

Chadwick A. Trujillo

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Degrees	2000, Ph.D. Astronomy, University of Hawaii 1998, M.S. Astronomy, University of Hawaii 1995, B.S. Physics, minor Literature, Massachusetts Institute of Technology	
Employment	2016– , Assistant Professor, Physics & Astronomy Dept., Northern Arizona Univ. 2013–2016, Head of Adaptive Optics / Telescope Dept., Gemini Observatory 2012–2016, Astronomer with Tenure, Gemini North Observatory 2006–2012, Assistant Astronomer, Gemini North Observatory 2003–2006, Science Fellow, Gemini North Observatory 2000–2003, Postdoctoral Scholar, California Institute of Technology 1996–2000, Research Assistant, University of Hawaii 1995–1996, Teaching Assistant, University of Hawaii	
Research Interests	Kuiper Belt, Inner Oort Cloud, the Outer Solar System, Planet Formation, Titan, Active Asteroids	
Grant Principal Investigator	2015–2017, Exploring the Inner Oort Cloud, NASA (NNX15AF44G \$162,103) 2012–2015, Beyond the Kuiper Belt Edge, NASA (NNX12AG26G \$56,693) 2007–2012, Primordial Solar System Ices, NASA (NNX07AK96G \$108,106)	
Astronomy Service	2010–2012, NOAO Telescope Allocation Committee, Solar System 2011, Thirty Meter Telescope NFIRAO and IRIS Review Committees 2011, Hubble Space Telescope Cycle 19 Time Allocation Committee 2007, External Reviewer for Canada-France Hawaii and Subaru Telescopes 2006, External Reviewer for NASA Planetary Astronomy Grants 2005, Hubble Space Telescope Cycle 14 Time Allocation Committee 2003, NASA Planetary Astronomy Grant Allocation Committee Frequent Referee for <i>Nature</i> , <i>ApJ</i> , <i>AJ</i> , <i>A&A</i> , and <i>Icarus</i>	
Astronomy Observing Experience	Optical Imaging: 10 m Keck LRIS/B, ESI, DEIMOS 8.1 m Gemini North & South GMOS 5.1 m Palomar JCAM and LFC 4.0 m CTIO Tel. DECam & MOSAIC II 2.4 m Hubble Space Tel., STIS	8.2 m Subaru Hyper Suprime-Cam 6.5 m Baade/Clay Tels., IMACS, Megacam 4.0 m KPNO Tel., 8k MOSAIC 1.1 3.6 m CFHT 12k and 8k Mosaics 2.2 m UH 8k Mosaic and 2k CCDs
	Other: 15 m JCMT B3 345 GHz (submillimeter spec.) 10 m Keck LRIS (optical spec.) 10 m Keck LWS, NIRC, and NIRSPEC (near- & mid- IR imaging & spec.) 8.1 m Gemini Altair/Laser (laser guide star adaptive optics) 8.1 m Gemini Queue Observer (optical, near- and mid- IR imaging & spec.) 6.5 m Baade Telescope, PANIC (near-infrared imaging) 5.1 m Palomar PALAO (adaptive optics imaging)	

Teaching and Mentoring Experience	In the Fall of 2014 I co-taught an upper level undergraduate class with about 15 students in Comparative Planetology at UH Hilo focusing primarily on the outer solar system, planet formation and planetary surfaces of minor bodies. As a graduate student at UH, I was the Teaching Assistant for two Astronomy 110 courses. My responsibilities included grading homework and exams, holding office hours, and conducting lectures during professor absence. About 75 students enrolled in the courses. At Caltech, I worked closely with postdocs and graduate students of Mike Brown in Planetary Science. I have worked with several undergraduate and graduate students at the Keck, Palomar 60-inch and 200-inch telescopes on various programs from Kuiper belt object recovery and colors to adaptive optics imaging of Kuiper belt objects and asteroids during appulse events. I have hosted a UH Hilo undergraduate summer intern working on the Deep Impact Mission at Gemini Observatory as part of the Center for Adaptive Optics (CfAO) Internship Program. As an Astronomer at Gemini and through Gemini's mentoring program, I have been a mentor to two Science Fellows, have assisted in the training of many queue observers and interacted on a daily basis with junior staff members.
