Curriculum Vitae
Amy E. Lowitz

Contact

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University of Chicago
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Education

PhD **University of Wisconsin Madison**, 2017, Physics
Dissertation: *Kinetic Inductance Detectors for CMB Polarimetry at 100 GHz*
Advisor: Prof. Peter Timbie
MS **University of Wisconsin - Madison**, 2012, Physics
ScB **Brown University**, 2009, Physics

Appointments

Kavli Institute for Cosmological Physics, University of Chicago — Mar 2017-present
Postdoctoral scholar with the South Pole Telescope collaboration, working on:
- SQUID amplifier characterization, milikelvin SQUID readout development.
- Digital frequency multiplexed TES readout testing, integration, and optimization.
- Field maintenance and deployment of telescope receiver instrumentation.

South Pole Telescope, South Pole, Antarctica (for the University of Chicago) — Jan 2016 - Nov 2016
Winter telescope operator

Timbie Laboratory, University of Wisconsin - Madison — 2011 - 2017
Graduate student working on:
- Kinetic indictance detectors for cosmic microwave background polarimetry.
- Nanofabrication material- and process- development.

MIT Lincoln Laboratory, Lexington, MA — 2009-2010
Feature-based classifier algorithm development
Computer vision algorithm development and validation
Statistical validation of simulations

Dell'Antonio Laboratory, Brown University — 2008-2009
Honors thesis: "Photometric Redshifts for Galaxies in a Lensing Survey"

Page Laboratory, Princeton University — Summers 2007 - 2008
Recombination spectrum distortion detection, cryostat construction
Cryogenic system repair/comissioning for the ABS telescope

Tucker Laboratory, Brown University — 2008
Pointing system rebuild for the BLAST telescope

Valles Laboratory, Brown University — 2006-2007
Paramecium response to altered-gravity environments

Languages

English, American Sign Language, French
MATLAB, Python

Service and Outreach

Junior Scientist Advancement Committee, Member, CMB-S4 Collaboration	2018-present
Adler Planetarium Astronomy Conversations Lecturer, Chicago, Il	2017-present
Women and Gender Minorities in Physics, Founding Member, UW Madison	2015-2017
IEEE, Chairperson, CSC Student and Recent Graduate Outreach Committee	2013-2014
Wonders of Physics/Physics Fair: Science outreach event, UW-Madison	2011-2015
Expand Your Horizons: Girls' Science Day, UW-Madison	2010-2013
Women in Science and Engineering (WiSE), Brown University	
Member	2005-2009
Peer-mentor	2007-2009
Founder and chairperson of physicsWiSE	2007-2009

Honors

Enrico Fermi Institute 88th Compton Lecturer	Fall 2018
Antarctica Service Medal	2016
NASA Space Technology Research Fellow	2012-2015
IEEE Council on Superconductivity Fellow	2012
Wisconsin Space Grant Fellow	2011-2012
Van Vleck Fellow, University of Wisconsin - Madison	2010
Bachelor of Science with Honors, Brown University	2009

Teaching

Introductory Physics, private tutor	Madison, WI	2011-2015
General Physics, teaching assistant	UW Madison	Spring 2011
Physics in the Arts, teaching assistant	UW Madison	Fall 2010
MATCH School AP Calculus, volunteer tutor	Boston, MA	2009-2010
Introductory calculus, tutor	Brown University	2007-2009
Introductory physics, tutor	Brown University	2007-2009
Sophia Academy, volunteer math tutor	Providence, RI	2007-2008

Publications

AE Lowitz, AN Bender, MA Dobbs, AJ Gilbert, **"Digital frequency multiplexing with sub-Kelvin SQUIDs."** *Proc. SPIE 10708: Millimeter, Submillimeter, and Far-Infrared Detectors and Instrumentation for Astronomy IX*, 107081D (2018)

