

Curriculum Vitae

Julian Borrill

Contact Information

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Education

1984: MA in Mathematics & Political Science, Trinity College Cambridge

1990: MSc in Information Technology, Queen Mary College London

1990: MSc in Astrophysics, Queen Mary College London

1993: DPhil in Theoretical Physics, University of Sussex

Employment

1993-1995: Postdoctoral Researcher, Theoretical Physics, Imperial College, London

1995-1997: Postdoctoral Researcher, Physics & Astronomy, Dartmouth College

1997-1999: Postdoctoral Researcher, NERSC Center, Berkeley Lab

1999-2010: Staff Scientist, Computational Research, Berkeley Lab

& Research Physicist, Space Sciences Laboratory, UC Berkeley

2010-present: Senior Staff Scientist, Computational Research, Berkeley Lab

& Senior Research Physicist, Space Sciences Laboratory, UC Berkeley

Awards

Giuseppe and Vanna Cocconi Prize - Planck Collaboration (2019)

Gruber Prize for Cosmology - Planck Team (2018)

Royal Astronomical Society Group Award - Planck Collaboration (2018)

NASA Exceptional Public Achievement Medal (2016)

NERSC Achievement Award for High Impact Science - Planck Collaboration (2014)

NASA Public Service Award (2010, 2010, 2014)

NASA Group Achievement Award (2011, 2013)

LBNL Spot Award (2003, 2005)

LBNL Outstanding Performance Award (2003)

Leadership Roles

Co-Spokesperson, CMB-S4 Collaboration (2018-present)

Member, CMB-S4 Executive Team (2018-present)

Co-Lead, CMB-S4 Data Management Project (2019-present)

Member, CMB-S4 Interim Collaboration Coordination Committee (2017-18)

Member, Simons Observatory Data Management Committee (2017-present)
Lead, Simons Observatory Simulations (2017-present)
Lead, US LiteBIRD Data Management (2016-present)
Computational Systems Architect, US Planck Collaboration (2004-2016)
Scientist & Core Team Member, Planck Collaboration (2000-2016)

Synergistic Activities

Chair, NASA Mission Operations & Data Analysis Senior Review (2006)
Member, AAAC CMB-S4 Concept Definition Taskforce (2016-17)
Member, NERSC User Group Executive Committee (2008-14)
Member, NASA Primordial Polarization Program Definition Team (2008-2010)
Member, NASA Universe Working Group (2006-07)
Member, NASA Mission Operations & Data Analysis Senior Review (2004)
Member, NASA Science Archive Working Group (2003-05)
Member, SOC for CMB-S4 Collaboration Meeting, Berkeley Lab (2020)
Member, SOC for CMB-S4 Collaboration Meeting, UC San Diego (2019)
Member, SOC for CMB-S4 Collaboration Meeting, Fermilab (2019)
Member, SOC for “B-Modes From Space”, UC Berkeley (2017)
Member, SOC for “CMB Foregrounds”, UC San Diego (2017)
Invited Participant, DOE ASCR/HEP Requirements Review (2009, 2012, 2015)
Reviewer, NASA Astrophysics Theory Program (2019)
Reviewer, NASA MIDEX Program (2017)
Reviewer, DOE/NSF Large Synoptic Survey Telescope Data Management (2017)
Reviewer, NSF KICP Site Visit (2014, 2016)
Reviewer, NSF Blue Waters Graduate Student Fellowships (2014)
Reviewer, DOE INCITE Program (2014)
Reviewer, DOE NERSC-8 Design Review (2014)
Reviewer, DOE/NSF Dark Energy Survey (2007-2014)
Reviewer, NSF Laser Interferometer Gravitational Wave Observatory (2009, 2012)
Reviewer, NASA New Technology Refresh (2007)
Reviewer, NASA AISR Program (2005, 2007)

Supervisees

Computer systems engineers: Reese Baird, Christopher Cantalupo, Aaron Collier, Reijo Keskitalo, Theodore Kisner, Andrea Zonca.
Postdoctoral researchers: Josquin Errard, Davide Pietrobon, Giuseppe Puglisi, Sara Ricciardi, Federico Stivoli, Radek Stompor, Rajesh Sudarsan.
Graduate students: Kolen Cheung.
Summer students: Giancarlo de Gasperis, Louise Griffiths, Mark Krumholz, Jon Urrestilla.

