

JENNIFER R. COOPER

Ph.D Candidate in Physics

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EDUCATION

Ph.D Physics, University of Kansas	2017 -
Science & Technical Managers Graduate Certificate (PMP)	
Madison & Lila Self Graduate Fellow	
Msc Physics, California State University Los Angeles	2015 - 2017
Thesis: <i>Comparing High-redshift dropouts in the GOODS-S Field from MultiDrizzle and SelfCal maps - UC Irvine</i>	3.6 GPA
BA Geophysics, Cornell University	2009 - 2014
Bachelor of Arts in Geophysics, <i>cum laude</i> & College of AAS Research Honors	3.6 Major GPA
Thesis: <i>Forgotten Volcanoes of the Global Deformation Task Force</i>	
Bachelor of Arts in Archaeology, Minor in Astrophysics	

PROJECT MANAGEMENT & ACADEMIC SERVICE

Venture Capital Intern , Kansas City University Venture Program	2020 -
President , Association of Polar Early Career Scientists (APECS)	2019 - 20
Vice President , Association of Polar Early Career Scientists (APECS)	2018 - 19
Technical Judge , KU Self Engineering Leadership Fellows Program	2020
Teaching Associate , California State University Los Angeles	2015 - 17
Steering Committee Member , SCAR Astronomy & Astrophysics	2015 -
Steering Committee Member , SCAR Antarctic Volcanism	2016 -
Organizational Review Committee , APECS	2019
Scientific Org. Comm. , 5th SCAR AAA Workshop, Mont Blanc, Italy	2018 - 19
Organizing Chair , APECS 2nd World Summit, Davos, Switzerland	2017 - 18
Astronomy Session Convener , SCAR 2016, Kuala Lumpur, Malaysia	2016
Council Member , APECS	2015 -
Local Org. Comm. , 3rd SCAR AAA Workshop, Volcano, HI	2015

AWARDS & GRANTS

Madison & Lila Self Graduate Fellowship , \$165k	2017 - 21
NSF Travel Award - POLAR 2018	2018
Antarctic Science Ltd Travel Award	2018
American Astronomical Society International Travel Grant	2014, 15, 16, 18, 20
Dorothy Clark Lettice Scholarship	2017
Outstanding Teaching - Frieda Stahl Fellowship	2016
FGSA Travel Grant for Excellence in Graduate Research, American Physical Society	2016
Hirsch Foundation Travel Grant for Fieldwork	2012

PUBLICATIONS

- Cooper, J.**, Rudnick, G., et. al (2020) *The effect of the cluster environment on H-alpha based star formation rates at z=0.5: an HST Grism study*. In prep.
- APECS Executive Committee (2020) *APECS Strategic Plan 2021-2025*. Editor & Writer. In prep.
- Henderson, S., Pritchard, M., **Cooper, J.**, and Aoki, Y. (2019) *Remotely sensed deformation and thermal anomalies at Mount Pagan, Mariana Islands*. Front. Earth Sci. 7:238.
- Fugmann, G., Fletcher T., **Cooper, J.**, Schulze, V., Spolaor, A. and APECS Executive Committee 2016-2017 (2016): Association of Polar Early Career Scientists (APECS) International Directorate Office - Shaping the Future of Polar Research (Project: No. 229563) - *Final Results Report for Research Council of Norway*. Tromso, Norway, 46p.
- Thelen, W.A., and **Cooper, J.** *An analysis of three new infrasound arrays around Kilauea Volcano*: U.S. Geological Survey Open-File Report 2014-1253, 29 p.

RESEARCH EXPERIENCE

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|--|-----------|
| KU Graduate Research Assistant , Prof Gregory Rudnick | 2017 - |
| – Machine learning, <i>Hubble Space Telescope</i> image, signal & statistical analysis | |
| UCI Graduate Research Assistant , Prof Asantha Coory | 2016 - 17 |
| – Multiwavelength image analysis & processing <i>Hubble</i> UDF, Python | |
| USRA-SOFIA/NASA ARC Research Student , Dr. Randolph Klein | 2015 |
| – Multiwavelegnth signal analysis, database development, Python/IDL | |
| ICRAR Pre-Doctoral Scholar , Prof Danial Obreskchow | 2015 |
| – Fractal & signal analysis, Fortran90 | |
| Cornell Undergraduate Research Assistant , Prof Matthew Pritchard | 2013 - 15 |
| – Satellite remote sensing & volcano deformation, image analysis, C++ | |
| University of Queensland Research Scholar , Dr. David Parkinson | 2013 - 14 |
| – Signal analysis, internal dome contamination identification, Python | |
| Universidad de Colima Volcano Monitoring Intern , Prof Nick Varley | 2013 |
| – Active volcano monitoring, fieldwork & sample collection | |
| Dept. of State US Embassy Moscow Science Intern , David Citron | 2013 |
| – Executive summary composition, Russian translation, social media development | |
| USGS HVO Seismological Intern , Dr. Weston Thelen | 2012 |
| – Seismic & infrasonic signal analysis, cross-correlation observations, Python | |
| SETI Institute/NASA ARC REU Intern , Dr. Cristina Dalle Ore | 2011 |
| – Signal & chemical analysis from <i>Sptizer Space Telescope</i> , IDL | |
| Cornell Undergraduate Research Assistant , Prof Martha Haynes | 2010 - 12 |
| – Radio signal & image analysis from Arecibo Observatory, IDL | |

