

George C. Privon

Department of Astronomy
University of Florida
211 Bryant Space Science Center
P.O Box 112055
Gainesville, FL 32611-2055

Email: george.privon@ufl.edu
URL: <http://privon.com>

Current Position

Prize Postdoctoral Fellow, Department of Astronomy, University of Florida,
Gainesville, FL, USA.

Education

- 2014 PHD in Astronomy, University of Virginia – “The Dynamics and Cold Gas Content of Luminous Infrared Galaxy Mergers in the Local Universe”. Advisor: Aaron Evans
- 2009 MS in Astronomy, University of Virginia
- 2009 MS in Imaging Science, Rochester Institute of Technology – “Modeling the Infrared Emission from Cygnus A”. Advisor: Stefi Baum
- 2006 BS in Physics with Honors (Minors: Astronomy, Mathematics), Rochester Institute of Technology

Areas of Specialization

Formation and evolution of starburst and AGN host galaxies, single-dish and interferometric radio/mm/sub-mm observations of extragalactic sources (continuum and spectral line), dynamical modeling and N -body simulations of galaxy mergers, optical integral field spectroscopy

Research Positions Held

- 2017–present *Prize Postdoctoral Fellow*, Department of Astronomy, University of Florida, Gainesville, FL, USA.
- 2014–2017 *FONDECYT Postdoctoral Fellow*, Instituto de Astrofísica, Pontificia Universidad Católica de Chile, Santiago and Departamento de Astronomía, Universidad de Concepción, Concepción, Chile. Sponsor: Ezequiel Treister
- 2014 *Postdoctoral Research Fellow*, Departamento de Astronomía, Universidad de Concepción, Concepción, Chile. Mentor: Ezequiel Treister
- 2010–2014 *Graduate Research Assistant*, Department of Astronomy, University of Virginia, Charlottesville, VA, USA. Advisor: Aaron Evans
- 2013 *Visiting Graduate Student Research Fellow*, Infrared Processing and Analysis Center, California Institute of Technology, Pasadena, CA, USA. Advisor: Joe Mazzarella

- 2007–2010 *Graduate Researcher*, Department of Astronomy, University of Virginia, Charlottesville, VA, USA. Advisor: Mark Whittle
- 2007 *Summer Student*, Netherlands Institute for Radio Astronomy (ASTRON), Dwingeloo, Netherlands. Advisor: Raffaella Morganti
- 2006–2007 *Graduate Research Assistant*, Astrophysics Group / Center for Imaging Science, Rochester Institute of Technology. Advisor: Stefi Baum
- 2005–2006 *Undergraduate Research Assistant*, Astrophysics Group / Physics Department, Rochester Institute of Technology. Advisor: Chris O’Dea
- 2005–2007 *Volunteer Observer*, Rochester Institute of Technology Observatory

Grants, Honors, and Awards

- 2017 NuSTAR Cycle 3 program, awarded Priority A. \$56,629
- 2015 International Astronomical Union General Assembly Grant, IAU XXIX, \$1100
- 2014–2017 FONDECYT Postdoctoral Fellowship (taken at the Pontificia Universidad Católica de Chile and the Universidad de Concepción), Comisión Nacional de Investigación Científica y Tecnológica, Chile. Approximately \$130,000 at the time of award.
- 2014 International Travel Grant, American Astronomical Society. \$1100
- 2013 Robert J. Huskey Travel Fellowship, University of Virginia Graduate School of Arts and Sciences. \$250
- 2013 Visiting Graduate Student Research Fellowship, Infrared Processing and Analysis Center, California Institute of Technology, Pasadena, CA
- 2012 Herschel Space Telescope–Open Time 2, Priority 1 Proposal (Principal Investigator): “Measuring the Far-Infrared SED of Cygnus A”, \$21,200
- 2012 Robert J. Huskey Graduate Student Research Exhibition, 3rd place Oral Presentation
- 2011 Elected to membership in the Raven Society, the oldest and most prestigious honorary society at the University of Virginia.
- 2002–2006 Rochester Institute of Technology Presidential Scholarship
- 2000 Eagle Scout Rank–Boy Scouts of America

Publications

Journal articles (as first or second author)