Publications

Citations = 58,096; h-index = 85

1. Sugai, H., et al. (2020), Updated Design of the CMB Polarization Experiment Satellite LiteBIRD, *Journal of Low Temperature Physics*,
2. Aguilar Fandez, M., et al. (2019), Cross-correlation of CMB Polarization Lensing with High-z Submillimeter Herschel-ATLAS Galaxies, *The Astrophysical Journal*, 886, 38.
3. Adachi, S., et al. (2019), A Measurement of the Degree Scale CMB B-mode Angular Power Spectrum with POLARBEAR, arXiv e-prints, arXiv:1910.02608.
4. Lee, A., et al. (2019), LiteBIRD: an all-sky cosmic microwave background probe of inflation, *Bulletin of the American Astronomical Society*, 51, 286.
5. Carlstrom, J., et al. (2019), CMB-S4, *Bulletin of the American Astronomical Society*, 51, 209.
6. Hanany, S., et al. (2019), PICO: Probe of Inflation and Cosmic Origins, *Bulletin of the American Astronomical Society*, 51, 194.
7. Lee, A., et al. (2019), The Simons Observatory, *Bulletin of the American Astronomical Society*, 51, 147.
8. Adachi, S., et al. (2019), Internal delensing of cosmic microwave background polarization B-modes with the POLARBEAR experiment, arXiv e-prints, arXiv:1909.13832.
9. Namikawa, T., et al. (2019), Evidence for the Cross-correlation between Cosmic Microwave Background Polarization Lensing from Polarbear and Cosmic Shear from Subaru Hyper Suprime-Cam, *The Astrophysical Journal*, 882, 62.
10. Planck Collaboration, Aghanim, et al. (2019), Planck 2018 results. V. CMB power spectra and likelihoods, arXiv e-prints, arXiv:1907.12875.
11. Abazajian, K., et al. (2019), CMB-S4 Science Case, Reference Design, and Project Plan, arXiv e-prints, arXiv:1907.04473.
12. Planck Collaboration, Akrami, et al. (2019), Planck 2018 results. VII. Isotropy and Statistics of the CMB, arXiv e-prints, arXiv:1906.02552.
13. Mantz, A., et al. (2019), The Future Landscape of High-Redshift Galaxy Cluster Science, *Bulletin of the American Astronomical Society*, 51, 279.

14. Bechtol, K., et al. (2019), Dark Matter Science in the Era of LSST, *Bulletin of the American Astronomical Society*, 51, 207.
15. Green, D., et al. (2019), Messengers from the Early Universe: Cosmic Neutrinos and Other Light Relics, *Bulletin of the American Astronomical Society*, 51, 159.
16. Planck Collaboration, Akrami, et al. (2019), Planck 2018 results. IX. Constraints on primordial non-Gaussianity, arXiv e-prints, arXiv:1905.05697.
17. Hazumi, M., et al. (2019), LiteBIRD: A Satellite for the Studies of B-Mode Polarization and Inflation from Cosmic Background Radiation Detection, *Journal of Low Temperature Physics*, 194, 443.
18. Ade, P., et al. (2019), The Simons Observatory: science goals and forecasts, *Journal of Cosmology and Astroparticle Physics*, 2019, 056.
19. Hanany, S., et al. (2019), PICO: Probe of Inflation and Cosmic Origins, arXiv e-prints, arXiv:1902.10541.
20. Takakura, S., et al. (2019), Measurements of Tropospheric Ice Clouds with a Ground-based CMB Polarization Experiment, POLARBEAR, *The Astrophysical Journal*, 870, 102.
21. Suzuki, A., et al. (2018), The LiteBIRD Satellite Mission: Sub-Kelvin Instrument, *Journal of Low Temperature Physics*, 193, 1048.
22. Hasebe, T., et al. (2018), Concept Study of Optical Configurations for High-Frequency Telescope for LiteBIRD, *Journal of Low Temperature Physics*, 193, 841.
23. Westbrook, B., et al. (2018), The POLARBEAR-2 and Simons Array Focal Plane Fabrication Status, *Journal of Low Temperature Physics*, 193, 758.
24. Planck Collaboration, Akrami, et al. (2018), Planck intermediate results. LIV. The Planck multi-frequency catalogue of non-thermal sources, *Astronomy and Astrophysics*, 619, A94.
25. Planck Collaboration, Akrami, et al. (2018), Vizier Online Data Catalog: Planck Multi-frequency Cat. of Non-thermal Sources (Planck+, 2018), *VizieR Online Data Catalog*, J/A+A/619/A94.
26. Planck Collaboration, Aghanim, et al. (2018), Planck intermediate results. LIII. Detection of velocity dispersion from the kinetic Sunyaev-Zeldovich effect, *Astronomy and Astrophysics*, 617, A48.

