

# Katherine Brutlag Follette, PhD

Assistant Professor of Astronomy  
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## EDUCATION

- Ph.D. in Astronomy**, Steward Observatory, University of Arizona 2014  
*Dissertation Title:* " Filling in the Gaps: Illuminating (a) Clearing Mechanisms in Transitional Protoplanetary Disks and (b) Quantitative Illiteracy Among Undergraduate Science Students"  
*Advisors:* Prof. Laird Close, Prof. Don McCarthy  
*Minor:* Planetary Sciences
- M.S. in Astronomy**, Steward Observatory, University of Arizona 2010
- Certificate in College Teaching**, University of Arizona 2010
- B.A. in Physics and Japanese Studies**, Middlebury College 2004  
*Magna cum laude*, with honors in Physics
- Universe Semester Program**, Columbia University 2003

## RESEARCH EXPERIENCE

- Postdoctoral Scholar**, Stanford University 2015-2016  
Supervisor: Prof. Bruce Macintosh  
*Gemini Planet Imager Exoplanet Survey Team* (ongoing through 2018)
- PhD Student**, Steward Observatory 2008-2014  
Advisor: Prof. Laird Close  
*Magellan Adaptive Optics Team*  
**Principal Investigator** - Giant Accreting Protoplanet Survey (GAPplanetS, ongoing through 2017)
- Visiting NSF Fellow**, National Astronomical Observatory of Japan 2011  
Advisor: Prof. Motohide Tamura  
*Strategic Exploration of Exoplanets and Disks with Subaru (SEEDS) Team*
- Undergraduate Honors Thesis** 2003-2004  
Advisor: Prof. Frank Winkler  
Title: "Optical Spectroscopy of the NW Shock Front in SN1006"
- Research Experience for Undergraduates Program** 2003  
Arkansas-Oklahoma Center for Space and Planetary Sciences  
Advisor: Dr. Derek Sears

## TEACHING EXPERIENCE

- Assistant Professor**, Amherst College, Amherst, MA 2017-present  
Beginning Spring, 2017  
Courses Taught:  
Practical Astronomy (AST 200) Spring, 2017
- Adjunct Instructor**, Pima Community College, Tucson, AZ 2009-2014  
Courses Taught:  
Stars, Galaxies Universe (AST102IN) Fall 2009, Spring 2010, Spring 2011, Spring 2014  
Solar System (AST101IN) Fall 2011, Spring 2012

<b>"Re-Numerate" Faculty Workshop Leader/Designer</b>	2010-present
<b>Founder, University of Arizona College of Science Teaching Assistant Training</b>	2013, 2014
<b>Instructor and Department Head, Fusion Academy, Solana Beach, CA</b>	2006-2008
<b>Course Instructor and Tutor, Kaplan Test Prep, San Diego, CA and Minneapolis, MN</b>	2006-2007
<b>Graduate Teaching Assistant, ASTR250: Fundamentals of Astronomy, University of Arizona</b>	2014
<b>Graduate Teaching Assistant, NATS102: The Physical Universe, University of Arizona</b>	2010
<b>Undergraduate Teaching Assistant, PHYS155: Intro to the Universe, Middlebury College</b>	2001-2004

## FELLOWSHIPS, GRANTS AND AWARDS

<b>NASA Sagan Fellowship, Stanford University</b>	2016
<b>NSF Astronomy and Astrophysics Postdoctoral Fellowship (declined)</b>	2016
<b>College of Science Service Award, University of Arizona</b>	2014
<b>NSF Transforming Undergraduate Education in STEM Grant Co-PI</b>	2012-2016
<b>NASA Origins of Solar Systems Grant Co-Investigator</b>	2013-2017
<b>TRIF Imaging Fellowship, University of Arizona</b>	2012-2013
<b>NSF Graduate Research Fellowship, University of Arizona</b>	2009-2012
<b>NASA FameLab Astrobiology Science Communication Competition (famelab-eeb.arc.nasa.gov)</b>	2012
<b>YouTube Competition Winner</b>	
<b>National Finalist (1 of 10)</b>	
<b>College of Science Teaching Award, University of Arizona</b>	2011
<b>NSF East Asian and Pacific Studies Fellowship, National Astronomical Observatory of Japan</b>	2011
<b>College of Science Fellowship, University of Arizona</b>	2008-2009
<b>J. William Fulbright Fellowship, Kyoto University</b>	2004-2005

