Millimeter, Submillimeter, and Far-Infrared Detectors and Instrumentation for Astronomy V

Wayne S. Holland
Jonas Zmuidzinas
Editors

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W. Zhang, SRON Netherlands Institute for Space Research (Netherlands) and Purple Mountain Observatory (China); J. R. Gao, SRON Netherlands Institute for Space Research (Netherlands) and Delft Univ. of Technology (Netherlands); P. Khosropanah, SRON Netherlands Institute for Space Research (Netherlands); T. Bansal, SRON Netherlands Institute for Space Research (Netherlands) and Delft Univ. of Technology (Netherlands); T. M. Klapwijk, Delft Univ. of Technology (Netherlands); W. Miao, S. C. Shi, Purple Mountain Observatory (China)

EBEX: a balloon-borne CMB polarization experiment [7741-48]
B. Reichborn-Kjennerud, Columbia Univ. (United States); A. M. Aboobaker, Univ. of Minnesota (United States); F. Aubin, McGill Univ. (Canada); C. Baccigalupi, Scuola Internazionale Superiore di Studi Avanzati (Italy); C. Bao, Univ. of Minnesota (United States); J. Borrill, C. Cantalupo, Lawrence Berkeley National Lab. (United States); D. Chapman, J. Didier, Columbia Univ. (United States); S. Hanany, Univ. of Minnesota (United States); S. Hillbrand, Columbia Univ. (United States); J. Hubmayr, National Institute of Standards and Technology (United States); V A. Jaffe, Imperial College London (United Kingdom); B. Johnson, Univ. of California, Berkeley (United States); T. Jones, Univ. of Minnesota (United States); T. Kisner, Lawrence Berkeley National Lab. (United States); J. Klein, Univ. of Minnesota (United States); S. Leach, Scuola Internazionale Superiore di Studi Avanzati (Italy); T. Matsumura, California Institute of Technology (United States); A. Lee, Univ. of California, Berkeley (United States); T. Nishimura, California Institute of Technology (United States); A. Miller, Columbia Univ. (United States); M. Milligan, Univ. of Minnesota (United States); E. Pascale, Cardiff Univ. (United Kingdom); D. Polsgrove, Univ. of Minnesota (United States); N. Ponthieu, Univ. Paris-Sud (France); F. Raffai, Univ. of Minnesota (United States); K. Raach, I. Sagiv, Univ. of Minnesota (United States); G. Smecher, McGill Univ. (Canada); F. Stivoli, Univ. Paris Sud France; R. Stompor, Lab. d’Astroparticule et Cosmologie, CNRS, Univ. Paris Diderot (France); H. Tran, Univ. of California, Berkeley (United States); M. Tristram, Lab. de l’Accélérateur Linéaire, CNRS, Univ. Paris Sud (France); G. S. Tucker, Y. Vinokurov, Brown Univ. (United States); A. Yadav, M. Zaldarriaga, Institute for Advanced Study (United States); K. Zilic, Univ. of Minnesota (United States)
Q/U Imaging Experiment (QUIET): a ground-based probe of cosmic microwave background polarization [7741-49]
I. Buder, Univ. of Chicago (United States)

