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EDUCATION

1983 Ph. D. in Physics, Massachusetts Institute of Technology.  
1970 B. S. with Distinction, Honors in Physics, University of Michigan, Ann Arbor.

EMPLOYMENT

2013– JPL Fellow  
2012– Senior Research Scientist, JPL  
2000– Principal Scientist, Astrophysics, JPL  
1993–2000 Research Scientist, Astrophysics, JPL  
1993–1994 Visiting Associate, California Institute of Technology  
1991–1993 Senior Research Associate, California Institute of Technology  
1986–1991 Senior Research Fellow, California Institute of Technology  
1983–1986 Research Fellow, California Institute of Technology  
1978–1983 Research Assistant, Massachusetts Institute of Technology  
1970–1977 Physics Teacher, Baltimore County Public Schools, MD

PROFESSIONAL ACTIVITIES

2014– Chief Scientist, Astronomy, Physics, and Space Technology Directorate  
2010– Co-Chair, Planck Editorial Board  
2008–2009 Co-I & Lead for the coherent detector component, CMBPol Mission Concept Study and workshops  
2007–2010 Member, NASA Primordial Polarization Program Definition Team  
2003– Lead, Center for Longwavelength Astrophysics and Science Visitor and Colloquium Program, JPL  
2000 Member of Organizing Committee, NASA Space Astrophysics Detector workshop  
1999 Chair, Infrared, Submillimeter, & Radio Detector Panel, ROSS-99 NRA evaluation  
1999–2002 Chair, JPL-Palomar Time Allocation Committee.  
1998–2004 Group Supervisor, Astrophysics Instruments Group (Div 32+38)  
1998– Deputy Project Scientist for SIRTf/Spitzer  
1998– Survey Scientist for Low Frequency Instrument on Planck,  
member of Planck Science Team  
1997–2000 Program Scientist for the Structure and Evolution of the Universe Program at JPL  
1997– Project Scientist, US Planck Project, and PI, US Low Frequency Instrument team

1996–1997      Manager, Structure and Evolution of the Universe Program at JPL  
1996–            Instrument Scientist for the SIRTf Infrared Spectrograph  
1996–2001      Member, NASA Structure and Evolution of the Universe Subcommittee.  
1995             Chair, Cosmology Panel, NASA ADP proposal review.  
1994–1999      PI, JPL-TAP Cryogenic HEMT Technology Program  
1994–1999      Member, JPL-Palomar Time Allocation Committee.  
1994             Visiting Scientist, Institute for Advanced Study, Princeton, NJ  
1993–1996      Member, NASA ISRMOWG.  
1992–1998      Member (Chair, 1995–1998), NSF review panel, Center for Astrophysical Research  
                    in Antarctica.  
1992–1997      Study Scientist, NASA Submillimeter Mission.  
1992–1997      Member, NASA Submillimeter Science Working Group.  
1991–1994      Member, NASA Space VLBI Project Science Group.  
1984–1988      Member, U.S. QUASAT science team.

#### AWARDS

2010            NASA Outstanding Leadership Medal for leadership of the US Planck science and  
                    data analysis effort from concept through spacecraft launch and commissioning  
2004            NASA Outstanding Leadership Medal for scientific and technical leadership  
                    in addressing and resolving major technical issues on Spitzer  
1999            JPL Level A Leadership Award  
1999            NASA Exceptional Achievement Medal for Development of the Cryogenic  
                    HEMT Optimization Program  
1999            JPL Technical Excellence Award, MMIC Low Noise Amplifier Development Team

#### PROFESSIONAL SOCIETIES

1983–            American Astronomical Society, full member

#### REFEREED PUBLICATIONS

*Planck intermediate results. XXIX. All-sky dust modelling with Planck, IRAS, and WISE obser-  
vations*  
Planck Collaboration 2014, *A&A*, submitted  
*Planck intermediate results. XXVI. Optical identification and redshifts of Planck clusters with the  
RTT150 telescope*  
Planck Collaboration 2014, *A&A*, submitted  
*Planck intermediate results. XXV. The Andromeda Galaxy as seen by Planck*  
Planck Collaboration 2014, *A&A*, submitted  
*Planck intermediate results. XXIV. Constraints on variation of fundamental constants*  
Planck Collaboration 2014, *A&A*, submitted