D Dutcher, PAR Ade, Z Ahmed, AJ Anderson, JS Avva, R Basu Thakur, AN Bender, BA Benson, JE Carlstrom, FW Carter, TW Cecil, CL Chang, JF Cliche, A Cukierman, T de Haan, J Ding, MA Dobbs, W Everett, A Foster, J Gallicchio, A Gilbert, JC Groh, AH Harke-Hosemann, ST Guns, NW Halverson, NL Harrington, JW Henning, WL Holzapfel, N Huang, KD Irwin, OB Jeong, M Jonas, TS Khaire, AM Kofman, M Korman, DL Kubik, S Kuhlmann, C-L Kuo, AE Lowitz, AT Lee, SS Meyer, D Michalik, J Montgomery, A Nadolski, T Natoli, H Nguyen, GI Noble, V Novosad, S Padin, Z Pan, J Pearson, CM Posada, W Quan, A Rahlin, JE Ruhl, JT Sayre, E Shirokoff, G Smecher, JA Sobrin, AA Stark, KT Story, A Suzuki, KL Thompson, C Tucker, K Vanderlinde, JD Vieira, G Wang, N Whitehorn, V Yefremenko, KW Yoon, MR Young, **"Characterization and performance of the second-year SPT-3G focal plane."** *Proc. SPIE 10708: Millimeter, Submillimeter, and Far-Infrared Detectors and Instrumentation for Astronomy IX*, 107081Z (2018)

D Barron, K Arnold, T Elleflot, J Groh, D Kaneko, N Katayama, A Lee, L Lowry, H Nishino, A Suzuki, S Takatori, P Ade, Y Akiba, A Ali, M Aguilar, A Anderson, P Ashton, J Avva, D Beck, C Baccigalupi, S Beckman, A Bender, F Bianchini, D Boettger, J Borrill, J Carron, S Chapman, Y Chinone, G Coppi, K Crowley, A Cukierman, T de Haan, M Dobbs, R Dunner, J Errard, G Fabbian, S Feeney, C Feng, G Fuller, N Galitzki, A Gilbert, N Goeckner-Wald, T Hamada, N Halverson, M Hasegawa, M Hazumi, C Hill, W Holzapfel, L Howe, Y Inoue, J Ito, G Jaehnig, O Jeong, B Keating, R Keskitalo, T Kisner, N Krachmalnicoff, A Kusaka, M Le Jeune, D Leon, E Linder, A Lowitz, A Madurowicz, D Mak, F Matsuda, T Matsumura, A May, N Miller, Y Minami, J Montgomery, T Natoli, M Navroli, J Peloton, A Pham, L Piccirillo, D Plambeck, D Poletti, G Puglisi, C Raum, G Rebeiz, C Reichardt, P Richards, H Roberts, C Ross, K Rotermund, Max Silva Feaver, Y Segawa, B Sherwin, P Siritanasak, L Steinmetz, R Stompor, O Tajima, S Takakura, D Tanabe, R Tat, G Teply, A Tikhomirov, T Tomaru, C Tsai, C Verges, B Westbrook, N Whitehorn, A Zahn, **"Electrical characterization and tuning of the integrated POLARBEAR-2a focal plane and readout."** *Proc. SPIE 10708: Millimeter, Submillimeter, and Far-Infrared Detectors and Instrumentation for Astronomy IX*, 1070808 (2018)

AN Bender, PAR Ade, Z Ahmed, A Anderson, J Austermann, J Avva, P Barry, R Basu Thakur, B Benson, L Bleem, K Byrum, JE Carlstrom, F Carter, T Cecil, C Chang, H-M Cho, J-F Cliche, T Crawford, A Cukierman, E Denison, T de Haan, J Ding, M Dobbs, D Dutcher, W Everett, A Foster, R Gannon, A Gilbert, J Groh, N Halverson, A Harke-Hosemann, N Harrington, J Henning, G Hilton, G Holder, W Holzapfel, N Huang, K Irwin, O Jeong, M Jonas, T Khaire, L Knox, A Kofman, M Korman, D Kubik, S Kuhlmann, C-L Kuo, A Lee, E Leitch, A Lowitz,