Outreach	I have contributed articles to the World Book Encyclopedia (2002, 2006, 2011) on the Kuiper belt, figures for a Sky and Telescope article on the Kuiper belt (August 2002), Quaoar (December 2002) and the three largest Kuiper belt objects (2005). I have given invited public lectures at several universities and facilities including Sonoma State University (2003), UC Boulder (2005), University of Hawaii at Hilo (2005, 2014), University of Arizona (2010) and the 'Imiloa Astronomy Center of Hawai'i (2006 and 2010). I have also spoken to groups from the Planetary Society visiting Hawaii (2009 and 2010). I have spoken to high school students as part of the Caltech Center for the Science and Engineering of Materials outreach program for minority youth (2002). I was a member of the Caltech Postdoc Outreach Committee which participated in summer programs for Minority High School Students (2002). I have given five guest lectures at Oak Park and River High School, including an address of the entire student body (2004). I have also given a guest lecture and met with minority high school students of the Saturday Academy for Space Science at Chicago State University (2004). In 2006, I had the fortune to participate in granting a wish for a Make-A-Wish Foundation child. I have also written and contributed numerous articles coordinated by Gemini's Public Information Outreach department for Gemini users, the public, and news media. I have talked to elementary school children about solar system science as part of Journey Through the Universe (2015), an outreach event in Hilo designed to reach students of all levels prior to college.
Awards	2015, AURA Service Award for Science 2005, Science Spectrum Magazine Trailblazer 2004, Oak Park and River Forest High School Tradition of Excellence 1997, Achievement Rewards for College Scientists (ARCS) Scholarship
Computing	Proficient at UNIX/Linux, Mac OS X, IDL, C & C++, L ^A T _E X, Mathematica, HTML, IRAF, and Perl.
Marital	Married, one son.
Hobbies	Outdoor photography, running, outrigger canoeing, surfing, hiking, and cooking.

Refereed Publications

1. Grundy, W. M., S. B. Porter, S. D. Benecchi, H. G. Roe, K. S. Noll, **Trujillo, C. A.**, A. Thirouin, J. A. Stansberry, E. Barker, and H. F. Levison 2015. The mutual orbit, mass, and density of the large transneptunian binary system Varda and Ilmarë. *Icarus* **257**, 130–138.
2. Sheppard, S. S., and **Trujillo, C.** 2015. Discovery and Characteristics of the Rapidly Rotating Active Asteroid (62412) 2000 SY178 in the Main Belt. *Astronomical Journal* **149**, 44.
3. de Pater, I., A. G. Davies, A. McGregor, **Trujillo, C.**, M. Ádámkovics, G. J. Veeder, D. L. Matson, and G. Leone 2014. Global near-IR maps from Gemini-N and Keck in 2010, with a special focus on Janus Patera and Kanehekili Fluctus. *Icarus* **242**, 379–395.
4. Neichel, B., et al. 2014. Gemini multiconjugate adaptive optics system review - II. Commissioning, operation and overall performance. *Monthly Notices of the Royal Astronomical Society* **440**, 1002–1019.
5. Hsieh, H. H., et al. 2014. Search for the Return of Activity in Active Asteroid 176P/LINEAR. *Astronomical Journal* **147**, 89.
6. **Trujillo, C. A.**, and S. S. Sheppard 2014. A Sedna-like body with a perihelion of 80 astronomical units. *Nature* **507**, 471–474.
7. Fraser, W. C., S. Gwyn, **Trujillo, C.**, A. W. Stephens, J. J. Kavelaars, M. E. Brown, F. B. Bianco, R. P. Boyle, M. J. Brucker, N. Hetherington, M. Joner, W. C. Keel, P. P. Langill, T. Lister, R. J. McMillan, and L. Young 2013. Kuiper Belt Occultation Predictions. *Publications of the Astronomical Society of the Pacific* **125**, 1000–1014.
8. Fraser, W. C., **C. Trujillo**, A. W. Stephens, G. Gimeno, M. E. Brown, S. Gwyn, and J. J. Kavelaars 2013. Limits on Quaoar's Atmosphere. *Astrophysical J. Letters* **774**, L18.
9. Heldmann, J. L., et al. 2012. LCROSS (Lunar Crater Observation and Sensing Satellite) Observation Campaign: Strategies, Implementation, and Lessons Learned. *Space Science Reviews* **167**, 93–140.