## TELESCOPE OBSERVING EXPERIENCE

Magellan 6.5m (\*VisAO, \*Clio2), Large Binocular Telescope 8.4m (\*Pisces, \*LMIRCam), Subaru 8.4m (HiCIAO), MMT 6.4m (\*Clio, \*Clio2), Steward Bok 2.3m (\*B&C Spectrograph), CTIO 1.5m (RC Spectrograph), Gemini South (GPI) \*Principal Investigator

## MENTORING AND OUTREACH EXPERIENCE

<b>Mentor, Stanford Summer Physics Research Program</b>	2015-2016
<b>Instructional Specialist, Astronomy Camp (<a href="http://astronomycamp.org">http://astronomycamp.org</a>)</b>	2010-present
<i>Lead Mentor for Spectroscopy Projects</i>	2013-2014
Published Supernova Classifications (using Bok 90" Telescope):	
2016 Astronomer's Telegram (ATEL) 9173, 9171	
2015 ATEL 7675, 7680, 7690, 7707	
2014 ATEL 6303, 6264, 6263, 6255	
2014 Central Bureau for Astronomical Telegrams (CBET) 3910, 3911	
2013 ATEL 5176	
2013 CBET 3573, 3571	
<b>Project Leader/Designer, University of Arizona Undergraduate Astronomy Club</b>	2012
<b>Mentor, Tucson Women in Astronomy</b>	2009-2014
<b>Astronomer, National Optical Astronomy Observatory Project ASTRO</b>	2008-2013

Workshop Organizer, Expanding Your Horizons Conference

2011-2012

## PROFESSIONAL/UNIVERSITY SERVICE

Advisory Board Member (elected), National Numeracy Network

2014-present

University of Arizona Provost's Task Force on Teaching Quality

2014

Exoplanets, Biosignatures and Instruments Conference, Local Organizing Committee

2013-2014

Tucson Women in STEM, President and Founder

2013-2014

University of Arizona College of Science Graduate Council, President (2012-13)

2008-2014

Steward Observatory Graduate Student Council, Fundraising Chair

2012-2014

## SELECTED SCIENCE RESEARCH PUBLICATIONS

See comprehensive list at end of CV

1. **Follette, K.B.** et al. 2017. *Complex Spiral Structure in the HD 100546 Transitional Disk as Revealed by GPI and MagAO*. AJ, in press
2. Rameau, J., **Follette, K.B.** et al. 2017. *An Optical/near-infrared investigation of HD 100546 b with the Gemini Planet Imager and MagAO*. AJ, in press.
3. Sallum, S., **Follette, K.B.** et al. 2015. *Accreting protoplanets in the LkCa 15 transition disk*. **Nature**, 527, 342S.
4. **Follette, K.B.** et al 2015, "Asymmetric Scattered Light Adaptive Optics Imaging of the Oph IRS 48 Transitional Disk", *Astrophysical Journal*, 798, 132F.
5. Close, L.M., **Follette, K.B.** et al, 2014, "Discovery of H-Alpha Emission from the Close Companion inside the Gap of Transitional Disk HD142527", *Astrophysical Journal Letters*, 781L, 30C.
6. Rodigas, T.J., **Follette, K.B.** et al, 2014, "Polarized Light Imaging of the HD 142527 Transition Disk with the Gemini Planet Imager: Duse Around the Close-In Companion", *Astrophysical Journal Letters*, 79, 37R
7. **Follette, K.B.** et al, 2013B, "The First Circumstellar Disk Imaged in Silhouette at Visible Wavelengths with Adaptive Optics: MagAO Imaging of Orion 218-354", *Astrophysical Journal Letters*, 775, L13.
8. **Follette, K.B.** et al, 2013A, "The SR21 Transitional Disk Imaged in Scattered Polarized Light at H-band with Adaptive Optics", *Astrophysical Journal*, 767, 10F.
9. Dong, R., Rafikov, R., Zhu, Z., Hartmann, L., Whitney, B., Brandt, T., Muto, T., Hashimoto, J., Grady, C., **Follette, K.** et al. 2012, "The Missing Cavities In The SEEDS Polarized Scattered Light Images Of Transitional Protoplanetary Disks I: A Generic Disk Model." *Astrophysical Journal*, 750, 161D.
10. **Follette, K.B.** et al, 2010, "The First VisAO-Fed Integral Field Spectrograph: VisAO IFS", *Proc. Society of Photo-optical Instrumentation Engineers*, Vol. 7735, 77351P.

