

The University of Michigan Department of Physics
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<http://www-personal.umich.edu/~jeffmcm/index.html>
 jeffmcm@umich.edu, (609) 575-6152

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| PROFESSIONAL HISTORY | Associate Professor, The University of Michigan Department of Physics | 2015— |
| | Assistant Professor, The University of Michigan Department of Physics | 2009-2015 |
| | Senior Researcher Kavli Institute for Cosmological Physics, University of Chicago | 2009 |
| | Enrico Fermi <i>and</i> KICP Postdoctoral Fellow Kavli Institute for Cosmological Physics, University of Chicago | 2006-2009 |
| | Assistant Engineer, Infrared Spatial Interferometer C. H. Townes group, Space Sciences Lab, UC Berkeley | 1999-2000 |
| | EDUCATION | |
| Ph.D. Physics <i>Princeton University</i> Thesis adviser: Suzanne T. Staggs Title: <i>The 2004–2005 CAPMAP instrument and CMB polarization data</i> | | 2006 |
| B.A. Physics <i>and</i> B.A. Applied Mathematics <i>University of California at Berkeley</i> Graduation with High Honors | | 1999 |
| FUNDING | | |
| (14) Simons Observatory at the University of Michigan PI McMahon, Univ. of Michigan: \$1,000,000 | | 2017-2022 |
| (13) Simons Observatory Simons Foundation: \$823,183 | | 2018-2021 |
| (12) <i>Proposal to Explore the Fundamental Constituents of the Universe</i> CO-I McMahon, DOE: \$150,000 | | 2018-2021 |
| (11) Unveiling the Obscured Formation of Stars and Galaxies: Large-Scale Legacy Surveys with a New Three Color Imaging Polarimeter on a 50-m Millimeter-Wave Telescope Co-PI, NSF: \$65,459 | | 2016-2021 |
| (10) Development of Feedhorn-coupled Multichroic Polarimeters for the Inflation Probe Mission: PI: McMahon, NASA \$1,190,858 | | 2017—2020 |
| (9) Advanced ACTPol (NSF MSIP) Co-PI sub-award: \$753,202 | | 2014—2021 |
| (8) Advanced Detector Technologies for Precision Measurement of Inflation, Dark Energy, and Neutrino Masses with the Cosmic Microwave Background PI McMahon, DOE: \$211,000 | | 2016-2019 |
| (7) Laser Machined Matamaterials PI McMahon, M-Cubed: \$60,000 | | 2015-2018 |
| (6) Broad-bandwidth Metamaterial Antireflection Coatings for Sub-Millimeter Astronomy and CMB Foreground Removal PI: McMahon, NASA \$204,892 | | 2016—2018 |

- (5) Broad Bandwidth Metamaterial Antireflection Coatings for Measurement of the Cosmic Microwave Background 2013—2015
PI: McMahon, NASA \$461,870
- (4) Development of Multichroic Millimeter-wave Polarization Sensitive Detector Arrays 2012—2016
PI: McMahon, NASA \$264,000
- (3) Development of Feedhorn-coupled Multichroic Polarimeters for the Inflation Probe Mission 2013—2015
PI: McMahon, NASA \$875,682
- (2) ACTPol: The Atacama Cosmology Telescope with Polarization: 2011— 2012
PI: Page, NSF prime \$115,775
- (1) Manufacture of 90 GHz detector holders for SPTPol 2011—2012
Subcontract from University of Chicago \$52,000

Total: \$6,227,920

In addition to the above funding, two current students are supported by NSF GFRP fellowships and a third is supported by a NASA NSTRF fellowship.