10. Hsieh, H. H., et al. 2012. Discovery of Main-belt Comet P/2006 VW₁₃₉ by Pan-STARRS1. *Astrophysical J. Letters* **748**, L15.
11. Sheppard, S. S., D. Ragozzine, and **C. Trujillo** 2012. 2007 TY430: A Cold Classical Kuiper Belt Type Binary in the Plutino Population. *Astronomical J.* **143**, 58.
12. Sheppard, S. S., A. Udalski, **C. Trujillo**, M. Kubiak, G. Pietrzynski, R. Poleski, I. Soszynski, M. K. Szymański, and K. Ulaczyk 2011. A Southern Sky and Galactic Plane Survey for Bright Kuiper Belt Objects. *Astronomical J.* **142**, 98.
13. **Trujillo, C. A.**, S. S. Sheppard, and E. L. Schaller 2011. A Photometric System for Detection of Water and Methane Ices on Kuiper Belt Objects. *Astrophysical J.* **730**, 105–117.
14. Sheppard, S. S., and **C. A. Trujillo** 2010b. The Size Distribution of the Neptune Trojans and the Missing Intermediate-sized Planetesimals. *Astrophysical J. Letters* **723**, L233–L237.
15. Sheppard, S. S., and **C. A. Trujillo** 2010a. Detection of a Trailing (L5) Neptune Trojan. *Science* **329**, 1304.

16. Sheppard, S. S., and **C. A. Trujillo** 2009. A survey for satellites of Venus. *Icarus* **202**, 12–16.
17. **Trujillo, C. A.** 2008. *Future Surveys of the Kuiper Belt*, pp. 573–585. The Solar System Beyond Neptune.
18. Doressoundiram, A., H. Boehnhardt, S. C. Tegler, and **C. Trujillo** 2008. *Color Properties and Trends of the Transneptunian Objects*, pp. 91–104. The Solar System Beyond Neptune.
19. Cook, J. C., S. J. Desch, T. L. Roush, **C. A. Trujillo**, and T. R. Geballe 2007. Near-Infrared Spectroscopy of Charon: Possible Evidence for Cryovolcanism on Kuiper Belt Objects. *Astrophysical J.* **663**, 1406–1419.
20. **Trujillo, C. A.**, M. E. Brown, K. M. Barkume, E. L. Schaller, and D. L. Rabinowitz 2007. The Surface of 2003 EL₆₁ in the Near-Infrared. *Astrophysical J.* **655**, 1172–1178.
21. Brown, M. E., K. M. Barkume, G. A. Blake, E. L. Schaller, D. L. Rabinowitz, H. G. Roe, and **C. A. Trujillo** 2007. Methane and Ethane on the Bright Kuiper Belt Object 2005 FY9. *Astronomical J.* **133**, 284–289.
22. Harker, D. E., C. E. Woodward, D. H. Wooden, R. S. Fisher, and **C. A. Trujillo** 2007. Gemini-N mid-IR observations of the dust properties of the ejecta excavated from Comet 9P/Tempel 1 during Deep Impact. *Icarus* **191**, 432–453.
23. Schaller, E. L., M. E. Brown, H. G. Roe, A. H. Bouchez, and **C. A. Trujillo** 2006. Dissipation of Titan’s south polar clouds. *Icarus* **184**, 517–523.
24. Sheppard, S. S., and **C. A. Trujillo** 2006. A Thick Cloud of Neptune Trojans and Their Colors. *Science* **313**, 511–514.
25. Witasse, O., et al. 2006. Overview of the coordinated ground-based observations of Titan during the Huygens mission. *Journal of Geophysical Research (Planets)* **111**, 7.
26. Brown, M. E., E. L. Schaller, H. G. Roe, D. L. Rabinowitz, and **C. A. Trujillo** 2006. Direct Measurement of the Size of 2003 UB313 from the Hubble Space Telescope. *Astrophysical J. Letters* **643**, L61–L63.
27. Brown, M. E., M. A. van Dam, A. H. Bouchez, D. Le Mignant, R. D. Campbell, J. C. Y. Chin, A. Conrad, S. K. Hartman, E. M. Johansson, R. E. Lafon, D. L. Rabinowitz, P. J. Stomski, Jr., D. M. Summers, **C. A. Trujillo**, and P. L. Wizinowich 2006. Satellites of the Largest Kuiper Belt Objects. *Astrophysical J. Letters* **639**, L43–L46.