The POLARBEAR CMB polarization experiment [7741-50]
K. Arnold, Univ. of California, Berkeley (United States); P. A. R. Ade, Univ. of Cardiff (United Kingdom); A. E. Anthony, Univ. of Colorado (United States); F. Aubin, McGill Univ. (Canada); D. Boettger, Univ. of California, San Diego (United States); J. Borrill, Lawrence Berkeley National Lab. (United States) and Univ. of California, Berkeley (United States); C. Cantalupo, Lawrence Berkeley National Lab. (United States); M. A. Dobbs, McGill Univ. (Canada); J. Errard, Lab. Astroparticule et Cosmologie. Univ. Paris 7 (France); D. Flanigan, A. Ghribi, Univ. of California, Berkeley (United States); N. Halverson, Univ. of Colorado (United States); M. Hazumi, High Energy Accelerator Research Organization (Japan); W. L. Holzapfel, J. Howard, Univ. of California, Berkeley (United States); P. Hyland, McGill Univ. (Canada); A. Jaffe, Imperial College (United Kingdom); B. Keating, Univ. of California, San Diego (United States); T. Kisner, Lawrence Berkeley National Lab. (United States); Z. Kermish, Univ. of California, Berkeley (United States); A. T. Lee, Univ. of California, Berkeley (United States) and Lawrence Berkeley National Lab. (United States); E. Linder, Lawrence Berkeley National Lab. (United States); M. Lungu, Univ. of California, Berkeley (United States); T. Matsumura, High Energy Accelerator Research Organization (Japan); N. Miller, Univ. of California, San Diego (United States); X. Meng, M. Myers, Univ. of California, Berkeley (United States); H. Nishino, High Energy Accelerator Research Organization (Japan); R. O'Brient, Univ. of California, Berkeley (United States); D. O'Dea, Imperial College (United Kingdom); C. Reichardt, Univ. of California, Berkeley (United States); I. Schanning, Univ. of California, San Diego (United States); A. Shimizu, High Energy Accelerator Research Organization (Japan); C. Shimmin, Univ. of California, Berkeley (United States); M. Shimon, Univ. of California, San Diego (United States); H. Spieler, Lawrence Berkeley National Lab. (United States); B. Steinbach, Univ. of California, Berkeley (United States); R. Stompor, Lab. Astroparticule et Cosmologie. Univ. Paris 7 (France); A. Suzuki, Univ. of California, Berkeley (United States); T. Tomaru, High Energy Accelerator Research Organization (Japan); H. T. Tran, Univ. of California, Berkeley (United States); C. Tucker, Univ. of Cardiff (United Kingdom); E. Quealy, P. L. Richards, Univ. of California, Berkeley (United States); O. Zahn, Univ. of California, Berkeley (United States) and Lawrence Berkeley National Lab. (United States)

The BICEP2 CMB polarization experiment [7741-52]
R. W. Ogburn IV, Stanford Univ. (United States) and Kavli Institute for Particle Astrophysics and Cosmology (United States); P. A. R. Ade, Cardiff Univ. (United Kingdom); R. W. Akin, California Institute of Technology (United States); M. Amiri, The Univ. of British Columbia (Canada); S. J. Benton, Univ. of Toronto (Canada); J. J. Bock, California Institute of Technology (United States); J. A. Bonetti, Jet Propulsion Lab. (United States) and California Institute of Technology (United States); J. A. Brevik, California Institute of Technology (United States); B. Burger, The Univ. of British Columbia (Canada); C. D. Dowell, California Institute of Technology (United States); L. Duband, Service des Basses Temperatures, DRFMC, CEA-Grenoble (France); J. P. Filippini, S. R. Golwala, California Institute of Technology (United States); M. Halpern, M. Hasselfield, The Univ. of British Columbia (Canada); G. Hilton, National Institute of Standards and Technology (United States); V. V. Hristov, California Institute of Technology (United States); K. Irwin, National Institute of Standards and Technology (United States); J. P. Kaufman, B. G. Keating, Univ. of California, San Diego (United States); J. M. Kovac, Harvard-Smithsonian Ctr. for Astrophysics (United States); C. L. Kuo, Stanford Univ. (United States) and Kavli Institute for Particle Astrophysics and Cosmology (United States); A. E. Lange, California Institute of Technology (United States); E. M. Leitch, Univ. of Chicago (United States); C. B. Netterfield, Univ. of Toronto (Canada);
SESSION 13  CMB INSTRUMENTS I: CURRENT AND NEAR TERM II