NOTABLE SERVICE

- Simons Observatory: Technical Committee, Chair 2017—
- Simons Observatory: Planning Committee 2017—
- CMB-S4: Technical Council Co-Chair 2018—
- CMB-S4 concept definition team 2016-2017
- ACT governing board 2015—
- Lead organizer: “Cosmology with CMB-S4 workshop” at the University of Michigan
- Lead organizer for a 2014 AAS special session: “The Exciting Future of the Cosmic Microwave Background”

HONORS

- University of Michigan Class of 1923 Memorial Teaching Award 2014
- Enrico Fermi Postdoctoral Fellowship 2006-2009
- KICP Postdoctoral Fellowship 2006-2009
- Princeton University Joseph Henry Prize 2001
- Graduation with High Honors, U.C. Berkeley 1999
- Berkeley Physics Undergraduate Research Scholars Award 1998
- Phi Beta Kappa 1997

U of M TEACHING

Student evaluations place me in the upper quartile of UofM instructors. I introduced a flipped classroom to Physics 260 and I recently developed Jupyter notebooks to introduce Python simulations and data analysis into 260 and 391.

- Physics 391: *Modern Physics Laboratory* Fall 2018
- Physics 260: *Honors Physics II: E&M* Winter 2018
- Physics 391: *Modern Physics Laboratory* Fall 2017
- Physics 260: *Honors Physics II: E&M* Winter 2017
- Physics 390: *Introduction to Modern Physics* Fall 2016
- Physics 260: *Honors Physics II: E&M* Winter 2016
- Physics 390: *Introduction to Modern Physics* Fall 2015
- Physics 260: *Honors Physics II: E&M* Winter 2015
- Physics 260: *Honors Physics II: E&M* Winter 2014
- Physics 390: *Introduction to Modern Physics* Fall 2013
- Physics 405: *Intermediate Electricity and Magnetism* Winter 2012
- Physics 390: *Introduction to Modern Physics* Fall 2011

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| Physics 405: <i>Intermediate Electricity and Magnetism</i> | Winter 2011 |
| Physics 390: <i>Introduction to Modern Physics</i> | Fall 2010 |
| Physics 140: <i>General Physics 1 discussion</i> | Fall 2009 |

UNDERGRAD RESEARCH

The following students have undertaken substantial research projects in my lab: Harrison Smith, Becky Jackson, Matt Weiss, Alex Basil, Duncan Harris, David Cardelli, Chuck Siedlecki, Wayne Oswald, Dixit Paudel, Jamie Maclellen, Kurt Flesch, Cecilia Dumochel, Katie Lass, James Kakos, Chris Richard, Mathew Past, Spencer Carmichael, and Eitan Katz. Current students include: Denis Walsh, Joel Goelic, Rachel Shaska, Remington Gerras, Kyra Fichman, and Mattiland Bowen

GRADUATE STUDENTS

| | |
|---|-----------|
| <i>Rahul Datta</i> : ACTPol: multichroic detector array, polarized sources (JHU) | 2010—2016 |
| <i>Tomasz Biesiadzinski</i> : Co-managed with Chris Miller and Greg Tarle multi-wavelength cluster cosmology (Stanford) | 2010—2013 |
| <i>Charles Munson</i> : ACTPol: silicon lenses and CMB lensing (MITRE) | 2011—2017 |
| <i>Kevin Coughlin</i> : ACTPol: wave plate development, B-modes (MITRE) | 2013—2018 |
| <i>Taylor Baidon</i> : Advanced ACTPol bandpass calibration, foregrounds | 2015— |
| <i>Joey Golec</i> : Simons Observatory: optical elements, analysis TBD | 2017— |
| <i>Grace Chesmore</i> : Simons Observatory: optical testing, analysis TBD | 2017— |
| <i>Carlos Sierra</i> : Simons Observatory: detector design, analysis TBD | 2017— |
| <i>Maya Mallaby-Kay</i> : Simons Observatory: Simons Observatory | 2018— |

POSTDOCS

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| <i>Brian Nord</i> (co-advised with Tim McKay, now at FNAL) | 2010—2012 |
| <i>Sara Simon</i> | 2017— |
| <i>Katie Harrington</i> | 2018— |