27. Young, K., et al. (2018), Optical design of PICO: a concept for a space mission to probe inflation and cosmic origins, *Space Telescopes and Instrumentation 2018: Optical, Infrared, and Millimeter Wave*, 10698, 1069846.
28. Sekimoto, Y., et al. (2018), Concept design of the LiteBIRD satellite for CMB B-mode polarization, *Space Telescopes and Instrumentation 2018: Optical, Infrared, and Millimeter Wave*, 10698, 106981Y.
29. Stevens, J. R., et al. (2018), Designs for next generation CMB survey strategies from Chile, *Millimeter, Submillimeter, and Far-Infrared Detectors and Instrumentation for Astronomy IX*, 10708, 1070841.
30. Sutin, B. M., et al. (2018), PICO - the probe of inflation and cosmic origins, *Space Telescopes and Instrumentation 2018: Optical, Infrared, and Millimeter Wave*, 10698, 106984F.
31. Planck Collaboration, Aghanim, et al. (2018), Planck 2018 results. XII. Galactic astrophysics using polarized dust emission, arXiv e-prints, arXiv:1807.06212.
32. Planck Collaboration, Akrami, et al. (2018), Planck 2018 results. X. Constraints on inflation, arXiv e-prints, arXiv:1807.06211.
33. Planck Collaboration, Aghanim, et al. (2018), Planck 2018 results. VIII. Gravitational lensing, arXiv e-prints, arXiv:1807.06210.
34. Planck Collaboration, Aghanim, et al. (2018), Planck 2018 results. VI. Cosmological parameters, arXiv e-prints, arXiv:1807.06209.
35. Planck Collaboration, Akrami, et al. (2018), Planck 2018 results. IV. Diffuse component separation, arXiv e-prints, arXiv:1807.06208.
36. Planck Collaboration, Aghanim, et al. (2018), Planck 2018 results. III. High Frequency Instrument data processing and frequency maps, arXiv e-prints, arXiv:1807.06207.
37. Planck Collaboration, Akrami, et al. (2018), Planck 2018 results. II. Low Frequency Instrument data processing, arXiv e-prints, arXiv:1807.06206.
38. Planck Collaboration, Akrami, et al. (2018), Planck 2018 results. I. Overview and the cosmological legacy of Planck, arXiv e-prints, arXiv:1807.06205.
39. Remazeilles, M., et al. (2018), Exploring cosmic origins with CORE: B-mode component separation, *Journal of Cosmology and Astroparticle Physics*, 2018, 023.
40. Natoli, P., et al. (2018), Exploring cosmic origins with CORE: Mitigation of systematic effects, *Journal of Cosmology and Astroparticle Physics*, 2018, 022.

