

Daniel Mortlock: Curriculum Vitae

1 Personal particulars

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Date of birth: June 14, 1973
 Place of birth: Melbourne, Australia
 Citizenship: Australian; British

2 Employment history

2011 –	lecturer in astro-statistics	Imperial College London
2005 – 2011	postdoctoral research associate	Imperial College London
2002 – 2005	PPARC postdoctoral fellow	Cambridge University
1999 – 2002	postdoctoral research associate	Cambridge University
1998 – 1999	lecturer	Latrobe University

3 Teaching experience

2012 –	postgraduate lecturer	Imperial College London
2011 –	undergraduate lecturer	Imperial College London
2010 –	undergraduate project supervisor	Imperial College London
2008 –	undergraduate demonstrator	Imperial College London
2001 – 2005	undergraduate supervisor	Cambridge University
1998	undergraduate astronomy lecturer	La Trobe University
1998	undergraduate demonstrator	La Trobe University
1994 – 1999	undergraduate demonstrator	Melbourne University

4 Education

2000	Doctor of Philosophy (physics)	Melbourne University
1994	Bachelor of Science (degree with honours)	Melbourne University
1990	Victorian Certificate of Education (VCE)	Scotch College, Melbourne

5 Professional affiliations

2012 –	member of the <i>EUCLID</i> collaboration
2010 –	member of the <i>JANUS</i> mission science team
2009 –	Planck HFI Core Team member
2007 –	member of the London <i>Planck</i> Analysis Centre (LPAC)
2005 –	member of the UKIDSS consortium
2001 –	<i>Planck</i> scientist
2000 – 2005	research associate at Corpus Christi College, Cambridge
1999 –	<i>Planck</i> associate
1999 – 2005	member of the Cambridge <i>Planck</i> Analysis Centre (CPAC)

6 Professional experience and expertise

- Referee for scientific journals (including *A&A*, *AJ*, *ApJ*, *MNRAS*, *Nature*, *PASA*, *PRD* and *Statistical Analysis And Data-Mining*)
- Considerable programming experience in C, Fortran90, Linux/UNIX shell scripting, SQL, \LaTeX and HTML
- Clear and enthusiastic science communicator, including public talks, teaching and professional presentations
- Active member of several group and departmental committees

7 Awards and scholarships

- 2012 Royal Astronomical Society Group Award for UKIDSS
- 2011 Faculty Research Staff Award at Imperial College London
- 2000 Melbourne University Chancellor's Prize
(for best PhD thesis in science or engineering)
- 1997 Melbourne University Graduate Studies travel scholarship
- 1995 Australian Postgraduate Award with stipend
- 1994 Melbourne University Bryan Scholarship in Natural Science
(for highest average mark in final year physics)
- 1993 E.M. & J.F. Ward Prize in Experimental Physics
(for highest mark in final year physics laboratory classes)
- 1990 Australian Students' Prize
(for VCE mark)
- 1990 Bronze Certificate in the Australian Mathematics Olympiad

8 Scientific talks

2013	September	invited conference talk	Royal Statistical Society, Newcastle
2013	August	invited conference talk	World Statistics Congress, HK
2013	July	invited conference talk	Reionization conference, Uluru
2013	May	departmental seminar	Durham University
2013	April	departmental seminar	UC Santa Barbara
2013	April	departmental seminar	UC Santa Cruz
2013	March	invited conference talk	Gateway to Mathematics, INI
2012	December	invited workshop talk	AGN Workshop, Rinberg
2012	October	group seminar	Belfast
2012	September	workshop talk	LCDM, King's College London
2012	June	conference talk	UKIDSS meeting
2012	May	group seminar	University of Leicester
2012	May	group seminar	University of Nottingham
2012	February	group seminar	University of Oxford
2012	February	group seminar	University of Hertfordshire
2012	February	statistics seminar	Imperial College London
2011	November	group seminar	CfA, Harvard
2011	November	ITC lunchtime talk	CfA, Harvard
2011	November	departmental colloquium	Goddard Space Flight Center
2011	October	group seminar	Weizmann Institute
2011	September	departmental seminar	IAS, Princeton
2011	September	departmental seminar	Rutgers University
2011	July	conference talk	New Horizons for High Redshift, Cambridge
2011	July	invited conference talk	Galaxy Formation, Durham
2011	May	departmental seminar	ICG, Portsmouth
2011	March	departmental seminar	Imperial College London
2010	November	departmental seminar	University College London
2010	June	invited conference talk	Planets To Galaxies, Budapest
2010	May	cosmology workshop talk	University College London
2010	March	invited workshop talk	Imperial College London
2009	December	invited workshop talk	Imperial College London
2009	September	invited workshop talk	Statistical Frontiers Of Astrophysics, IMPU, Tokyo
2009	September	conference talk	UKIRT at 30, Royal Observatory Edinburgh
2009	June	departmental seminar	University of Nottingham
2009	May	departmental seminar	Liverpool John Moores University
2009	April	departmental seminar	University of Heidelberg
2009	April	conference talk	NAM, University of Hertfordshire
2009	March	departmental seminar	University of Manchester
2009	March	departmental seminar	Durham University
2009	February	group seminar	Oxford University
2009	February	group seminar	Cambridge University
2008	December	workshop talk	UKIDSS Workshop, Imperial College London
2008	August	invited workshop talk	Problems In Cosmology, Snowdon
2008	July	conference talk	JEDI 2 Meeting, Cape Town
2008	July	invited conference talk	JEDI 2 Meeting, Cape Town
2008	May	departmental seminar	Cardiff University
2008	April	departmental seminar	Melbourne University
2008	April	departmental seminar	University of New South Wales
2008	March	invited conference talk	Moriond Meeting, La Thuile
2008	February	departmental seminar	University of Bristol
2007	December	workshop talk	UKIDSS Workshop, European Southern Observatory
2007	June	workshop talk	LCDM, University College London
2006	November	departmental seminar	Jodrell Bank Observatory
2006	February	departmental seminar	Imperial College London
2005	December	workshop talk	UKIDSS Workshop, Royal Observatory Edinburgh
2005	February	departmental seminar	Melbourne University
2004	March	departmental seminar	Institute of Astronomy, University of Cambridge
2004	March	conference talk	Moriond Meeting, La Thuile