U of M COMMITTEES

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|---|-----------|
| Physics Department Undergraduate Concerns Committee | 2018 |
| Commencement Marshall | 2018 |
| Physics Department Executive Committee | 2016-2018 |
| Michigan Research Administration Advisory Committee, Faculty Advisory Committee (chair) | 2016-2017 |
| Physics Department Concentration Councilor | 2015-2016 |
| Michigan Institute for Astrophysics Research — Executive Committee | 2015-2016 |
| Michigan Research Administration Advisory Committee, Faculty Advisory Committee | 2015-2016 |
| Michigan Institute for Astrophysics Research — Executive Committee | 2014-2015 |
| Physics Department Graduate Admissions Committee | 2014-2015 |
| Michigan Institute for Astrophysics Research — Executive Committee | 2013-2014 |
| Physics Department Undergraduate Concerns Committee | 2013-2014 |
| Physics Department Graduate Admissions Committee | 2013-2014 |
| Physics Department IT Committee | 2012-2013 |
| Physics Department Undergraduate Concerns Committee | 2012-2013 |
| LS&A: Machine Shop Committee | 2011-2012 |
| Physics Department Machine Shop Committee | 2011-2012 |
| Physics Department Graduate Admissions Committee | 2011-2012 |
| Physics Department HEP/ ASTRO Seminar Committee | 2010-2011 |
| Physics Department HEP/ ASTRO Seminar Committee | 2010-2011 |
| Physics Department Graduate Admissions Committee | 2010-2011 |
| Physics Department HEP/ ASTRO Seminar Committee | 2009-2010 |
| Physics Department Graduate Awards Committee | 2009-2010 |

OUTREACH

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|---|-----------|
| <i>CMB Data Analysis School</i> | 2019 |
| <i>CMB Cosmology the next ten years: PDT Partners</i> | 2019 |
| <i>CMB Data Analysis summer School</i> | 2016 |
| <i>La Serena Data Science Summer School</i> | 2015 |
| <i>Michigan Math and Science Scholars: Experimental Cosmology, 2 week course for high school students</i> | 2015 |
| <i>Michigan Math and Science Scholars: Experimental Cosmology, 2 week course for high school students</i> | 2014 |
| <i>Cosmology with the Cosmic Microwave Background: Michigan Society of Physics Teachers</i> | 2014 |
| <i>Cosmology with the Cosmic Microwave Background: 2σ corporation</i> | 2014 |
| <i>Understanding the BICEP2 Results: video conference with high school students</i> | 2014 |
| <i>Saturday Morning Physics, Ann Arbor, MI</i> | 2013 |
| <i>Saturday Morning Physics, Ann Arbor, MI</i> | 2011 |
| <i>Science Cafe, Ann Arbor, MI</i> | 2010 |
| <i>Conversations with Astronomers at the Adler Planetarium</i> | 2008-2009 |
| <i>Live from the South Pole, webcasts with the Exploratorium</i> | 2006-2009 |
| <i>The South Pole Telescope, Cafe Scientific, Chicago, IL</i> | 2006 |

RESEARCH PRESENTATIONS

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|---|--|
| Cornell Physics Colloquium 2019 | |
| CMB-S4 review 2018 | |
| NASA long wavelength PI meeting 2018 | |
| CMB-S4 meeting 2018 | |
| Physics colloquium, University of Sussex, 2017 | |
| Low-Temperature Detectors Conference, Kurume, Japan 2017 | |
| CMB-S4 meeting 2017 | |
| NASA long wavelegnth PI meeting 2017 | |
| DPF meeting at FNAL 2017 | |
| Physics Colloquium, University of Chicago, 2017 | |
| ICHEP, Chicago, August 2016 | |
| NASA long wavelegnth PI meeting 2016 | |
| University of Illinois Urbana Champaign Astronomy colloquium 2016 | |
| NASA Goddard Optics Groups, October 2015 | |
| The Brookhaven Forum, October 2015 | |
| NASA long wavelength PI meeting 2015 | |
| Physics Colloquium Michigan State University, October 2015 | |
| Case Western Cosmology Seminar, February 2015 | |
| NASA long wavelegnth PI meeting 2014 | |
| Cornell LEPP Seminar, October 2014 | |
| University of Michigan Physics Colloquium, September 2014 | |
| Columbia University Cosmology Seminar, February 2014 | |
| McGill Astronomy Colloquium, February 2014 | |
| University of Toronto seminar, October 2013 | |
| NASA long wavelegnth PI meeting 2013 | |
| Physics Colloquium University of Florida, March 2013 | |

