Campus Box 440903

**PHONE:** (208) 885-7469

**FAX:** (208) 885-4055

**EMAIL:** jwbarnes@uidaho.edu

**WWW:** <http://www.barnesos.net/pro>

**DATE OF FIRST EMPLOYMENT:** 2008 August 17

**DATE OF TENURE:** untenured

**DATE OF PRESENT RANK:** 2008 August 17

## EDUCATION:

### Degrees:

Ph.D.	University of Arizona	Tucson	AZ	2004 May	Planetary Science
B.S.	California Institute of Technology	Pasadena	CA	1998 June	Astronomy

### Certificates and Licenses:

Private Pilot License 1998 December

**EXPERIENCE:****Teaching and Research Appointments:**

2008 August – present	Assistant Professor of Physics University of Idaho Moscow, Idaho Planetary Science
2007 January – 2008 July	NASA Postdoctoral Program Fellow NASA Ames Research Center Mountain View, CA Dr. William J. Borucki, advisor Characterizing Transiting Planets with <i>Kepler</i>
2004 May – 2006 December	Postdoctoral Research Associate Dr. Robert H. Brown, advisor University of Arizona Tucson, Arizona <i>Cassini</i> VIMS studies of Titan's Surface
1999 September – 2004 May	Graduate Research Associate Dr. Robert H. Brown, advisor University of Arizona Tucson, Arizona Theoretical and Observational Studies of Extrasolar Planets
1999 January – 2004 May	Graduate Teaching Assistant various instructors (see Teaching Accomplishments) University of Arizona Tucson, Arizona
1998 September – 1998 December	Graduate Research Assistant Dr. William B. Hubbard, advisor University of Arizona Tucson, Arizona Modelling of Giant Planet Interiors
1995 – 1998 Summers	Caltech Summer Undergraduate Research Fellow Dr. Victoria S. Meadows, advisor NASA Jet Propulsion Laboratory Pasadena, CA Analysis of Near-IR Spectral Mapping of Venus and SL-9/Jupiter

**TEACHING ACCOMPLISHMENTS:**

**Areas of Specialization:** Planetary Science, Astrophysics, Astronomy

**Courses Taught:**

2012 Fall Taught junior-level analytical mechanics (Phys321)  
 2012 Spring Taught senior-undergrad/graduate level astrophysics (Phys484/584)  
 2011 Fall Taught freshman-level calculus-based mechanics (Phys211)  
 2011 Spring Taught freshman-level calculus-based mechanics (Phys211)  
 2010 Fall Taught General Astronomy for non-majors (Phys103)  
 2010 Fall Taught one-third of the course Physics of Everyday Life (CorS221)  
 2010 Spring Taught senior-undergrad/graduate level astrophysics (Phys484/584)  
 2009 Fall Taught one-third of the course Physics of Everyday Life (CorS221)  
 2009 Spring Taught freshman-level calculus-based mechanics (Phys211)  
 2008 Fall Taught senior-undergrad/graduate level astrophysics (Phys484/584)  
 2006 Fall Led planetary science field trip to K/T boundary layer in Colorado (PtyS594a)  
 2005 Fall Designed and helped lead planetary science field trip to Baja California (PtyS594a)  
 2003 Spring Teaching Assistant, PtyS206: “The Golden Age of Planetary Exploration”, Dr. Michael Drake  
 2002 Spring Organized planetary science field trip to Washington State  
 PtyS594a: “Graduate Planetary Field Practicum”  
 25 Graduate Students, 3 Postdocs, 5 Professors, Budget of \$13,500.  
 2002 Fall Teaching Assistant, NATS102: “The Universe and Humanity”, Dr. Caitlin Griffith  
 2002 Spring Teaching Assistant, NATS102, Dr. John Lewis  
 2001 Fall Teaching Assistant, NATS102, Dr. Timothy Swindle  
 Rewrote undergraduate lab, “Solar Energy”  
 1999 Spring Teaching Assistant, NATS102, Dr. Robert Brown  
 1998 Spring Undergraduate Teaching Assistant at Caltech, Ay1, Dr. Roger Blandford

**Students Advised:**

Undergraduate Students Advised: Aaron Achord, Kevin Baker, Olivia Balemba, Robert Bartel,  
 Kevin Borts, Jacob Bow, James Hager, Micah Kramer,  
 Kevin Lewallen, Sarah Lynn, Martha McAlister, Jedediah McProud

Undergraduates Doing Research: Jacob Bow (2009-present) – Titan surface maps  
 Sarah Francis (2009 REU student) – Extrasolar planet orbits  
 Jacob Schwartz (2010 REU student) – RADAR views of Titan  
 Ethan Linscott (2011 REU student) – Spin-orbit alignment of KOI-13.01

Graduate Students: Graham Vixie 2008-present,  
 Takashi Sasaki 2008-present,  
 Casey Cook 2010-present,  
 Shannon MacKenzie starts 2012 Fall,  
 Johnathon Ahlers starts 2012 Fall

---

Brendan Gordon (Graduate student in Music), 2008-2010  
 Jessica Roberts (pre-doctoral student, graduated from Caltech 2009), 2009-2011

Advised to completion of degree as major professor: Graham Vixie (M.S. 2009), Takashi Sasaki (M.S. 2011)

Served on graduate committee: Yukta Timalina (Ph.D. 2012), Jamie Hass, Ada Zhan

**Non-credit Classes, Workshops, Seminars, Invited Lectures, etc.:**

1. University of Idaho, CORS 217 Exploring the Solar System: “Saturn’s Moon Titan”, Guest Lecture, 2012 April 16.
2. University of Idaho, CORS 217 Exploring the Solar System: “Saturn’s Moon Titan”, Guest Lecture, 2010 November 30.
3. University of Idaho, Physics 200 Seminar Course, Moscow, ID: “The *Kepler* Mission and the Hunt for Earth-Like Planets Around Other Stars”, Invited lecture, 2010 October 27.
4. University of Idaho, Department of Electrical Engineering, ECE 591, Moscow, ID: “Engineering Design for an Autonomous Robotic Airplane for Saturn’s Moon Titan”, Invited lecture, 2010 September 23.
5. University of Idaho, Physics 200 Seminar Course, Moscow, ID: “The *Kepler* Mission’s Search for Earth-Like Planets in Other Solar Systems”, Invited lecture, 2009 December 2.
6. University of Idaho, Physics 200 Seminar Course, Moscow, ID: “Saturn’s Moon Titan from *Cassini*”, Invited lecture, 2008 October 1.

## SCHOLARSHIP ACCOMPLISHMENTS:

Publications, Exhibitions, Performances, Recitals: <sup>1</sup>

## Refereed:

- 54. Cornet, Thomas\*; Bourgeois, Olivier; Le Mouélic, Stéphane; Rodriguez, Sébastien; Sotin, Christophe; **Barnes, Jason W.**; Brown, Robert H.; Baines, Kevin H.; Buratti, Bonnie J.; Clark, Roger N.; Nicholson, Philip D., “STABILITY OF ONTARIO LACUS’ CONTOUR ON TITAN BETWEEN 2005 AND 2010, REVEALED BY GRADIENT-BASED EDGE DETECTION APPLIED TO CASSINI IMAGES”, Journal of Geophysical Research – Planets, accepted 2012 June 2.
- 53. Soderblom, Jason M.\*; **Barnes, Jason W.**; Brown, Robert H.; Soderblom, Laurence A.; Griffith, Caitlin A.; Stephan, Katrin; Jaumann, Ralf; Sotin, Christophe; Baines, Kevin H.; Buratti, Bonnie J.; Clark, Roger N.; Nicholson, Philip D., “MODELING SPECULAR REFLECTIONS FROM HYDROCARBON LAKES ON THE SURFACE OF TITAN, Icarus, Vol. 220, Issue 2, pp744-751, 2012 August.
- 52. **Sasaki, Takashi\***; **Barnes, Jason W.**; and O’Brien, David, “OUTCOMES AND DURATION OF TIDAL EVOLUTION IN A STAR-PLANET-MOON SYSTEM”, The Astrophysical Journal, Volume 754:51, 2012 July 20.
- 51. Jackson, Brian\*; Lewis, Nikole K.; **Barnes, Jason W.**; Deming, L. Drake; Showman, Adam P.; Fortney, Jonathan J., “THE EVIL-MC MODEL FOR ELLIPSOIDAL VARIATIONS OF PLANET-HOSTING STARS AND APPLICATIONS TO THE HAT-P-7 SYSTEM”, The Astrophysical Journal, Volume 751, Issue 2, Article ID 112, 2012 June.
- 50. Cornet, T.\*; Bourgeois, O.; Le Mouélic, S.; Rodriguez, S.; Sotin, C.; **Barnes, J. W.**; Brown, R. H.; Baines, K. H.; Buratti, B. J.; Clark, R. N.; Nicholson, P. D., “GEOMORPHOLOGICAL MAPPING AND TEMPORAL SURVEY OF ONTARIO LACUS ON TITAN FROM 2005 TO 2010, USING CASSINI VIMS, ISS AND RADAR DATA”, Icarus, Volume 218 Issue 2, pp788-806, doi:10.1016/j.icarus.2012.01.013, 2012 April.
- 49. **Barnes, Jason W.\***; Lemke, Lawrence; Foch, Rick; McKay, Christopher P.; Beyer, Ross A.; Radebaugh, Jani; Atkinson, David H. Atkinson; Lorenz, Ralph D.; Le Mouélic, Stéphane; Rodriguez, Sébastien; Gundlach, Jay; Giannini, Francesco; Bain, Sean; Merrison, Jon; Ádámkóvics, Máté; Kattenhorn, Simon; Mitchell, Jonathan; Burr, Devon; Colaprete, Anthony; Schaller, Emily; Friedson, A. James; Edgett, Ken; Coradini, Angioletta; Adriani, Alberto; Sayanagi, Kunio Sayanagi; Malaska, Michael J.; Morabito, David; Reh, Kim, “AVIATR – AERIAL VEHICLE FOR IN-SITU AND AIRBORNE TITAN RECONNAISSANCE”, Experimental Astronomy, doi:10.1007/s10686-011-9275-9, 2012 March.
- 48. **Vixie, Graham\***; **Barnes, Jason W.**; **Bow, Jacob**; Le Mouélic, Stéphane; Brown, Robert H.; Ceroni, Priscilla; Tosi, Federico; Buratti, Bonnie; Sotin, Christophe; Filacchione, Gianrico; Capaccioni,10 Fabrizio; Coradini, Angioletta, “MAPPING TITAN’S SURFACE FEATURES WITHIN THE VISIBLE SPECTRUM”, Planetary and Space Science, Vol. 60, Issue 1, pp 34-51, 2012 January.
- 47. Le Mouélic, Stéphane\*; Rannou, P.; Rodriguez, S.; Sotin, C.; Griffith, C.; LeCorre, L.; **Barnes, Jason W.**; Brown, R. H.; Baines, K.; Buratti, B.; Clark, R.; Nicholson, P., “EVOLUTION OF THE NORTH POLAR CLOUD ON TITAN MONITORED BY THE VIMS IMAGING SPECTROMETER ONBOARD CASSINI”, Planetary and Space Science, Vol. 60, Issue 1, pp 86-92, 2012 January.
- 46. Buratti, Bonnie J.\*; Sotin, Christophe; Lawrence, Ken; Brown, Robert H.; Le Mouélic, Stéphane; **Barnes, Jason W.**; Soderblom, Jason; Clark, Roger N.; Baines, Kevin H.; Nicholson, Philip D., “A