2003	November	cosmology workshop talk	DAMTP, Cambridge University
2003	October	departmental seminar	University of Nottingham
2003	February	departmental seminar	University of Melbourne
2002	August	invited conference talk	Mapping The Mass, University of Birmingham
2002	March	departmental seminar	University of Birmingham
2002	February	workshop talk	Planck Workshop, Institute D'Astrophysique, Paris
2002	January	departmental seminar	Oxford University
2001	November	departmental seminar	University of Sussex
2001	October	Planck workshop talk	Imperial College London
2001	July	workshop talk	Planck Workshop, University of Pisa
2001	July	invited workshop talk	Planck Workshop, University of Pisa
2001	March	workshop talk	Unsolved Problems In Cosmology, DAMTP
2000	December	invited conference talk	OzLens, University of Melbourne
2000	October	departmental seminar	Princeton University
2000	September	departmental seminar	Cambridge University
2000	March	conference talk	Moriond Meeting, Les Arcs
2000	February	departmental seminar	Mullard Space Science Laboratory
1999	January	conference talk	AGN Workshop, Mount Stromlo Observatory

9 Publications

9.1 Refereed

109. 'Black hole mass estimates and emission-line properties of a sample of $z > 6.5$ quasars'
De Rosa, G., Venemans, B., Decarli, R., Gennaro, M., Simcoe, R.A., Dietrich, M., Peterson, B.M., Walter, F., Frank, S., McMahon, R.G., Hewett, P.C., **Mortlock, D.J.**, Simpson, C. & Warren, S.J., 2013, ???, submitted
108. 'Assessing the relationship between spectral solar irradiance and stratospheric ozone using Bayesian Inference'
Ball, W.T., **Mortlock, D.J.**, Haigh, J.D. & Egerton, J., 2013, *Journal of Climate*, submitted
107. 'Planck 2013 results. I. Overview of products and results'
Ade, P.A.R., . . . , **Mortlock, D.J.**, . . . , Zonca, A., 2013, *A&A*, submitted
106. 'Planck 2013 results. II. Low Frequency Instrument data processing'
Ade, P.A.R., . . . , **Mortlock, D.J.**, . . . , Zonca, A., 2013, *A&A*, submitted
105. 'Planck 2013 results. III. LFI systematic uncertainties'
Ade, P.A.R., . . . , **Mortlock, D.J.**, . . . , Zonca, A., 2013, *A&A*, submitted
104. 'Planck 2013 results. IV. LFI beams'
Ade, P.A.R., . . . , **Mortlock, D.J.**, . . . , Zonca, A., 2013, *A&A*, submitted
103. 'Planck 2013 results. V. LFI calibration'
Ade, P.A.R., . . . , **Mortlock, D.J.**, . . . , Zonca, A., 2013, *A&A*, submitted
102. 'Planck 2013 results. VI. High Frequency Instrument data processing'
Ade, P.A.R., . . . , **Mortlock, D.J.**, . . . , Zonca, A., 2013, *A&A*, submitted
101. 'Planck 2013 results. VII. HFI time response and beams'
Ade, P.A.R., . . . , **Mortlock, D.J.**, . . . , Zonca, A., 2013, *A&A*, submitted
100. 'Planck 2013 results. VIII. HFI calibration and mapmaking'
Ade, P.A.R., . . . , **Mortlock, D.J.**, . . . , Zonca, A., 2013, *A&A*, submitted
99. 'Planck 2013 results. IX. HFI spectral response'
Ade, P.A.R., . . . , **Mortlock, D.J.**, . . . , Zonca, A., 2013, *A&A*, submitted
98. 'Planck 2013 results. X. HFI energetic particle effects'
Ade, P.A.R., . . . , **Mortlock, D.J.**, . . . , Zonca, A., 2013, *A&A*, submitted
97. 'Planck 2013 results. XI. Consistency of the data'
Ade, P.A.R., . . . , **Mortlock, D.J.**, . . . , Zonca, A., 2013, *A&A*, submitted
96. 'Planck 2013 results. XII. Component separation'
Ade, P.A.R., . . . , **Mortlock, D.J.**, . . . , Zonca, A., 2013, *A&A*, submitted
95. 'Planck 2013 results. XIII. Galactic CO emission'
Ade, P.A.R., . . . , **Mortlock, D.J.**, . . . , Zonca, A., 2013, *A&A*, submitted
94. 'Planck 2013 results. XIV. Zodiacal emission'
Ade, P.A.R., . . . , **Mortlock, D.J.**, . . . , Zonca, A., 2013, *A&A*, submitted
93. 'Planck 2013 results. XV. CMB power spectra and likelihood'
Ade, P.A.R., . . . , **Mortlock, D.J.**, . . . , Zonca, A., 2013, *A&A*, submitted
92. 'Planck 2013 results. XVI. Cosmological parameters'
Ade, P.A.R., . . . , **Mortlock, D.J.**, . . . , Zonca, A., 2013, *A&A*, submitted
91. 'Planck 2013 results. XVII. Gravitational lensing by large-scale structure'
Ade, P.A.R., . . . , **Mortlock, D.J.**, . . . , Zonca, A., 2013, *A&A*, submitted
90. 'Planck 2013 results. XVIII. The gravitational lensing-infrared background correlation'
Ade, P.A.R., . . . , **Mortlock, D.J.**, . . . , Zonca, A., 2013, *A&A*, submitted