S Meyer, D Michalik, J Montgomery, A Nadolski, T Natoli, H Ngyuen, G Noble, V Novosad, S Padin, Z Pan, J Pearson, C Posada, A Rahlin, C Reichardt, J Ruhl, L Saunders, J Sayre, I Shirley, E Shirokoff, G Smecher, J Sobrin, A Stark, K Story, A Suzuki, Q-Y Ting, K Thompson, C Tucker, L Vale, K Vanderlinde, J Vieira, G Wang, N Whitehorn, V Yefremenko, KW Yoon, M Young, **"Year 2 instrument status from the SPT-3G cosmic microwave background receiver."** *Proc. SPIE 10708: Millimeter, Submillimeter, and Far-Infrared Detectors and Instrumentation for Astronomy IX*, 1070803 (2018)

A Nadolski, AM Kofman, JD Vieira, PAR Ade, Z Ahmed, AJ Anderson, JS Avva, R Basu Thakur, AN Bender, BA Benson, JE Carlstrom, FW Carter, TW Cecil, CL Chang, JF Cliche, A Cukierman, T de Haan, J Ding, MA Dobbs, D Dutcher, W Everett, A Foster, J Fu, J Gallichio, A Gilbert, JC Groh, ST Guns, R Guyser, NW Halverson, AH Harke-Hosemann, NL Harrington, JW Henning, WL Holzapfel, N Huang, KD Irwin, OB Jeong, M Jonas, A Jones, TS Khaire, M Korman, DL Kubik, S Kuhlmann, C-L Kuo, AT Lee, AE Lowitz, SS Meyer, D Michalik, J Montgomery, T Natoli, H Nguyen, GI Noble, V Novosad, S Padin, Z Pan, J Pearson, CM Posada, W Quan, A Rahlin, JE Ruhl, JT Sayre, E Shirokoff, G Smecher, JA Sobrin, AA Stark, KT Story, A Suzuki, KL Thompson, C Tucker, K Vanderlinde, G Wang, N Whitehorn, V Yefremenko, KW Yoon, MR Young, **"Broadband anti-reflective coatings for cosmic microwave background experiments."** *Proc. SPIE 10708, Millimeter, Submillimeter, and Far-Infrared Detectors and Instrumentation for Astronomy IX*, 1070843 (2018)

AJ Anderson, PAR Ade, Z Ahmed, JE Austermann, JS Avva, PS Barry, R Basu Thakur, AN Bender, BA Benson, LE Bleem, K Byrum, JE Carlstrom, FW Carter, T Cecil, CL Chang, HM Cho, JF Cliche, TM Crawford, A Cukierman, EV Denison, T de Haan, J Ding, MA Dobbs, D Dutcher, W Everett, A Foster, RN Gannon, A Gilbert, JC Groh, NW Halverson, AH Harke-Hosemann, NL Harrington, JW Henning, GC Hilton, GP Holder, WL Holzapfel, N Huang, KD Irwin, OB Jeong, M Jonas, T Khaire, L Knox, AM Kofman, M Korman, D Kubik, S Kuhlmann, N Kuklev, CL Kuo, AT Lee, EM Leitch, AE Lowitz, SS Meyer, D Michalik, J Montgomery, A Nadolski, T Natoli, H Nguyen, GI Noble, V Novosad, S Padin, Z Pan, J Pearson, CM Posada, A Rahlin, CL Reichardt, JE Ruhl, LJ Saunders, JT Sayre, I Shirley, E Shirokoff, G Smecher, JA Sobrin, AA Stark, KT Story, A Suzuki, QY Tang, KL Thompson, C Tucker, LR Vale, K Vanderlinde, JD Vieira, G Wang, N Whitehorn, V Yefremenko, KW Yoon, MR Young, **"SPT-3G: A multichroic receiver for the South Pole Telescope."** *Journal of Low Temperature Physics*, 1-9. (2018)