---

<sup>1</sup> Key: \* – corresponding author; **blue** – Jason W. Barnes; **green** – student author

- NEWLY-DISCOVERED IMPACT CRATER IN SENKYO: CASSINI VIMS OBSERVATIONS AND COMPARISON WITH OTHER IMPACT FEATURES”, Planetary and Space Science, Vol. 60, Issue 1, pp 18-25, 2012 January.
- 45. Langhans, M. H.\*; Jaumann, R.; Stephan, K; Brown, R. H.; Clark, R. N.; Baines. K. H.; Nicholson, P. D.; Lorenz, R. D.; Soderblom, L. A.; Soderblom, J. M.; Sotin, C.; **Barnes, J. W.**; Nelson, R, “TITAN’S FLUVIAL VALLEYS: MORPHOLOGY, DISTRIBUTION, AND SPECTRAL PROPERTIES”, Planetary and Space Science, Vol. 60, Issue 1, pp 34-51, 2012 January.
- 44. Lissauer, Jack J.; **Barnes, Jason W.**\*; Chambers, John E., “OBLIQUITY EVOLUTION OF A MOONLESS EARTH”, Icarus, Vol. 217, pp 77-87, doi:10.1016/j.icarus.2011.10.013, 2012 January.
- 43. Lorenz, Ralph D.\*; Jackson, Brian K.; **Barnes, Jason W.**; Spitale, Joseph N.; Radebaugh, Jani, “METEOROLOGICAL CONDITIONS AT RACETRACK PLAYA, DEATH VALLEY NATIONAL PARK: IMPLICATIONS FOR ROCK PRODUCTION AND TRANSPORT”, Journal of Applied Meteorology and Climatology, Vol. 50, pp 2361-2375, DOI:10.1175/JAMC-D-11-075.1, 2011 December.
- 42. **Barnes, Jason W.**\*; **Linscott, Ethan**; Shporer, Avi, “MEASUREMENT OF THE SPIN-ORBIT MISALIGNMENT OF KOI-13.01 FROM ITS GRAVITY-DARKENED *Kepler* TRANSIT LIGHTCURVE”, The Astrophysical Journal Supplement, Vol. 197, paper #10, doi:10.1088/0067-0049/197/1/10, 2011 November.
- 41. **Barnes, Jason W.**\*; **Bow, Jacob**; **Schwartz, Jacob**; Brown, Robert H.; Soderblom, Jason M.; Hayes, Alexander G.; **Vixie, Graham**; Le Mouélic, Stéphane; Rodriguez, Sebastien; Sotin, Christophe; Jaumann, Ralf; Stephan, Katrin; Soderblom, Laurence A.; Clark, Roger N.; Buratti, Bonnie J.; Baines, Kevin H.; Nicholson, Philip D., “WIDESPREAD ORGANIC EVAPORITE DEPOSITS ON SATURN’S MOON TITAN”, Icarus, Vol. 216, pp 136-140, doi:10.1016/j.icarus.2011.08.022, 2011 November.
- 40. Rodriguez, Sebastien\*; Le Mouélic, Stéphane; Rannou, Pascal; Sotin, Christophe; Brown, Robert H.; **Barnes, Jason W.**; Griffith, Caitlin A.; Burgalat, J.; Baines, Kevin H.; Buratti, Bonnie J.; Clark, Roger N.; Nicholson, Peter D., “TITAN’S CLOUD SEASONAL ACTIVITY FROM WINTER TO SPRING WITH CASSINI/VIMS”, Icarus, Vol. 216, pp89-110, doi:10.1016/j.icarus.2011.07.031, 2011 November.
- 39. Brown, Robert H.\*; **Barnes, Jason W.**; Melosh, H. Jay, “ON THE ORIGIN OF TITAN’S XANADU REGION”, Icarus, Vol. 214, pp556-560, 2011 August.
- 38. Turtle, Elizabeth P.\*; Perry, Jason E.; Hayes, Alexander G.; Lorenz, Ralph D.; **Barnes, Jason W.**; McEwen, Alfred S.; West, Robert A.; DelGenio, Anthony G.; Barbara, John M.; Lunine, Jonathan I.; Schaller, Emily L.; Ray, Trina L.; Lopes, Rosaly M. C.; Stofan, Ellen R., “RAPID AND EXTENSIVE SURFACE CHANGES NEAR TITAN’S EQUATOR: EVIDENCE OF APRIL SHOWERS”, Science, Vol. 331, pp1414-1417, doi:10.1126/science.1201063, 2011 March 17.
- 37. **Barnes, Jason W.**\*; Soderblom, Jason M.; Brown, Robert H.; Soderblom, Laurence A.; Stefan, Katrin; Jaumann, Ralf; Le Mouélic, Stéphane; Rodriguez, Sebastien; Sotin, Christophe; Buratti, Bonnie J.; Baines, Kevin H.; Clark, Roger N.; Nicholson, Phillip D., “WAVE CONSTRAINTS FOR TITAN’S JINGPO LACUS AND KRAKEN MARE FROM VIMS SPECULAR REFLECTION LIGHTCURVES”, Icarus, Vol. 211, pp722-731, doi:10.1016/j.icarus.2010.09.022, 2011 January.
- 36. Lorenz, Ralph D.\*; Jackson, Brian K.; **Barnes, Jason W.**; Spitale, Joe; Keller, John M., “ICE RAFTS NOT SAILS: FLOATING THE ROCKS AT RACETRACK PLAYA”, American Journal of Physics, Vol. 79, pp 37-42, 2011 January.
- 35. Clark, Roger N.\*; Curchin, John M.; **Barnes, Jason W.**; Jaumann, Ralf; Soderblom, Larry; Cruikshank, Dale P.; Brown, Robert H.; Rodriguez, Sèbastien; Lunine, Jonathan; Stephan, Katrin; Hoefen,