NASA long wavelength PI meeting 2012
Physics Seminar Johns Hopkins, February 2012
SZX Huntsville, 2011
Michigan State Cosmology Seminar, 2011
Berkeley Cosmology Lensing Workshop, 2011

PUBLICATIONS **h-index: 56**
refereed publications 129

- “The Atacama Cosmology Telescope: Two-season ACTPol Extragalactic Point Sources and their Polarization properties,” R. Datta et al., MNRAS (November 2018)
- “Weak-Lensing Mass Calibration of ACTPol Sunyaev-Zel’dovich Clusters with the Hyper Suprime-Cam Survey,” H. Miyatake et al., Submitted to ApJ (2018)
- “The Atacama Cosmology Telescope: The Two-Season ACTPol Sunyaev-Zel’dovich Effect Selected Cluster Catalog,” M. Hilton et al., Accepted for publication in ApJS (2018)
- “The Simons Observatory: Science goals and forecasts,” The Simons Observatory Collaboration et al., Accepted by ApJ
- “Reflectometry Measurements of the Loss Tangent in Silicon at Millimeter Wavelengths,” G. Chesmore et al., proceedings from the 8th ESA Workshop on Millimetre-Wave Technology and Applications (2018)
- “Cluster Cosmology Constraints from the 2500 deg² SPT-SZ Survey: Inclusion of Weak Gravitational Lensing Data from Magellan and the Hubble Space Telescope,” S Bocquet et al., Submitted to ApJ
- “Measurement of the Splashback Feature around SZ-selected Galaxy Clusters with DES, SPT and ACT,” T. Shin et al., Submitted to MNRAS
- “Mass Calibration of Optically Selected DES clusters using a Measurement of CMB-Cluster Lensing with SPTpol Data,” S. Raghunathan, et al., Submitted to ApJ
- “Measuring Cross-Spectra of the Cosmic Infrared Background from 95 to 1200 GHz,” S. Raghunathan, et al., Submitted to ApJ
- “Maps of the Southern Millimeter-wave Sky from Combined 2500 deg² SPT-SZ and Planck Temperature Data,” R. Chown, et al., ApJs 239:10 (14pp), 2018 November
- “Dark Energy Survey Year 1 Results: Cross-correlation between DES Y1 galaxy weak lensing and SPT+Planck CMB weak lensing,” Y. Omori et al., Submitted to ApJ
- “Dark Energy Survey Year 1 Results: tomographic cross-correlations between DES galaxies and CMB lensing from SPT+Planck,” Y. Omori et al., Submitted to ApJ
- “Dark Energy Survey Year 1 Results: Joint Analysis of Galaxy Clustering, Galaxy Lensing, and CMB Lensing Two-point Functions,” Y. Omori et al., Submitted to ApJ
- “Cosmological lensing ratios with DES Y1, SPT and Planck,” Y. Omori et al., Submitted to MNRAS
- “Feedhorn development and scalability for Simons Observatory and beyond,” S. Simon et al., Proc. SPIE (July 2018)
- “Pushing the Limits of Broadband and High Frequency Metamaterial Silicon Antireflection Coatings,” K. Coughlin et al., Proc. SPIE (July 2018)