- 12 “Modeling the Baryon Cycle in Dwarf Galaxies: The Case of NGC 4490 & NGC 4485”
S. Pearson, **G. C. Privon**, G. Besla, et al. *in preparation*
- 11 “A Hard X-ray View of Luminous and Ultra-luminous Infrared Galaxies”
C. Ricci, **G. C. Privon**, et al. *in preparation; manuscript available upon request*
- 10 “Molecular Gas and Dust Properties in (U)LIRGs from the GOALS Sample”
R. Herrero-Illana, **G. C. Privon**, et al. *in preparation; manuscript available upon request*
- 9 “Recovering the Physical Properties of Molecular Gas in Galaxies from CO SLED Modeling”

- J. Kamenetzky, **G. C. Privon**, and D. Narayanan. *submitted to AAS Journals; manuscript available on request*
- 8 “Optical, Near-IR, and Sub-mm IFU Observations of the Nearby Dual AGN Mrk 463”
Ezequiel Treister, **George C. Privon**, Lia F. Sartori, Neil Nagar, Franz E. Bauer, Kevin Schawinski, Hugo Messias, Claudio Ricci, Vivian U, Caitlin Casey, Julie Comerford, Francisco Müller-Sánchez, Aaron Evans, Carolina Finlez, Michael Koss, David B. Sanders, C. Megan Urry. *Accepted for publication in ApJ.*
- 7 “The role of major mergers in (obscured) black hole growth and galaxy evolution”
E. Treister, **G. C. Privon**, C. Ricci, F. Bauer, K. Schawinski, MODA Collaboration. *BAA*, 59, 124.
- 6 “A Widespread, Clumpy Starburst in the Isolated Ongoing Dwarf Galaxy Merger dm1647+21”
G. C. Privon, S. Stierwalt, D. R. Patton, G. Besla, S. Pearson, M. Putman, K. E. Johnson, N. Kallivayalil, S. Liss. 2017, *ApJ*, 846, 74. [arXiv:1708.02587](#)
- 5 “The Dense Molecular Gas and Nuclear Activity in the ULIRG IRAS 13120–5453”
G. C. Privon, S. Aalto, N. Falstad, S. Muller, E. González-Alfonso, K. Sliwa, E. Treister, F. Costagliola, L. Armus, A. S. Evans, S. Garcia-Burillo, T. Izumi, K. Sakamoto, P. van der Werf, J. K. Chu. 2017, *ApJ*, 835, 213. [arXiv:1612.04401](#)
- 4 “Excitation Mechanisms for HCN (1–0) and HCO⁺ (1–0) in Galaxies from the Great Observatories All-sky LIRG Survey”
G. C. Privon, R. Herrero-Illana, A. S. Evans, K. Iwasawa, M. A. Perez-Torres, L. Armus, T. Díaz-Santos, E. J. Murphy, S. Stierwalt, S. Aalto, J. M. Mazzarella, L. Barcos-Muñoz, H. J. Borish, H. Inami, D.-C. Kim, E. Treister, J. Surace, S. Lord, J. Conway, D. T. Frayer, A. Alberdi. 2015, *ApJ*, 814, 39. [arXiv:1509.07512](#)
- 3 “Dynamical Modeling of Galaxy Mergers Using Identikit”
G. C. Privon, J. E. Barnes, A. S. Evans, J. E. Hibbard, M. S. Yun, J. M. Mazzarella, L. Armus, J. Surace. 2013, *ApJ*, 771, 120. [arXiv:1303.3977](#)
- 2 “Modeling the Infrared Emission from Cygnus A”
G. C. Privon, S. A. Baum, C. P. O’Dea, J. Gallimore, J. Noel-Storr, D. J. Axon, and A. Robinson. 2012, *ApJ*, 747, 46P. [arXiv:1201.3319](#)
- 1 “WFPC2 LRF Imaging of Emission Line Nebulae in 3CR Radio Galaxies”
G. C. Privon, C. P. O’Dea, S. A. Baum, D. J. Axon, P. Kharb, C. L. Buchanan, W. Sparks, and M. Chiaberge. 2008, *ApJS*, 175, 423. [arXiv:0710.3105](#)

Journal Articles (as co-author)

- 33 “Dissecting the Butterfly: Dual Outflows in the Dual AGN NGC 6240”
F. Müller-Sánchez, R. Nevin, J. Comerford, R. Davies, **G. C. Privon**, E. Treister. *accepted for publication in Nature.*
- 32 “Fast, Colimated Outflow in the Western Nucleus of Arp 220”
L. Barcos-Muñoz, S. Aalto, T. A. Thompson, K. Sakamoto, S. Martín, A. K. Leroy, **G. C. Privon**, A. S. Evans, A. Kepley. *accepted for publication*