## EDUCATIONAL RESEARCH PUBLICATIONS

1. **Follette K.B.** et al. 2017, "The Quantitative Reasoning for College Science (QuaRCS) Assessment 2: Demographic, Academic and Attitudinal Variables as Predictors of Quantitative Ability", *Numeracy*, Vol. 10: Iss. 1, Article 5.
2. **Follette, K.B.**, et al. 2015, "The Quantitative Reasoning for College Science (QuaRCS) Assessment 1: Development and Validation", *Numeracy*, Vol. 8: Iss. 2, Article 2.
3. **Follette, K.B.** and McCarthy D., 2014, "Science Literacy's Neglected Twin: Numeracy", *Astronomical Society of the Pacific Conference Series*, 483, 31F.
4. McCarthy, D. and **Follette, K.B.**, 2013, "Re-Numerate: A Workshop to Restore Essential Numerical Skills and Thinking via Astronomy Education", *Astronomical Society of the Pacific Conference Series*, 473, 79M.

5. **Follette, K.B.** and McCarthy, D., 2012, "An Informed Approach to Improving Quantitative Literacy and Mitigating Math Anxiety in Undergraduates Through Introductory Science Courses.", *Astronomical Society of the Pacific Conference Series*, 457, 295F.

## **PUBLICATIONS IN PREPARATION AND UNDER REVIEW**

1. **Follette, K.B.** et al. 2017, "Confirmation of H-alpha Emission of the LkCa 15 b Protoplanet and Detection of LkCa 15c", in prep.
2. **Follette, K.B.** et al. 2017, "Results of the MagAO Giant Accreting Protoplanet Survey", in prep.

## **OP EDS, BLOGS AND MEDIA COVERAGE**

1. **Follette, K.** and McCarthy, D. "How We Serve (or Underserve) our Students Through 'Dumbing Down'", *Mercury Magazine*, Winter 2012.
2. **Follette, K.B.**, 2013. "The Road to Becoming an Exemplary College Science Teacher" (Invited Chapter), *Exemplary College Science Teaching*, Editor: Robert E Yager.
3. **Follette, K.**, 2010, "A Novice Instructor's Perspective on Learner-Centered Teaching Techniques", *Cosmos in the Classroom Conference Proceedings*.
4. "Inside the Black Box: Science, only Funnier" Radio Program 4/18/12
5. Women in Astronomy blog guest post "Encouraging Graduate Students to be Good Teachers and Better Communicators" 5/10/12

## **RECENT INVITED TALKS**

### *\*Public Talks*

- 2017 University of Massachusetts Amherst Colloquium
- 2016 "Exoplanets in the Era of EELTs", Asilomar, CA
- 2016 San Jose State University Colloquium
- 2016 University of California Santa Cruz Colloquium
- 2016 "Resolving Planet Formation in the Era of ALMA and Extreme AO", Santiago, Chile
- 2015 "In the Spirit of Lyot" Conference, Montreal
- 2015 Star and Planet Formation Seminar, University of California Berkeley
- 2015 \*Kavli Institute of Particle Astrophysics and Cosmology Open House, Stanford University
- 2014 Bay Area Exoplanet Meeting, SETI Institute
- 2013 **Plenary**, Astronomical Society of the Pacific Cosmos in the Classroom Conference
- 2013 Astronomy Seminar, California Institute of Technology
- 2012 Astronomy Seminar, University of Wisconsin Madison
- 2012 Physics Department Seminar, Middlebury College
- 2012 \*Sonoran Astronomical Society, Green Valley, AZ