- “The Simons Observatory: Instrument Overview,” N. Galitzki, et al., Proc. SPIE (July 2018)
- “Optical Design of PICO, a Concept for a Space Mission to Probe Inflation and Cosmic Origins,” K. Young, et al., Proc. SPIE (July 2018)
- “CCAT-prime: a novel telescope for submillimeter astronomy,” K. Young, et al., Proc. SPIE (July 2018)
- “BFORE: A CMB Balloon Payload to Measure Reionization, Neutrino Mass, and Cosmic Inflation,” S. Bryan, et al., Proc. SPIE (July 2018)
- “Optical Design of the TolTEC Millimeter-wave Camera,” S. Bryan, et al., Proc. SPIE (July 2018)
- “Development of Calibration Strategies for the Simons Observatory,” S. Brian et al., Proc. SPIE (July 2018)
- “Studies of Systematic Uncertainties for Simons Observatory: Detector Array Effects,” K. Crowley et al., Proc. SPIE (July 2018)
- “Simons Observatory Large Aperture Telescope Receiver Design Overview,” N. Zhu et al., Proc. SPIE (July 2018)
- “Cooldown Strategies and Transient Thermal Simulations for the Simons Observatory,” G. Coppi et al., Proc. SPIE (July 2018)
- “Simons Observatory large aperture receiver simulation overview,” J. Orłowski-Scherer, et al., Proc. SPIE (July 2018)
- “Studies of Systematic Uncertainties for Simons Observatory: Optical Effects and Sensitivity Considerations,” P. Gallardo, et al., Proc. SPIE (July 2018)
- “Cold optical design for the Large Aperture Simons Observatory telescope,” S. Dicker, et al., Proc. SPIE (July 2018)
- “BoloCalc: a sensitivity calculator for the design of Simons Observatory,” C. Hill, et al., Proc. SPIE (July 2018)
- “Designs for next generation CMB survey strategies from Chile,” J. Stevens., et al., Proc. SPIE (July 2018)
- “CMB-S4 Technology Book, First Edition,” M. Abitbol et al., arXiv:1706.02464 (2017)
- “The Atacama Cosmology Telescope: Two-Season ACTPol Lensing Power Spectrum,” B. Sherwin et al., Phys. Rev. D 95, 123529 (2017)
- “Constraints on Cosmological Parameters from the Angular Power Spectrum of a Combined 2500 deg² SPT-SZ and Planck Gravitational Lensing Map,” G. Simard, et al., ApJ (2017)
- “A Measurement of CMB Cluster Lensing with SPT and DES Year 1 Data,” E. Baxter, et al., MNRAS (2017)
- “Measurements of the Temperature and E-Mode Polarization of the CMB from 500 Square Degrees of SPTpol Data,” J. Henning, et al., ApJ. Volume 852, Issue 2, article id. 97, 31 pp. (2018)
- “A Comparison of Cosmological Parameters Determined from CMB Temperature Power Spectra from the South Pole Telescope and the Planck Satellite,” K. Aylor, et al., ApJ. Volume 850, Issue 1, article id. 101, 14 pp. (2017)
- “A 2500 square-degree CMB lensing map from combined South Pole Telescope and Planck data,” Y. Omori, et al., ApJ. Volume 849, Issue 2, article id. 124, 16 pp. (2017)