41. Burigana, C., et al. (2018), Exploring cosmic origins with CORE: Effects of observer peculiar motion, *Journal of Cosmology and Astroparticle Physics*, 2018, 021.
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43. Melin, J.-B., et al. (2018), Exploring cosmic origins with CORE: Cluster science, *Journal of Cosmology and Astroparticle Physics*, 2018, 019.
44. Challinor, A., et al. (2018), Exploring cosmic origins with CORE: Gravitational lensing of the CMB, *Journal of Cosmology and Astroparticle Physics*, 2018, 018.
45. Di Valentino, E., et al. (2018), Exploring cosmic origins with CORE: Cosmological parameters, *Journal of Cosmology and Astroparticle Physics*, 2018, 017.
46. de Bernardis, P., et al. (2018), Exploring cosmic origins with CORE: The instrument, *Journal of Cosmology and Astroparticle Physics*, 2018, 015.
47. Delabrouille, J., et al. (2018), Exploring cosmic origins with CORE: Survey requirements and mission design, *Journal of Cosmology and Astroparticle Physics*, 2018, 014.
48. Planck Collaboration, Ade, et al. (2018), Planck intermediate results. XV. A study of anomalous microwave emission in Galactic clouds (Corrigendum), *Astronomy and Astrophysics*, 610, C1.
49. Aubin, F. A., et al. (2018), Temperature calibration of the E and B Experiment, Fourteenth Marcel Grossmann Meeting - MG14, 2084.
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54. Polarbear Collaboration, Ade, et al. (2017), Erratum: A Measurement of the Cosmic Microwave Background B-Mode Polarization Power Spectrum at Sub-degree Scales with POLARBEAR, *The Astrophysical Journal*, 848, 73.
55. Takakura, S., et al. (2017), Performance of a continuously rotating half-wave plate on the POLARBEAR telescope, *Journal of Cosmology and Astroparticle Physics*, 2017, 008.
56. Planck Collaboration, Ade, et al. (2017), VizieR Online Data Catalog: 1Jy northern AGN sample (Planck+, 2016), *VizieR Online Data Catalog*, J/A+A/596/A106.
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58. Planck Collaboration, Aghanim, et al. (2017), Planck intermediate results. L. Evidence of spatial variation of the polarized thermal dust spectral energy distribution and implications for CMB B-mode analysis, *Astronomy and Astrophysics*, 599, A51.
59. Planck Collaboration, Ade, et al. (2017), VizieR Online Data Catalog: Planck Catalogue of Galactic cold clumps (PGCC) (Planck+, 2016), *VizieR Online Data Catalog*, J/A+A/594/A28.
60. Planck Collaboration, Ade, et al. (2017), VizieR Online Data Catalog: Planck Sunyaev-Zeldovich sources (PSZ2) (Planck+, 2016), *VizieR Online Data Catalog*, J/A+A/594/A27.
61. Planck Collaboration, Ade, et al. (2017), VizieR Online Data Catalog: Second Planck Catalogue of Compact Sources (PCCS2) (Planck+, 2016), *VizieR Online Data Catalog*, J/A+A/594/A26.
62. Borrill, J. (2017), Overcoming Systematic Effects In Cosmic Microwave Background Missions, NASA APRA Proposal, 17-APRA17-31.
63. Planck Collaboration, Aghanim, et al. (2016), Planck intermediate results. XLIX. Parity-violation constraints from polarization data, *Astronomy and Astrophysics*, 596, A110.
64. Planck Collaboration, Aghanim, et al. (2016), Planck intermediate results. XLVIII. Disentangling Galactic dust emission and cosmic infrared background anisotropies, *Astronomy and Astrophysics*, 596, A109.
65. Planck Collaboration, Adam, et al. (2016), Planck intermediate results. XLVII. Planck constraints on reionization history, *Astronomy and Astrophysics*, 596, A108.

66. Planck Collaboration, Aghanim, et al. (2016), Planck intermediate results. XLVI. Reduction of large-scale systematic effects in HFI polarization maps and estimation of the reionization optical depth, *Astronomy and Astrophysics*, 596, A107.
67. Planck Collaboration, Ade, et al. (2016), Planck intermediate results. XLV. Radio spectra of northern extragalactic radio sources, *Astronomy and Astrophysics*, 596, A106.
68. Planck Collaboration, Aghanim, et al. (2016), Planck intermediate results. XLIV. Structure of the Galactic magnetic field from dust polarization maps of the southern Galactic cap, *Astronomy and Astrophysics*, 596, A105.
69. Planck Collaboration, Adam, et al. (2016), Planck intermediate results. XLIII. Spectral energy distribution of dust in clusters of galaxies, *Astronomy and Astrophysics*, 596, A104.
70. Planck Collaboration, Adam, et al. (2016), Planck intermediate results. XLII. Large-scale Galactic magnetic fields, *Astronomy and Astrophysics*, 596, A103.
71. Planck Collaboration, Ade, et al. (2016), Planck intermediate results. XLI. A map of lensing-induced B-modes, *Astronomy and Astrophysics*, 596, A102.
72. Planck Collaboration, Ade, et al. (2016), Planck intermediate results. XL. The Sunyaev-Zeldovich signal from the Virgo cluster, *Astronomy and Astrophysics*, 596, A101.
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74. Planck Collaboration, Ade, et al. (2016), VizieR Online Data Catalog: Planck high-z source candidates catalog (PHZ) (Planck+, 2016), VizieR Online Data Catalog, J/A+A/596/A100.
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76. Planck Collaboration, Ade, et al. (2016), Planck 2015 results. XXVIII. The Planck Catalogue of Galactic cold clumps, *Astronomy and Astrophysics*, 594, A28.
77. Planck Collaboration, Ade, et al. (2016), Planck 2015 results. XXVII. The second Planck catalogue of Sunyaev-Zeldovich sources, *Astronomy and Astrophysics*, 594, A27.
78. Planck Collaboration, Ade, et al. (2016), Planck 2015 results. XXVI. The Second Planck Catalogue of Compact Sources, *Astronomy and Astrophysics*, 594, A26.