7741 1H  Initial performance of the BICEP2 antenna-coupled superconducting bolometers at the South Pole  [7741-53]
J. A. Brevik, R. W. Aikin, California Institute of Technology (United States); M. Amiri, The Univ. of British Columbia (Canada); S. J. Benton, Univ. of Toronto (Canada); J. J. Bock, Jet Propulsion Lab. (United States) and California Institute of Technology (United States); J. A. Bonetti, Jet Propulsion Lab. (United States); B. Burger, The Univ. of British Columbia (Canada); C. D. Dowell, Jet Propulsion Lab. (United States) and California Institute of Technology (United States); L. Duband, Service des Basses Temperatures, DRFMC, CEA-Grenoble (France); J. P. Filippini, S. R. Golwala, California Institute of Technology (United States); M. Irwin, National Institute of Standards and Technology (United States); J. P. Kaufman, B. G. Keating, Univ. of California, San Diego (United States); J. M. Kovac, Harvard-Smithsonian Ctr. for Astrophysics (United States); C. L. Kuo, Stanford Univ. (United States) and Kavli Institute for Particle Astrophysics and Cosmology (United States); A. E. Lange, California Institute of Technology (United States); E. M. Leitch, The Univ. of Chicago (United States); C. B. Netterfield, Univ. of Toronto (Canada); H. T. Nguyen, Jet Propulsion Lab. (United States) and California Institute of Technology (United States); R. W. Ogburn IV, Stanford Univ. (United States) and Kavli Institute for Particle Astrophysics and Cosmology (United States); A. Orlando, California Institute of Technology (United States) and Jet Propulsion Lab. (United States); C. Pryke, Univ. of Minnesota (United States); C. Reintsema, National Institute of Standards and Technology (United States); S. Richter, Harvard-Smithsonian Ctr. for Astrophysics (United States); J. E. Ruhl, Case Western Reserve Univ. (United States); M. Runyan, California Institute of Technology (United States) and Jet Propulsion Lab. (United States); S. Richter, Harvard-Smithsonian Ctr. for Astrophysics (United States); J. E. Ruhl, Case Western Reserve Univ. (United States); Z. Staniszewski, California Institute of Technology (United States) and Jet Propulsion Lab. (United States); R. Sudiwala, Univ. of Wales (United Kingdom); J. E. Tolan, Stanford Univ. (United States) and Kavli Institute for Particle Astrophysics and Cosmology (United States); A. D. Turner, P. Wilson, Jet Propulsion Lab. (United States); C. L. Wong, Harvard-Smithsonian Ctr. for Astrophysics (United States)

7741 1I  The C-Band All-Sky Survey: instrument design, status, and first-look data  [7741-54]
O. G. King, California Institute of Technology (United States); C. Copley, Univ. of Oxford (United Kingdom) and Hartebeesthoek Radio Astronomy Observatory (United Kingdom); R. Davies, R. Davis, C. Dickinson, Univ. of Manchester (United Kingdom); Y. A. Hafez, KACST (Saudi Arabia); C. Holler, Hochschule Esslingen (Germany); J. J. John, Univ. of Oxford (United Kingdom)
SESSION 14  CRYO-MECHANICAL DESIGN

7741 1K SCUBA-2: engineering and commissioning challenges of the world's largest sub-mm instrument at the JCMT [7741-105]
S. C. Craig, Joint Astronomy Ctr. (United States); H. M. McGregor, E. Atad-Ettedgui, D. Montgomery, UK Astronomy Technology Ctr. (United Kingdom); D. Bintley, T. C. Chuter, Joint Astronomy Ctr. (United States); W. S. Holland, D. W. Lunney, M. J. Macintosh, UK Astronomy Technology Ctr. (United Kingdom); E. Starman, J. G. Webb, Joint Astronomy Ctr. (United States)

7741 1L The cryomechanical design of MUSIC: a novel imaging instrument for millimeter-wave astrophysics at the Caltech Submillimeter Observatory [7741-56]
M. I. Hollister, N. G. Czakon, California Institute of Technology (United States); P. K. Day, Jet Propulsion Lab. (United States); T. P. Downes, R. Duan, California Institute of Technology (United States); J. Gao, National Institute of Standards and Technology (United States); J. Glenn, Univ. of Colorado at Boulder (United States); S. R. Golwala, California Institute of Technology (United States); H. G. LeDuc, Jet Propulsion Lab. (United States); P. R. Maloney, Univ. of Colorado at Boulder (United States); B. A. Mazin, Univ. of California, Santa Barbara (United States); H. T. Nguyen, Jet Propulsion Lab. (United States); O. Noroozian, California Institute of Technology (United States); J. Sayers, Jet Propulsion Lab. (United States); J. Schlafarth, Univ. of Colorado at Boulder (United States); S. Siegel, California Institute of Technology (United States); J. E. Vaillancourt, SOFIA/USRA, NASA Ames Research Ctr. (United States); A. Vayonakis, California Institute of Technology (United States); P. Wilson, Jet Propulsion Lab. (United States); J. Zmuidzinas, California Institute of Technology (United States)