- Planck intermediate results. XXIII. Galactic plane emission components derived from Planck with ancillary data*  
Planck Collaboration 2014, *A&A*, submitted
- A MMIC Low-Noise Amplifier Design Technique*  
Varonen, M. Reeves, R. Kangaslahti, P. Samoska, L., Cleary, K., Akgiray, A., Gawande, R., Kooi, J., Fung, A., Gaier, T., Weinreb, S., Readhead, A. C. S., Lawrence, C., Sarkozy, S., and Lai, R., *IEEE Solid-State Circuits*, submitted
- Planck intermediate results. XXII. Frequency dependence of thermal emission from Galactic dust in intensity and polarization*  
Planck Collaboration 2014, *A&A*, submitted
- Planck intermediate results. XXI. Comparison of polarized thermal emission from Galactic dust at 353 GHz with optical interstellar polarization*  
Planck Collaboration 2014, *A&A*, submitted
- Planck intermediate results. XX. Comparison of polarized thermal emission from Galactic dust with simulations of MHD turbulence*  
Planck Collaboration 2014, *A&A*, submitted
- Planck intermediate results. XIX. An overview of the polarized thermal emission from Galactic dust*  
Planck Collaboration 2014, *A&A*, submitted
- Planck intermediate results. XVIII. The millimetre and sub-millimetre emission from planetary nebulae*  
Planck Collaboration 2014, *A&A*, submitted
- Planck intermediate results. XVII. Emission of dust in the diffuse interstellar medium from the far-infrared to microwave frequencies*  
Planck Collaboration 2014, *A&A*, **566**, A55
- Planck intermediate results. XVI. Profile likelihoods for cosmological parameters*  
Planck Collaboration 2013, *A&A*, **566**, A54
- Planck intermediate results. XV. A study of anomalous microwave emission in Galactic clouds*  
Planck Collaboration 2013, *A&A*, **565**, A103
- Planck 2013 results. XXXI. Consistency of the Planck data*  
Planck Collaboration 2014, *A&A*, accepted
- Planck 2013 results. XXX. Cosmic infrared background measurements and implications for star formation*  
Planck Collaboration 2013, *A&A*, accepted
- Planck 2013 results. XXIX. Planck catalogue of Sunyaev-Zeldovich sources*  
Planck Collaboration 2013, *A&A*, accepted
- Planck 2013 results. XXVIII. The Planck Catalogue of Compact Sources*  
Planck Collaboration 2013, *A&A*, accepted
- Planck 2013 results. XXVII. Doppler boosting of the CMB: Eppur si muove*  
Planck Collaboration 2013, *A&A*, accepted
- Planck 2013 results. XXVI. Background geometry and topology of the Universe*  
Planck Collaboration 2013, *A&A*, accepted
- Planck 2013 results. XXV. Searches for cosmic strings and other topological defects*  
Planck Collaboration 2013, *A&A*, accepted

*Planck 2013 results. XXIV. Constraints on primordial non-Gaussianity*  
Planck Collaboration 2013, *A&A*, accepted

*Planck 2013 results. XXIII. Isotropy and Statistics of the CMB*  
Planck Collaboration 2013, *A&A*, accepted

*Planck 2013 results. XXII. Constraints on inflation*  
Planck Collaboration 2013, *A&A*, accepted

*Planck 2013 results. XXI. Cosmology with the all-sky Planck Compton parameter  $y$ -map*  
Planck Collaboration 2013, *A&A*, accepted

*Planck 2013 results. XX. Cosmology from Sunyaev-Zeldovich cluster counts*  
Planck Collaboration 2013, *A&A*, accepted

*Planck 2013 results. XIX. The integrated Sachs-Wolfe effect*  
Planck Collaboration 2013, *A&A*, accepted

*Planck 2013 results. XVIII. Gravitational lensing-infrared background correlation*  
Planck Collaboration 2013, *A&A*, accepted

*Planck 2013 results. XVII. Gravitational lensing by large-scale structure*  
Planck Collaboration 2013, *A&A*, accepted

*Planck 2013 results. XVI. Cosmological parameters*  
Planck Collaboration 2013, *A&A*, accepted

*Planck 2013 results. XV. CMB power spectra and likelihood*  
Planck Collaboration 2013, *A&A*, accepted

*Planck 2013 results. XIV. Zodiacal emission*  
Planck Collaboration 2013, *A&A*, accepted