- Todd M.; Le Mouèlic, Stéphane; Sotin, Christophe; Baines, Kevin H.; Buratti, Bonnie J.; Nicholson, Philip D., “DETECTION AND MAPPING OF HYDROCARBON DEPOSITS ON TITAN”, Journal of Geophysical Research – Planets, doi:10.1029/2009JE003369, Vol. 115, E10005, 2010 October.
- 34. Ádámkóvics, Mate\*; **Barnes, Jason W.**; Hartung, Matthew; de Pater, Imke, “OBSERVATIONS OF A STATIONARY MID-LATITUDE CLOUD SYSTEM ON TITAN”, Icarus, doi:10.1016/j.icarus.2010.03.006, Vol. 208, Issue 2, pp. 868-877, 2010 August 1.
- 33. Soderblom, Jason M.\*; Brown, Robert H.; Soderblom, Laurence A.; **Barnes, Jason W.**; Jaumann, Ralf; Le Mouèlic, Stéphane; Sotin, Christophe; Stephan, Katrin; Baines, Kevin H.; Buratti, Bonnie J.; Clark, Roger N.; Nicholson, Philip D., “GEOLOGY OF THE SELK CRATER REGION ON TITAN FROM CASSINI VIMS OBSERVATIONS”, Icarus, doi:10.1016/j.icarus.2010.03.001, Vol. 208, Issue 2, pp. 905-912, 2010 August 1.
- 32. Tosi, Federico\*; Orosi, R.; Filacchione, G.; Coradini, A.; Lunine, J. I.; Gavrishin, A. I.; Capaccioni, F.; Cerroni, P.; Adriani, A.; Moriconi, M. L.; Negrao, A.; Flamini, E.; Brown, R. H.; Wye, L. C.; Janssen, M.; West, R. D.; **Barnes, Jason W.**; Wall, S. D.; Clark, R. N.; Cruikshank, D. P.; McCord, T. B.; Nicholson, P. D.; Soderblom, J. M., “ANALYSIS OF SELECTED VIMS AND RADAR DATA OVER THE SURFACE OF TITAN THROUGH A MULTIVARIATE STATISTICAL METHOD”, Icarus, doi:10.1016/j.icarus.2010.02.003, Vol. 208, Issue 1, pp. 366-384, 2010 July 1.
- 31. Stephan, Katrin\*; Jaumann, Ralf; Brown, Robert H.; Soderblom, Jason M.; Soderblom, Laurence A.; **Barnes, Jason W.**; Sotin, Christophe; Griffith, Caitlin A.; Kirk, Randolph L.; Baines, Kevin H.; Buratti, Bonnie J.; Clark, Roger N.; Lytle, Dyer M.; Nelson, Robert M.; Nicholson, Phillip D., “SPECULAR SCATTERING ON TITAN: LIQUIDS IN THE NORTH POLAR REGION”, Geophysical Research Letters, doi:10.1029/2009GL042312, Vol. 37 L07104, 2010 April 7.
- 30. Borucki, William J.\*; Koch, David; Basri, Gibor; Batalha, Natalie; Brown, Timothy; Caldwell, Douglas; Caldwell, John; Christensen-Dalsgaard, Jorgen; Cochran, William D.; DeVore, Edna; Dunham, Edward W.; Dupree, Andrea K.; Gautier, Thomas N.; Geary, John C.; Gilliland, Ronald; Gould, Alan; Howell, Steven; Jenkins, Jon; Kondo, Yoji; Latham, David; Marcy, Geoffrey W.; Meibom, Soren Meibom; Kjeldsen, Hans; Lissauer, Jack J.; Monet, David; Morrison, David; Sasselov, Dimitar; Tarter, Jill; Boss, Alan; Brownlee, Don; Owen, Toby; Buzasi, Derek; Charbonneau, David; Doyle, Lorraine; Fortney, Jonathan; Ford, Eric B.; Holman, Matthew J.; Seager, Sara; Steffen, Jason H.; Welsh, William; Rowe, Jason; Anderson, Howard; Buchhave, Lars; Ciardi, David; Walkowicz, Lucianne; Sherry, William; Horch, Elliott; Isaacson, Howard; Everett, M. E.; Fischer, Debra; Torres, Guillermo; Johnson, John; Endl, Michael; MacQueen, Phillip; Bryson, Stephen T.; Dotson, Jessie; Haas, Michael; Kolodziejczak, Jeffrey; Van Cleve, Jeffrey; Chandrasekaran, Hema; Twicken, Joseph D.; Quintana, Elisa V.; Clarke, Bruce D.; Allen, Christopher; Li, Jie; Wu, Haley; Tenenbaum, Peter; Verner, Ekaterina; Bruhweiler, Frederick; **Barnes, Jason**; Prsa, Andrej, “*Kepler* PLANET DETECTION MISSION: INTRODUCTION AND FIRST RESULTS”, Science DOI:10.1126/science.1185402, Vol. 327. no. 5968, pp. 977 - 980, 2010 February 19.
- 29. Lorenz, Ralph D.\*; Jackson, Brian; **Barnes, Jason W.**, “INEXPENSIVE TIME-LAPSE DIGITAL CAMERAS FOR STUDYING TRANSIENT METEOROLOGICAL PHENOMENA: DUST DEVILS AND PLAYA FLOODING”, Journal of Atmospheric and Oceanic Technology, doi:10.1175/2009JTECHA1312.1, Vol. 27 pp 246-256, 2010 January.
- 28. **Barnes, Jason W.**\*; Soderblom, Jason M.; Brown, Robert H.; Buratti, Bonnie J.; Sotin, Christophe; Baines, Kevin H.; Clark, Roger N.; Jaumann, Ralf; McCord, Thomas B.; Nelson, Robert; Le Mouélic, Stéphane; Rodriguez, Sebastien; Griffith, Caitlin; Penteado, Paulo; Tosi, Federico; Pitman, Karly M.; Soderblom, Laurence; Hayne, Paul; **Vixie, Graham**; Bibring, Jean-Pierre; Bellucci, Giancarlo; Capaccioni, Fabrizio; Cerroni, Priscilla; Coradini, Angioletta; Cruikshank, Dale P.; Drossart, Pierre;

- Formisano, Vittorio; Langevin, Yves; Matson, Dennis L.; Nicholson, Phillip D.; Sicardy, Bruno, “VIMS SPECTRAL MAPPING OBSERVATIONS OF TITAN DURING THE *Cassini* PRIME MISSION”, Planetary and Space Science, Volume 57 pp 1950-1962, doi:10.1016/j.pss.2009.04.013, 2009 December.
- 27. Laurence A. Soderblom\*; Robert H. Brown; Jason M. Soderblom; **Jason W. Barnes**; Raldolph L. Kirk; Ralf Jaumann; David J. Mackinnon; Daniel W. Mackowski; Kevin H. Baines; Bonnie J. Buratti; Roger N. Clark; Philip D. Nicholson; Christophe Sotin, “THE GEOLOGY OF HOTEI REGIO, TITAN: CORRELATION OF CASSINI VIMS AND RADAR”, Icarus, Volume 204 pp610-618, doi:10.1016/j.icarus.2009.07.033, 2009 December.
- 26. **Barnes, Jason W.\***; Curtis S. Cooper; Adam P. Showman; William B. Hubbard, “DETECTING THE WIND-DRIVEN SHAPES OF EXTRASOLAR GIANT PLANETS FROM TRANSIT PHOTOMETRY”, The Astrophysical Journal, Volume 706 pp877-884, doi:10.1088/0004-637X/706/1/877, 2009 November 20.
- 25. Ádámkóvics, Mate\*; de Pater, Imke; Hartung, Matthew; **Barnes, Jason W.**, “EVIDENCE FOR CONDENSED-PHASE METHANE ENHANCEMENT OVER XANADU ON TITAN”, Planetary and Space Science, Volume 57 pp1586-1595, doi:10.1016/j.pss.2009.07.001, 2009 November.
- 24. **Barnes, Jason W.\***, “TRANSIT LIGHTCURVES OF EXTRASOLAR PLANETS ORBITING RAPIDLY ROTATING STARS”, The Astrophysical Journal, Volume 705, pp683-692, doi:10.1088/0004-637X/705/1/683, 2009 November 1.
- 23. Soderblom, Laurence A.\*; **Barnes, Jason W.**; Brown, Robert H.; Clark, Roger N.; Janssen, Michael A.; McCord, Thomas B.; Niemann, Husso B.; Tomasko, Martin G., “BOOK CHAPTER 7: TITAN’S SURFACE COMPOSITION”, in book Titan from Cassini-Huygens, ISBN: 978-1402092145 Springer 2009 October 1.
- 22. Rodriguez, Sébastien\*; Le Mouélic, Stéphane; Rannou, Pascal; Tobie, Gabriel; Baines, Kevin H.; **Barnes, Jason W.**; Griffith, Caitlin A.; Hirtzig, Mathieu; Pitman, Karly M.; Sotin, Christophe; Brown, Robert H.; Buratti, Bonnie J.; Clark, Roger N.; Nicholson, Phil D., “GLOBAL CIRCULATION AS THE MAIN SOURCE OF CLOUD ACTIVITY ON TITAN”, Nature, Volume 459, pp678-682, doi:10.1038/nature08014, 2009 June 4.
- 21. Le Corre, Lucille\*; Le Mouélic, Stéphane; Sotin, Christophe; **Barnes, Jason W.**; Brown, Robert H.; Buratti, Bonnie J.; Jaumann, Ralf; Rodriguez, Sebastien; Clark, Roger; Baines, Kevin H.; Nicholson, Phillip D., “ANALYSIS OF A CRYOLAVA FLOW ON TITAN WITH VIMS INFRARED IMAGES”, Planetary and Space Science, doi:10.1016/j.pss.2009.03.005, Volume 57, pp870-879, 2009 June.
- 20. **Barnes, Jason W.\***; Brown, Robert H.; Soderblom, Jason; Soderblom, Laurence; Jaumann, Ralf; Jackson, Brian; LeMouélic, Stephane; Sotin, Christophe; Buratti, Bonnie J.; Pitman, Karly M.; Baines, Kevin M.; Clark, Roger; Nicholson, Phillip D.; Turtle, Elizabeth, P.; Perry, Jason, “SHORELINE FEATURES OF TITAN’S ONTARIO LACUS FROM CASSINI/VIMS”, Icarus, doi:10.1016/j.icarus.2008.12.028 Icarus, Volume 201, pp217-225, 2009 May.
- 19. Jaumann, Ralf\*; Brown, Robert H.; Stephan, Katrin; **Barnes, Jason W.**; Soderblom, Larry A.; Sotin, Christophe; Le Mouélic, Stephane; Clark, Roger N.; Soderblom, Jason; Buratti, Bonnie J.; Wagner, Roland; McCord, Thomas B.; Rodriguez, Sebastien; Baines, Kevin H.; Cruikshank, Dale P.; Nicholson, Phil D.; Griffith, Caitlin A.; Langhans, Mirjam; and Lorenz, Ralph D., “FLUVIAL EROSION AND POST-EROSIONAL PROCESSES ON TITAN”, Icarus, Volume 197, pp 526-538, doi:10.1016/j.icarus.2008.06.002, 2008 October.