28. Rabinowitz, D. L., K. Barkume, M. E. Brown, H. Roe, M. Schwartz, S. Tourtellotte, and **C. Trujillo** 2006. Photometric Observations Constraining the Size, Shape, and Albedo of 2003 EL₆₁, a Rapidly Rotating, Pluto-sized Object in the Kuiper Belt. *Astrophysical J.* **639**, 1238–1251.
29. Brown, M. E., **C. A. Trujillo**, and D. L. Rabinowitz 2005. Discovery of a Planetary-sized Object in the Scattered Kuiper Belt. *Astrophysical J. Letters* **635**, L97–L100.
30. Roe, H. G., M. E. Brown, E. L. Schaller, A. H. Bouchez, and **C. A. Trujillo** 2005. Geographic Control of Titan’s Mid-Latitude Clouds. *Science* **310**, 477–479.
31. Meech, K. J., et al. 2005. Deep Impact: Observations from a Worldwide Earth-Based Campaign. *Science* **310**, 265–269.

32. Brown, M. E., A. H. Bouchez, D. Rabinowitz, R. Sari, **C. A. Trujillo**, M. van Dam, R. Campbell, J. Chin, S. Hartman, E. Johansson, R. Lafon, D. Le Mignant, P. Stomski, D. Summers, and P. Wizinowich 2005. Keck Observatory Laser Guide Star Adaptive Optics Discovery and Characterization of a Satellite to the Large Kuiper Belt Object 2003 EL₆₁. *Astrophysical J. Letters* **632**, L45–L48.
33. **Trujillo, C. A.**, M. E. Brown, D. L. Rabinowitz, and T. R. Geballe 2005. Near-Infrared Surface Properties of the Two Intrinsically Brightest Minor Planets: (90377) Sedna and (90482) Orcus. *Astrophysical J.* **627**, 1057–1065.
34. Roe, H. G., A. H. Bouchez, **C. A. Trujillo**, E. L. Schaller, and M. E. Brown 2005. Discovery of Temperate Latitude Clouds on Titan. *Astrophysical J. Letters* **618**, L49–L52.
35. Brown, M. E., **C. Trujillo**, and D. Rabinowitz 2004. Discovery of a Candidate Inner Oort Cloud Planetoid. *Astrophysical J.* **617**, 645–649.
36. Brown, M. E., and **C. A. Trujillo** 2004. Direct Measurement of the Size of the Large Kuiper Belt Object (50000) Quaoar. *Astronomical J.* **127**, 2413–2417.
37. **Trujillo, C. A.**, and M. E. Brown 2003. The Caltech Wide Area Sky Survey. *Earth Moon and Planets* **92**, 99–112.
38. **Trujillo, C. A.**, and M. E. Brown 2002. A Correlation between Inclination and Color in the Classical Kuiper Belt. *Astrophysical J. Letters* **566**, L125–L128.
39. **Trujillo, C. A.**, J. X. Luu, A. S. Bosh, and J. L. Elliot 2001. Large Bodies in the Kuiper Belt. *Astronomical J.* **122**, 2740–2748.
40. **Trujillo, C. A.**, D. C. Jewitt, and J. X. Luu 2001. Properties of the Trans-Neptunian Belt: Statistics from the Canada-France-Hawaii Telescope Survey. *Astronomical J.* **122**, 457–473.
41. **Trujillo, C. A.**, and M. E. Brown 2001. The Radial Distribution of the Kuiper Belt. *Astrophysical J. Letters* **554**, L95–L98.
42. Sheppard, S. S., D. C. Jewitt, **C. A. Trujillo**, M. J. I. Brown, and M. C. B. Ashley 2000. A Wide-Field CCD Survey for Centaurs and Kuiper Belt Objects. *Astronomical J.* **120**, 2687–2694.
43. Jewitt, D. C., **C. A. Trujillo**, and J. X. Luu 2000. Population and Size Distribution of Small Jovian Trojan Asteroids. *Astronomical J.* **120**, 1140–1147.
44. Luu, J. X., D. C. Jewitt, and **C. Trujillo** 2000. Water Ice in 2060 Chiron and Its Implications for Centaurs and Kuiper Belt Objects. *Astrophysical J. Letters* **531**, L151–L154.