*Planck 2013 results. XIII. Galactic CO emission*  
Planck Collaboration 2013, *A&A*, accepted

*Planck 2013 results. XII. Component separation*  
Planck Collaboration 2013, *A&A*, accepted

*Planck 2013 results. XI. All-sky model of thermal dust emission*  
Planck Collaboration 2014, *A&A*, accepted

*Planck 2013 results. X. Energetic particle effects: characterization, removal, and simulation*  
Planck Collaboration 2013, *A&A*, accepted

*Planck 2013 results. IX. HFI spectral response*  
Planck Collaboration 2013, *A&A*, accepted

*Planck 2013 results. VIII. HFI photometric calibration and mapmaking*  
Planck Collaboration 2013, *A&A*, accepted

*Planck 2013 results. VII. HFI time response and beams*  
Planck Collaboration 2013, *A&A*, accepted

*Planck 2013 results. VI. High Frequency Instrument data processing*  
Planck Collaboration 2013, *A&A*, accepted

*Planck 2013 results. V. LFI calibration*  
Planck Collaboration 2013, *A&A*, accepted

*Planck 2013 results. IV. LFI beams*  
Planck Collaboration 2013, *A&A*, accepted

- Planck 2013 results. III. LFI systematic uncertainties*  
Planck Collaboration 2013, *A&A*, accepted
- Planck 2013 results. II. Low Frequency Instrument data processing*  
Planck Collaboration 2013, *A&A*, accepted
- Planck 2013 results. I. Overview of products and scientific results*  
Planck Collaboration 2013, *A&A*, accepted
- Planck intermediate results. XIV. Dust emission at millimetre wavelengths in the Galactic plane*  
Planck Collaboration 2014, *A&A*, **564**, A45
- Planck intermediate results. XIII. Constraints on peculiar velocities*  
Planck Collaboration 2014, *A&A*, **561**, A97
- Planck intermediate results. XII. Diffuse Galactic components in the Gould Belt system*  
Planck Collaboration 2013, *A&A*, **557**, A53
- Planck intermediate results. XI. The gas content of dark matter halos: the Sunyaev-Zeldovich-stellar mass relation for locally brightest galaxies*  
Planck Collaboration 2013, *A&A*, **557**, A52
- Revealing the Heavily Obscured Active Galactic Nucleus Population of High-redshift 3CRR Sources with Chandra X-Ray Observations*  
Belinda J. Wilkes, Joanna Kuraszekiewicz, Martin Haas, Peter Barthel, Christian Leipski, S. P. Willner, D. M. Worrall, Mark Birkinshaw, Robert Antonucci, M. L. N. Ashby, Rolf Chini, G. G. Fazio, Charles Lawrence, Patrick Ogle, Bernhard Schulz 2013, *Ap. J.*, **773**, 15
- Planck intermediate results. X. Physics of the hot gas in the Coma cluster*  
Planck Collaboration 2013, *A&A*, **554**, A140
- Planck intermediate results. IX. Detection of the Galactic haze with Planck*  
Planck Collaboration 2013, *A&A*, **554**, A139
- The Q/U Imaging Experiment Instrument*  
QUIET Collaboration 2013, *Ap. J.*, **768**, 9
- Planck intermediate results. VIII. Filaments between interacting clusters*  
Planck Collaboration 2013, *A&A*, **550**, A134
- Planck intermediate results. VII. Statistical properties of infrared and radio extragalactic sources from the Planck Early Release Compact Source Catalogue at frequencies between 100 and 857 GHz*  
Planck Collaboration 2013, *A&A*, **550**, A133
- Planck intermediate results. VI. The dynamical structure of PLCKG214.6+37.0, a triple system of galaxy clusters*  
Planck Collaboration 2013, *A&A*, **550**, A132
- Planck intermediate results. V. Pressure profiles of galaxy clusters from the Sunyaev-Zeldovich effect*  
Planck Collaboration 2013, *A&A*, **550**, A131
- Planck intermediate results. IV. The XMM-Newton validation programme for new Planck clusters*  
Planck Collaboration 2013, *A&A*, **550**, A130
- Planck intermediate results. III. The relation between galaxy cluster mass and Sunyaev-Zeldovich signal*  
Planck Collaboration 2013, *A&A*, **550**, A129