- in *The Astrophysical Journal Letters*. [arXiv:1712.06381](https://arxiv.org/abs/1712.06381)
- 31 “A Hidden Molecular Outflow in the LIRG Zw 049.057”
N. Falstad, S. Aalto, J. G. Mangum, F. Costagliola, J. S. Gallagher, E. González-Alfonso, K. Sakamoto, S. König, S. Müller, A. S. Evans, **G. C. Privon**. 2018, *A&A*, 609, 75. [arXiv:1711.05321](https://arxiv.org/abs/1711.05321)
- 30 “H I vs. H α – Comparing the Kinematic Tracers in Modeling the Initial Conditions of the Mice”
S. A. Mortazavi, J. M. Lotz, J. E. Barnes, **G. C. Privon**, G. F. Snyder. 2018, *MNRAS*, 474, 3423. [arXiv:1701.03819](https://arxiv.org/abs/1701.03819)
- 29 “An atomic hydrogen bridge fueling NGC 4418 with gas from VV 655”
E. Varenius, F. Costagliola, H.-R. Klöckner, S. Aalto, H. Spoon, I. Mart-Vidal, J. E. Conway, **G. C. Privon**, S König. 2017, *A&A*, 706, 43. [arXiv:1705.00991](https://arxiv.org/abs/1705.00991)
- 28 “A Herschel/PACS Far Infrared Line Emission Survey of the Local Luminous Infrared Galaxies in GOALS”
T. Díaz-Santos, L. Armus, V. Charmandaris, N. Lu, S. Stierwalt, G. Stacey, S. Malhotra, P. P. van der Werf, J. H. Howell, **G. C. Privon**, J. M. Mazzarella, P. F. Goldsmith, E. J. Murphy, L. Barcoc-Muñoz, S. T. Linden, H. Inami, K. L. Larson, A. S. Evans, P. Appleton, K. Iwasawa, S. Lord, D. B. Sanders, J. A. Surace. 2017, *ApJ*, 846, 32. [arXiv:1705.04326](https://arxiv.org/abs/1705.04326)
- 27 “ALMA [NII] 205 micron Imaging Spectroscopy of the Interacting Galaxy System BRI 1202-0725 at Redshift 4.7”
Nanyao Lu, Yinghe Zhao, Tanio Diaz-Santos, C. Kevin Xu, Vassilis Charmandaris, Yu Gao, Paul P. van der Werf, **George C. Privon**, Hanae Inami, Dimitra Rigopoulou, David B. Sanders, Lei Zhu 2017, *ApJL*, 842, 16. [arXiv:1706.03018](https://arxiv.org/abs/1706.03018)
- 26 “A 33 GHz Survey of Local Major Mergers: Estimating the Size of the Active Region from High Resolution Measurements of the Radio Continuum”
L. Barcos-Muñoz, A. K. Leroy, A. S. Evans, J. Condon, **G. C. Privon**, T. A. Thompson, L. Armus, T. Díaz-Santos, J. M. Mazzarella, D. S. Meier, E. Momjian, E. J. Murphy, J. Ott, D. B. Sanders, E. Schinnerer, S. Stierwalt, J. A. Surace, F. Walter. 2017, *ApJ*, 843, 117. [arXiv:1705.10801](https://arxiv.org/abs/1705.10801)
- 25 “Massive Star Cluster Formation and Destruction in Luminous Infrared Galaxies in GOALS”
S. T. Linden, A. S. Evans, J. Rich, K. Larson, L. Armus, T. Díaz-Santos, **G. C. Privon**, J. Howell, H. Inami, D.-C. Kim, L.-H. Chien, T. Vavilkin, J. M. Mazzarella, J. A. Surace. 2017, *ApJ*, 843, 91. [arXiv:1705.03370](https://arxiv.org/abs/1705.03370)
- 24 “A Herschel Space Observatory Spectral Line Survey of Local Luminous Infrared Galaxies Over 194 to 671 Microns”
N. Lu, Y. Zhao, T. Díaz-Santos, C. K. Xu, Y. Gao, L. Armus, K. G. Isaak, J. M. Mazzarella, P. P. van der Werf, P. N. Appleton, V. Charmandaris, A. S. Evans, J. Howell, K. Iwasawa, J. Leech, S. Lord, A. O. Petric, **G. C. Privon**, D. B. Sanders, B. Schulz, J. Surace. 2017, *ApJS*, 231, 1. [arXiv:1703.00005](https://arxiv.org/abs/1703.00005)
- 23 “Extreme CO Isotopic Abundances in the ULIRG IRAS 13120-5453: An Extremely Young Starburst or Top-heavy Initial Mass Function”
Kazimierz Sliwa, Christine D. Wilson, Susanne Aalto, **George C. Privon**. 2017, *ApJ*, 840L, 11. [arXiv:1704.06671](https://arxiv.org/abs/1704.06671)
- 22 “A Potential Recoiling Supermassive Black Hole CXO J101527.2+625911”