89. 'Planck 2013 results. XIX. The integrated Sachs-Wolfe effect'
Ade, P.A.R., . . . , **Mortlock, D.J.**, . . . , Zonca, A., 2013, *A&A*, submitted
88. 'Planck 2013 results. XX. Cosmology from Sunyaev-Zeldovich cluster counts'
Ade, P.A.R., . . . , **Mortlock, D.J.**, . . . , Zonca, A., 2013, *A&A*, submitted
87. 'Planck 2013 results. XXI. All-sky Compton-parameter map and characterization'
Ade, P.A.R., . . . , **Mortlock, D.J.**, . . . , Zonca, A., 2013, *A&A*, submitted
86. 'Planck 2013 results. XXII. Constraints on inflation'
Ade, P.A.R., . . . , **Mortlock, D.J.**, . . . , Zonca, A., 2013, *A&A*, submitted
85. 'Planck 2013 results. XXIII. Isotropy and statistics of the CMB'
Ade, P.A.R., . . . , **Mortlock, D.J.**, . . . , Zonca, A., 2013, *A&A*, submitted
84. 'Planck 2013 results. XXIV. Constraints on primordial non-Gaussianity'
Ade, P.A.R., . . . , **Mortlock, D.J.**, . . . , Zonca, A., 2013, *A&A*, submitted
83. 'Planck 2013 results. XXV. Searches for cosmic strings and other topological defects'
Ade, P.A.R., . . . , **Mortlock, D.J.**, . . . , Zonca, A., 2013, *A&A*, submitted
82. 'Planck 2013 results. XXVI. Background geometry and topology of the Universe'
Ade, P.A.R., . . . , **Mortlock, D.J.**, . . . , Zonca, A., 2013, *A&A*, submitted
81. 'Planck 2013 results. XXVII. Special relativistic effects on the CMB dipole'
Ade, P.A.R., . . . , **Mortlock, D.J.**, . . . , Zonca, A., 2013, *A&A*, submitted
80. 'Planck 2013 results. XXVIII. The Planck Catalogue of Compact Sources'
Ade, P.A.R., . . . , **Mortlock, D.J.**, . . . , Zonca, A., 2013, *A&A*, submitted
79. 'Planck 2013 results. XXIX. The Planck catalogue of Sunyaev-Zeldovich sources'
Ade, P.A.R., . . . , **Mortlock, D.J.**, . . . , Zonca, A., 2013, *A&A*, submitted
78. 'Planck Intermediate Results. XII: Diffuse Galactic components in the Gould Belt System'
Ade, P.A.R., . . . , **Mortlock, D.J.**, . . . , Zonca, A., 2013, *A&A*, submitted
77. 'Planck Intermediate Results. XI: The gas content of dark matter halos: the Sunyaev-Zeldovich-stellar mass relation for locally brightest galaxies'
Ade, P.A.R., . . . , **Mortlock, D.J.**, . . . , Zonca, A., 2013, *A&A*, submitted
76. 'Estimating the large-scale angular power spectrum in the presence of systematics: a case study of SDSS quasars'
Leistedt, B., Peiris, H.V., **Mortlock, D.J.**, Benoit-Lévy, A. & Pontzen, A., 2013, *MNRAS*, 435, 1857
75. '(Lack of) Cosmological evidence for dark radiation after Planck'
Verde, L., Feeney, S.M., **Mortlock, D.J.** & Peiris, H.V., 2013, *JCAP*, in press
74. 'Finding the most distant quasars using Bayesian selection methods'
Mortlock, D.J., 2013, *Statistical Science*, in press
73. 'Planck intermediate results I: Further validation of new Planck clusters with XMM-Newton'
Aghanim, N., . . . , **Mortlock, D.J.**, . . . , Zacchei, A., 2013, *A&A*, in press
72. 'Hierarchical Bayesian detection algorithm for early-Universe relics in the cosmic microwave background'
Feeney, S., Johnson, M.C., McEwen, J.D., **Mortlock, D.J.** & Peiris, H.V., 2013, *PRD*, in press
71. 'Protoplanetary disk masses from stars to brown dwarfs'
Mohanty, S., Greaves, J., **Mortlock, D.J.**, Pascucci, I., Scholz, A., Thompson, M., Apai, D., Lodato, G. & Looper, D., 2013, *ApJ*, 773, 168
70. 'Evolution of the far-infrared luminosity functions in the Spitzer Wide-area Infrared Extragalactic Legacy Survey'
Patel, H., Clements, D.L., Vaccari, M., **Mortlock, D.J.**, Rowan-Robinson, M. & Pérez-Fournon, I., 2012, *MNRAS*, 428, 291