- Planck intermediate results. II. Comparison of Sunyaev-Zeldovich measurements from Planck and from the Arcminute Microkelvin Imager for 11 galaxy clusters*  
Planck and AMI Collaborations 2013, *A&A*, **550**, A128
- Second Season QUIET Observations: Measurements of the CMB Polarization Power Spectrum at 95 GHz*  
QUIET Collaboration 2012, *Ap. J.*, **760**, 145
- Spitzer Observations of Hotspots in Radio Lobes*  
M. W. Werner, David W. Murphy, John H. Livingston, Varoujian Gorjian, Dayton L. Jones, David L. Meier, Charles R. Lawrence, Anthony C. S. Readhead 2012, *Ap. J.*, **759**, 86
- Analysis of WMAP 7-year temperature data: Astrophysics of the Galactic haze*  
D. Pietrobon, K. Górski, J. Bartlett, A. J. Banday, G. Dobler, L. P. L. Colombo, L. Pagano, G. Rocha, R. Saha, J. B. Jewell, S. R. Hildetrandt, H. K. Eriksen, & C. R. Lawrence 2012, *Ap. J.*, **755**, 69
- Planck intermediate results. I. Further validation of new Planck clusters with XMM-Newton*  
Planck Collaboration 2012, *A&A*, **543**, A102
- Simultaneous Planck, Swift, and Fermi observations of X-ray and  $\gamma$ -ray selected blazars*  
P. Giommi *et al.* 2012, *A&A*, **541**, 160
- On-Wafer S-Parameter Measurements in the 325–508 GHz Band*  
Andy Fung *et al.* 2012, *IEEE Transactions on Terahertz Science & Technology*, **Vol. 2, No. 2**, 186
- Chandra X-ray Observations of the Redshift 1.53 Radio-Loud Quasar 3C 270.1*  
Belinda J. Wilkes *et al.* 2012, *Ap. J.*, **745**, 84
- Planck early results. I: The Planck mission*  
Planck Collaboration 2011, *A&A*, **536**, A1
- Planck early results. II: The thermal performance of Planck*  
Planck Collaboration 2011, *A&A*, **536**, A2
- Planck early results. III: Low Frequency Instrument in-flight performance*  
A. Mennella, M. Bersanelli, *et al.* 2011, *A&A*, **536**, A3
- Planck early results. IV: High Frequency Instrument in-flight performance*  
HFI Core Team 2011, *A&A*, **536**, A4
- Planck early results. V: Low Frequency Instrument data processing*  
A. Zacchei, D. Maino, *et al.* 2011, *A&A*, **536**, A5
- Planck early results. VI: High Frequency Instrument data processing*  
HFI Core Team 2011, *A&A*, **536**, A6
- Planck early results. VII: The Early Release Compact Source Catalogue*  
Planck Collaboration 2011, *A&A*, **536**, A7
- Planck early results. VIII: The all-sky early Sunyaev-Zeldovich cluster sample*  
Planck Collaboration 2011, *A&A*, **536**, A8
- Planck early results. IX: XMM-Newton follow-up for validation of Planck cluster candidates*  
Planck Collaboration 2011, *A&A*, **536**, A9
- Planck early results. X: Statistical analysis of Sunyaev-Zeldovich scaling relations for X-ray galaxy clusters*  
Planck Collaboration 2011, *A&A*, **536**, A10