- D.-C. Kim, I. Yoon, **G. C. Privon**, D. Harvey, A. S. Evans, S. Stierwalt. 2017 ApJ, 840, 71. [arXiv:1704.05549](#)
- 21 “The Great Observatories All-sky LIRG Survey: Herschel Image Atlas and Aperture Photometry”
J. K. Chu, D. B. Sanders, K. L. Larson, J. M. Mazzarella, J. H. Howell, T. Diaz-Santos, K. C. Xu, R. Paladini, B. Schulz, D. Shupe, P. Appleton, L. Armus, N. Billot, B. H. P. Chan, A. S. Evans, D. Fadda, D. T. Frayer, S. Haan, C. M. Ishida, K. Iwasawa, D.-C. Kim, S. Lord, E. Murphy, A. Petric, **G. C. Privon**, J. A. Surace, E. Treister 2017, ApJS, 229, 25. [arXiv:1702.01756](#)
- 20 “Growing Supermassive Black Holes in the Late Stages of Galaxy Mergers are Heavily Obscured”
C. Ricci, F. E. Bauer, E. Treister, K. Schawinski, **G. C. Privon**, L. Blecha, P. Arevalo, L. Armus, F. Harrison, L. C. Ho, K. Iwasawa, D. B. Sanders, D. Stern. 2017, MNRAS, 468, 1273. [arXiv:1701.04825](#)
- 19 “Direct Evidence of Hierarchical Assembly at Low Masses: Isolated Dwarf Galaxy Groups”
S. Stierwalt, S. E. Liss, K. E. Johnson, D. Patton, **G. C. Privon**, G. Besla, N. Kallivayalil, M. Putman. 2017, Nature Astronomy, 1, 0025. [arXiv:1701.01731](#)
- 18 “Spatially Resolved Spectroscopy of Sub-mm Galaxies at $z \simeq 2$ ”
V. Olivares, E. Treister, **G. C. Privon**, S. Alaghband-Zadeh, C. Casey, K. Schawinski, P. Kurczynski, E. Gawiser, S. Chapman, I. Smail, F. Bauer, N. Nagar, D. Sanders. 2016, ApJ, 827, 57. [arXiv:1606.05351](#)
- 17 “Morphology and Molecular Gas Fractions of Local Luminous Infrared Galaxies as a Function of Infrared Luminosity and Merger Stage”
K. L. Larson, D. B. Sanders, J. E. Barnes, C. M. Ishida, A. S. Evans, V. U, J. M. Mazzarella, D.-C. Kim, **G. C. Privon**, I. F. Mirabel. 2016, ApJ, 825, 128. [arXiv:1605.05417](#)
- 16 “Kinematically Identified Recoiling Supermassive Black Hole Candidates in SDSS QSOs with $z < 0.25$ ”
D.-C. Kim, A. S. Evans, S. Stierwalt, **G. C. Privon**, 2016, ApJ, 824, 122. [arXiv:1604.05604](#)
- 15 “NuSTAR unveils a heavily obscured low-luminosity Active Galactic Nucleus in the Luminous Infrared Galaxy NGC 6286”
C. Ricci, F. E. Bauer, E. Treister, C. Romero-Canizales, P. Arevalo, K. Iwasawa, **G. C. Privon**, D. B. Sanders, K. Schawinski, D. Stern, M. Imanishi, 2016, ApJ, 819, 4. [arXiv:1601.05800](#)
- 14 “Global Properties of Neutral Hydrogen in Compact Groups”
L. M. Walker, K. E. Johnson, S. C. Gallagher, **G. C. Privon**, A. A. Kepley, D. G. Whelan, T. D. Desjardins, A. I. Zabludoff, 2016, AJ, 151, 2. [arXiv:1510.07628](#)
- 13 “TiNy Titans: The Role of Dwarf-Dwarf Interactions in the Hierarchical Assembly of Low Mass Galaxies”
S. Stierwalt, G. Besla, D. Patton, K. Johnson, N. Kallivayalil, M. Putman, **G. C. Privon**, G. Ross, 2015, ApJ, 805, 2. [arXiv:1412.4796](#)
- 12 “Measuring Star-formation Rate and its Surface Density in Galaxies at High Redshift Using the CO(7–6) and [N II] 205 μm Lines”
Nanyao Lu, Yinghe Zhao, C. Kevin Xu, Yu Gao, Tanio Díaz-Santos, Vas-