J Ding, PAR Ade, Z Ahmed, AJ Anderson, JE Austermann, JS Avva, R Basu Thakur, AN Bender, BA Benson, JE Carlstrom, FW Carter, T Cecil, CL Chang, JF Cliche, A Cukierman, EV Denison, T de Haan, R Divan, MA Dobbs, D Dutcher, W Everett, A Foster, RN Gannon, A Gilbert, JC Groh, NW Halverson, AH Harke-Hosemann, NL Harrington, JW Henning, GC Hilton, WL Holzapfel, N Huang, KD Irwin, OB Jeong, M Jonas, T Khaire, AM Kofman, M Korman, D Kubik, S Kuhlmann, CL Kuo, AT Lee, AE Lowitz, SS Meyer, D Michalik, CS Miller, J Montgomery, A Nadolski, T Natoli, H Nguyen, GI Noble, V Novosad, S Padin, Z Pan, J Pearson, CM Posada, A Rahlin, JE Ruhl, LJ Saunders, JT Sayre, I Shirley, E Shirokoff, G Smecher, JA Sobrin, L Stan, AA Stark, KT Story, A Suzuki, QY Tang, KL Thompson, C Tucker, LR Vale, K Vanderlinde, JD Vieira, G Wang, N Whitehorn, V Yefremenko, KW Yoon, MR Young, **"Thermal Links and Microstrip Transmission Lines in SPT-3G Bolometers."** *Journal of Low Temperature Physics*, 1-8. (2018)

CM Posada, PAR Ade, Z Ahmed, AJ Anderson, JE Austermann, JS Avva, R Basu Thakur, AN Bender, BA Benson, JE Carlstrom, FW Carter, T Cecil, CL Chang, JF Cliche, A Cukierman, EV Denison, T de Haan, J Ding, R Divan, MA Dobbs, D Dutcher, W Everett, A Foster, RN Gannon, A Gilbert, JC Groh, NW Halverson, AH Harke-Hosemann, NL Harrington, JW Henning, GC Hilton, WL Holzapfel, N Huang, KD Irwin, OB Jeong, M Jonas, T Khaire, AM Kofman, M Korman, D Kubik, S Kuhlmann, CL Kuo, AT Lee, AE Lowitz, SS Meyer, D Michalik, CS Miller, J Montgomery, A Nadolski, T Natoli, H Nguyen, GI Noble, V Novosad, S Padin, Z Pan, J Pearson, A Rahlin, JE Ruhl, LJ Saunders, JT Sayre, I Shirley, E Shirokoff, G Smecher, JA Sobrin, L Stan, AA Stark, KT Story, A Suzuki, QY Tang, KL Thompson, C Tucker, LR Vale, K Vanderlinde, JD Vieira, G Wang, N Whitehorn, V Yefremenko, KW Yoon, MR Young, **"Fabrication of Detector Arrays for the SPT-3G Receiver."** *Journal of Low Temperature Physics*, 1-9. (2018)

Z Pan, PAR Ade, Z Ahmed, AJ Anderson, JE Austermann, JS Avva, R Basu Thakur, AN Bender, BA Benson, JE Carlstrom, FW Carter, T Cecil, CL Chang, J-F Cliche, A Cukierman, EV Denison, T de Haan, J Ding, MA Dobbs, D Dutcher, W Everett, A Foster, RN Gannon, A Gilbert, JC Groh, NW Halverson, AH Harke-Hosemann, NL Harrington, JW Henning, GC Hilton, WL Holzapfel, N Huang, KD Irwin, OB Jeong, M Jonas, T Khaire, AM Kofman, M Korman, D Kubik, S Kuhlmann, CL Kuo, AT Lee, AE Lowitz, SS Meyer, D Michalik, J Montgomery, A Nadolski, T Natoli, H Nguyen, GI Noble, V Novosad, S Padin, J Pearson, CM Posada, A Rahlin, JE Ruhl, LJ Saunders, JT Sayre, I Shirley, E Shirokoff, G Smecher, JA Sobrin, AA Stark, KT Story, A Suzuki, QY Tang, KL Thompson, C Tucker, LR Vale, K Vanderlinde, JD Vieira, G Wang, N Whitehorn, V Yefremenko, Ki Won Yoon, MR Young, **"Optical Characterization of the SPT-3G Camera."** *Journal of Low Temperature Physics*, 1-9. (2018)