↑ after arrival at University of Idaho ↑

---

↓ prior to arrival at University of Idaho ↓



- 18. Brown, Robert H.\*; Soderblom, Laurence A.; Soderblom, Jason M.; Clark, Roger N.; Jaumann, Ralf; **Barnes, Jason W.**; Sotin, Christophe; Buratti, Bonnie J.; Baines, Kevin H.; Nicholson, Phillip D., “THE IDENTIFICATION OF LIQUID ETHANE IN TITAN’S ONTARIO LACUS”, Nature Volume 454, pp 607-610, 2008 July.
- 17. **Barnes, Jason W.**\*; Brown, Robert H.; Soderblom, Laurence; Sotin, Christophe; LeMouélic, Stephane; Rodriguez, Sebastien; Jaumann, Ralf; Beyer, Ross A.; Buratti, Bonnie J.; Pitman, Karly; Baines, Kevin H.; Clark, Roger; Nicholson, Phil, “SPECTROSCOPY, MORPHOMETRY, AND PHOTOCINOMETRY OF TITAN’S DUNEFIELDS FROM CASSINI/VIMS”, Icarus, Volume 195 pp400-414, doi:10.1016/j.icarus.2007.12.006, 2008 May.
- 16. Le Mouélic, S.\*; Paillou, P.; Janssen, M; **Barnes, Jason W.**; Rodriguez, S.; Sotin, C.; Brown, R. H.; Baines, K.; Buratti, B. J.; Clark, R.; Crapeau, M; Encrenaz, P.; Jaumann, R.; Geudtner, D.; Paganelli, F.; Soderblom, L.; Tobie, G.; Wall, S., “JOINT ANALYSIS OF CASSINI VIMS AND RADAR DATA: APPLICATION TO THE MAPPING OF SINLAP CRATER ON TITAN”, Journal of Geophysical Research – Planets, Volume 113, doi:10.1029/2007JE002965, 2008 April.
- 15. McCord, Thomas B.\*; Hayne, Paul; Combe, Jean-Philippe; Hansen, Gary B; **Barnes, Jason W.**; Rodriguez, Sebastien; Le Mouélic, Stephane; Baines, Kevin H.; Brown, Robert H.; Buratti, Bonnie J.; Sotin, Christophe; Nicholson, Phil; Jaumann, Ralf; Nelson, Robert; Cassini VIMS team, “TITAN’S SURFACE: SEARCH FOR SPECTRAL DIVERSITY AND COMPOSITION USING THE CASSINI VIMS INVESTIGATION”, Icarus, Volume 194, doi:10.1016/j.icarus.2007.08.039, pp 212-242, 2008 January.
- 14. **Barnes, Jason W.**\*; Radebaugh, Jani; Brown, Robert H.; Wall, Steve; Soderblom, Laurence; Lunine, Jonathan; Burr, Devon; Sotin, Christophe; Le Mouélic, Stephane; Rodriguez, Sebastien; Buratti, Bonnie J.; Clark, Roger; Baines, Kevin H.; Jaumann, Ralf; Nicholson, Phillip D.; Kirk, Randolph L.; Lopes, Rosaly; Lorenz, Ralph D.; Mitchell, Karl; Wood, Charles A.; and the *Cassini* RADAR Team, “NEAR-INFRARED SPECTRAL MAPPING OF TITAN’S MOUNTAINS AND CHANNELS”, Journal of Geophysical Research – Planets, Volume 112, doi:10.1029/2007JE002932, 2007 November.
- 13. Soderblom, Laurence A.\*; Kirk, Randolph L.; Lunine, Jonathan I.; Anderson, Jeffrey A.; Baines, Kevin H.; **Barnes, Jason W.**; et al., “CORRELATIONS BETWEEN CASSINI VIMS SPECTRA AND RADAR SAR IMAGES: IMPLICATIONS FOR TITAN’S SURFACE COMPOSITION AND THE CHARACTER OF THE HUYGENS PROBE LANDING SITE”, Planetary and Space Science, Volume 55, pp 2025-2036 — 2007 November.
- 12. **Barnes, Jason W.**\*, “EFFECTS OF ORBITAL ECCENTRICITY ON EXTRASOLAR PLANET TRANSIT LIGHTCURVES”, Proceedings of the Astronomical Society of the Pacific, Volume 119, pp 986-993, 2007 September.
- 11. Fortney, Jonathan J.\*; Marley, M. S.; **Barnes, Jason W.**, “PLANETARY RADII ACROSS FIVE ORDERS OF MAGNITUDE IN MASS AND STELLAR INSOLATION: APPLICATION TO TRANSITS”, The Astrophysical Journal, Volume 659, Issue 2, pp 1661-1672 — 2007 April 20.
- 10. **Barnes, Jason W.**\*; Brown, Robert H.; Soderblom, Laurence; Buratti, Bonnie J.; Sotin, Christophe; Rodriguez, Sebastien; Le Mouélic, Stephane; Baines, Kevin H.; Clark, Roger; Nicholson, Phil, “GLOBAL-SCALE SURFACE SPECTRAL VARIATIONS ON TITAN SEEN FROM CASSINI/VIMS”, Icarus, Volume 186, Issue 1, pp 242-258 — 2007 January.
- 9. **Barnes, Jason W.**\*; Brown, Robert H.; Radebaugh, Jani; Buratti, Bonnie J.; Sotin, Christophe; Le Mouélic, Stephane; Rodriguez, Sebastien; Turtle, Elizabeth P.; Perry, Jason; Clark, Roger; Baines, Kevin H.; Nicholson, Phillip D. “CASSINI OBSERVATIONS OF FLOW-LIKE FEATURES IN WESTERN TUI REGIO, TITAN”, Geophysical Research Letters, Volume 33, Issue 16, CiteID L16204 — 2006 August 30.

- 8. Brown, Robert H.\*; Clark, Roger N.; Buratti, Bonnie J.; Cruikshank, Dale P.; **Barnes, Jason W.**; Mastrapa, Rachel M. E.; Bauer, J.; Newman, S.; Momary, T.; Baines, K. H.; Bellucci, G.; Capaccioni, F.; Cerroni, P.; Combes, M.; Coradini, A.; Drossart, P.; Formisano, V.; Jaumann, R.; Langevin, Y.; Matson, D. L.; McCord, T. B.; Nelson, R. M.; Nicholson, P. D.; Sicardy, B.; Sotin, C. “COMPOSITION AND PHYSICAL PROPERTIES OF ENCELADUS’ SURFACE”, *Science*, Volume 311, Issue 5766, pp. 1425-1428 — 2006 March 10.
- 7. Griffith, C. A.\*; Pentead, P.; Baines, K.; Drossart, P.; **Barnes, J.**; Bellucci, G.; Bibring, J.; Brown, R.; Buratti, B.; Capaccioni, F.; Cerroni, P.; Clark, R.; Combes, M.; Coradini, A.; Cruikshank, D.; Formisano, V.; Jaumann, R.; Langevin, Y.; Matson, D.; McCord, T.; Mennella, V.; Nelson, R.; Nicholson, P.; Sicardy, B.; Sotin, C.; Soderblom, L. A.; and Kursinski, R. “THE EVOLUTION OF TITAN’S MID-LATITUDE CLOUDS”, *Science*, Volume 310, Issue 5747, pp. 474-477 — 2005 October 21.
- 6. **Barnes, Jason W.**\*; Brown, Robert H.; Turtle, Elizabeth P.; McEwen, Alfred S.; Lorenz, Ralph D.; Janssen, Michael; Schaller, Emily L.; Brown, Michael E.; Buratti, Bonnie J.; Sotin, Christophe; Griffith, Caitlin; Clark, Roger; Perry, Jason; Fussner, Stephanie; Barbara, John; West, Richard; Elachi, Charles; Bouchez, Antonin H.; Roe, Henry G.; Baines, Kevin H.; Bellucci, Giancarlo; Bibring, Jean-Pierre; Capaccioni, Fabrizio; Cerroni, Priscilla; Combes, Michel; Coradini, Angioletta; Cruikshank, Dale P.; Drossart, Pierre; Formisano, Vittorio; Jaumann, Ralf; Langevin, Yves; Matson, Dennis L.; McCord, Thomas B.; Nicholson, Phillip D.; and Sicardy, Bruno. “A 5-MICRON-BRIGHT SPOT ON TITAN: EVIDENCE FOR SURFACE DIVERSITY”, *Science*, Volume 310, Issue 5745, pp. 92-95 — 2005 October 7.
- 5. **Barnes, Jason W.**\* and Fortney, Jonathan J. “TRANSIT DETECTABILITY OF RING SYSTEMS AROUND EXTRASOLAR GIANT PLANETS”, *The Astrophysical Journal*, Volume 616 pp. 1193-1203 — 2004 December 1.
- 4. **Barnes, Jason W.**\* and Fortney, Jonathan J. “MEASURING THE OBLATENESS AND ROTATION OF TRANSITING EXTRASOLAR GIANT PLANETS”, *The Astrophysical Journal*, Volume 588 pp. 545-556 — 2003 May 1.
- 3. **Barnes, Jason W.**\* and O’Brien, D. P. “STABILITY OF SATELLITES AROUND CLOSE-IN EXTRASOLAR GIANT PLANETS”, *The Astrophysical Journal*, Volume 575 pp. 1087-1093 — 2002 August 20.
- 2. Meadows, Victoria\*; Crisp, David; **Barnes, Jason**; Orton, Glenn; Spencer, John. “AAT OBSERVATIONS OF THE SL9 FRAGMENT C, D, G, K, N, R, V, AND W IMPACTS WITH JUPITER: LIGHTCURVES AND IMAGING”, *Icarus*, Volume 152, Issue 2, pp. 366-383 2001 August.
- 1. Trilling, D. E.\*; Koerner, D. W.; **Barnes, J. W.**; Ftaclas, C.; Brown, R. H. “NEAR-INFRARED CORONAGRAPHIC IMAGING OF THE CIRCUMSTELLAR DISK AROUND TW HYDRAE”, *The Astrophysical Journal*, Volume 552, Issue 2, pp. L151-L154 2001 May 10.