- silis Charmandaris, Hanae Inami, Justin Howell , Lijie Liu, Lee Armus, Joseph M. Mazzarella, **George C. Privon**, Steven D. Lord, David B. Sanders, Bernhard Schulz, and Paul P. van der Werf, 2015, ApJ, 802 L11. [arXiv:1503.02052](#)
- 11 “Near infrared spectroscopy of the type IIIn SN 2010jl: evidence for high velocity ejecta”
Borish, H. Jacob; Huang, Chenliang; Chevalier, Roger A.; Breslauer, Benjamin M.; Kingery, Aaron M.; **Privon, George C.**. 2015, ApJ, 801, 7. [arXiv:1406.5531](#)
- 10 “ALMA Observations of Warm Dense Gas in NGC 1614 – Breaking of Star Formation Law in the Central kpc”
C. K. Xu, C. Cao, N. Lu, Y. Gao, T. Diaz-Santos, R. Herrero-Illana, R. Meijerink, **G. C. Privon**, Y.-H. Zhao, A. S. Evans, S. König, J. M. Mazzarella, S. Aalto, L. Armus, V. Charmandaris, J. Chu, S. Haan, H. Inami, E. J. Murphy, D. B. Sanders, B. Schulz, P. van der Werf. 2015, ApJ, 799, 11. [arXiv:1411.1111](#)
- 9 “High-Resolution Radio Continuum Measurements of the Nuclear Disks of Arp 220”
L. Barcos-Munoz , A. K. Leroy, A. S. Evans, **G. C. Privon**, L. Armus, J. Condon, J. M. Mazzarella, D. Meier, E. Momjian, E. J. Murphy, J. Ott, A. Reichardt, K. Sakamoto, D. B. Sanders, E. Schinnerer, S. Stierwalt, J. A. Surace, and F. Walter. 2015, ApJ, 799, 10. [arXiv:1411.0932](#)
- 8 “Radio Continuum Properties of Luminous Infrared Galaxies: Identifying the presence of an AGN in the radio”
E. Vardoulaki, V. Charmandaris, E. J. Murphy, T. Diaz-Santos, L. Armus, A. S. Evans, J. Mazzarella, **G. C. Privon**, S. Stierwalt, L. Barcos-Munoz. 2014, A&A, 574, A4. [arXiv:1408.4177](#)
- 7 “ALMA Observations of the Antennae Galaxies: I. A New Window on a Prototypical Merger”
B. Whitmore, C. Brogan, R. Chandar, A. Evans, J. Hibbard, K. Johnson, A. Leroy, **G. C. Privon**, A. Remijan, K. Sheth. 2014, ApJ, 795, 156. [arXiv:1410.4473](#)
- 6 “Hubble Space Telescope ACS Imaging of the GOALS Sample: Quantitative Structural Properties of Nearby Luminous Infrared Galaxies with $L_{IR} > 10^{11.4} L_{\odot}$ ”
D.-C. Kim, A. S. Evans, T. Vavilkin, L. Armus, J. Mazzarella, K. Sheth, J.A. Surace, S. Haan, J. H. Howell, T. Díaz-Santos, A. Petric, K. Iwasawa, **G. C. Privon**, and D. B. Sanders. 2013, ApJ, 768, 102. [arXiv:1303.3977](#)
- 5 “Ne V emission in five blue compact dwarf galaxies”
Y. Izotov, T. Thuan, and **G. C. Privon**. 2012, MNRAS, 427, 1229. [arXiv:1209.5265](#)
- 4 “Investigation of Dual Active Nuclei, Outflows, Shock-Heated Gas, and Young Star Clusters in Markarian 266”
J. Mazzarella, K. Iwasawa, T. Vavilkin, L. Armus, D.-C. Kim, G. Bothun, A. S. Evans, H. W. W. Spoon, S. Haan, J. H. Howell, S. Lord, J. A. Marshall, C. M. Ishida, C. K. Xu, A. Petric, D. B. Sanders, J.A. Surace, P. Appleton, B. H. Chan, D. T. Frayer, H. Inami, Y. E. Khachikian, B. F. Madore, **G. C. Privon**, E. Sturm, V. U, and S. Veilleux. 2012, AJ, 144, 125. [arXiv:1208.3248](#)