FW Carter, PAR Ade, Z Ahmed, AJ Anderson, JE Austermann, JS Avva, R Basu Thakur, AN Bender, BA Benson, JE Carlstrom, T Cecil, CL Chang, JF Cliche, A Cukierman, EV Denison, T de Haan, J Ding, R Divan, MA Dobbs, D Dutcher, W Everett, A Foster, RN Gannon, A Gilbert, JC Groh, NW Halverson, AH Harke-Hosemann, NL Harrington, JW Henning, GC Hilton, WL Holzapfel, N Huang, KD Irwin, OB Jeong, M Jonas, T Khaire, AM Kofman, M Korman, D Kubik, S Kuhlmann, CL Kuo, V Kutepova, AT Lee, AE Lowitz, SS Meyer, D Michalik, CS Miller, J Montgomery, A Nadolski, T Natoli, H Nguyen, GI Noble, V Novosad, S Padin, Z Pan, J Pearson, CM Posada, A Rahlin, JE

Ruhl, LJ Saunders, JT Sayre, I Shirley, E Shirokoff, G Smecher, JA Sobrin, L Stan, AA Stark, KT Story, A Suzuki, QY Tang, KL Thompson, C Tucker, LR Vale, K Vanderlinde, JD Vieira, G Wang, N Whitehorn, V Yefremenko, KW Yoon, MR Young, **"Tuning SPT-3G Transition-Edge-Sensor Electrical Properties with a Four-Layer TiAuTiAu Thin-Film Stack."** *Journal of Low Temperature Physics*, 1-8. (2018)

JS Avva, PAR Ade, Z Ahmed, AJ Anderson, JE Austermann, R Basu Thakur, D Barron, AN Bender, BA Benson, JE Carlstrom, FW Carter, T Cecil, CL Chang, JF Cliche, A Cukierman, EV Denison, T de Haan, J Ding, MA Dobbs, D Dutcher, T Elleflot, W Everett, A Foster, RN Gannon, A Gilbert, JC Groh, NW Halverson, AH Harke-Hosemann, NL Harrington, M Hasegawa, K Hattori, JW Henning, GC Hilton, WL Holzapfel, Y Hori, N Huang, KD Irwin, OB Jeong, M Jonas, T Khaire, AM Kofman, M Korman, D Kubik, S Kuhlmann, CL Kuo, AT Lee, AE Lowitz, SS Meyer, J Montgomery, A Nadolski, T Natoli, H Nguyen, H Nishino, GI Noble, V Novosad, S Padin, Z Pan, J Pearson, CM Posada, A Rahlin, K Rotermund, JE Ruhl, LJ Saunders, JT Sayre, I Shirley, E Shirokoff, G Smecher, JA Sobrin, AA Stark, KT Story, A Suzuki, QY Tang, KL Thompson, C Tucker, LR Vale, K Vanderlinde, JD Vieira, G Wang, N Whitehorn, V Yefremenko, KW Yoon, MR Young, **"Design and Assembly of SPT-3G Cold Readout Hardware."** *Journal of Low Temperature Physics*, 1-9. (2018)

JW Henning, JT Sayre, C L Reichardt, PAR Ade, AJ Anderson, JE Austermann, JA Beall, AN Bender, BA Benson, LE Bleem, JE Carlstrom, CL Chang, HC Chiang, H-M Cho, R Citron, C Corbett Moran, TM Crawford, AT Crites, T de Haan, MA Dobbs, W Everett, J Gallicchio, EM George, A Gilbert, NW Halverson, N Harrington, GC Hilton, GP Holder, WL Holzapfel, S Hoover, Z Hou, JD Hrubes, N Huang, J Hubmayr, KD Irwin, R Keisler, L Knox, AT Lee, EM Leitch, D Li, A Lowitz, A Manzotti, JJ McMahon, SS Meyer, L Mocanu, J Montgomery, A Nadolski, T Natoli, JP Nibarger, V Novosad, S Padin, C Pryke, JE Ruhl, BR Saliwanchik, KK Schaffer, C Sievers, G Smecher, AA Stark, KT Story, C Tucker, K Vanderlinde, T Veach, JD Vieira, G Wang, N Whitehorn, WLK Wu, V Yefremenko, **"Measurements of the Temperature and E-Mode Polarization of the CMB from 500 Square Degrees of SPTpol Data."** *The Astrophysical Journal* 852(2), p. 97 (2018).