- “A Comparison of Maps and Power Spectra Determined from South Pole Telescope and Planck Data,” Z. Hou, et al., *ApJ*. Volume 853, Issue 1, article id. 3, 14 pp. (2018).
- “Composite Reflective/Absorptive IR-Blocking Filters Embedded in Metamaterial Antireflection Coated Silicon,” C. Munson et al., *Applied Optics*, Volume 56, Issue 19, page 5349
- “CMB Polarization B-mode Delensing with SPTpol and Herschel,” A. Manzotti, et al., *ApJ*. Volume 846, Issue 1, article id. 45, 17 pp. (2017)
- “Detection of the pairwise kinematic Sunyaev-Zel’dovich effect with BOSS DR11 and the Atacama Cosmology Telescope,” F. De Bernardis et al., *JCAP* 03 (2017)
- “The Atacama Cosmology Telescope: The polarization-sensitive ACTPol instrument,” R.Thorton et al., *ApJs* Volume 227, Issue 2, article id. 21, 15 pp. (2016)
- “Maps of the Magellanic Clouds from Combined South Pole Telescope and Planck Data,” T. Crawford et al., *ApJs* Volume 227, Issue 2, article id. 23, 20 pp. (2016)
- “Millimeter Transient Point Sources in the SPTpol 100 Square Degree Survey,” N. Whitehorn et al., *ApJ* Volume 830, Issue 2, article id. 143, 9 pp. (2016)
- “Cosmological Constraints from Galaxy Clusters in the 2500 square-degree SPT-SZ Survey,” T. de Haan et al., *ApJ* volume 832, Issue 1, article id. 95, 17 pp. (2016).
- “The Cosmology Large Angular Scale Surveyor,” K. Harrington et al., *Proc SPIE* 2016
- “The Primordial Inflation Polarization Explorer (PIPER),” N. Gandilo, *Proc SPIE* 2016
- “The Cosmology Large Angular Scale Surveyor,” K. Harrington et al., *Proc SPIE* 2016
- “Readout of two-kilopixel transition-edge sensor arrays for Advanced ACTPol,” S. Henderson et al., *Proc SPIE* 2016
- “Polarization Sensitive Multi-Chroic MKIDs,” B. Johnson et al., *Proc SPIE* 2016
- “Optical modeling and polarization calibration for CMB measurements with ACTPol and Advanced ACTPol,” B. Koopman et al., *Proc SPIE* 2016
- “Design of 280 GHz feedhorn-coupled TES arrays for the balloon-borne polarimeter SPIDER,” H. Hubmayr et al., *Proc SPIE* 2016
- “The Atacama Cosmology Telescope: measuring radio galaxy bias through cross-correlation with lensing,” R. Allison et al., *MNRAS* 2015
- “Design and Deployment of a Multichroic Polarimeter Array on the Atacama Cosmology Telescope,” R. Datta et al., *Journal of Low Temperature Physics* (2015)
- “Evidence for the kinematic Sunyaev-Zel’dovich effect with ACTPol and velocity reconstruction from BOSS,” E. Schaan et al., *ApJ* (2015)
- “Advanced ACTPol Cryogenic Detector Arrays and Readout,” S. Henderson et al., *Journal of Low Temperature Physics* (2015)
- “BFORE: The B-mode Foreground Experiment,” M. Niemack et al., *Journal of Low Temperature Physics* (2015)
- “Measurements of Sub-degree B-mode Polarization in the Cosmic Microwave Background from 100 Square Degrees of SPTpol Data,” R. Keisler et al., *ApJ* (2015)
- “The Atacama Cosmology Telescope: measuring radio galaxy bias through cross-correlation with lensing,” R. Allison et al., *ApJ* (2015)

- “A Measurement of Gravitational Lensing of the Cosmic Microwave Background by Galaxy Clusters Using Data from the South Pole Telescope,” E. J. Baxter et al., *ApJ* (2014)
- “A Measurement of the Cosmic Microwave Background Gravitational Lensing Potential from 100 Square Degrees of SPTpol Data,” K. Story et al., *ApJ* (2014)
- “The Atacama Cosmology Telescope: Lensing of CMB Temperature and Polarization Derived from Cosmic Infrared Background Cross-Correlation,” A van Engelen et al., *ApJ* (2014)
- “Measurements of E-Mode Polarization and Temperature-E-Mode Correlation in the Cosmic Microwave Background from 100 Square Degrees of SPTpol Data,” A Crites et al., *ApJ* (2014)
- “Galaxy Clusters Discovered via the Sunyaev-Zel’dovich Effect in the 2500-square-degree SPT-SZ survey,” L. Bleem et al., *ApJs* (2014)
- “A measurement of secondary cosmic microwave background anisotropies from the 2500-square-degree SPT-SZ survey,” E. M. George et al., *ApJ* (2014)
- “Analysis of Sunyaev-Zel’dovich Effect Mass-Observable Relations using South Pole Telescope Observations of an X-ray Selected Sample of Low Mass Galaxy Clusters and Groups,” J. Liu et al., *ApJ* (2014)
- “Mass Calibration and Cosmological Analysis of the SPT-SZ Galaxy Cluster Sample Using Velocity Dispersion σ_v and X-ray Y_X Measurements,” S. Bocquet et al., *ApJ* (2014)
- “Precision Epoch of Reionization studies with next-generation CMB experiments,” E. Calabrese et al., *JCAP* Issue 08, article id. 010, pp. (2014)
- “The Atacama Cosmology Telescope: CMB Polarization at $200 < \ell < 9000$,” S. Naess et al., *JCAP*, Issue 10, article id. 007, pp. (2014)
- “The Redshift Evolution of the Mean Temperature, Pressure, and Entropy Profiles in 80 SPT-Selected Galaxy Clusters,” M. McDonald et al., *ApJ* V794, Issue 1, article id. 67, 16 pp. (2014)
- “Neutrino Physics from the Cosmic Microwave Background and Large Scale Structure”, K. Abazajian et al., accepted by *Astroparticle Physics*, (2014)
- “Horn Coupled Multichroic Polarimeters for the Atacama Cosmology Telescope Polarization Experiment,” R. Datta et al., *JLTP* 0022-2291, (2014)
- “Measurement of Galaxy Cluster Integrated Comptonization and Mass Scaling Relations with the South Pole Telescope,” B. Saliwanchik et al., *ApJ* (2013)
- “Constraints on the CMB Temperature Evolution using Multi-Band Measurements of the Sunyaev Zel’dovich Effect with the South Pole Telescope,” A. Saro et al., *MNRAS* (2013)
- “Optical Spectroscopy and Velocity Dispersions of Galaxy Clusters from the SPT-SZ Survey,” J. Ruel et al., accepted by *APJ* (2013)
- “A Study of Al-Mn Transition Edge Sensor Engineering for Stability,” E. George et al., *JLTP* SI:LTD15 (2014)
- “Inflation Physics from the Cosmic Microwave Background and Large Scale Structure,” K. Abazajian et al., *Astroparticle Physics*. (2013)
- “Detection of B-mode Polarization in the Cosmic Microwave Background with Data from the South Pole Telescope,” D. Hanson et al., *Phys. Rev. Lett.* 111, 141301 (2013)
- “Large-aperture wide-bandwidth antireflection-coated silicon lenses for millimeter wavelengths,” R. Datta et al., *Applied Optics*, Vol. 52, Issue 36, pp. 8747-8758 (2013)