69. 'A robust constraint on cosmic textures from the cosmic microwave background'
Feeney, S., Johnson, M.C., **Mortlock, D.J.** & Peiris, H.V., 2012, *PRL*, **108**, 241301
68. 'Detection of atomic carbon [C II] 158 μm and dust emission from a redshift $z = 7.1$ quasar host galaxy'
Venemans, B.P., McMahon, R.G., Walter, F., Decarli, R., Cox, P., Neri, R., Hewett, P.C., **Mortlock, D.J.**, Simpson, C. & Warren, S.J.
2011, *ApJL*, **751**, L25
67. 'Reconstruction of total solar irradiance 1974–2009'
Ball, W.T., Unruh, Y.C., Krivova, N.A., Solanki, S., **Mortlock, D.J.**, Jaffe, A.H. & Wenzler, T.,
2012, *A&A*, **541**, 27
66. 'Probabilistic selection of high-redshift quasars'
Mortlock, D.J., Patel, M., Warren, S.J., Hewett, P.C., Venemans, B.P., McMahon, R.G. & Simpson, C.J., 2012, *MNRAS*, **419**, 390
65. 'Planck early results: The Planck mission'
Ade, P.A.R., . . . , **Mortlock, D.J.**, . . . , Zonca, A., 2011, *A&A*, **536**, 1
64. 'Planck early results: The thermal performance of Planck'
Ade, P.A.R., . . . , **Mortlock, D.J.**, . . . , Zonca, A., 2011, *A&A*, **536**, 2
63. 'Planck early results: First assessment of the High Frequency Instrument in-flight performance'
Ade, P.A.R., . . . , **Mortlock, D.J.**, . . . , Zacchei, A., 2011, *A&A*, **536**, 4
62. 'Planck early results: The High Frequency Instrument data processing'
Ade, P.A.R., . . . , **Mortlock, D.J.**, . . . , Zonca, A., 2011, *A&A*, **536**, 6
61. 'Planck early results: The Early Release Compact Source Catalogue'
Ade, P.A.R., . . . , **Mortlock, D.J.**, . . . , Zonca, A., 2011, *A&A*, **536**, 7
60. 'Planck early results: The all-sky early Sunyaev-Zel'dovich cluster sample'
Ade, P.A.R., . . . , **Mortlock, D.J.**, . . . , Zonca, A., 2011, *A&A*, **536**, 8
59. 'Planck early results: XMM-Newton follow-up for validation of Planck cluster candidates'
Aghanim, N., . . . , **Mortlock, D.J.**, . . . , Zonca, A., 2011, *A&A*, **536**, 9
58. 'Planck early results: Statistical analysis of Sunyaev-Zel'dovich scaling relations for X-ray galaxy clusters'
Ade, P.A.R., . . . , **Mortlock, D.J.**, . . . , Zonca, A., 2011, *A&A*, **536**, 10
57. 'Planck early results: Calibration of the local galaxy cluster Sunyaev-Zel'dovich scaling relations'
Ade, P.A.R., . . . , **Mortlock, D.J.**, . . . , Zonca, A., 2011, *A&A*, **536**, 11
56. 'Planck early results: Cluster Sunyaev-Zeldovich optical scaling relations'
Aghanim, N., . . . , **Mortlock, D.J.**, . . . , Zonca, A., 2011, *A&A*, **536**, 12
55. 'Planck early results: Statistical properties of extragalactic radio sources in the Planck Early Release Compact Source Catalogue'
Ade, P.A.R., . . . , **Mortlock, D.J.**, . . . , Zonca, A., 2011, *A&A*, **536**, 13
54. 'Planck early results: Spectral energy distributions and radio continuum spectra of northern extragalactic radio sources'
Aatrokoski, J., . . . , **Mortlock, D.J.**, . . . , Zonca, A., 2011, *A&A*, **536**, 15
53. 'Planck early results: The Planck view of nearby galaxies'
Ade, P.A.R., . . . , **Mortlock, D.J.**, . . . , Zonca, A., 2011, *A&A*, **536**, 16
52. 'Planck early results: Origin of the submillimetre excess dust emission in the Magellanic Clouds'
Ade, P.A.R., . . . , **Mortlock, D.J.**, . . . , Zonca, A., 2011, *A&A*, **536**, 17
51. 'Planck early results: The power spectrum of cosmic infrared background anisotropies'
Ade, P.A.R., . . . , **Mortlock, D.J.**, . . . , Zonca, A., 2011, *A&A*, **536**, 18