- Planck early results. XI: Calibration of the local galaxy cluster Sunyaev-Zeldovich scaling relations*  
Planck Collaboration 2011, *A&A*, **536**, A11
- Planck early results. XII: Cluster Sunyaev-Zeldovich optical Scaling relations*  
Planck Collaboration 2011, *A&A*, **536**, A12
- Planck early results. XIII: Statistical properties of extragalactic radio sources in the Planck Early Release Compact Source Catalogue*  
Planck Collaboration 2011, *A&A*, **536**, A13
- Planck early results. XIV: Early Release Compact Source Catalogue validation and extreme radio sources*  
Planck Collaboration 2011, *A&A*, **536**, A14
- Planck early results. XV: Spectral energy distributions and radio continuum spectra of northern extragalactic radio sources*  
Planck Collaboration 2011, *A&A*, **536**, A15
- Planck early results. XVI: The Planck view of nearby galaxies*  
Planck Collaboration 2011, *A&A*, **536**, A16
- Planck early results. XVII: Origin of the submillimeter excess dust emission in the Magellanic Clouds*  
Planck Collaboration 2011, *A&A*, **536**, A17
- Planck early results. XVIII: The power spectrum of cosmic infrared background anisotropies*  
Planck Collaboration 2011, *A&A*, **536**, A18
- Planck early results. XIX: All-sky temperature and dust optical depth from Planck and IRAS — constraints on the “dark gas” in our Galaxy*  
Planck Collaboration 2011, *A&A*, **536**, A19
- Planck early results. XX: New light on anomalous microwave emission from spinning dust grains*  
Planck Collaboration 2011, *A&A*, **536**, A20
- Planck early results. XXI: Properties of the interstellar medium in the Galactic plane*  
Planck Collaboration 2011, *A&A*, **536**, A21
- Planck early results. XXII: The submillimetre properties of a sample of Galactic cold clumps*  
Planck Collaboration 2011, *A&A*, **536**, A22
- Planck early results. XXIII: The Galactic cold core population revealed by the first all-sky survey*  
Planck Collaboration 2011, *A&A*, **536**, A23
- Planck early results. XXIV: Dust in the diffuse interstellar medium and the Galactic halo*  
Planck Collaboration 2011, *A&A*, **536**, A24
- Planck early results. XXV: Thermal dust in nearby molecular clouds*  
Planck Collaboration 2011, *A&A*, **536**, A25
- Planck early results. XXVI. Detection with Planck and confirmation by XMM-Newton of PLCK G266.6–27.3, an exceptionally X-ray luminous and massive galaxy cluster at  $z \sim 1$*   
Planck Collaboration 2011, *A&A*, **536**, A26
- First Season QUIET Observations: Measurements of CMB Polarization Power Spectra at 43 GHz in the Multipole Range  $25 \leq \ell \leq 475$*   
QUIET Collaboration 2011, *Ap. J.*, **741**, 111

- Fast Pixel Space Convolution for CMB Surveys with Asymmetric Beams and Complex Scan Strategies: FEBeCoP*  
S. Mitra, G. Rocha, K. M. Górski, K. M. Huffenberger, H. K. Eriksen, M. A. J. Ashdown, C. R. Lawrence 2011, *Ap. J. Suppl.*, **193**, 5
- Markov Chain Beam Randomization: A Study of the Impact of Planck Beam Measurement Errors on Cosmological Parameter Estimation*  
G. Rocha, L. Pagano, K. M. Górski, K. M. Huffenberger, C. R. Lawrence, A. E. Lange 2010, *A&A*, **513**, 23
- Residual Noise Covariance for Planck Low-resolution Data Analysis*  
R. Keskitalo, M. A. J. Ashdown, P. Cabella, T. Kisner, T. Poutanen, R. Stompor, J. G. Bartlett, J. Borrill, C. Cantalupo, G. de Gasperis, A. de Rosa, G. de Troia, H. K. Eriksen, F. Finelli, K. M. Górski, A. Gruppose, E. Hivon, A. Jaffe, E. Keihänen, H. Kurki-Suonio, C. R. Lawrence, P. Natoli, F. Pace, G. Polenta, G. Rocha 2010, *A&A*, **522**, 94
- Planck Pre-Launch Status: Low Frequency Instrument Optics*  
M. Sandri and 18 coauthors 2010, *A&A*, **520**, A7
- Planck Pre-Launch Status: Calibration of the Low Frequency Instrument Flight Model Radiometers*  
F. Villa and 73 coauthors 2010, *A&A*, A6
- Planck Pre-Launch Status: Low Frequency Instrument Calibration and Expected Scientific Performance*  
A. Mennella and 85 coauthors 2010, *A&A*, A5
- Planck Pre-Launch Status: Design and Description of the Low Frequency Instrument*  
M. Bersanelli and 112 coauthors 2010, *A&A*, **520**, A4
- Planck Pre-Launch Status: the Planck LFI Programme*  
N. Mandolesi and 142 coauthors 2010, *A&A*, **520**, A3
- Planck Pre-Launch Status: The Planck Mission*  
J. A. Tauber and 499 coauthors 2010, *A&A*, **520**, A1
- Measuring Planck Beams with Planets*  
K. M. Huffenberger, B. P. Crill, A. E. Lange, K. M. Górski, C. R. Lawrence 2010, *A&A*, **510**, 58
- Bayesian Component Separation and CMB Estimation for the 5-year WMAP Temperature Data*  
C. Dickinson, H. K. Eriksen, A. J. Banday, J. B. Jewell, K. M. Górski, G. Huey, C. R. Lawrence, I. J. O'Dwyer, B. D. Wandelt 2009, *Ap. J.*, **705**, 1607
- Making Maps from Planck LFI 30 GHz Data with Instrumental Effects*  
M. A. J. Ashdown, C. Baccigalupi, J. G. Bartlett, J. Borrill, C. Cantalupo, G. de Gasperis, K. Górski, V. Heikkilä, E. Hivon, K. Huffenberger, E. Keihänen, R. Keskitalo, H. Kurki-Suonio, C. R. Lawrence, P. Natoli, T. Poutanen, G. Prézeau, M. Reinecke, G. Rocha, M. Sandri, R. Stompor, G. de Troia, F. Villa, and B. Wandelt (The Planck CTP Working Group) 2009, *A&A*, **493**, 753
- Spitzer Space Telescope IRS Mapping of the Central kpc of Centaurus A*  
Alice C. Quillen, Joss Bland-Hawthorn, Joel Green, J. D. Smith, D. Amelia Prasad, Almudena, Alonso-Herrero, Mairi H. Brookes, Kieran Cleary, & Charles R. Lawrence 2008, *MNRAS*, **384**, 1469
- Joint Bayesian Component Separation and CMB Power Spectrum Estimation*  
H. K. Eriksen, J. B. Jewell, C. Dickinson, A. J. Banday, K. M. Górski, C. R. Lawrence 2008, *Ap. J.*, **676**, 10