**Other:**

- 1. Lorenz, Ralph\*; Jackson, Brian K.; **Barnes, Jason W.**; Spitale, Joseph N.; Radebaugh, Jani; Baines, Kevin H., “Study Finds Wind Unlikely Sole Mover of Death Valley Mystery Rocks”, *Bulletin of the American Meteorological Society*, 2012 March.
- 2. Withers, Paul\*; and **Barnes, Jason W.**, “Using Satellites to Probe Extrasolar Planet Formation”. *The Astrophysics of Planetary Systems: Formation, Structure, and Dynamical Evolution*, International Astronomical Union Symposium #276, doi:10.1017/S1743921312000038, 2012.
- 3. Stephan, Katrin\*; Jaumann, Ralf; Karkoschka, Erich; **Barnes, Jason W.**; Turtle, Elizabeth, P.; LeCorre, Lucille; Langhans, Mirjam; LeMouelic, Stephane; Tomasko, Martin G.; Lorenz, Ralph D.; Perry, Jason, “BOOK CHAPTER 19: MAPPING PRODUCTS OF TITAN’S SURFACE”, in book *Titan from Cassini-Huygens*, ISBN: 978-1402092145 Springer 2009 October 1.

**Refereed in progress:**

1. [Roberts, Jessica E.\\*](#); [Barnes, Jason W.](#); Rowe, Jason F.; Fortney, Jonathan J, “MOST SPACE TELESCOPE PHOTOMETRY OF THE 2010 JANUARY TRANSIT OF EXTRASOLAR PLANET HD80606B”, submitted to The Astrophysical Journal 2011 July 26, in revision.
2. Soderblom, Laurence A.\*; Brown, Robert H.; Soderblom, Jason M.; [Barnes, Jason W.](#), Sotin, Christophe; Cornet, Thomas; Le Mouélic, Stéphane; Baines, Kevin H.; Buratti, Bonnie J.; Clark, Roger N.; Nicholson, Philip D., “COMPOSITION AND COMPARISON OF TITAN’S NORTH AND SOUTH POLAR LAKES FROM CASSINI VISUAL AND INFRARED MAPPING SPECTROMETER OBSERVATIONS”, Icarus, in revision.
3. Sotin, Christophe\*; Lawrence, Kenneth J.; Reinhardt, B.; [Barnes, Jason W.](#); Brown, Robert H.; Hayes, Alexander G.; Le Mouélic, Stéphane; Rodriguez, Sebastien; Soderblom, Jason M.; Soderblom, Laurence A.; Baines, Kevin H.; Buratti, Bonnie J.; Clark, Roger N.; Jaumann, Ralf; Nicholson, Philip D.; Stephan, Katrin, “OBSERVATIONS OF TITAN’S NORTHERN LAKES AT 5 MICRONS: IMPLICATIONS FOR THE ORGANIC CYCLE AND GEOLOGY”, Icarus, submitted 2011 October 18.
4. Le Mouélic, Stéphane\*; Cornet, Thomas; Sébastien Rodriguez; Sotin, Christophe; [Barnes, Jason W.](#); Baines, Kevin H.; Brown, Robert H.; Lefèvre, Axel; Clark, Roger N.; Nicholson, Philip D., “UNIFORM GLOBAL MAPPING OF TITAN’S SURFACE IN SEVERAL INFRARED ATMOSPHERIC WINDOWS”, Planetary and Space Science, in revision.
5. [Barnes, Jason W.\\*](#); Buratti, Bonnie J.; Turtle, Elizabeth P.; [Bow, Jacob](#); Dalba, Paul A.; Perry, Jason; Brown, Robert H.; Rodriguez, Sébastien; Le Mouélic, Stéphane; Baines, Kevin H.; Sotin, Christophe; Lorenz, Ralph D.; Malaska, Michael J.; McCord, Thomas B.; Clark, Roger N.; Jaumann, Ralf; Hayne, Paul O.; Nicholson, Philip D.; Soderblom, Jason M.; Soderblom, Laurence A., “PRECIPITATION-INDUCED SURFACE BRIGHTENINGS SEEN ON TITAN BY CASSINI VIMS AND ISS”, Planetary Science, submitted 2012 March 17.
6. Lorenz, Ralph D.\*; Gasmi, Nabil; Radebaugh, Jani; [Barnes, Jason W.](#); Ori, Gian G., “DUNES ON PLANET TATOOINE: OBSERVATION OF BARCHAN MIGRATION AT THE STAR WARS FILM SET IN TUNISIA”, Geomorphology, submitted 2012 July 30.

**Invited Presentations:**

- 31. Carl Sagan Summer Exoplanet Workshop, Caltech, Pasadena, California: “Rings and Other Unusual Features”, Invited Lecture, 2012 July 27.
- 30. Seattle Museum of Flight, Seattle, Washington: “Flying the Friendly Skies of Saturn’s Largest Moon”, public lecture at the Public Lecture, 2012 May 5.
- 29. Spokane Astronomical Society, Spokane, Washington: “Autonomous Aviation in Titan’s Atmosphere”, Public Lecture, 2012 May 4.
- 28. Spokane Astronomical Society, Spokane, Washington: “The Kepler Mission’s New Planetary Systems: Placing the Solar System in Context”, Public Lecture, 2011 November 4.
- 27. Gonzaga University, Department of Physics, Spokane, Washington: “The Kepler Mission’s New Planetary Systems: Placing the Solar System in Context”, Public Lecture, 2011 November 4.
- 26. University of Idaho, Department of Physics, Moscow, ID: “Variations in Earth’s Axis Tilt Over Time: How Necessary is a Moon for Climatic Stability?”, Invited Seminar, 2011 October 24.
- 25. Geological Society of America Annual Meeting, Minneapolis, MN: “From Voyager to Cassini: 30 Years of Exploring Titan’s Geology”, Invited Review Talk, 2011 October 11.

- 
- 24. Science on Tap, Coeur d'Alene, Idaho: "Pluto's Demotion", Public Lecture / Discussion, 2011 February 8.
  - 23. University of Idaho, Department of Physics, Moscow, ID: "Physics of Dry Lakebeds on Earth and Titan", Invited Seminar, 2010 October 18.
  - 22. University of Idaho, Department of Geology, Moscow, ID: "Dry Lakebeds on Earth and Titan: The Moving Rocks of Racetrack Playa and Titan's Evaporites", Invited seminar, 2010 September 2.
  - 21. Idaho EPSCoR Meeting, College of Idaho, Caldwell, ID: "A New Camera for Future Titan Exploration", Invited Talk, 2010 August 19.
  - 20. Reed College, Department of Physics, Portland, OR: "From Sand Dunes to the Sea on Saturn's Moon Titan", Invited Seminar, 2010 February 17.
  - 19. University of Idaho, Department of Physics, Moscow, ID: "AVIATR: Designing a Future Titan Airplane Mission", Invited Seminar, 2010 January 25.
  - 18. University of Idaho, Department of Physics, Moscow, ID: "Discovering Extrasolar Planets with NASA's *Kepler* Mission", Invited Seminar, 2009 November 30.
  - 17. University of Idaho REU Program, Moscow, ID: "*Kepler* and the Search for Earth-Like Planets", Invited Talk, 2009 July 21.
  - 16. California Institute of Technology (Caltech), Department of Geological and Planetary Sciences, Pasadena, CA: "Composition and Geomorphology of Titan's Surface from Cassini VIMS", Invited Seminar, 2009 June 2.
  - 15. American Physical Society Northwest Section Annual Meeting, Vancouver, WA: "Finding and Characterizing Extrasolar Planets with *Kepler*", Invited Talk, 2009 May 16.
  - 14. University of Washington, Department of Astronomy, Seattle, WA: "Titan – An Oasis in the Outer Solar System", Invited Seminar, 2009 April 16.
  - 13. University of Idaho Space Grant Fellows Dinner, Moscow, ID: "Launch of NASA's *Kepler* Spacecraft", Invited Talk, 2009 April 8.
  - 12. Washington State University, Department of Physics and Astronomy, Pullman, WA: "Titan: Saturn's Earthly-Looking Moon", Invited Seminar, 2009 March 31.
  - 11. Spokane Astronomical Society, Spokane, Washington: "The Surface of Titan as Revealed by *Cassini/Huygens*", Public Lecture, 2009 February 6.
  - 10. Idaho RISE (Research Involving Students and Engineers) program annual banquet dinner, Moscow, ID: "Titan: The Solar System's Ballooning Paradise", Invited Presentation, 2008 October 20.
  - 9. University of Idaho, Department of Physics, Moscow, ID: "Cassini and the Case of Titan's Missing Ethane", Invited Seminar, 2008 March 24.
  - 8. George Mason University, Department of Physics and Astronomy, Fairfax, VA: "Cassini and the Case of Titan's Missing Ethane", Invited Seminar, 2008 February 21.
  - 7. SETI Institute, Mountain View, CA: "Titan's Sand Dunes: Window to a New World", Invited Seminar, 2007 November.
  - 6. Planetary Science Institute, Tucson, AZ: "Titan's Sand Dunes: Window to a New World", Invited Seminar, 2007 October.