45. **Trujillo, C. A.**, D. C. Jewitt, and J. X. Luu 2000. Population of the Scattered Kuiper Belt. *Astrophysical J. Letters* **529**, L103–L106.
46. **Trujillo, C. A.** 2000. *Wide-field investigation of the Kuiper Belt*. Ph. D. thesis, University of Hawaii.
47. Jewitt, D., J. Luu, and **C. Trujillo** 1998. Large Kuiper Belt Objects: The Mauna Kea 8K CCD Survey. *Astronomical J.* **115**, 2125–2135.
48. **Trujillo, C.**, and D. Jewitt 1998. A Semiautomated Sky Survey for Slow-moving Objects Suitable for a Pluto Express Mission Encounter. *Astronomical J.* **115**, 1680–1687.

49. Luu, J., B. G. Marsden, D. Jewitt, **C. A. Trujillo**, C. W. Hergenrother, J. Chen, and W. B. Offutt
1997. A New Dynamical Class in the Trans-Neptunian Solar System. *Nature* **387**, 573–575.

Unrefereed Publications and Conference Presentations

1. Tholen, D. J., S. S. Sheppard, and **Trujillo, C. A.** 2015. Evidence for an Impact Event on (493) Griseldis. In *AAS/Division for Planetary Sciences Meeting Abstracts*, Volume 47 of *AAS/Division for Planetary Sciences Meeting Abstracts*, pp. #414.03.
2. **Trujillo, C. A.**, D. J. Tholen, and S. S. Sheppard 2015. Deep Surveys for Inner Oort Cloud Objects. In *AAS/Division for Planetary Sciences Meeting Abstracts*, Volume 47 of *AAS/Division for Planetary Sciences Meeting Abstracts*, pp. #211.11.
3. Sheppard, S. S., **Trujillo, C.**, and D. Tholen 2015. Searching for Extreme Kuiper Belt Objects and Inner Oort Cloud Objects. In *AAS/Division for Planetary Sciences Meeting Abstracts*, Volume 47 of *AAS/Division for Planetary Sciences Meeting Abstracts*, pp. #203.07.
4. Sivo, G., et al. 2015. On-sky validation of an optimal LQG control with vibration mitigation: from the CANARY Multi-Object Adaptive Optics demonstrator to the Gemini Multi-Conjugated Adaptive Optics facility. In *American Astronomical Society Meeting Abstracts*, Volume 225 of *American Astronomical Society Meeting Abstracts*, pp. #413.07.
5. **Trujillo, C. A.**, and S. S. Sheppard 2014. Sedna, 2012 VP113 and the Inner Oort Cloud Population. In *AAS/Division for Planetary Sciences Meeting Abstracts*, Volume 46 of *AAS/Division for Planetary Sciences Meeting Abstracts*, pp. #507.09.
6. Sheppard, S. S., and **Trujillo, C. A.** 2014. Discovery of the Fast Spinning Main Belt Comet (62412) 2000 SY178. In *AAS/Division for Planetary Sciences Meeting Abstracts*, Volume 46 of *AAS/Division for Planetary Sciences Meeting Abstracts*, pp. #200.03.
7. Carrasco, E. R., et al. 2014. GeMS/GSAOI: from commissioning to operations and science results. In *Revista Mexicana de Astronomia y Astrofisica Conference Series*, Volume 44 of *Revista Mexicana de Astronomia y Astrofisica*, vol. 27, pp. 208–208.
8. Garrel, V., et al. 2014. Life with quintuplets: transitioning GeMS into regular operations. In *Society of Photo-Optical Instrumentation Engineers (SPIE) Conference Series*, Volume 9148 of *Society of Photo-Optical Instrumentation Engineers (SPIE) Conference Series*, pp. 29.
9. Lai, O., J.-P. Véran, G. Herriot, J. White, J. Ball, and **Trujillo, C.** 2014. Altair performance and upgrades. In *Society of Photo-Optical Instrumentation Engineers (SPIE) Conference Series*, Volume 9148 of *Society of Photo-Optical Instrumentation Engineers (SPIE) Conference Series*, pp. 38.
10. Sheppard, S., and **Trujillo, C.** 2014. Inner Oort Cloud survey and the discovery of 2012 VP₁₁₃. In K. Muinonen, A. Penttilä, M. Granvik, A. Virkki, G. Fedorets, O. Wilkman, and T. Kohout (Eds.), *Asteroids, Comets, Meteors 2014*, pp. 487.