7741 1M Thermal architecture for the SPIDER flight cryostat [7741-57]
J. E. Gudmundsson, Princeton Univ. (United States); P. A. R. Ade, Cardiff Univ. (United Kingdom); M. Amiri, The Univ. of British Columbia (Canada); S. J. Benton, Univ. of Toronto (Canada); R. Bihary, Case Western Reserve Univ. (United States); J. J. Bock, Jet Propulsion Lab. (United States) and California Institute of Technology (United States); J. R. Bond, Univ. of Toronto (Canada); J. A. Bonetli, Jet Propulsion Lab. (United States); S. A. Bryan, Case Western Reserve Univ. (United States); B. Burger, The Univ. of British Columbia (Canada); H. C. Chiang, Princeton Univ. (United States); C. R. Contaldi, Imperial College London (United Kingdom); B. P. Crill, O. Doré, Jet Propulsion Lab. (United States) and California Institute of Technology (United States); M. Farhang, Univ. of Toronto (Canada); J. Filippini, California Institute of Technology (United States); L. M. Fissel, N. N. Gandilo, Univ. of Toronto (Canada); S. R. Golwala, California Institute of Technology (United States); M. Halpern, M. Hasselfield, The Univ. of British Columbia (Canada); G. Hilton, National Institute of Standards and Technology (United States); W. Holmes, Jet Propulsion Lab. (United States); V. V. Hristov, California Institute of Technology (United States); K. D. Irwin, National Institute of Standards and Technology (United States); W. C. Jones, Princeton Univ. (United States); C. L. Kuo, Stanford Univ. (United States); C. J. MacTavish, Univ. of Cambridge (United Kingdom); P. V. Mason, California Institute of Technology (United States); T. E. Montroy, Case Western Reserve Univ. (Canada); T. A. Morford, California Institute of Technology (United States); C. B. Netterfield, Univ. of Toronto (Canada); D. T. O’Dea, Imperial College London (United Kingdom); J. L. Jonas, Rhodes Univ. (South Africa); M. E. Jones, Univ. of Oxford (United Kingdom); J. P. Leahy, Univ. of Manchester (United Kingdom); S. J. C. Muchovej, T. J. Pearson, A. C. S. Readhead, M. A. Stevenson, California Institute of Technology (United States); A. C. Taylor, Univ. of Oxford (United Kingdom)
SESSION 15  CMB INSTRUMENTS II: LONGER TERM

7741 1N  SPIDER: a balloon-borne CMB polarimeter for large angular scales [7741-58]
J. P. Filippini, California Institute of Technology (United States); P. A. R. Ade, Cardiff Univ. (United Kingdom); M. Amiri, The Univ. of British Columbia (Canada); S. J. Benton, Univ. of Toronto (Canada); R. Bihary, Case Western Reserve Univ. (United States); J. J. Bock, California Institute of Technology (United States) and Jet Propulsion Lab. (United States); J. R. Bond, Univ. of Toronto (Canada); J. A. Bonetti, Jet Propulsion Lab. (United States); S. A. Bryan, Case Western Reserve Univ. (United States); B. Burger, The Univ. of British Columbia (Canada); H. C. Chiang, Princeton Univ. (United States); C. R. Contaldi, Imperial College London (United Kingdom); B. P. Crill, O. Doré, California Institute of Technology (United States) and Jet Propulsion Lab. (United States); M. Farhang, L. M. Fissel, N. N. Gandilo, Univ. of Toronto (Canada); S. R. Golwala, California Institute of Technology (United States); J. E. Gudmundsson, Princeton Univ. (United States); M. Halpern, M. Hasselfield, The Univ. of British Columbia (Canada); G. Hilton, National Institute of Standards and Technology (United States); W. Holmes, Jet Propulsion Lab. (United States); V. V. Hristov, California Institute of Technology (United States); K. D. Irwin, National Institute of Standards and Technology (United States); W. C. Jones, Princeton Univ. (United States); C. L. Kuo, Stanford Univ. (United States); C. J. MacTavish, Imperial College London (United Kingdom); P. V. Mason, California Institute of Technology (United States); T. E. Montroy, Case Western Reserve Univ. (United States); T. A. Morford, California Institute of Technology (United States); C. B. Netterfield, Univ. of Toronto (Canada); D. T. O’Dea, Imperial College London (United Kingdom); A. S. Rahlin, Princeton Univ. (United States); C. D. Reintsema, National Institute of Standards and Technology (United States); J. E. Ruhl, Case Western Reserve Univ. (United States); M. C. Runyan, M. A. Schenker, California Institute of Technology (United States); J. A. Shariff, J. D. Soler, Univ. of Toronto (Canada); A. Trangsrud, California Institute of Technology (United States); C. Tucker, Imperial College London (United Kingdom); R. S. Tucker, California Institute of Technology (United States); A. D. Turner, Jet Propulsion Lab. (United States)