- 5. University of California Berkeley, Center for Integrative Planetary Science, Berkeley, CA: “Titan’s Sand Seas”, Invited Seminar, 2007 October.
- 4. University of Arizona, Lunar and Planetary Laboratory, Tucson, AZ: “A VIMS Tour-de-Titan”, Invited Seminar, 2006 March.
- 3. Ventura County Astronomical Society, annual banquet, Ventura, CA: “Cassini Reveals Titan”, Public Lecture, 2006 December.
- 2. Sun City West Astronomical Society, Sun City, AZ: “Discovering Titan”, Public Lecture, 2005 November.
- 1. Green Valley Community Center, Green Valley, AZ: “Discovering Titan”, Public Lecture, 2005 January.

**Professional Meeting Papers and Workshops:**

- 55. International Geological Congress, Brisbane, Australia: “Combining RADAR Imaging with Near-Infrared Spectroscopy for Interpretation of Surface Geology on Saturn’s Moon Titan”, Talk, 2012 August 9.
- 54. VIMS-Titan Workshop, Nantes, France: “Observational Constraints on Titan’s Hydrological Cycle from Cassini/VIMS”, Talk, 2012 May 25.
- 53. *Cassini*/VIMS Science Team meeting, Nantes, France: “Update to Post-Rainfall Surface Brightness Evolution”, Talk, 2012 May 23.
- 52. American Astronomical Society Division for Dynamical Astronomy, Timberline Lodge, OR: “Long-Term Obliquity Variations of a Moonless Earth”, Talk, 2012 May 8.
- 51. Titan through Time 2, Greenbelt, MD: “VIMS Near-Infrared Imaging and Spectra of Precipitation-Associated Surface Changes”, Talk, 2012 April 3.
- 50. Lunar and Planetary Science Conference, Houston, TX: “*Cassini*/VIMS Spectra and Time-Evolution of Precipitation-Associated Surface Brightenings on Titan”, Talk, 2012 March 19.
- 49. *Cassini* Project Science Group (PSG) meeting: “Distribution, Composition, and Texture of Titan’s Evaporites”, Talk, 2012 January 31.
- 48. *Cassini*/RADAR Dunes Workshop, Pasadena, CA: “VIMS context for RADAR’s Upside-Down Dunes”, Talk, 2012 January 30.
- 47. Kepler Science Conference, Moffett Field, CA: “Measuring the Spin-Orbit Misalignment of KOI-13.01 from Kepler Transit Photometry Using Gravity Darkening”, Talk, 2011 December 7.
- 46. *Cassini*/VIMS Science Team Meeting, Tucson, AZ: “Semi-Permanent Surface Spectral Changes from Rainfall”, Talk, 2011 December 1.
- 45. NASA Outer Planets Assessment Group Meeting, Pasadena, CA: “AVIATR: Titan Airplane”, Talk, 2011 October 20.
- 44. American Astronomical Society / Division for Planetary Sciences (DPS) Meeting, Nantes, France: “KOI-13.01: A Spin-Orbit Misaligned Giant Planet Orbiting a Fast-Rotating Star”, Talk, 2011 October 4.

- 
- 43. Extreme Solar Systems 2, Moran, WY: “Measurement of the Spin-Orbit Misalignment of Planet Candidate KOI-13.01 from Gravity Darkening”, Poster, 2011 September 15.
  - 42. *Cassini* Titan Surface Workshop, Pasadena, CA: “Permanent Surface Changes in Titan’s Tropics Seen by VIMS”, Talk, 2011 July 25.
  - 41. Fifth Workshop on Titan Chemistry – Observations, Experiments, Computations, and Modeling; Poipu, HI: “Discovery of Evaporites and Other *Cassini*/VIMS Constraints on Titan’s Surface Chemistry”, Talk, 2011 April 12.
  - 40. *Cassini*/VIMS Science Team Meeting, Pasadena, CA: “Toward a Quantitative Determination of Titan’s Surface Albedos”, Talk, 2011 March 3.
  - 39. American Geophysical Union conference, San Francisco, CA, “*Cassini*/VIMS Discovery of Organic Evaporite Deposits in Titan’s Dry Lakebeds”, Poster, 2011 December 14.
  - 38. American Astronomical Society Division for Planetary Sciences conference, Pasadena, CA: “Constraining Waves on Titan’s Northern Lake Jingpo Lacus using VIMS Specular Reflection Observations”, Talk, 2010 October 8.
  - 37. American Astronomical Society Division for Planetary Sciences conference, Pasadena, CA: “Titan AVIATR - Aerial Vehicle for In Situ and Airborne Titan Reconnaissance”, Poster, 2010 October 5.
  - 36. American Physical Society NorthWest meeting, Walla Walla, WA: “Space Mission Concept for a Nuclear-Powered Airplane for Saturn’s Moon Titan”, Talk, 2010 October 2.
  - 35. International Planetary Probe Workshop, Barcelona, Spain: “Science, Instrumentation, and Operations Concepts for a Titan Airplane”, Talk, 2010 June 16.
  - 34. *Cassini* VIMS team meeting, Rome, Italy: “Time-Evolution of Titan’s Haze from Ta through T67”, Talk, 2010 May 26.
  - 33. Titan Through Time workshop, NASA Goddard Space Flight Center, Greenbelt, MD, “Titan’s atmosphere and surface in 2026: the AVIATR Titan Airplane Mission”, Poster, 2010 April 7.
  - 32. Titan Through Time workshop, NASA Goddard Space Flight Center, Greenbelt, MD, “Titan’s Haze Through a Brief Period of Time”, Talk, 2010 April 7.
  - 31. *Cassini* Titan Surface Workshop, Tucson, AZ: “Empirical Constraints on Titan’s Waves from VIMS Specular Lightcurves”, Talk, 2010 March 15.
  - 30. Lunar and Planetary Science Conference (LPSC), Houston, TX: “AVIATR: Aerial Vehicle for In-situ and Airborne Titan Reconnaissance”, Poster, 2010 March 2.
  - 29. *Huygens* Legacy and Future Titan Exploration workshop, Barcelona, Spain: “AVIATR: Exploring Titan’s Diversity from an Airplane”, Talk, 2010 January 15.
  - 28. *Kepler* Science Team Meeting, Cape Canaveral, Florida: “Transit Lightcurves for Planets Orbiting Fast-Rotating Stars”, 2009 March 3.
  - 27. *Cassini* Titan Surface Workshop, JHU Applied Physics Laboratory, Columbia, Maryland: “*Cassini*/VIMS Titan Observations during the Prime Mission”, 2009 March 12.
  - 26. *Cassini* VIMS Science Team Meeting, SETI Institute, Mountain View, CA: “Titan’s Fog and Haze”, 2009 April 6.
  - 25. *Cassini* VIMS Science Team Meeting, University of Arizona, Tucson, AZ: “VIMS Titan Observations during the Primary Mission”, 2008 October 27.

- 24. American Astronomical Society Division for Planetary Sciences Conference, Cornell University, Ithaca, NY: “Evidence for Past Lake-Level Change in Titan’s Ontario Lacus”, 2008 October 13.
- 23. American Astronomical Society Conference, St. Louis, MO: “The Effects of Dynamically-Driven Shapes of Extrasolar Giant Planets on Transit Lightcurves”, 2008 June 1.
- 22. International Astronomical Union (IAU) Transiting Planets Conference, Cambridge, MA: “Detecting Extrasolar Moons with Kepler”, 2008 May 20.
- 21. Planetary Dunes Workshop, Alamogordo, NM: “Imaging and Spectroscopy of Titan’s Dunes in the Near-Infrared”, 2008 April 30.
- 20. *Cassini* Titan Surface Workshop, SETI Institute, Mountain View, CA: “Geomorphology of Ontario Lacus from VIMS/T38”, internal Cassini Titan Surface Workshop, 2008 February 4 (host).
- 19. American Astronomical Society Conference, Austin, TX: “Detectability and Lightcurves of Transiting Planets on Eccentric Orbits”, 2008 January 10.
- 18. American Geophysical Union Conference, San Francisco, CA: “Photoclinometry, Morphometry, and Spectroscopy of Titan’s Sand Dunes from Cassini / VIMS” 2007 December 11.
- 17. American Astronomical Society Division of Planetary Sciences Meeting, Orlando, FL: “Cassini/VIMS Near-Infrared Imaging and Spectroscopy of Titan’s Sand Dunes”, Talk, 2007 October.
- 16. Workshop on Ices, Oceans, and Fire: Satellites of the Outer Solar System, Boulder, CO: “Titan as an Icy Moon”, Talk, 2007 August.
- 15. *Cassini* Titan Surface Workshop, Flagstaff, AZ: “Near-IR Imaging and Spectroscopy of Titan’s Sand Dunes and Geologic History of Sinlap Crater”, Talk, 2007 July.
- 14. CIPS Titan workshop II: Titan after Cassini, Berkeley, CA: “Titan’s Surface in the Near-IR”, Invited review talk, 2007 May.
- 13. Lunar and Planetary Science Conference, Houston, TX: “Near-Infrared Spectral Mapping of Titan’s Mountains and Channels”, Talk, 2007 March.
- 12. *Cassini* Titan Surface Workshop, Noordwijk, Netherlands: “Near-Infrared Spectral Mapping of Titan’s Mountains and Channels”, Talk, 2007 February.
- 11. American Geophysical Union Conference, San Francisco, CA: “Studies of Titan’s 5-Micron-Bright Regions Using Combined VIMS and ISS Observations”, Talk 2006 December.
- 10. American Astronomical Society Division of Planetary Sciences Conference, Pasadena, CA: “Global Spectral Diversity of Titan’s Surface”, Talk, 2006 October.
- 9. *Cassini* Titan Surface Workshop, Boulder, CO: “Global Maps of Titan from VIMS”, Talk, 2006 April.
- 8. Lunar and Planetary Science Conference, Houston, TX: “Titan’s Enigmatic 5-Micron-Bright Terrain”, Talk, 2006 March.
- 7. *Cassini* Titan Surface Workshop, Tucson, AZ: “Preliminary Results from VIMS Spectral Unit Classification”, Talk, 2005 November.
- 6. American Astronomical Society Division of Planetary Sciences Conference, Cambridge, UK: “The Brightest Spot on Titan”, Poster, 2005 October.
- 5. Lunar and Planetary Laboratory Conference, Tucson, AZ: “Extrasolar Planets: Recent Developments and Future Expectations”, Invited review talk, May 2004.