50. 'Planck early results: All-sky temperature and dust optical depth from Planck and IRAS - constraints on the "dark gas" in our Galaxy'
Ade, P.A.R., . . . , **Mortlock, D.J.**, . . . , Zonca, A., 2011, *A&A*, **536**, 19
49. 'Planck early results: New light on anomalous microwave emission from spinning dust grains'
Ade, P.A.R., . . . , **Mortlock, D.J.**, . . . , Zonca, A., 2011, *A&A*, **536**, 20
48. 'Planck early results: The submillimetre properties of a sample of Galactic cold clumps'
Ade, P.A.R., . . . , **Mortlock, D.J.**, . . . , Zonca, A., 2011, *A&A*, **536**, 22
47. 'Planck early results: The first all-sky survey of Galactic cold clumps'
Ade, P.A.R., . . . , **Mortlock, D.J.**, . . . , Zonca, A., 2011, *A&A*, **536**, 23
46. 'Planck early results: Thermal dust in nearby molecular clouds'
Abergel, A., . . . , **Mortlock, D.J.**, . . . , Zonca, A., 2011, *A&A*, **536**, 25
45. 'Planck early results: Detection with Planck and confirmation by XMM-Newton of PLCK G266.6–27.3, an exceptionally X-ray luminous and massive galaxy cluster at $z \sim 1$ '
Aghanim, N., . . . , **Mortlock, D.J.**, . . . , Zonca, A., 2011, *A&A*, **536**, 26
44. 'A Bayesian analysis of the 27 highest energy cosmic rays detected by the Pierre Auger Observatory'
Watson, L.J., **Mortlock, D.J.** & Jaffe, A.H., 2011, *MNRAS*, **418**, 206
43. 'How neutral is the inter-galactic medium surrounding the redshift $z = 7.085$ quasar ULAS J1120+0641?'
Bolton, J.S., Haehnelt, M.G., Warren, S.J., Hewett, P.C., **Mortlock, D.J.**, Venemans, B.P., McMahon, R.G. & Simpson, C.J., 2011, *MNRAS*, **416**, L70
42. 'First observational tests of eternal inflation: analysis methods and WMAP 7-year results'
Feeney, S.M., Johnson, M.C., **Mortlock, D.J.** & Peiris, H.V., 2011, *PRD*, **84**, 043507
41. 'The first constraints on eternal inflation'
Feeney, S.M., Johnson, M.C., **Mortlock, D.J.** & Peiris, H.V., 2011, *PRL*, **107**, 071301
40. 'A luminous quasar at a redshift of 7.085'
Mortlock, D.J., Warren, S.J., Venemans, B.P., Patel, M., Hewett, P.C., McMahon, R.G., Simpson, C., Theuns, T., González-Solares, E.A., Adamson, A., Dye, S., Hambly, N.C., Hirst, P., Irwin, M.J., Kuiper, E., Lawrence, A. & Röttgering, H.J.A., 2011, *Nature*, **474**, 616
39. 'A Bayesian approach to star–galaxy classification'
Henrion, M., **Mortlock, D.J.**, Hand, D.J. & Gandy, A., 2011, *MNRAS*, **412**, 2286
38. 'Planck pre-launch status: The Planck mission'
Tauber, J.A., . . . , **Mortlock, D.J.**, . . . , Zorita, D., 2010, *A&A*, **520**, A1
37. 'Forty-seven new T dwarfs from the UKIDSS Large Area Survey'
Burningham, B., Pinfield, D.J., Lucas, P.W., Leggett, S.K., Deacon, N.R., Tinney, C.G., Lodieu, N., Zhang, Z., Huelamo, N., Murray, D.N., **Mortlock, D.J.**, Barrado y Navascués, D., & Zapatero Osorio, M.R., 2010, *MNRAS*, **406**, 1885
36. 'The reanalysis of spectra of GRB 080913 to estimate the neutral fraction of the IGM at a redshift of 6.7'
Patel, M., Warren, S.J., **Mortlock, D.J.** & Fynbo, J.P.U., 2010, *A&A*, 512, L3
35. 'Photometric constraints on white dwarfs and the identification of extreme objects'
Mortlock, D.J., Peiris, H.V. & Ivezić, Ž., 2009, *MNRAS*, **399**, 699
34. 'Discovery of a redshift 6.13 quasar in the UKIRT Infrared Deep Sky Survey'
Mortlock, D.J., Patel, M., Warren, S.J., Venemans, B.P., McMahon, R.G., Hewett, P.C., Simpson, C., Sharp, R.G., Burningham, B., Dye, S., Ellis, S., González-Solares, E.A. & Huélamo, N., 2009, *A&A*, **505**, 97
33. 'Exploring the substellar temperature regime down to ~ 550 K'
Burningham, B., Pinfield, D.J., Leggett, S.K., Tamura, M., Lucas, P.W., Homeier, D., Day-Jones, A., Jones, H.R.A., Clarke, J.R.A., Ishii, M., Kuzuhara, M., Lodieu, N., Zapatero Osorio, M.R., Venemans, B.P., **Mortlock, D., J.**, Barrado y Navascués, D., Martin, E.L. & Magazzu, A., 2008, *MNRAS*, **391**, 320