7741 1O  Design and performance of the SPIDER instrument [7741-59]
M. C. Runyan, California Institute of Technology (United States); P. A. R. Ade, Cardiff Univ. (United Kingdom); M. Amiri, The Univ. of British Columbia (Canada); S. Benton, Univ. of Toronto (Canada); R. Bihary, Case Western Reserve Univ. (United States); J. J. Bock, California Institute of Technology (United States) and Jet Propulsion Lab. (United States); J. R. Bond, Univ. of Toronto (Canada); J. A. Bonetti, Jet Propulsion Lab. (United States); S. A. Bryan, Case Western Reserve Univ. (United States); B. Burger, The Univ. of British Columbia (Canada); H. C. Chiang, Princeton Univ. (United States); C. R. Contaldi, Imperial College London (United Kingdom); B. P. Crill, O. Doré, California Institute of Technology (United States) and Jet Propulsion Lab. (United States); D. O’Dea, Imperial College London (United Kingdom); M. Farhang, Univ. of Toronto (Canada); J. P. Filippini, California Institute of Technology (United States); L. Fissel, N. Gandilo, Univ. of Toronto (Canada); S. R. Golwala, California Institute of Technology (United States); J. E. Gudmundsson, Princeton Univ. (United States); M. Halpern, M. Hasselfield, The Univ. of British Columbia (Canada); G. Hilton, National Institute of Standards and Technology (United States)
and Technology (United States); W. Holmes, Jet Propulsion Lab. (United States); V. V. Hristov, California Institute of Technology (United States); K. D. Irwin, National Institute of Standards and Technology (United States); W. C. Jones, Princeton Univ. (United States); C. L. Kuo, Stanford Univ. (United States); C. J. MacTavish, Univ. of Cambridge (United Kingdom); P. V. Mason, T. A. Morford, California Institute of Technology (United States); T. E. Montroy, Case Western Reserve Univ. (United States); C. B. Netterfield, Univ. of Toronto (Canada); A. S. Rahlin, Princeton Univ. (United States); C. D. Reintsema, National Institute of Standards and Technology (United States); J. E. Ruhl, Case Western Reserve Univ. (United States); M. A. Schenker, California Institute of Technology (United States); J. Shariff, J. D. Soler, Univ. of Toronto (Canada); A. Transruder, R. S. Tucker, California Institute of Technology (United States); C. Tucker, Cardiff Univ. (United Kingdom); A. Turner, Jet Propulsion Lab. (United States)

7741 1P

The Primordial Inflation Polarization Explorer (PIPER) [7741-60]

D. T. Chuss, NASA Goddard Space Flight Ctr. (United States); P. A. R. Ade, Cardiff Univ. (United Kingdom); D. J. Benford, NASA Goddard Space Flight Ctr. (United States); C. L. Bennett, The Johns Hopkins Univ. (United States); J. L. Dotson, NASA Ames Research Ctr. (United States); J. R. Eimer, The Johns Hopkins Univ. (United States); D. J. Fixsen, NASA Goddard Space Flight Ctr. (United States); M. Halpern, The Univ. of British Columbia (Canada); G. Hilton, National Institute of Standards and Technology (United States); J. Hinderks, G. Hinshaw, NASA Goddard Space Flight Ctr. (United States); K. Irwin, National Institute of Standards and Technology (United States); M. L. Jackson, M. A. Jah, NASA Goddard Space Flight Ctr. (United States); N. Jethava, NASA Goddard Space Flight Ctr. (United States) and Global Systems Technology (United States); C. Jhabvala, A. J. Kogut, L. Lowe, NASA Goddard Space Flight Ctr. (United States); N. McCullagh, The Johns Hopkins Univ. (United States); T. Miller, P. Mirel, S. H. Moseley, S. Rodriguez, K. Rostem, NASA Goddard Space Flight Ctr. (United States); E. Sharp, NASA Goddard Space Flight Ctr. (United States) and Global Systems Technology (United States); J. G. Staguhn, NASA Goddard Space Flight Ctr. (United States) and The Johns Hopkins Univ. (United States); C. E. Tucker, Cardiff Univ. (United Kingdom); G. M. Voellmer, E. J. Wollack, NASA Goddard Space Flight Ctr. (United States); L. Zeng, The Johns Hopkins Univ. (United States)

7741 1Q

5,120 superconducting bolometers for the PIPER balloon-borne CMB polarization experiment [7741-61]