- 3 “Complex Radio Spectral Energy Distributions in Luminous and Ultraluminous
Infrared Galaxies”
A. Leroy, A. Evans, E. Momjian, E. Murphy, J. Ott, L. Armus, J. Condon,
S. Haan, J. Mazzarella, D. Meier, **G. C. Privon**, E. Schinnerer, J. Surace,
and F. Walter. 2011, ApJL, 739, 25. [arXiv:1107.4109](#)
- 2 “An Infrared Survey of Brightest Cluster Galaxies. II: Why are Some Brightest
Cluster Galaxies Forming Stars?”
C. O’Dea, S. Baum, **G. C. Privon**, J. Noel-Storr, A. Quillen, N. Zufelt,
J. Park, A. Edge, H. Russell, A. Fabian, M. Donahue, C. L. Sarazin,
B. R. McNamara, J. N. Bregman, and E. Egami. 2008, ApJ, 681, 1035.
[arXiv:0803.1772](#)
- 1 “An infrared survey of brightest cluster galaxies: Paper I”
A. Quillen, N. Zufelt, J. Park, C. O’Dea, S. Baum, **G. C. Privon**, J. Noel-
Storr, A. Edge, H. Russell, A. Fabian, M. Donahue, J. N. Bregman, B. R.
McNamara, and C. L. Sarazin. 2008, ApJS, 176, 39. [arXiv:0711.1118](#)

Conference Proceedings

- 2 “A multi-wavelength classification system for the evolution of star clusters”
Bradley C. Whitmore, Crystal Brogan, Rupali Chandar, Aaron Evans, John
Hibbard, Kelsey Johnson, Adam Leroy, **George Privon**, Anthony Remi-
jan, Kartik Sheth. “From Interstellar Clouds to Star-Forming Galaxies:
Universal Processes?”, Proceedings of the International Astronomical Union,
IAU Symposium, Volume 315, pp. 142-145”.
- 1 “Experiments with Identikit”
J. E. Barnes and **G. C. Privon** “Galaxy Mergers in an Evolving Universe”,
Hualien, Taiwan, October 23–28, 2011. [arXiv:1112.4186](#)

White Papers

- 1 “The Importance of Hands-on Experience with Telescopes for Students”. **G. C.**
Privon, R. L. Beaton, D. G. Whelan, A. Yang, K. Johnson, and J. Con-
don. Astro2010: The Astronomy and Astrophysics Decadal Survey, Position
Papers, no. 45. [arXiv:0903.3447](#)

Interviews

- 2 “Episode 22: Merging galaxies with Dr. Privon”. *Spacepod* podcast with Dr.
Carrie Nugent. <http://www.listentospacepod.com/episodes/2015/12/3/episode-22-merging-galaxies-with-dr-privon>. 2015.
- 1 “Using AGN to reveal the mysteries of the Universe”. *Satellite Science Magazine*
(an Indian science publication aimed at amateur astronomers). 2012

Colloquia and Seminars

- 2017 “Dense Molecular Gas Tracers as Probes of Activity in Galactic Nuclei”
University of Hawaii Institute for Astronomy
- 2016 “The Dynamics and Dense Molecular Gas Properties of Infrared Luminous
Galaxy Mergers in the Local Universe”