32. 'Fifteen new T dwarfs discovered in the UKIDSS Large Area Survey'
Pinfield, D.J., Burningham, B., Tamura, M., Leggett, S.K., Lodieu, N., Lucas, P.W., **Mortlock, D.J.**, Warren, S.J., Homeier, D., Ishi, M., Deacon, N.R., McMahon, R.G., Hewett, P.C., Zapatero Osorio, M.R., Martin, E.L., Jones, H.R.A., Venemans, B.P., Day–Jones, A., Dobbie, P.D., Folkes, S.L., Dye, S., Allard, F., Baraffe, I., Barrado y Navascués, D., Casewell, S.K., Chiu, K., Chabrier, G., Clarke, F., Hodgkin, S.T., Magazzu, A., McCaughrean, M.J., Moraux, E., Nakajima, T., Pavlenko, Y. & Tinney, C.G., 2008, *MNRAS*, **390**, 304
31. 'A high-significance detection of non-Gaussianity in the *WMAP* 5-year data using directional spherical wavelets'
McEwen, J.D., Hobson, M.P., Lasenby, A.N. & **Mortlock, D.J.**, 2008, *MNRAS*, **388**, 659
30. 'A very cool brown dwarf in UKIDSS DR1'
Warren, S.J., **Mortlock, D.J.**, Leggett, S.K., Pinfield, D.J., Homeier, D., Dye, S., Jameson, R.F., Lodieu, N., Lucas, P.W., Adamson, A.J., Allard, F., Chiu, K., Hambly, N.C., Hewett, P.C., Hirst, P., Irwin, M.J., Liu, M.C. & Venemans, B.P., 2007, *MNRAS*, **381**, 1400
29. 'The UKIRT Infrared Deep Sky Survey (UKIDSS)'
Lawrence, A., Warren, S.J., Almaini, O., Edge, A.C., Hambly, N.C., Jameson, R.F., Lucas, P., Casali, M., Adamson, A., Dye, S., Emerson, J.P., Foucaud, S., Hewett, P.C., Hirst, P., Hodgkin, S.T., Irwin, M.J., Lodieu, N., McMahon, R.G., Simpson, C., Smail, I., **Mortlock, D.J.** & Folger, M., 2007, *MNRAS*, **379**, 1599
28. 'Eight new T4.5–T7.5 dwarfs discovered in the UKIDSS Large Area Survey Data Release 1'
Lodieu, N., Pinfield, D.J., Leggett, S.K., Jameson, R.F., **Mortlock, D.J.**, Warren, S.J., Lucas, P.W., Chiu, K., Liu, M.C., Venemans, B.P., McMahon, R.G., Allard, F., Baraffe, I., Barrado y Navascués, D., Carraro, G., Deacon, N.R., Dobbie, P.D., Folkes, S.L., Hambly, N.C., Hewett, P.C., Hodgkin, S.T., Jones, H.R.A., Kendall, T.R., Magazzù, A., Martin, E.L., McCaughrean, M.J., Nakajima, T., Pavlenko, Y., Tamura, M., Tinney, C.G. & Zapatero Osorio, M.R., 2007, *MNRAS*, **379**, 1423
27. 'The discovery of the first luminous $z \simeq 6$ quasar in the UKIDSS Large Area Survey'
Venemans, B.P., McMahon, R.G., Warren, S.J., González–Solares, E.A., **Mortlock, D.J.**, Dye, S. & Sharp, R.G., 2007, *MNRAS*, **376**, L76
26. 'The UKIRT Infrared Deep Sky Survey First Data Release'
Warren, S.J., Hambly, N.C., Dye, S., Almaini, O., Cross, N.J.G., Edge, A.C., Foucaud, S., Hewett, P.C., Hodgkin, S.T., Irwin, M.J., Jameson, R.F., Lawrence, A., Lucas, P.W., Adamson, A.J., Bandyopadhyay, R.M., Bryant, J., Collins, R.S., Davis, C.J., Dunlop, J.S., Evans, D.W., González–Solares, E.A., Hirst, P., Jarvis, M.J., Kendall, T.R., Kerr, T.H., Leggett, S.K., Lewis, J.R., Mann, R.G., McLure, R.J., **Mortlock, D.J.**, Rawlings, M.G., Read, M.A., Riello, M., Simpson, C., Smith, D.J.B., Sutorius, E.T.W., Targett, T.A. & Varricatt, W.P., 2006, *MNRAS*, **375**, 213
25. 'Fast directional continuous spherical wavelet transform algorithms'
McEwen, J.D., Hobson, M.P., **Mortlock, D.J.** & Lasenby, A.N., 2007, *IEEE Trans. Signal Proc.*, **55**, 520
24. 'The UKIRT Infrared Deep Sky Survey Early Data Release'
Dye, S., Warren, S.J., Hambly, N.C., Cross, N.J.G., Hodgkin, S.T., Irwin, M.J., Lawrence, A., Adamson, A.J., Almaini, O., Edge, A.C., Hirst, P., Jameson, R.F., Lucas, P.W., van Breukelen, C., Bryant, J., Collins, R.S., Dalton, G.B., Davies, C.J., Evans, D.W., Foucaud, S., González–Solares, E.A., Hewett, P.C., Kerr, T.H., Leggett, S.K., Lodieu, N., Loveday, J., Lewis, J.R., McMahon, R.G., **Mortlock, D.J.**, Nakajima, Y., Pinfield, D.J., Rawlings, M., Read, M.A., Riello, M., Sekiguchi, K., Smith, A.J., Sutorius, E.T.W., Varricatt, W. & Weatherley, S.J., 2007, *MNRAS*, **372**, 1227
23. 'A high-significance detection of non-Gaussianity in the *WMAP* 3-yr data using directional spherical wavelets'
McEwen, J.D., Hobson, M.P., Lasenby, A.N. & **Mortlock, D.J.**, 2006, *MNRAS*, **371**, L50
22. 'Non-Gaussianity detections in the Bianchi VII_b-corrected *WMAP* 1-year data made with directional spherical wavelets'
McEwen, J.D., Hobson, M.P., Lasenby, A.N. & **Mortlock, D.J.**, 2006, *MNRAS*, **369**, 1858