- 
- 4. American Astronomical Society Division of Planetary Sciences Conference, Monterey, CA: “Detectability of Planetary Rings around Transiting Extrasolar Giant Planets”, Talk, 2003 October.
  - 3. Scientific Frontiers in Research on Extrasolar Planets conference, Washington, DC: “Galactic Open Cluster Arizona Transit Survey”, Poster, June 2002.
  - 2. American Astronomical Society Division of Planetary Sciences Conference, Birmingham, AL: “Measuring the Oblateness and Rotation of Transiting Extrasolar Giant Planets”, Poster, 2002 October.
  - 1. American Astronomical Society Division of Planetary Sciences Conference, New Orleans, LA: “Stability of Satellites around Close-in Extrasolar Giant Planets”, Talk, 2001 November.



**Grant Support:**

**Source:** NASA Cassini Data Analysis and Participating Scientists

**Title:** Distribution, Composition, and Texture of Titan's Evaporites

**PI:** [Jason W. Barnes \(UIIdaho\)](#)

**Co-I:** —

**Award Amount:** \$315,379 over 3 years (\$315,379 to Barnes)

**Period Covered by Award:** 2012 January 1 - 2014 December 31

**Type:** **external, competed, PI**      **Status:** **current**

**Source:** NASA MOST Guest Observer Program

**Title:** MOST Photometry of HD80606b at Periastron

**PI:** [Jason W. Barnes \(UIIdaho\)](#)

**Co-I:** Jason Rowe (SETI/NASA Ames Research Center), Jonathan Fortney (UCSC Astronomy)

**Award Amount:** \$35,000 over 1 year (\$25,752 to Barnes)

**Period Covered by Award:** 2010 February 1 - 2011 January 31

**Type:** **external, competed, PI**      **Status:** **ended**

**Source:** NASA Outer Planets Research

**Title:** Global Patterns of Tectonism on Titan

**PI:** [Jason W. Barnes \(UIIdaho\)](#)

**Co-I:** Simon Kattenhorn (UIIdaho Geology), Terry Hurford (NASA Goddard Space Flight Center)

**Award Amount:** \$333,918.68 over 3 years (\$173,603 to Barnes)

**Period Covered by Award:** 2010 October - 2013 September

**Type:** **external, competed, PI**      **Status:** **current**

**Source:** NASA Astrobiology: Exobiology and Evolutionary Biology

**Title:** Orbital Stability of Habitable Moons and Moons of Habitable Planets

**PI:** [Jason W. Barnes \(UIIdaho\)](#)

**Co-I:** —

**Award Amount:** \$175,516.07 total over 3 years (\$175,516.07 to Barnes)

**Period Covered by Award:** 2009 June 22 - 2013 June 21

**Type:** **external, competed, PI**      **Status:** **current**

**Source:** NASA Outer Planets Research Program

**Title:** The Role of Sand in Titan's Geologic Cycle

**PI:** [Jason W. Barnes \(UIIdaho\)](#)

**Co-I:** —

**Award Amount:** \$174,144 over 3 years (\$174,144 to Barnes)

**Period Covered by Award:** 2009 July 15 - 2013 July 14

**Type:** **external, competed, PI**      **Status:** **current**

**Source:** NASA Cassini Data Analysis Program

**Title:** Mapping, Characterization, and Analysis of Channel/Valley Features on Titan

**PI:** Devon Burr, University of Tennessee, Knoxville

**Co-I:** [Jason W. Barnes \(UIIdaho\)](#)

**Award Amount:** \$5089 over 2 years to CoI Barnes

**Period Covered by Award:** 2008 October - 2010 September

**Type:** **external, competed, Co-I**      **Status:** **ended**

**Source:** NASA Outer Planets Research Program

**Title:** Dunes on Titan: Dune properties, global winds, and climate

**PI:** Jani Radebaugh, Brigham Young University

**Co-I:** [Jason W. Barnes \(UIIdaho\)](#), Elizabeth Turtle (JHU/APL)

**Sub-Award Amount:** \$15,048 for 3 years to CoI Barnes  
**Period Covered by Award:** 2009 August 15 - 2012 November 30  
**Type:** **external, competed, Co-I**      **Status:** **current**

**Source:** NSF Astronomy & Astrophysics  
**Title:** A Long Baseline Investigation of Clouds, Haze, and Methane Distributions on Titan  
**PI:** Eliot F. Young, SouthWest Research Institute (SwRI)  
**Co-PI:** **Jason W. Barnes (UIdaho)**  
**Award Amount:** \$30,000 over 3 years for Co-PI Barnes  
**Period Covered by Award:** 2009 November - 2012 October  
**Type:** **external, competed, Co-I**      **Status:** **current**

**Source:** NASA/U. Arizona *Cassini* Visual and Infrared Mapping Spectrometer Science Team  
**Title:** Travel and Logistical Support for VIMS Titan Surface Science  
**subaward PI:** **Jason W. Barnes (UIdaho)**  
**Award Amount:** \$130,000 over 4 years (\$130,000 to Barnes)  
**Period Covered by Award:** 2008 October - 2012 September  
**Type:** **external, non-competed, subaward**      **Status:** **current**

**Source:** NASA Jet Propulsion Laboratory  
**Title:** Building Toward the Design of a Next-Generation Titan Imaging Spectrometer  
**PI:** Jonathan Lunine (U. Arizona)  
**Co-I:** **Jason W. Barnes (UIdaho)**  
**Sub-Award Amount:** \$9000 for 1 year (\$9000 to Barnes)  
**Period Covered by Award:** 2009 June 15 - 2009 August 31  
**Type:** **external, non-competed, subaward**      **Status:** **ended**

**Source:** NASA Jet Propulsion Laboratory  
**Title:** Development of a Camera/Imaging Spectrometer Concept Relevant to Outer Planet Science-Goals  
**PI:** Jonathan Lunine (U. Arizona)  
**Co-I:** **Jason W. Barnes (UIdaho)**  
**Sub-Award Amount:** \$9800 for 1 year (\$9800 to Barnes)  
**Period Covered by Award:** 2010 June 15 - 2010 August 31  
**Type:** **external, non-competed, subaward**      **Status:** **ended**

**Source:** Idaho Space Grant Consortium Research Initiation Grant  
**Title:** Characterizing Transiting Extrasolar Planets with NASA's *Kepler* Mission  
**PI:** **Jason W. Barnes (UIdaho)**  
**Co-I:** — **Award Amount:** \$50,000 over 2 years (\$50,000 to Barnes)  
**Period Covered by Award:** 2009 June 1 - 2011 March 15  
**Type:** **internal, competed, PI**      **Status:** **ended**

**Source:** Idaho Space Grant Consortium Research Initiation Grant  
**Title:** AVIATR: A Titan Airplane Mission to be Proposed to the NASA Discovery Program  
**PI:** **Jason W. Barnes (UIdaho)**  
**Co-I:** David Atkinson (UIdaho Electrical Engineering) **Award Amount:** \$50,000 over 2 years (\$50,000 to Barnes)  
**Period Covered by Award:** 2010 March 31 - 2012 March 15  
**Type:** **internal, competed, PI**      **Status:** **ended**

**Source:** Idaho NASA EPSCoR Collaboration Grant  
**Title:** Next-Generation Camera for a Future Mission to Saturn's Moon Titan  
**PI:** **Jason W. Barnes**

**Co-I: — Award Amount:** \$3967 for 1 year (\$3967 to Barnes)  
**Period Covered by Award:** 2009 October - 2010 September  
**Type:** **internal, competed, PI**      **Status:** **ended**