## **PEDAGOGICAL TRAINING**

<b>Science Teaching through Art</b> , Stanford University	2015
<b>Alan Alda Center Communicating Science Workshop</b> , Stanford University	2015
<b>NASA FameLab Astrobiology Master Class in Science Communication</b>	2012
<b>Faculty Institute for NASA Earth and Space Science Education</b>	2010
<b>Certificate in College Teaching</b> , University of Arizona ( <a href="http://cct.oia.arizona.edu/">http://cct.oia.arizona.edu/</a> )	2010

## Publication List – Katherine B. Follette

### SCIENCE RESEARCH PUBLICATIONS (CHRONOLOGICAL)

#### Refereed Publications

1. **Follette, K.B.** et al. 2017. *Complex Spiral Structure in the HD 100546 Transitional Disk as Revealed by GPI and MagAO*. AJ, in press
2. Rameau, J., **Follette, K.B.** et al. 2017. *An Optical/near-infrared investigation of HD 100546 b with the Gemini Planet Imager and MagAO*. AJ, in press.
3. Johnson-Groh et al. 2017. *Integral Field Spectroscopy of the Low-mass Companion HD 984 B with the Gemini Planet Imager*. AJ, 153, 190J.
4. Chilcote, J. et al. 2017. *1 to 2.4 Micron Near-IR Spectrum of the Giant Planet Beta Pictoris b Obtained with the Gemini Planet Imager*, ApJ, 153, 182C.
5. Kooistra, R. et al. 2017. *Radial Decoupling of Small and Large Dust Grains in the Transitional Disk RX J1615.3-3255*. A&A, 597A, 132K.
6. Nielsen, E. et al. 2016. *Dynamical Mass Measurement of the Young Spectroscopic Binary V343 Normae AaAb Resolved with Gemini Planet Imager*. ApJ, 152, 175.
7. Millar-Blanchaer, M. et al. 2017. *Imaging an 80 au Radius Dust Ring Around the F5V Star HD 157587*. ApJ, 152, 128.
8. Wang, J. et al. 2016. *The Orbit and Transit Prospects for Beta Pictoris b Constrained with One Millisecond Astrometry*. ApJ, 152, 97.
9. Konopacky, Q. et al. 2016. *Discovery of the Substellar Companion to the Nearby Debris Disk Host HR 2562*. ApJL, 829, 4.
10. Ohta, Y. et al. 2016. *Extreme Asymmetry in the Polarized Disk of V1247 Orionis*. PASJ, 68, 3.
11. Draper, Z. et al. 2016. *The Peculiar Debris Disk of HD 11520 as Resolved by the Gemini Planet Imager*. ApJ, 826, 147.
12. Morzinski, K.M., et al. 2015. *Magellan Adaptive Optics First-light Observations of the Exoplanet  $\beta$  Pic b. II. 3-5  $\mu$ m Direct Imaging with MagAO+Clio, and the Empirical Bolometric Luminosity of a Self-luminous Giant Planet*. ApJ, 815, 108M.
13. Sallum, S., **Follette, K.B.** et al. 2015. *Accreting protoplanets in the LkCa 15 transition disk*. **Nature**, 527, 342S.
14. Wu, Y.L. et al, 2016. *Magellan AO System Z, Y and L Observations of the Very Wide 650AU HD106906 Planetary System*. ApJ, 823, 24W.
15. Poyneer, L.A., Palmer, D.W., Macintosh, B., Savransky, D, Sadakuni, N., Thomas, S., Veran, J-P., **Follette, K.B.** et al. 2015 *Performance of the Gemini Planet Imager's Adaptive Optics System*. Applied Optics, 55, 323-340.
16. Kalas, P. et al. 2015, *Direct Imaging of an Asymmetric Debris Disk in the HD106906 Planetary System*, ApJ, 814, 32K.
17. DeRosa, R.J. et al. 2015. *Astrometric Confirmation and Preliminary Orbit Parameters of the Young Exoplanet 51 Eridani b with the Gemini Planet Imager*, ApJL, 814, 3D.
18. Macintosh, B. et al. 2015, *Discovery and Spectroscopy of the young Jovian planet 51 Eri b with the Gemini Planet Imager*, **Science**, 350, 6256. .
19. Millar-Blanchaer, M.A. et al. 2015. *Beta Pictoris' Inner Disk in Polarized Light and New Orbital Parameters for Beta Pictoris b*. ApJ, 811, 18M.
20. Rich, E.A. et al. 2015. *Near-IR Polarized Scattered Light Imagery of the DoAr 28 Transitional Disk*. ApJ, in press.
21. Momose, M. et al. 2015, *Detailed Structure of the Outer Disk Around HD169142 with Polarized Light in H-band*, PASJ, 67, 83M.
22. Wu, Y.-L., Close, L.M., Males, J.R., Barman, T.S., Morzinski, K.M., **Follette, K.B.** et al. 2015, *New Extinction and Mass Estimates of the Low-mass Companion 1RXS 1609B with the MagAO System: Evidence of an Inclined Dust Disk*. ApJ, 870L, 13W.