21. 'A high-significance detection of non-Gaussianity in the *WMAP* 1-yr data using directional spherical wavelets'
McEwen, J.D., Hobson, M.P., Lasenby, A.N. & **Mortlock, D.J.**, 2005, *MNRAS*, **359**, 1583
20. 'Neutrino interferometry in curved spacetime'
Crocker, R.M., Giunti, C. & **Mortlock, D.J.**, 2004, *PRD*, **69**, 063008
19. 'Spectroscopic detection of type Ia supernovae in the Sloan Digital Sky Survey'
Madgwick, D.S., Hewett, P.C., **Mortlock, D.J.** & Wang, L., 2003, *ApJ*, **599**, L33
18. 'Spectroscopic detection of quasars in the 2dF galaxy redshift survey'
Madgwick, D.S., Hewett, P.C., **Mortlock, D.J.** & Lahav, O., 2002, *MNRAS*, **334**, 209
17. 'Harmonic analysis of microwave background data - II. From ring-sets to the sky'
Challinor, A.D., **Mortlock, D.J.**, van Leeuwen, F., Lasenby, A.N., Hobson, M.P., Ashdown, M.A.J. & Efstathiou, G.P., 2002, *MNRAS*, **331**, 994
16. 'Harmonic analysis of microwave background data - I. Ring reductions and point-source catalogue'
van Leeuwen, F., Challinor, A.D., **Mortlock, D.J.**, Ashdown, M.A.J., Hobson, M.P., Lasenby, A.N., Efstathiou, G.P., Shellard, E.P.S., Munshi, D. & Stolyarov, V., 2002, *MNRAS*, **331**, 975
15. 'Investigating cosmological weak lensing with the ray-bundle method'
Fluke, C.J., Webster, R.L. & **Mortlock, D.J.**, 2002, *MNRAS*, **331**, 180
14. 'Analysis of cosmic microwave background data on an incomplete sky'
Mortlock, D.J., Challinor, A.D. & Hobson, M.P., 2002, *MNRAS*, **330**, 405
13. 'Gravitational lensing in modified Newtonian dynamics'
Mortlock, D.J. & Turner, E.L., 2001, *MNRAS*, **327**, 557
12. 'Empirical constraints on alternative gravity theories from gravitational lensing'
Mortlock, D.J. & Turner, E.L., 2001, *MNRAS*, **327**, 552
11. 'Using the 2dF galaxy redshift survey to detect gravitationally-lensed quasars'
Mortlock, D.J. & Webster, R.L., 2001, *MNRAS*, **321**, 629
10. 'Using the 6dF galaxy redshift survey to detect gravitationally-lensed quasars'
Mortlock, D.J. & Drinkwater, M.J., 2001, *PASA*, **18**, 195
9. 'The 2dF gravitational lens survey'
Mortlock, D.J., Madgwick, D.S. & Lahav, O., 2001, *PASA*, **18**, 192
8. 'Gravitational lensing and modified Newtonian dynamics'
Mortlock, D.J. & Turner, E.L., 2001, *PASA*, **18**, 189
7. 'All-sky convolution for polarimetry experiments'
Challinor, A.D., Fosalba, P., **Mortlock, D.J.**, Ashdown, M.A.J., Wandelt, B.W. & Górski, K.M., 2000, *PRD*, **62**, 123002
6. 'Using galaxy redshift surveys to detect gravitationally-lensed quasars'
Mortlock, D.J. & Webster, R.L., 2000, *MNRAS*, **319**, 879
5. 'The statistics of wide-separation lensed quasars'
Mortlock, D.J. & Webster, R.L., 2000, *MNRAS*, **319**, 872
4. 'Gravitational lensing by elliptical galaxies'
Mortlock, D.J. & Webster, R.L., 2000, *MNRAS*, **319**, 860
3. 'A gravitational microlensing determination of continuum source size in Q 2237+0305'
Wyithe, J.S.B., Webster, R.L., Turner, E.L. & **Mortlock, D.J.**, 2000, *MNRAS*, **315**, 62
2. 'Binary quasars'
Mortlock, D.J., Webster, R.L. & Francis, P.J., 1999, *MNRAS*, **309**, 836
1. 'The ray-bundle method for calculating weak magnification by gravitational lenses'
Fluke, C.J., Webster, R.L. & **Mortlock, D.J.**, 1999, *MNRAS*, **306**, 567