11. Roth, K., G. Gimeno, R. Murowinski, S. Kleinman, **Trujillo, C. A.**, and O. Lai 2014. Gemini Multi-Object Spectrograph Upgrades: Hamamatsu CCDs and AO. In *American Astronomical Society Meeting Abstracts*, Volume 223 of *American Astronomical Society Meeting Abstracts*, pp. #148.16.
12. Neichel, B., et al. 2013. GeMS first science results. In S. Esposito and L. Fini (Eds.), *Proceedings of the Third AO4ELT Conference*.
13. Guesalaga, A., P. Haguenauer, F. Gonte, J. O'Neal, B. Neichel, O. L. Lai, **Trujillo, C.**, and D. Guzman 2013. Estimating the reduction of vibrations in MACAO and ALTAIR AO sys-

- tems using H₂ control synthesis. In S. Esposito and L. Fini (Eds.), *Proceedings of the Third AO4ELT Conference*.
14. Trujillo, C., et al. 2013. Altair at Gemini North: Full Sky Coverage Laser AO Correction at Visible Wavelengths. In S. Esposito and L. Fini (Eds.), *Proceedings of the Third AO4ELT Conference*.
 15. Vidal, F., et al. 2013. GeMS: from the on-sky experimental system to science operation. The AO point of view. In S. Esposito and L. Fini (Eds.), *Proceedings of the Third AO4ELT Conference*.
 16. Fraser, W., S. Gwyn, Trujillo, C., M. E. Brown, J. Kavelaars, A. Stephens, and G. Gimeno 2013. Predicting Occultations by Kuiper Belt Objects. In *AAS/Division for Planetary Sciences Meeting Abstracts*, Volume 45 of *AAS/Division for Planetary Sciences Meeting Abstracts*, pp. #511.09.
 17. Trujillo, C. A., and S. S. Sheppard 2013. A Search for Extremely Distant Sedna-Like Objects Using DECam. In *AAS/Division for Planetary Sciences Meeting Abstracts*, Volume 45 of *AAS/Division for Planetary Sciences Meeting Abstracts*, pp. #511.05.
 18. Sheppard, S. S., and Trujillo, C. 2013. Beyond the Kuiper Belt Edge: Sednoids and the Inner Oort Cloud. In *AAS/Division for Planetary Sciences Meeting Abstracts*, Volume 45 of *AAS/Division for Planetary Sciences Meeting Abstracts*, pp. #511.04.
 19. Neichel, B., et al. 2013. First On-sky Results with GeMS, the Gemini Multi-conjugate AO System. In *American Astronomical Society Meeting Abstracts*, Volume 221 of *American Astronomical Society Meeting Abstracts*, pp. #439.06.
 20. Grundy, W. M., K. S. Noll, H. G. Roe, S. B. Porter, C. A. Trujillo, S. D. Benecchi, and M. W. Buie 2012. Mutual Orbits of Transneptunian Binaries. In *AAS/Division for Planetary Sciences Meeting Abstracts*, Volume 44 of *AAS/Division for Planetary Sciences Meeting Abstracts*, pp. #405.09.
 21. Trujillo, C. A. 2012. Invited Speaker: Ices on Minor Planets and Dwarf Planets as Seen Through Gemini. *Gemini Science Meeting 2012, July 17-20, San Francisco*.
 22. Neichel, B., et al. 2012a. Science readiness of the Gemini MCAO System: GeMS. In *Society of Photo-Optical Instrumentation Engineers (SPIE) Conference Series*, Volume 8447 of *Society of Photo-Optical Instrumentation Engineers (SPIE) Conference Series*.
 23. Christou, J. C., M. Bocca, A. Ebbers, R. M. McDermid, R. Oram, C. Trujillo, and B. Walls 2012. Increasing sky coverage with the Gemini North ALTAIR/LGS AO system. In *Society of Photo-Optical Instrumentation Engineers (SPIE) Conference Series*, Volume 8447 of *Society of Photo-Optical Instrumentation Engineers (SPIE) Conference Series*.
 24. d'Orgeville, C., et al. 2012. Gemini South multi-conjugate adaptive optics (GeMS) laser guide star facility on-sky performance results. In *Society of Photo-Optical Instrumentation Engineers (SPIE) Conference Series*, Volume 8447 of *Society of Photo-Optical Instrumentation Engineers (SPIE) Conference Series*.