- The Joint Large-Scale Foreground-CMB Posteriors of the 3-year WMAP Data*  
H. K. Eriksen, C. Dickinson, J. B. Jewell, A. J. Banday, K. M. Górski, C. R. Lawrence 2008, *Ap. J. Letters*, **672**, 87
- Making Maps from Planck LFI 30 GHz Data*  
M. A. J. Ashdown, C. Baccigalupi, A. Balbi, J. G. Bartlett, J. Borrill, C. Cantalupo, G. de Gasperis, K. Górski, V. Heikkilä, E. Hivon, E. Keihänen, H. Kurki-Suonio, C. R. Lawrence, P. Natoli, T. Poutanen, S. Prunet, M. Reinecke, R. Stompor, and B. Wandelt (The Planck CTP Working Group) 2007, *A&A*, **471**, 361
- Making Sky Maps from Planck Data*  
M. A. J. Ashdown, C. Baccigalupi, A. Balbi, J. G. Bartlett, J. Borrill, C. Cantalupo, G. de Gasperis, K. Górski, E. Hivon, E. Keihänen, H. Kurki-Suonio, C. R. Lawrence, P. Natoli, T. Poutanen, S. Prunet, M. Reinecke, R. Stompor, and B. Wandelt (The Planck CTP Working Group) 2007, *A&A*, **467**, 761
- Spitzer Observations of 3C Quasars and Radio Galaxies: Mid-Infrared Properties of Powerful Radio Sources*  
K. Cleary, C. R. Lawrence, J. A. Marshall, L. Hao, and D. Meier 2007, *Ap. J.*, **660**, 117
- A Relation Between the Mid-Infrared [Ne V] 14.3  $\mu\text{m}$  and [Ne III] 15.6  $\mu\text{m}$  Lines in Active Galactic Nuclei*  
V. Gorjian, K. Cleary, M. W. Werner, and C. R. Lawrence 2007, *Ap. J.*, **655**, 73
- Bayesian Foreground Analysis with CMB Data*  
H. K. Eriksen, C. Dickinson, C. R. Lawrence, C. Baccigalupi, A. J. Banday, K. M. Górski, F. K. Hansen, E. Pierpaoli, M. D. Seiffert 2006, *New Astronomy Reviews*, **50**, 861
- Spitzer Observations of Centaurus A: Infrared Synchrotron Emission from the Northern Lobe*  
M. H. Brookes, C. R. Lawrence, D. Stern, V. Gorjian, M. Werner, and V. Charmandaris 2006, *Ap. J. Letters*, **646**, 41
- Spitzer Observations of the Dusty Warped Disk of Centaurus A*  
Alice C. Quillen, Mairi H. Brookes, Jocelyn Keene, Daniel Stern, Charles R. Lawrence, Michael W. Werner 2006, *Ap.J.*, **645**, 1092
- Discovery of a 500 pc Shell in the Nucleus of Centaurus A*  
Alice C. Quillen, Joss Bland-Hawthorn, Mairi H. Brookes, Michael W. Werner, J. D. Smith, Daniel Stern, Jocelyn Keene, Charles R. Lawrence 2006, *Ap. J.*, **641**, 29
- CMB Component Separation by Parameter Estimation*  
H. K. Eriksen, C. Dickinson, C. R. Lawrence, C. Baccigalupi, A. J. Banday, K. M. Gorski, F. K. Hansen, P. B. Lilje, E. Pierpaoli, M. D. Seiffert, K. M. Smith, and K. Vanderlinde 2006, *Ap. J.*, **641**, 665
- Comparison of map-making algorithms for CMB experiments*  
T. Poutanen, G. de Gasperis, E. Hivon, H. Kurki-Suonio, A. Balbi, J. Borrill, C. Cantalupo, O. Dore, E. Keihanen, C. R. Lawrence, D. Maino, P. Natoli, S. Prunet, R. Stompor, R. Teyssier 2006, *A&A*, **449**, 1311
- Silicate Emission in the Spitzer IRS2 spectrum of FSC 10214+4724*  
H. I. Teplitz, L. Armus, B.T. Soifer, V. Charmandaris, J. A. Marshall, H. Spoon, C. Lawrence, L. Hao, S. Higdon, Y. Wu, M. Lacy, P. R. Eisenhardt, T. Herter, J.R. Houck 2006, *Ap. J. Letters*, **638**, 1311