23. deLeon, J., et al. 2015, *Near-IR High-Resolution Imaging Polarimetry of the SU Aur Disk: Clues for Tidal Tails?* ApJ, 806L, 10D.
24. Sallum, S., Eisner, J.A., Close, L.M., Skemer, A.J., Bailey, V., Briguglio, R., **Follette, K.B.** et al. 2015, *New Spatially Resolved Observations of the T Cha Transition Disk and Constraints on the Previously Claimed Substellar Companion.* ApJ, 801, 85S.
25. Wu, Y.L., Close, L.M., Males, J.R., Barman, T.S., Morzinski, K.M., **Follette, K.B.**, et al. 2015. *New Extinction and Mass Estimates from Optical Photometry of the Very Low Mass Brown Dwarf Companion CT Chamaeleontis B with the MagAO System.* ApJ, 801, 4W.
26. Grady, C. et al. 2015. *The Outer Disk of Herbig Stars from the UV to NIR.* Ap&SS, 355, 253G.
27. **Follette, K.B.** et al 2015, *SEEDS Adaptive Optics Imaging of the Asymmetric Transition Disk Oph IRS 48 in Scattered Light.* ApJ, 798, 132F.
28. Rodigas, T.J. et al. 2014, *On the Morphology and Chemical Composition of the HR4796A Debris Disk,* ApJ, 798, 96R.
29. Currie, Thayne et al. 2014. *Recovery of the Candidate Protoplanet HD 100546 b with Gemini/NICI and Detection of Additional (Planet-induced?) Disk Structure at Small Separations.* ApJ, 796L, 30C.
30. Takami, M. et al. 2014, *Surface Geometry of Protoplanetary Disks Inferred From Near-Infrared Imaging Polarimetry,* ApJ, 795, 71T
31. Biller, B.A., Males, J.M., Rodigas, T.J., Morzinski, K.M., Close, L.M, Juhasz, A., **Follette, K.B.**, et al. 2014, *An Enigmatic Point-Like Feature within the HD 169142 Transitional Disk,* ApJL, 792, 22B
32. Skemer, A.J. et al. 2014. *Directly Imaged L-T Transition Exoplanets in the Mid-infrared.* ApJ, 792, 17S.
33. Rodigas, T.J., **Follette, K.B.** et al, 2014, *Polarized Light Imaging of the HD 142527 Transition Disk with the Gemini Planet Imager: Duse Around the Close-In Companion.* ApJ, 791L, 37R.
34. Males, J.R., Close, L.M., Morzinski, K.M., Wahhaj, Z., Liu, M.C., Kopon, D., **Follette, K.B.**, et al., 2013, *Magellan Adaptive Optics First-Light Observations of  $\beta$  Pic b. I. Direct Imaging of an Exoplanet with MagAO/VisAO and NICI,* ApJ, 786, 32M
35. Close, L.M., **Follette, K.B.** et al, 2013, *Discovery of H-Alpha Emission from the Close Companion inside the Gap of Transitional Disk HD142527,* 2014, ApJL, 781L, 30C.
36. Bailey, V. et al. 2014, *HD 106906 b: A Planetary-mass Companion Outside a Massive Debris Disk,* ApJL, 780L, 4B.
37. **Follette, K.B.** et al, 2013B, *The First Circumstellar Disk Imaged in Silhouette at Visible Wavelengths with Adaptive Optics: MagAO Imaging of Orion 218-354,* ApJL, 775, L13.
38. Close, L.M., Males, J.R., Morzinski, K., Kopon, D., **Follette, K.B.** et al, 2013, *Diffraction-Limited Visible Light Images of Orion Trapezium Cluster with the Magellan Adaptive Secondary Adaptive Optics System (MagAO),* ApJ, 774, 94C
39. Wu, Y.-L., Close, L.M., Males, J.R., **Follette, K.B.**, et al., 2013, *High Resolution H-Alpha Images of the Binary Low-mass Propylid LV1 With the Magellan AO system,* ApJ, 774, 45W.
40. Takami, M. et al. 2013, *High-contrast Near-infrared Polarimetry of the Protoplanetary Disk Around RY Tau,* ApJ, 772, 145T.
41. **Follette, K.B.** et al, 2013A, *Mapping H-band Scattered Light Emission in the Mysterious SR21 Transitional Disk,* ApJ, 767, 10F.
42. Grady, C.A. et al, 2013 *Spiral Arms in the Asymmetrically Illuminated Disk of MWC 758 and Constraints on Giant Planets,* ApJ, 762, 48G.
43. Mayama, S. et al. 2012, *Subaru Imaging of Asymmetric Features in a Transitional Disk in Upper Scorpius,* ApJ, 760L, 26M
44. Skemer, A. et al. 2012, *First Light LBT AO Images of HR 8799 bcde at 1.6 and 3.3m: New Discrepancies between Young Planets and Old Brown Dwarfs.* ApJ, 753, 14S
45. Rodigas et al. 2012, *The Grey Needle: Large Grains In The Hd 15115 Debris Disk From LBT/Pisces/Ks and LBTI/LMIRCam/L' Adaptive Optics Imaging.* ApJ, 752, 57R.
46. Dong, R., Rafikov, R., Zhu, Z., Hartmann, L., Whitney, B., Brandt, T., Muto, T., Hashimoto, J., Grady, C., **Follette, K.** et al. 2012, *The Missing Cavities In The SEEDS Polarized Scattered Light Images Of Transitional Protoplanetary Disks I: A Generic Disk Model.* ApJ, 750, 161D.