 25. Neichel, B., et al. 2012b. Science readiness of the Gemini MCAO system: GeMS. In *Society of Photo-Optical Instrumentation Engineers (SPIE) Conference Series*, Volume 8447 of *Society of Photo-Optical Instrumentation Engineers (SPIE) Conference Series*.
 26. Rigaut, F., et al. 2012. GeMS: first on-sky results. In *Society of Photo-Optical Instrumentation Engineers (SPIE) Conference Series*, Volume 8447 of *Society of Photo-Optical Instrumentation Engineers (SPIE) Conference Series*.

27. Hsieh, H. H., et al. 2012. Discovery of Main-Belt Comet P/2006 VW139 by Pan-STARRS1. *LPI Contributions* **1667**, 6313.
28. Schiavon, R. P., et al. 2012. GNOMOS: The Gemini NIR-Optical Multi Object Spectrograph. *ArXiv e-prints*.
29. Sheppard, S. S., D. Ragozzine, and C. Trujillo 2011. 2007 TY430: An Ultra-Red, High Albedo, Low Density, Wide, Equal Sized Plutino Binary. In *EPSC-DPS Joint Meeting 2011*, pp. 1309.
30. Grundy, W. M., S. D. Benecchi, M. W. Buie, K. S. Noll, S. B. Porter, H. G. Roe, J. A. Stansberry, and C. A. Trujillo 2011. A New NOAO Survey Program: Mutual Orbits and Masses of Kuiper Belt Binaries. In *EPSC-DPS Joint Meeting 2011*, pp. 1078.
31. Trujillo, C., S. Sheppard, and E. Schaller 2011. A Photometric System for Detection of Water and Methane Ices on Kuiper Belt Objects. In *EPSC-DPS Joint Meeting 2011*, pp. 545.
32. Poleski, R., S. S. Sheppard, A. Udalski, C. Trujillo, M. Kubiak, G. Pietrzynski, I. Soszynski, M. K. Szymanski, and K. Ulaczyk 2011. A Southern Sky and Galactic Plane Survey for Bright Kuiper Belt Objects. In *AAS/Division of Dynamical Astronomy Meeting #42*, pp. 1007.
33. Sheppard, S. S., A. Udalski, C. Trujillo, OGLE Team, M. Kubiak, G. Pietrzynski, R. Poleski, I. Soszynski, M. Szymanski, and K. Ulaczyk 2010. A Southern Sky and Galactic Plane Survey for Bright Kuiper Belt Objects. In *AAS/Division for Planetary Sciences Meeting Abstracts #42*, Volume 42 of *Bulletin of the American Astronomical Society*, pp. 992.
34. McDermid, R. M., D. Krajnovic, M. Cappellari, C. Trujillo, J. Christou, and R. L. Davies 2010. Weighing black holes using open-loop focus corrections for LGS-AO observations of galaxy nuclei at Gemini Observatory. In *Society of Photo-Optical Instrumentation Engineers (SPIE) Conference Series*, Volume 7736 of *Society of Photo-Optical Instrumentation Engineers (SPIE) Conference Series*.
35. Christou, J. C., B. Neichel, F. Rigaut, M. Sheehan, R. M. McDermid, G. Tranco, C. Trujillo, and B. Walls 2010. ALTAIR performance and updates at Gemini North. In *Society of Photo-Optical Instrumentation Engineers (SPIE) Conference Series*, Volume 7736 of *Society of Photo-Optical Instrumentation Engineers (SPIE) Conference Series*.
36. Roth, K., A. W. Stephens, C. A. Trujillo, R. M. McDermid, C. E. Woodward, B. D. Walls, D. M. Coulson, A. C. Matulonis, J. G. Ball, and D. H. Wooden 2010. Observations Of The LCROSS Impact With NIFS On The Gemini North Telescope. In *American Astronomical Society Meeting Abstracts #215*, Volume 36 of *Bulletin of the American Astronomical Society*, pp. #605.01.
37. Trujillo, C. A., S. S. Sheppard, and E. L. Schaller 2009. Primordial Ices In The Kuiper Belt. In *AAS/Division for Planetary Sciences Meeting Abstracts #41*, Volume 41 of *AAS/Division for Planetary Sciences Meeting Abstracts*, pp. #62.07.
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