- Eidgenössische Technische Hochschule Zürich (ETH Zürich), Joint ALMA Observatory
- 2015 “*The Excitation of Dense Molecular Gas Tracers HCN and HCO⁺ in Local Infrared Luminous Galaxies*”
Columbia University and Pontificia Universidad Católica de Chile.
- 2013–2014 “*The Dynamics and Cold Gas Content of Luminous Infrared Galaxy Mergers in the Local Universe*”
Yale, University of Massachusetts Amherst, Columbia University, Rochester Institute of Technology, University of California Santa Barbara, Universidad de Concepción, University of California Los Angeles, Carnegie Observatories, University of California Riverside, National Optical Astronomy Observatory / Steward Observatory.
- 2013 “*Constraining Simulation Prescriptions using Dynamical Models of Galaxy Mergers*”
Harvard University.
- 2012 “*Dynamical Modeling of Galaxy Mergers With Identikit*”
Howard University, National Radio Astronomy Observatory, Instituto de Astrofísica de Andalucía, University of Hawaii Institute for Astronomy.
- 2010 “*The Great Observatories All-Sky LIRG Survey*”
Indian National Centre for Radio Astrophysics.

Contributed Conference Talks

- Jul 2017 “Physical conditions and chemistry in LIRGs”, Behind the Curtain of Dust II – The molecular and multi-wavelength view of activity in (U)LIRGs, Sexten, Italy.
- Jan 2017 “The Dense Molecular Gas and Nuclear Activity in the Local ULIRG IRAS 13120-5453”, 229th American Astronomical Society Meeting, Grapevine, Texas, USA.
- Nov 2016 “Constraining AGN Duty Cycles Using Hybrid N-body + Test Particle Merger Simulations”, Second Chilean Workshop on Theoretical and Numerical Astrophysics, Santiago, Chile.
- Aug 2016 “Large Scale Outflows and Dense Outflows in low-z ULIRGs”, Mapping the Pathways of Galaxy Transformation Across Time and Space, Avalon, California, USA.
- Mar 2016 “Dense Gas Tracers in the ULIRG IRAS 13120–5453”, Sociedad Chilena de Astronomía Annual Meeting, Antofagasta, Chile.
- Mar 2015 “High-density Molecular Gas Tracers in (U)LIRGs: AGN or Star Formation?”. Sociedad Chilena de Astronomía Annual Meeting, Puerto Varas, Chile.
- Mar 2015 “High-density Molecular Gas Tracers in (U)LIRGs: AGN or Star Formation?”. Unveiling the AGN – Galaxy Evolution Connection, Puerto Varas, Chile.
- Jan 2015 “GOALS: HI Mapping of Local (U)LIRGs”, 225th American Astronomical Society Meeting, Seattle, Washington, USA.
- Jan 2014 “The Dynamics and Cold Gas Content of Luminous Infrared Galaxies in the Local Universe” (Dissertation Talk), 223rd American Astronomical Society Meeting, Washington, DC, USA.
- Jan 2013 “Dynamical Modeling of Galaxy Mergers With Identikit”. 221st American Astronomical Society Meeting, Long Beach, CA, USA.

- Nov 2009 “The Infrared Emission from Cygnus A”. *Triggering and Feedback in Powerful Radio Galaxies*, Leiden, Netherlands.

Significant Accepted Open Time Observing Proposals

As Principal Investigator

- 2017 NuSTAR Cycle 3 proposal to test a proposed method of finding highly obscured AGN by their molecular gas emission signatures. 80ks at Priority A. \$56,629.
- 2015–2017 Nine VLT/MUSE proposals for the study of merger-driven galaxy transformation and nuclear feedback across a range of galaxy mass. 93 hours.
- 2015–2017 APEX mm/sub-mm Telescope–Survey of CO (3–2) in local Luminous Infrared Galaxies. 78 hours.
- 2013 LOFAR Radio Telescope–Cycle 1, “ISM Properties and Recurrent Nuclear Activity in Nearby Luminous Galaxy Mergers”. 4 hours for a pilot study.
- 2012 Herschel Space Telescope–Open Time 2, Priority 1 Proposal: Measuring the Far-Infrared SED of Cygnus A, \$21,200.
- 2009–2011 Westerbork Synthesis Radio Telescope, Jansky Very Large Array, and Giant Metrewave Radio Telescope – HI Mapping of Luminous Infrared Galaxies. Approximately 500 hours awarded through multiple proposals.

As Co-Investigator

- 2017 James Webb Space Telescope, Early Release Science Program. “A JWST Study of the Starburst-AGN Connection in Merging LIRGs”. 31 hours.