47. Close et al. 2012, *High Resolution Images of Orbital Motion in the Orion Trapezium Cluster with the LBT AO System*. ApJ, 749, 180C.

## Proceedings

1. Perrin, M., Ingraham, P., **Follette, K.B.** et al. 2016. *Gemini Planet Imager Observational Calibrations XI: Pipeline Improvements and Enhanced Calibrations After Two Years on Sky*. Proc. SPIE, Vol. 9908, 37P.
2. Sallum, S., Eisner, J., Close, L.M., Hinz, P.M., **Follette, K.B.** et al. 2016. *Imaging Protoplanets: Observing Transition Disks with Non-Redundant Masking*. Proc. SPIE, Vol. 9907, oDS.
3. Close, L.M., Males, J.R., **Follette, K.B.** et al. 2014. *Into the Blue: AO Science with MagAO in the Visible*. Proc. SPIE, Vol. 9148, 1MC.
4. Males, J.R., Close, L.M., Guyon, O., Morzinski, K., Puglisi, A., Hinz, P., **Follette, K.B.** et al 2014. *Direct Imaging of Exoplanets in the Habitable Zone with Adaptive Optics*. Proc. SPIE, Vol. 9148, 20M.
5. Morzinski, K.M. et al. 2014. *MagAO: Status and On-sky Performance of the Magellan Adaptive Optics System*. Proc. SPIE, Vol. 9148, 04M.
6. Morzinski, K.M. et al, 2014. *Direct Imaging of Beta Pictoris b with First-Light Magellan Adaptive Optics*. Proc. IAUS, 299, 252M.
7. **Follette, K.B.** et al, 2014. *Visible Light Adaptive Optics Imaging of the Orion 218-354 Silhouette Disk*. Proc. IAUS, 299, 159F.
8. Males, J.R. et al, 2014. *High Contrast Imaging of an Exoplanet with the Magellan VisAO Camera*. Proc. IAUS, 299, 46M.
9. Close, L.M., **Follette, K.B.** et al. *Visible AO Observations at Halpha for Accreting Young Planets*. Proc. IAUS, 299, 32C.
10. Close, L.M., Males, J., Morzinski, K., Kopon, D., **Follette, K.** et al 2013. *Into the Blue: AO Science in the Visible with MagAO*. Proc. "AO for ELTs", 91.
11. Morzinski, K. et al. 2013. *High Contrast Exoplanet Imaging with Clio2, the Magellan Adaptive Optics Infrared Camera*. Proc. "AO for ELTs", 59.
12. Males, J. Close, L. Morzinski, K., Kopon, D., **Follette, K.** et al. *High Contrast Imaging with the Magellan VisAO Camera*. Proc. "AO for ELTs", 50.
13. Males, J.R. et al. 2012. *Laboratory Demonstration of Real-Time Frame Selection with MagAO*. Proc. SPIE, 8447E, 42M.
14. Kopon et al. 2012, *Status Update and Closed-Loop Performance of the Magellan Adaptive Optics VisAO Camera*, Proc. SPIE Vol. 8847, 3DK.
15. Close, L.M., Males, J.R., Kopon, D.A., Gasho, V., **Follette, K.B.**, et al 2012, , *First Closed-Loop Visible AO Test Results for the Advanced Adaptive Secondary AO System for the Magellan Telescope: MagAO's Performance and Status.*, Proc. SPIE, Vol. 8447, 926545.