AE Lowitz,**"Kinetic Inductance Detectors for CMB Polarimetry at 100 GHz"**. PhD Thesis. Defense Dec 2016.

S Scully, D Burke, C O'Sullivan, D Gayer, M Gradziel, JA Murphy, M De Petris, D Buzi, M Zannoni, A Mennella, M Gervasi, A Tartari, B Maffei, J Aumont, S Banfi, P Battaglia, ES Battistelli, A Bau, B Belier, D Bennet, L Berge, J-Ph Bernard, M Bersanelli, M-A Bigot-Sazy, N Bleurvacq, G Bordier, J Brossard, EF Bunn, D Cammileri, F Cavaliere, P Chanial, C Chapron, A Coppolecchia, F Couchot, G D'Alessandro, P De Bernardis, T Decourcelle, F Del Torto, L Dumoulin, C Franceschet, A Gault, A Ghribi, M Giard, Y Giraud-Heraud, L Grandsire, JC Hamilton, V Haynes, S Henrot-Versille, N Holtzer, J Kaplan, A Korotkov, J Lande, A Lowitz, S Marnieros, J Martino, S Masi, Mark McCulloch, Simon Melhuish, L Montier, D Neel, MW Ng, F Pajot, A Passerini, C Perbost, O Perdereau, F Piacentini, M Piat, L Piccirillo, G Pisano, D Prele, R Puddu, D Rambaud, O Rigaut, M Salatino, A Schillaci, M Stolpovskiy, P Timbie, M Tristram, G Tucker, D Vigano, F Voisin, B Watson, **"Optical design and modelling of the QUBIC instrument, a next-generation quasi-optical bolometric interferometer for cosmology."** *Proc. SPIE 9914, Millimeter, Submillimeter, and Far-Infrared Detectors and Instrumentation for Astronomy VIII*, 99142S (2016); doi:10.1117/12.2231717

AE Lowitz, AD Brown, and TR Stevenson, PT Timbie, and EJ Wollack, **"Design, fabrication, and testing of a TiN/Ti/TiN trilayer KID array for 3 mm CMB observations."** Proceedings of the 16th International Workshop on Low Temperature Detectors, Grenoble, FR, July 2015. *Journal of Low Temperature Physics*, 184 (2016).

A Tartari, J Aumont, S Banfi, P Battaglia, ES Battistelli, A Bau, B Belier, D Bennett, L Berge, J Ph Bernard, M Bersanelli, MA Bigot-Sazy, N Bleurvacq, G Bordier, J Brossard, EF Bunn, D Buzi, D Cammilleri, F Cavaliere, P Chanial, C Chapron, A Coppolecchia, G DAlessandro, P De Bernardis, T Decourcelle, F Del Torto, M De Petris, L Dumoulin, C Franceschet, A Gault, D Gayer, M Gervasi, A Ghribi, M Giard, Y Giraud-Heraud, M Gradziel, L Grandsire, J Ch Hamilton, V Haynes, N Holtzer, J Kaplan, A Korotkov, J Lande, A Lowitz, B Maffei, S Marnieros, J Martino, S Masi, M McCulloch, S Melhuish, A Mennella, L Montier, A Murphy, D Neel, MW Ng, C OSullivan, F Pajot, A Passerini, C Perbost, F Piacentini, M Piat, L Piccirillo, Giampaolo Pisano, D Prle, D Rambaud, O Rigaut, M Salatino, A Schillaci, S Scully, MM Stolpovskiy, P Timbie, G Tucker, D Vigano, F Voisin, B Watson, M Zannoni, **"QUBIC: a Fizeau interferometer targeting primordial B-modes."** Proceedings of the 16th International Workshop on Low Temperature Detectors, Grenoble, FR, July 2015. *Journal of Low Temperature Physics*, 184 (2016).