9.2 Unrefereed

Conference proceedings

22. 'Classification and anomaly detection for astronomical survey data'
Henrion, M., **Mortlock, D.J.**, Hand, D.J. & Gandy, A., 2012, in Hilbe, J.M., ed., *Astrostatistical Challenges for the New Astronomy*, Springer, Berlin, p. 149
21. 'The UKIRT Infrared Deep Sky Survey and the search for the most distant quasars'
Mortlock, D.J., Patel, M., Warren, S.J., Venemans, B.P., McMahon, R.G., Hewett, P.C., Simpson, C. & Sharp, R.G., 2011, in Tran Thanh Van, J., *et al.*, eds., *Proceedings of the XXth Moriond Meeting: Cosmology*, EDP Sciences, Les Ulis, in press
20. 'A fast directional continuous spherical wavelet transform'
McEwen, J.D., Hobson, M.P., Lasenby, A.N. & **Mortlock, D.J.**, 2011, in Tran Thanh Van, J., *et al.*, eds., *Proceedings of the XXIXth Moriond Meeting: Exploring The Universe*, EDP Sciences, Les Ulis, in press
19. 'UKIDSS: Surveying the sky in the near-IR'
González-Solares, E.A., Venemans, B.P., McMahon, R.G., Warren, S.J., **Mortlock, D.J.**, Patel, M., Hewett, P.C., Dye, S. & Sharp, R.G., 2010, in Molaro, P. & Vangioni, E., eds., *Highlights of Spanish Astrophysics V*, p. 111
18. 'Markov Chain Monte Carlo methods applied to measuring the fine structure constant from quasar spectroscopy'
King, J.A., **Mortlock, D.J.**, Webb, John K. & Murphy, M.T., 2010, *Highlights of Astronomy*, 15, p. 318
17. 'Gravitational lensing by elliptical galaxies'
Mortlock, D.J. & Webster, R.L., 2006, in Lasenby, A.N. & Wilkinson, A., eds., *New Cosmological Data And The Values Of The Fundamental Parameters*, Astronomical Society of the Pacific, San Francisco, p. 490
16. 'The statistics of wide-separation lenses'
Mortlock, D.J., 2001, in Tran Thanh Van, J., Mellier, Y. & Moniez, M., eds., *Proceedings of the XXth Moriond Meeting: Cosmological Physics With Gravitational Lensing*, EDP Sciences, Les Ulis, p. 283
15. 'Gravitational lensing in galaxy redshift surveys'
Mortlock, D.J. & Webster, R.L., 2001, in Kochanek, C.S. & Brainerd, T.G., eds., *Gravitational Lensing: Recent Progress And Future Goals*, Astronomical Society of the Pacific, San Francisco, p. 47
14. 'Gravitational lensing in the 2dF galaxy redshift survey'
Mortlock, D.J. & Webster, R.L., 1999, in Morganti, R. & Couch, W., eds., *Looking Deep in the Southern Sky*, Springer, Berlin, p. 68
13. 'Gravitational lensing'
Webster, R.L. & **Mortlock, D.J.**, 1995, in Robson, B.A., Visvanathan, N. & Woolcock, W.S., eds., *Proceedings Of The Eighth Physics Summer School: Cosmology: Physics Of The Universe*, World Scientific, Singapore, p. 456
12. 'Wide separation lenses'
Mortlock, D.J., Webster, R.L. & Hewett, P.C., 1995, in Kochanek, C.S. & Hewitt, J.N., eds., *Astrophysical Applications Of Gravitational Lensing: Proceedings of the 173rd Symposium of the International Astronomical Union*, Kluwer, Dordrecht, p. 71

Book chapters

11. 'Flux measurement'
Mortlock, D.J., 2009, in Hobson, M.P., Jaffe, A.H., Liddle, A., Mukherjee, P. & Parkinson, D., eds., *Bayesian Methods In Cosmology*, Cambridge University Press, Cambridge, p. 193

Other

10. 'Outflows from the first quasars'
Mortlock, D.J., 2012, *Nature News & Views*, **489**, 42
9. 'Discovery of a redshift $z > 7$ quasar'
Mortlock, D.J. & Warren, S.J., 2011, *Gemini Focus*, **2**, 8
8. 'A new $z > 6$ quasar in UKIDSS DR3'
Mortlock, D.J., Warren, S.J., Patel, M., Venemans, B.P., McMahon, R.G., Hewett, P.C., Simpson, C. & Sharp, R., 2008, *UKIRT Newsletter*, **22**, 7
7. 'The coolest brown dwarf ULAS J0034–0052'
Warren, S.J., **Mortlock, D.J.**, Leggett, S., Pinfield, D. & Homeier, D., 2007, *UKIRT Newsletter*, **21**, 14
6. 'The UKIRT Infrared Deep Sky Survey Second Data Release'
Warren, S.J., Cross, N.J.G., Dye, S., Hambly, N.C., Almaini, O., Edge, A.C., Hewett, P.C., Hodgkin, S.T., Irwin, M.J., Jameson, R.F., Lawrence, A., Lucas, P.W., **Mortlock, D.J.**, Adamson, A.J., Bryant, J., Collins, R.S., Davis, C.J., Evans, D.W., Gonzales–Solares, E.A., Hirst, P., Kerr, T.H., Lewis, J.R., Mann, R.G., Rawlings, M.G., Read, M.A., Riello, M., Sutorius, E.T.W. & Varricatt, W.P., 2007, *arXiv:astro-ph/0703037*
5. 'Search for rare objects in the UKIDSS Large Area Survey: cool brown dwarfs and high-redshift quasars'
Warren, S.J., **Mortlock, D.J.**, Venemans, B., McMahon, R.G., Hewett, P.C., Pinfield, D., Lucas, P., Kendall, T., Leggett, S., Lodieu, N. & Jameson, R., 2007, *UKIRT Newsletter*, **19**, 4
4. 'Early science results from the UKIDSS ESO Public Survey'
Warren, S., Lawrence, A., Almaini, O., Cirasuolo, M., Foucaud, S., Hambly, N., Hewett, P., Jameson, R., Leggett, S., Lodieu, N., McLure, R., McMahon, R., **Mortlock, D.**, Pinfield, D. & Venemans, B., 2006, *ESO Messenger*, **126**, 7
3. 'Moon ghosts at UKIRT'
Mortlock, D.J., Warren, S.J., Henry, D. & Adamson, A., 2006, *UKIRT Newsletter*, **19**, 8
2. 'IAU Symposium 173: Astrophysical Applications of Gravitational Lensing'
Mortlock, D.J., 1995, *ATNF News*, **28**, 14
1. 'Bending the light fantastic'
Mortlock, D.J., 1995, *Sky and Space*, **8**, **4**, 16