**Source:** NASA EPSCoR Research Initiation Grant

**Title:** AVIATR Unmanned Aerial Explorations of Titan

**PI:** **Jason W. Barnes (UIIdaho)**

**Co-I:** David Atkinson (UIIdaho Electrical Engineering), Simon Kattenhorn (UIIdaho Geology)

**Award Amount:** \$30,000 over 1 years (\$30,000 to Barnes)

**Period Covered by Award:** 2010 August 1 - 2011 July 31

**Type:** **internal, competed, PI**      **Status:** **ended**

**Source:** University of Idaho (VP Research, Colleges of Science & Engineering)

**Title:** Engineering to Propose AVIATR to the NASA Discovery Program

**PI:** **Jason W. Barnes (UIIdaho)**

**Co-I:** David Atkinson (UIIdaho Electrical Engineering), Simon Kattenhorn (UIIdaho Geology)

**Award Amount:** \$25,000 one-time (\$25,000 to Barnes)

**Awarded:** 2010 May

**Type:** **internal, non-competed, PI**      **Status:** **ended**

**Source:** *Cassini* Visual and Infrared Mapping Spectrometer Science Team

**Title:** Travel and Logistical Support for VIMS Titan Surface Science

**subaward PI:** **Jason W. Barnes (SETI Institute)**

**Award Amount:** \$12,278

**Period Covered by Award:** 2007 October - 2008 September

**Type:** **external, non-competed, subaward**      **Status:** **ended**

**Source:** NASA Postdoctoral Program

**Title:** Characterization of *Kepler*'s Transiting Extrasolar Giant Planets

**PI:** **Jason W. Barnes (NASA Ames Research Center)**

**Award Amount:** \$65,000/year (2 years)

**Period Covered by Award:** 2007 January - 2008 December

**Type:** **external, competed, fellowship**      **Status:** **ended**

#### **Honors and Awards:**

- 2003 Winner of the Kuiper Memorial Award for excellence in academic work and research from the University of Arizona Lunar and Planetary Laboratory.

**SERVICE:****University:****Major Committee Assignments:**

Chair, Observatory Committee, 2008 September - present	Departmental
Member, Recruitment and Retention Committee, 2008 September - present	Departmental
Member, Safety Committee, 2010 Spring	Departmental
Member, Physics department chair search committee, 2010 Spring	Departmental
Member, Physics instructor search committee, 2009 Fall	Departmental
Member, Physics instructor search committee, 2010 Fall	Departmental
Member, Physics instructor search committee, 2011 Spring	Departmental
Member, Laboratory coordinator search committee, 2011 Spring	Departmental
Member, Austin Lecture Committee, 2011 Nov - present	College
Core Science Representative Member, Undergraduate Committee on General Education (UCGE), 2011 Sep - present meets 1.5 hours/week	University
Member, Contract Administrator search committee for Office of Sponsored Programs, 2012 January - February	University

**University Service:**

**Department** Advertised Physics Department at Moscow High School Recruiting Fair, 2010 February 11.

**Department** Hosted prospective undergraduate student Madeline Magnuson, 2009 March 30.

**Department** Hosted prospective undergraduate student Brady Pearson, 2009 June 15.

**Department** Hosted prospective graduate student Paul Williams, 2009 June 26.

**Department** Hosted prospective undergraduate student Benjamin Knapp, 2009 October 29.

**Department** Hosted prospective undergraduate student Justin Rogow, 2010 June 30.

**Department** Hosted prospective undergraduate student Matthew Shubert, 2010 November 3.

**Department** Hosted prospective undergraduate student Shayne Seubert, 2010 November 5.

**Department** Hosted prospective undergraduate transfer student Ian Kirk, 2012 April 27.

**Department** Hosted prospective undergraduate student Travis Glenn, 2012 July 24.

**College** Recommended and helped to host Dr. Carolyn Porco, 2009 College of Science Austin Memorial Lecture speaker.

**College** Gave talk for Envision Idaho to high-school seniors entitled, "NASA's Kepler Mission and the Search for Other Earths" at the request of Associate Dean Mark Nielsen, 2009 October 2.

**College** Presented invited talk "NASA's Kepler Mission and the Search for Other Earths" to College of Science Advisory Board, 2009 October 30.

**University** Judge for NASA high school student robotics competition held at University of Idaho, 2009 February 21.

**University** Faculty advisor for Astronomy and Space Club (2010 October - present).

### Professional and Scholarly Organizations:

#### Memberships:

AAS/DPS – American Astronomical Society, Division of Planetary Science	member
AAS – American Astronomical Society	member
AAAS – American Association for the Advancement of Science	member
AGU – American Geophysical Union	member
APS – American Physical Society	member
APS/NW – APS Northwest Region	member

#### Leadership Positions:

**National** Elected to executive committee of the American Astronomical Society Division for Planetary Sciences, 2009 June. Served 2009 October - present.

**Regional** Served on Scientific Organizing Committee for the American Physical Society NorthWest meeting in Walla Walla, WA, 2009 May - 2010 October.

#### Editorial Services:

Managing Guest Editor for the Titan, Saturn, and Saturn's Magnetosphere special issue of Planetary and Space Science, 2008 August - 2009 December.

Editorial board member for the journal Planetary Sciences, 2010 June 23 - 2011 December 8. This is a newly-launched open-access journal, and it is currently the only open-access journal in the field.

Associate Editor, Planetary Sciences, 2011 December 8 - present.

Served as referee for 23 papers for refereed journals The Astrophysical Journal, Astronomy and Astrophysics, Icarus, Geophysical Research Letters, Nature, Nature Geoscience, Nature Communications, Remote Sensing, and Planetary and Space Science.

Chaired NASA Outer Planets Research grant proposal evaluation subpanel, 2010 March 25 - 2010 June 11.

Served on grant proposal review panels for the NASA *Cassini* Data Analysis Program (2007), the NASA Outer Planets Research (OPR) program (2011), and the NSF Astronomy/Astrophysics CAREER Program (2008).

Served on mission review panel for NASA Discovery Step-2 (2012) – hired as consultant for one month of work for which NASA paid me \$150/hr.

External reviewer for for 14 different proposals in the NASA *Cassini* Data Analysis Program, the NASA Outer Planets Research Program, the NASA Jupiter Data Analysis Program, and the NASA Origins Program.

#### Outreach Service:

Helped to lead 2012 Spaceward Bound Idaho field trip, NASA-sponsored training for in-service high school science teachers, 2012 June 26-30.

Interviewed for article on the future of drone technology for Wired magazine, subject AVIATR, 2012 April 22.

Science News 1-paragraph blurb about LPSC talk, subject rainfall associated surface changes on Titan, published 2012 April 21.

Interviewed for article on space.com and MSNBC.com, subject AVIATR, published 2012 January 11.

Interviewed for article in Moscow-Pullman Daily News, subject AVIATR, published 2012 January 6.

Interviewed for article in Universe Today, subject AVIATR, published 2012 January 2.

Interviewed for National Public Radio (NPR) Talk of the Nation Science Friday, subject ‘Climate Stability of Moonless Planets’, 2011 November 18.

Appeared on Idaho Public Television show “Dialog for Kids”, subject ‘The Moon’, 2011 November 15.

Interviewed about Titan and *Cassini* Participating Scientist award for University of Idaho newsroom, 2011 October.

Interviewed about the AVIATR Student Raindrop Detector (SRD) engineering development for KBYI radio station from Rexburg, Idaho, 2011 March 29.

Participated in the construction of the Moscow Planet Walk along the bike path at the northwest end of campus; featured in front-page article in Moscow-Pullman Daily News, 2011 May 26.

Provided a 35-minute radio interview for the astronomy.fm astronomy radio show “Live from York University”, 2010 October 24,  
<http://arcticsaxifrage.blogspot.com/2010/10/dr-jason-barnes-conversations-at-dps.html>

Subject of and interviewed for front-page Moscow-Pullman Daily News article, “Looking to the Skies for Answers (Sidewalk Series)”, 2010 September 24.

Interviewed for The University of Idaho Argonaut article, “Lisa Pratt Lecture”, 2010 September 21.

Interviewed for The University of Idaho Argonaut article, “Teaching the Palouse about Astronomy”, 2010 September 9.

Interviewed for Science online article, “Stars Steal their Planet’s [sic] Moons”, 2010 August 12.

Interviewed for Smithsonian Air and Space article, “Titan Air”, 2010 July 1.

Authored article in public magazine Glimpse, “Seeing Titan”, 2009 December issue.

Hosted multiple International Year of Astronomy (IYA) public star parties at University of Idaho Observatory, 2009 - 2010.

Mentored Moscow High School student Jessica Curry as part of the Extended Learning Internship project – 10 1-hour meetings designed to help her achieve her career goal of becoming an astronaut. 2009 February 21-2009 May 20.

Author of Sky and Telescope article, “Titan: Earth’s Frozen Sibling”, 2008 December.

Appearance on Idaho Public Television show “Dialog for Kids” discussing planets, with Gary Bennett, 2008 December 16.

Scientific contributor to article in Finnish aerospace magazine Tähdet ja Avaruus on Jupiter’s interior, “Näin Kurkistetaan ka Asujättien Ytimeen”, 2007 November.

**PROFESSIONAL DEVELOPMENT:**

**Scholarship:**

Attended JPL Team-X 1-week graduate student summer-school, Pasadena, CA, 2003.

**Administration/Management:**

Attended University of Idaho New Faculty orientation, 2008 August 17-19.

Attended Physics Department 2-day meeting with Provost Baker, Dean Wood, and facilitator in regards to the proposed physics undergraduate degree closure, 2009 February 23-24.