- “SPT-CLJ2040-4451: An SZ-Selected Galaxy Cluster at $z = 1.478$ With Significant Ongoing Star Formation,” Bayliss et al., *ApJ* V794, Issue 1, article id. 12, 14 pp. (2014).
- “A direct measurement of the linear bias of mid-infrared-selected quasars at $z \sim 1$ using cosmic microwave background lensing,” J. E. Geach et al., *ApJL* 776:L41 (2013)
- “Extragalactic millimeter-wave point source catalog, number counts and statistics from 771 square degrees of the SPT-SZ Survey,” L. M. Mocanu et al., *ApJ* 779:61 (2013)
- “The Growth of Cool Cores and Evolution of Cooling Properties in a Sample of 83 Galaxy Clusters at $0.3 < z < 1.2$ Selected from the SPT-SZ Survey,” M. McDonald et al., *ApJ* 774:23 (2013)
- “A CMB lensing mass map and its correlation with the cosmic infrared background,” G. Holder et al., *ApJ* 771:L16 (2013)
- “A measurement of the secondary-CMB and millimeter-wave-foreground bispectrum using 800 square degrees of South Pole Telescope data,” T. M. Crawford et al., *ApJ* 784:143 (2013)
- “ALMA redshifts of millimeter-selected galaxies from the SPT survey: The redshift distribution of dusty star-forming galaxies,” A. Weiss et al., *ApJ* 767:1 (2013)
- “Dusty starburst galaxies in the early Universe as revealed by gravitational lensing,” Vieira et al., *Nature* 495, 344347 (2013)
- “ALMA Observations of SPT-Discovered, Strongly Lensed, Dusty, Star-Forming Galaxies,” Hezaveh et al., *ApJ* 767:132 (2013)
- “Constraints on Cosmology from the Cosmic Microwave Background Power Spectrum of the 2500-square degree SPT-SZ Survey,” Hou et al., *ApJ* 782:74 (2014)
- “A Measurement of the Cosmic Microwave Background Damping Tail from the 2500-square-degree SPT-SZ survey,” Story et al., *ApJ*. 779:1 (2013)
- “High-Redshift Cool-Core Galaxy Clusters Detected via the Sunyaev–Zel’dovich Effect in the South Pole Telescope Survey,” Semler et al., *ApJ* 761:183 (2012)
- “A Massive, Cooling-Flow-Induced Starburst in the Core of a Highly Luminous Galaxy Cluster,” McDonald et al., *Nature*, 488:7411 (2012)
- “The QUIET Instrument,” QUIET collaboration et al., *ApJ* 768:9 (2013)
- “Second Season QUIET Observations: Measurements of the CMB Polarization Power Spectrum at 95 GHz,” Quiet Collaboration et al., *ApJ* 760:145 (2012)
- “Redshifts, Sample Purity, and BCG Positions for the Galaxy Cluster Catalog from the first 720 Square Degrees of the South Pole Telescope Survey,” Song et al., *ApJ* 761:22 (2013)
- “Submillimeter Observations of Millimeter Bright Galaxies Discovered by the South Pole Telescope,” Greve et al., *ApJ* 756:101 (2012)
- “SPT-CL J0205-5829: A $z = 1.32$ Evolved Massive Galaxy Cluster in the South Pole Telescope Sunyaev-Zel’dovich Effect Survey,” Stadler et al., *ApJ* 763:93 (2012)
- “Weak-Lensing Mass Measurements of Five Galaxy Clusters in the South Pole Telescope Survey Using Magellan/Megacam,” High et al., *ApJ* 758:1 (2012)
- “Galaxy clusters discovered via the Sunyaev-Zel’dovich effect in the first 720 square degrees of the South Pole Telescope survey,” Reichardt et al., *ApJ* 763:127 (2012)
- “A Measurement of the Correlation of Galaxy Surveys with CMB Lensing Convergence Maps from the South Pole Telescope,” Bleem et al., *ApJ letters* *ApJ* 753:L9 (2012)