16. Males, J.R., Close, L.M., Kopon, D., Gasho, V. and **Follette, K.** *Frame Selection Techniques for MagAO's VisAO Camera*. Proc. SPIE, Vol. 7736, 60M.
17. Kopon, D., Close, L.M., Males, J., Gasho, V. and **Follette, K.** *The Magellan Adaptive Secondary VisAO Camera: Diffraction-Limited Broadband Visible Imaging and zomas Fiber Array IFU*. Proc. SPIE, Vol. 7736, 2VK.
18. Close, L.M., Gasho, V., Kopon, D., Males, J., **Follette, K.** et al. *The Magellan Telescope Adaptive Secondary AO System: A Visible and mid-IR AO Facility*. Proc. SPIE, Vol. 7736, 05C.
19. **Follette, K.B.** et al, 2010, *The First VisAO-Fed Integral Field Spectrograph: VisAO IFS*, Proc. SPIE, Vol. 7735, 77351P.

## TEACHING AND EDUCATIONAL RESEARCH PUBLICATIONS

\*Proceedings

1. **Follette K.B.** et al. 2017, "The Quantitative Reasoning for College Science (QuaRCS) Assessment 2: Demographic, Academic and Attitudinal Variables as Predictors of Quantitative Ability", *Numeracy*, Vol. 10: Iss. 1, Article 5.
2. **Follette, K.B.** et al. *The Quantitative Reasoning for College Science (QuaRCS) Assessment, 1: Development and Validation*. *Numeracy*, Vol. 8, Iss.2, Article 2.
3. \***Follette, K.** and McCarthy, D., 2014. *Science Literacy's Neglected Twin: Numeracy*. Proc. ASPC, 483, 31F.
4. \*McCarthy, D. and **Follette, K.**, 2013. *Re-Numerate: A Workshop to Restore Essential Numerical Skills and Thinking Via Astronomy Education*. Proc. ASPC, 473, 10F.
5. **Follette, K.B.**, "The Road to Becoming an Exemplary College Science Teacher", *Exemplary College Science Teaching*, Editor: Robert E Yager, 2013.
6. **Follette, K.** and McCarthy, D. *How We Serve (or Underserve) our Students Through 'Dumbing Down'*, Mercury Magazine, Winter 2012.
7. \***Follette, K.** and McCarthy, D., 2012. *An Informed Approach to Improving Quantitative Literacy and Mitigating Math Anxiety in Undergraduates Through Introductory Science Courses*. Proc. ASPC, 457, 295F.
8. \***Follette, K.** 2010. *A Novice Instructor's Perspective on Learner-Centered Teaching Techniques*. Proc. Cosmos in the Classroom.
9. Mikulecky, P., **Brutlag K.**, Rose-Gilman, M. and Peterson, B. *The Chemistry Workbook for Dummies*, Wiley Publications, 2009.
10. Mikulecky, P., Rose-Gilman, M. and **Brutlag, K.** *AP Chemistry for Dummies*, Wiley Publications, 2009.