D. J. Benford, D. T. Chuss, NASA Goddard Space Flight Ctr. (United States); G. C. Hilton, K. D. Irwin, National Institute of Standards and Technology (United States); N. S. Jethava, NASA Goddard Space Flight Ctr. (United States) and Global Science & Technology (United States); C. A. Jhabvala, A. J. Kogut, NASA Goddard Space Flight Ctr. (United States); T. M. Miller, NASA Goddard Space Flight Ctr. (United States) and MEI Technologies, Maryland (United States); P. Mirel, NASA Goddard Space Flight Ctr. (United States) and Wyle Information Systems (United States); S. H. Moseley, NASA Goddard Space Flight Ctr. (United States); K. Rostem, NASA Goddard Space Flight Ctr. (United States) and Oak Ridge Associated Universities (United States); E. H. Sharp, NASA Goddard Space Flight Ctr. (United States) and Global Science & Technology (United States); J. G. Staguhn, NASA Goddard Space Flight Ctr. (United States) and Johns Hopkins Univ. (United States); G. M. Stiehl, National Institute of Standards and Technology (United States); G. M. Voellmer, E. J. Wollack, NASA Goddard Space Flight Ctr. (United States)

7741 1R

The Keck Array: a pulse tube cooled CMB polarimeter [7741-62]

C. D. Sheehy, The Univ. of Chicago (United States) and Univ. of Minnesota (United States); P. A. R. Ade, Univ. of Wales (United Kingdom); R. W. Aikin, California Institute of Technology (United States); M. Amiri, The Univ. of British Columbia (Canada); S. Benton, Univ. of Toronto...
ACTPol: a polarization-sensitive receiver for the Atacama Cosmology Telescope [7741-63]

M. D. Niemack, National Institute of Standards and Technology (United States); P. A. R. Ade, Cardiff Univ. (United States); J. Aguirre, Univ. of Pennsylvania (United States); F. Barrientos, Pontificia Univ. Católica (Chile); J. A. Beall, National Institute of Standards and Technology (United States); J. R. Bond, Univ. of Toronto (Canada); J. Britton, H. M. Cho, National Institute of Standards and Technology (United States); S. Das, Univ. of California, Berkeley (United States); M. J. Devlin, D. Dicker, Univ. of Pennsylvania (United States); J. Dunkley, Oxford Univ. (United Kingdom); R. Dünner, Pontificia Univ. Católica (Chile); J. W. Fowler, Princeton Univ. (United States); A. Hajian, Univ. of Toronto (Canada); M. Halpern, M. Hasselfield, Univ. of British Columbia (United States); G. Hilton, Univ. of KwaZulu-Natal (South Africa); J. Hubmayr, National Institute of Standards and Technology (United States); J. P. Hughes, Rutgers Univ. (United States); L. Infante, Pontificia Univ. Católica (Chile); K. D. Irwin, National Institute of Standards and Technology (United States); N. Jarosik, Princeton Univ. (United States); J. Klein, Univ. of Pennsylvania (United States); A. Kosowsky, Univ. of Pittsburgh (United States); T. A. Marriage, Princeton Univ. (United States); J. McMahon, Univ. of Michigan (United States); F. Menanteau, Rutgers Univ. (United States); B. Partridge, Haverford College (United States); E. D. Reese, Univ. of Pennsylvania (United States); J. Sievers, Univ. of Toronto (Canada); D. N. Spergel, S. T. Staggs, Princeton Univ.
SESSION 16  READOUTS AND ELECTRONICS