- “A measurement of gravitational lensing of the microwave background using South Pole Telescope data,” van Engelen et al., *ApJ*, 756:2 (2012)
- “Multi-Chroic Feed-Horn Coupled TES Polarimeters,” J. McMahon, et al., *JLTP* 167 (2012)
- “Impact of Systematics on SZ-Optical Scaling Relations,” T. Biesiadzinski, J. J. McMahon, C. J. Miller, B. Nord, and L. Shaw, *ApJ* 757:1 (2012)
- “Cosmological Constraints from Sunyaev-Zel’dovich-Selected Clusters with X-ray Observations in the First 178 Square Degrees of the South Pole Telescope Survey,” B. Benson et al., *ApJ* 763:127 (2012)
- “Frequency Multiplexed SQUID Readout of Large Bolometer Arrays for Cosmic Microwave Background Measurements,” M. Dobbs et al., *RSI* 83:7 (2012)
- “SPTPol: an instrument for CMB polarization measurements with the South Pole Telescope”, J. E. Austermann et al., *Proc. SPIE*, Vol. 8452, 8452E (2012)
- “The First Public Release of South Pole Telescope Data: Maps of a 95-square-degree Field from 2008 Observations,” K. Schaffer et al., *ApJ*, 743:90 (2011)
- “Cosmic microwave background constraints on the duration and timing of reionization from the South Pole Telescope,” O. Zahn et al., *ApJ* 756:65 (2012)
- “A measurement of secondary cosmic microwave background anisotropies with two years of South Pole Telescope observations,” C. L. Reichardt et al., *ApJ* 755:1 (2011)
- “A Measurement of the Damping Tail of the Cosmic Microwave Background Power Spectrum with the South Pole Telescope,” R. Keisler et al., *ApJ* 743:1 (2011)
- “South Pole Telescope Detections of the Previously Unconfirmed Planck Early SZ Clusters in the Southern Hemisphere,” K. Story et al., *ApJ* 735:L36 (2011)
- “An SZ-selected sample of the most massive galaxy clusters in the 2500-square-degree South Pole Telescope survey,” R. Williamson et al., *ApJ* 738:2 (2011)
- “Discovery and Cosmological Implications of SPT-CL J2106-5844, the Most Massive Known Cluster at $z > 1$,” R. J. Foley et al., *ApJ* 731:2 (2011)
- “Improved constraints on cosmic microwave background secondary anisotropies from the complete 2008 South Pole Telescope data,” E. Shirokoff et al., *ApJ* 736:61 (2011)
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