PRESENTATIONS

- Pushing HST to the limit: Expanding our view of galaxy clusters through a grism study Contributed Talk. *Science with Hubble and JWST VI*, April 2020. Stockholm, Sweden.

- The Role of APECS in SCAR and the Polar Sciences. Contributed Talk. *SCAR AAA 5th Workshop*, June 2019. Mount Blanc, Italy.
- Nature vs. Nurture in EDiSCS galaxies. Invited Talk. *Astrophysics Seminar, University of Missouri Physics & Astronomy*, April 2019. Columbia, MO.
- Nature vs. Nurture in Galaxies. Invited Talk. *Red Hot Research, University of Kansas*, March 2019. Lawrence, KS.
- A. Bliss, A. Bradley, O. Lee, **J. Cooper**, M. Dryak, E. Enderliln USAPECS: a national ECS network in the global context *American Union Geophysical Meeting*, December 2018. San Francisco, CA USA. Poster.
- What's Ahead for USAPECS in 2018 - 2019? Invited Talk. *APECS Turkey Workshop on Outreach & Education*, October 2018. Istanbul, Turkey.
- J. Cooper**, A. Cooray, H. Nayyeri Comparing High-redshift Dropouts from GOODS-S in MultiDrizzle and SelfCal Maps *Msc Defense*, May 2017. CSULA, USA.
- J. Cooper**, C. Power, D. Obreschkow, S. Terebey Correlating Dark Matter Simulations to SPT Clusters *SCAR Open Science Conference 2016*, August 2016. Kuala Lumpur, Malaysia. Poster.
- J. Jay, B. Andrews, M. Pritchard, **J. Cooper**, S. Henderson, F. Delgado, J. Biggs, S. Ebmeier, Preparing for Routine Satellite Global Volcano Deformation Observations: The Volcano Deformation Database Task Force. *American Union Geophysical Meeting*, December 2014. San Francisco, CA USA. Poster.
- M. Pritchard, M. Furtney, **J. Cooper** VPG Spotlight: Is a zombie volcano a thing? 2014, *Education and Outreach Spotlight AGU*. Article.
- M. Pritchard, J. Jay, J. Briggs, S. Ebmeier, **J. Cooper**, S. Henderson, F. Delgado Global synthesis of volcano deformation: results of the volcano deformation task force *American Union Geophysical Meeting*, December 2013. San Francisco, CA USA. Poster.
- Cooper, J. R.** Global Study of Volcanic Island Deformation Through InSAR *Undergraduate Research Symposium Presentation & Thesis Defense*, May 2014. Cornell University, Ithaca, NY.
- W. Thelen, M. Garces, *J.R. Cooper*, N. Badger, A. Perttu, B. Williams, Infrasonic Monitoring Network on the Big Island *European Geosciences Union Meeting*, April 2013. Vienna, Austria.
- J. R. Cooper**, C. M. Dalle Ore, J. P. Emery, A Spitzer-based Classification of TNOs *American Geophysical Union Fall Meeting*, December 2011. San Francisco, CA USA. Poster.
- F. Colas, J. Berthier, F. Vachier, F. Marchis, P. M. M. Jenniskens, J. W. Owen, B. Timerson, S. Preston, R. Venable, M. Allain, R. Cawthon, **J. R. Cooper**, J. Fixelle, S. Hicks, W. L. Meldman-Floch, J. Minter, M. Phillips, Shape and Size of (90) Antiope Derived From An Exceptional Stellar Occultation on July 19 2011. *American Geophysical Union Fall Meeting*, December 2011. San Francisco, CA USA. Poster.

EXTRACURRICULARS

University of Kansas Swim & Dive Club - Nationals Qualifier	2018, 2019, 2020
University of Kansas Marching Jayhawks Colorguard Member	2017
Cornell University Big Red Marching Band Colorguard Member	2009 - 14
NCAA Division 1 Cornell University Swimming & Diving Team	2011
NCAA Division 1 Cornell University Gymnastics Team	2009 - 10
USA Swimming - 14-time recorder holder, 25-time League Champion	1996 - 2009
USA Gymnastics - Junior Olympic Level 10 National Competitor	1996 - 2009