7741 1T  First implementation of TES bolometer arrays with SQUID-based multiplexed readout on a balloon-borne platform [7741-64]
F. Aubin, McGill Univ. (Canada); A. M. Aboobaker, Univ. of Minnesota (United States); P. Ade, Cardiff Univ. (United Kingdom); C. Baccigalupi, Scuola Internazionale Superiore di Studi Avanzati (Italy); C. Bao, Univ. of Minnesota (United States); J. Borrill, C. Cantalupo, Lawrence Berkeley National Lab. (United States); D. Chapman, J. Didier, Columbia Univ. (United States); M. Dobbs, McGill Univ. (Canada); W. Grainger, Cardiff Univ. (United Kingdom); S. Hanany, Univ. of Minnesota (United States); J. Hubmayr, National Institute of Standards and Technology (United States); P. Hyland, McGill Univ. (Canada); S. Hillbrand, Rockefeller Univ. (United States); A. Jaffe, Imperial College London (United Kingdom); B. Johnson, Univ. of California, Berkeley (United States); T. Jones, Univ. of Minnesota (United States); T. Kisner, Lawrence Berkeley National Lab. (United States); J. Klein, Univ. of Minnesota (United States); A. Korotkov, Brown Univ. (United States); S. Leach, Scuola Internazionale Superiore di Studi Avanzati (Italy); A. Lee, Univ. of California, Berkeley (United States); M. Limon, Columbia Univ. (United States); K. MacDermid, McGill Univ. (Canada); T. Matsumura, California Institute of Technology (United States); X. Meng, Univ. of California, Berkeley (United States); A. Miller, Columbia Univ. (United States); M. Milligan, D. Polsgrove, Univ. of Minnesota (United States); N. Ponthieu, Univ. Paris-Sud (France); K. Raach, Univ. of Minnesota (United States); B. Reichborn-Kjennerud, Columbia Univ. (United States); I. Sagiv, Univ. of Minnesota (United States); G. Smircher, McGill Univ. (Canada); H. Tran, Univ. of California, Berkeley (United States); G. S. Tucker, Y. Vinokurov, Brown Univ. (United States); A. Yadav, M. Zaldarriaga, Institute for Advanced Study (United States); K. Zilic, Univ. of Minnesota (United States)

7741 1V  An open-source readout for MKIDs [7741-67]
R. Duan, California Institute of Technology (United States); S. McHugh, Univ. of California, Santa Barbara (United States); B. Serfass, Univ. of California, Berkeley (United States); B. A. Mazin, A. Merrill, Univ. of California, Santa Barbara (United States); S. R. Golwala, T. P. Downes, N. G. Czakon, California Institute of Technology (United States); P. K. Day, Jet Propulsion Lab. (United States); J. Gao, National Institute of Standards and Technology (United States); J. Glenn, Univ. of Colorado at Boulder (United States); M. I. Hollister, California Institute of Technology (United States); H. G. Leduc, Jet Propulsion Lab. (United States); P. R. Maloney, Univ. of Colorado at Boulder (United States); O. Noroozian, California Institute of Technology (United States); H. T. Nguyen, J. Sayers, Jet Propulsion Lab. (United States); J. A. Schlaerth, Univ. of Colorado at Boulder (United States); S. Siegel, California Institute of Technology (United States); J. E. Vaillancourt, Stratospheric Observatory for Infrared Astronomy (United States); A. Vayonakis, California Institute of Technology (United States); P. R. Wilson, Jet Propulsion Lab. (United States); J. Zmuidzinas, California Institute of Technology (United States)
Extinction correction and on-sky calibration of SCUBA-2 [7741-69]
J. T. Dempsey, P. Friberg, T. Jenness, D. Bintley, Joint Astronomy Ctr. (United States);
W. S. Holland, UK Astronomy Technology Ctr. (United Kingdom) and Univ. of Edinburgh
(United Kingdom)

Development of superconducting transition edge sensors based on electron-phonon
decoupling [7741-72]
N. Jethava, NASA Goddard Space Flight Ctr. (United States) and Global Science and
Technology (United States); J. Chervenak, NASA Goddard Space Flight Ctr. (United States);
A.-D. Brown, NASA Goddard Space Flight Ctr. (United States) and MEI Technologies, Inc.
(United States); D. Benford, G. Kletetschka, NASA Goddard Space Flight Ctr. (United States);
V. Mikula, NASA Goddard Space Flight Ctr. (United States) and Catholic Univ. of America
(United States); K. U-yen, NASA Goddard Space Flight Ctr. (United States)

Characterizing Si$_3$N$_4$ absorbers and support beams for far-infrared/submillimeter
transition-edge sensors [7741-73]
C. M. Bradford, Jet Propulsion Lab. (United States)

Optical efficiency of feedhorn-coupled TES polarimeters for next-generation CMB
instruments [7741-74]
J. W. Henning, Univ. of Colorado at Boulder (United States); J. W. Appel, Princeton Univ.
(United States); J. E. Austermann, Univ. of Colorado at Boulder (United States); J. A. Beall,
D. Becker, D. A. Bennett, National Institute of Standards and Technology (United States);
L. E. Bleem, B. A. Benson, Univ. of Chicago (United States); J. Britton, National Institute of
Standards and Technology (United States); J. E. Carlstrom, C. L. Chang, Univ. of Chicago
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