Student Advising & Mentoring

- 2015–present “Dynamical Modeling of Interacting Dwarf Galaxies with Identikit”. Sarah Pearson. PhD, Columbia University. (Collaboration).
- 2015–2016 “ALMA CO (2–1) Observations of Dual AGN Host Galaxies”. Joaquín Zamponi. Undergraduate Independent Research, Universidad de Concepción (Supervision).
- 2014–2015 “High-resolution Spatially Resolved Spectroscopy of Sub-mm Galaxies at $z \simeq 2$ ”. Valeria Olivares. M.S., Universidad de Concepción (Mentoring).
- 2013–2014 “Simulating Cluster Destruction in Luminous Infrared Galaxy Mergers”. Poon Panichpibool. 4th Year Thesis, University of Virginia (Co-supervision, with Prof. R. O’Connell).

Teaching and Public Outreach

Courses Taught

- 2010 ASTR 1220: “Introduction to Stars, Galaxies, and the Universe”. University of Virginia, Summer Term.

Positions Held

- 2012 Astronomy Tutor for the University of Virginia Athletics Department, Charlottesville, VA
- 2007–2012 Graduate Teaching Assistant, Department of Astronomy, University of Virginia, Charlottesville, VA
- 2011–2012 Telescope Operator for Telescope Observing Lab, University of Virginia, Charlottesville, VA
- 2009–2010 Head Teaching Assistant for the University of Virginia Astronomy Department, TA for Introduction to Astronomical Observing, and Website TA, Charlottesville, VA
- 2008–2009 Introduction to Astronomical Observing Head TA, Website TA, University of Virginia, Charlottesville, VA
- 2007–2008 Constellation Quiz Head TA, TA for Introduction to Cosmology, TA for Introduction to Astronomical Observing, TA for Telescope Observing, University of Virginia, Charlottesville, VA
- 2004–2005 Teaching Assistant for Introductory Physics Classes, Physics Department, Rochester Institute of Technology

Public Outreach

- 2009–2015 Various outreach with elementary and middle school students, including: classroom visits, live webcasts from world-class telescope facilities, and online question and answer sessions. 2–5x per year.
- 2007–2012 University of Virginia Department of Astronomy public nights at McCormick Observatory and Fan Mountain Observatory. Giving tours of the observatory and showing astronomical objects through telescopes to visiting public. 2–3x per year.
- 2010–2012 University of Virginia Department of Astronomy CLUSTER telescope loan program for middle and high school students. Assisted instruction of teachers in the use of 12 telescopes for later use in their classes.
http://www.astro.virginia.edu/public_outreach/CLUSTER/
- 2005–2007 Rochester Institute of Technology Observatory public nights. Giving tours of the observatory and showing astronomical objects through telescopes to visiting public. 1–2x per year.

Professional and Departmental Service

- Scientific referee for the *Astrophysical Journal*, *Astronomical Journal*, *Monthly Notices of the Royal Astronomical Society*
- 2017 ALMA Time Allocation Committee, Cycle 4 Supplemental Call
- 2016 Organizer, Galaxy Evolution Discussion Group, Instituto de Astrofísica, Pontificia Universidad Católica de Chile
- 2015 Seminar Chair, Department of Astronomy, Universidad de Concepción
- 2015 Organizer, Galaxy Evolution Discussion Group, Department of Astronomy, Universidad de Concepción
- 2011–2013 Giant Metrewave Radio Telescope Proposal Reviewer

Conference Organization

Jun/Jul 2018 “The Astrophysics of Massive Black Hole Mergers: From Galaxy Mergers to the Gravitational Wave Regime”. 17 June – 08 July 2017. Aspen Center for Physics, Aspen, CO. Organizer.

Other Service

2012–2014 University of Virginia Sexual Misconduct Board, student member
2009–2012 Astronomy Department Representative to UVa Graduate School of Arts and Sciences Council. Positions held:
2012 Vice President of Communications
2011–2012 First Vice President
2010–2011 Second Vice President
2009–2012 Member of the Research Committee. Duties included planning and executing the annual student-run Robert J. Huskey Research Exhibition, which showcases graduate student research at the University of Virginia.

Professional Organizations

American Astronomical Society – Associate Member
Heterodox Academy – Member
Sigma Pi Sigma Physics Honor Society – Member