AE Lowitz, AD Brown, and TR Stevenson, PT Timbie, and EJ Wollack, **"Design, fabrication, and testing of lumped element kinetic inductance detectors for 3 mm CMB Observations,"** *Proc. SPIE 9153, Millimeter, Submillimeter, and Far-Infrared Detectors and Instrumentation for Astronomy VII*, 91532R (2014); doi:10.1117/12.2057102.

AE Lowitz, EM Barrentine, SR Golwala, and PT Timbie, **"A Comparison of Fundamental Noise in Kinetic Indictance Detectors and Transition Edge Sensors for Millimeter-wave Applications,"** Proceedings of the 15th International Workshop on Low Temperature Detectors, Pasadena, CA, June 2013. *Journal of Low Temperature Physics*, 176 (2014). DOI 10.1007/s10909-014-1133-5. arXiv1403.3601.

A Ghribi, J Aumont, ES Battistelli, A Bau, L Berge, J-Ph Bernard, M Bersanelli, M-A Bigot-Sazy, G Bordier, ET Bunn, F Cavaliere, P Chanial, A Coppolecchia, T Decourcelle, P De Bernardis, M De Petris, A-A Drilien, L Dumoulin, MC

Falvella, A Gault, M Gervasi, M Giard, M Gradziel, L Grandsire, D Gayer, J-Ch Hamilton, V Haynes, Y Giraud-Heraud, N Holtzer, J Kaplan, A Korotkov, J Lande, A Lowitz, B Maffei, S Marnieros, J Martino, S Masi, A Mennella, L Montier, A Murphy, MW Ng, E Olivieri, F Pajot, A Passerini, F Piacentini, M Piat, L Piccirillo, G Pisano, D Prele, D Rambaud, O Rigaut, C Rosset, M Salatino, A Schillaci, S Scully, C O'Sullivan, A Tartari, P Timbie, G Tucker, L Vibert, F Voisin, B Watson, M Zannoni, **"Latest Progress on the QUBIC Instrument,"** Proceedings of the 15th International Workshop on Low Temperature Detectors, Pasadena, CA, June 2013. *Journal of Low Temperature Physics*, 176 (2014). doi:10.1007/s10909-013-1024-1. arXiv1307.5701.

Invited Talks

"Nuts and Bolts Cosmology," **University of Chicago, Enrico Fermi Institute**, Chicago, IL, Fall 2018 (Public eight-lecture series)

"Detector and Readout Architectures for mm-wave Cosmology with SPT3g and Beyond", **Cornell University Department of Physics**, Ithaca, NY, 26 Feb 2018 (academic talk)

"Kinetic Indictance Detectors for 100 GHz CMB Polarimetry," **UCSD Department of Physics**, La Jolla, CA, 31 July 2017 (academic talk)

"Kinetic Inductance Detectors for 100 GHz CMB Polarimetry," **UIUC Department of Astronomy**, Champaign, Il, 9 June 2017 (academic talk)

"Kinetic Inductance Detectors for 100 GHz CMB Polarimetry," **Kavli Institute for Cosmological Physics**, University of Chicago, Chicago, Il, 17 Mar 2017. (academic talk)

"The Cosmic Microwave Background," **Amundsen-Scott South Pole Station Summer Science Lecture Series**, South Pole, Antarctica, 6 Nov 2016. (public lecture)

"Detecting the Cosmic Microwave Background," **Madison Astronomical Society**, Madison, WI, 21 Feb 2015. (public lecture)

"The Cosmic Microwave Background," **Madison Astronomical Society**, Madison, WI, 10 January, 2014. (public lecture)

"A Comparison of Fundamental Noise Limits in TESs and MKIDs," **Keck Institute for Space Studies**, 2nd Superconducting Nitride Detector Workshop. Pasadena, CA, 21 February 2012. (academic talk)