- A Map of the Cosmic Microwave Background from the BEAST Experiment*  
Peter R. Meinhold, Marco Bersanelli, Jeffrey Childers, Newton Figueiredo, Todd C. Gaier, Doron Halevi, Gregory G. Huey, Miikka Kangas, Charles R. Lawrence, Alan Levy, Philip M. Lubin, Marco Malaspina, Nazzareno Mandolesi, Joshua Marvil, Jorge Mejía, Paolo Natoli, Ian O'Dwyer, Hugh O'Neill, Shane Parengo, Agenor Pina, Michael D. Seiffert, Nathan C. Stebor, Camilo Tello, Fabrizio Villa, Thyrso Villela, Lawrence A. Wade, Benjamin D. Wandelt, Brian Williams, and Carlos Alexandre Wuensche 2005, *Ap. J. Suppl.*, **158**, 101
- XMM-Newton observations of three high-redshift radio galaxies*  
E. Belsole, D. M. Worrall, M. J. Hardcastle, M. Birkinshaw, C. R. Lawrence 2004, *MNRAS*, **352**, 924
- Spitzer/IRS Observations of the Redshift 3.91 Quasar APM08279+5255*  
B. T. Soifer, V. Charmandaris, B. R. Brandl, L. Armus, P. M. Apleton, M. J. Burgdorf, D. Devost, T. Herter, S. I. U. Higdon, J. L. Higdon, J. R. Houck, C. R. Lawrence, P. W. Morris, H. I. Teplitz, K. I. Uchida, J. van Cleve, D. Weedman 2004, *Ap. J. Suppl.*, **154**, 151
- The Infrared Spectrograph on the Spitzer Space Telescope*  
J. R. Houck, T. L. Roellig, J. van Cleve, W. J. Forrest, T. Herter, C. R. Lawrence, K. Matthews, H. J. Reitsema, B. T. Soifer, D. M. Watson, D. Weedman, M. Huisjen, J. Troeltzsch, D. J. Barry, J. Bernard-Salas, C. E. Blacken, B. R. Brandl, V. Charmandaris, D. Devost, G. E. Gull, P. Hall, C. P. Henderson, S. J. V. Higdon, B. E. Pirger, J. Schoenwald, G. C. Sloan, K. I. Uchida, P. N. Appleton, L. Armus, M. J. Burgdorf, S. B. Fajardo-Acosta, C. J. Grillmair, J. G. Ingalls, P. W. Morris, H. I. Teplitz 2004, *Ap. J. Suppl.*, **154**, 18
- The Spitzer Space Telescope Mission*  
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