79. Planck Collaboration, Ade, et al. (2016), Planck 2015 results. XXV. Diffuse low-frequency Galactic foregrounds, *Astronomy and Astrophysics*, 594, A25.
80. Planck Collaboration, Ade, et al. (2016), Planck 2015 results. XXIV. Cosmology from Sunyaev-Zeldovich cluster counts, *Astronomy and Astrophysics*, 594, A24.
81. Planck Collaboration, Ade, et al. (2016), Planck 2015 results. XXIII. The thermal Sunyaev-Zeldovich effect-cosmic infrared background correlation, *Astronomy and Astrophysics*, 594, A23.
82. Planck Collaboration, Aghanim, et al. (2016), Planck 2015 results. XXII. A map of the thermal Sunyaev-Zeldovich effect, *Astronomy and Astrophysics*, 594, A22.
83. Planck Collaboration, Ade, et al. (2016), Planck 2015 results. XXI. The integrated Sachs-Wolfe effect, *Astronomy and Astrophysics*, 594, A21.
84. Planck Collaboration, Ade, et al. (2016), Planck 2015 results. XX. Constraints on inflation, *Astronomy and Astrophysics*, 594, A20.
85. Planck Collaboration, Ade, et al. (2016), Planck 2015 results. XIX. Constraints on primordial magnetic fields, *Astronomy and Astrophysics*, 594, A19.
86. Planck Collaboration, Ade, et al. (2016), Planck 2015 results. XVIII. Background geometry and topology of the Universe, *Astronomy and Astrophysics*, 594, A18.
87. Planck Collaboration, Ade, et al. (2016), Planck 2015 results. XVII. Constraints on primordial non-Gaussianity, *Astronomy and Astrophysics*, 594, A17.
88. Planck Collaboration, Ade, et al. (2016), Planck 2015 results. XVI. Isotropy and statistics of the CMB, *Astronomy and Astrophysics*, 594, A16.
89. Planck Collaboration, Ade, et al. (2016), Planck 2015 results. XV. Gravitational lensing, *Astronomy and Astrophysics*, 594, A15.
90. Planck Collaboration, Ade, et al. (2016), Planck 2015 results. XIV. Dark energy and modified gravity, *Astronomy and Astrophysics*, 594, A14.
91. Planck Collaboration, Ade, et al. (2016), Planck 2015 results. XIII. Cosmological parameters, *Astronomy and Astrophysics*, 594, A13.
92. Planck Collaboration, Ade, et al. (2016), Planck 2015 results. XII. Full focal plane simulations, *Astronomy and Astrophysics*, 594, A12.
93. Planck Collaboration, Aghanim, et al. (2016), Planck 2015 results. XI. CMB power spectra, likelihoods, and robustness of parameters, *Astronomy and Astrophysics*, 594, A11.

94. Planck Collaboration, Adam, et al. (2016), Planck 2015 results. X. Diffuse component separation: Foreground maps, *Astronomy and Astrophysics*, 594, A10.
95. Planck Collaboration, Adam, et al. (2016), Planck 2015 results. IX. Diffuse component separation: CMB maps, *Astronomy and Astrophysics*, 594, A9.
96. Planck Collaboration, Adam, et al. (2016), Planck 2015 results. VIII. High Frequency Instrument data processing: Calibration and maps, *Astronomy and Astrophysics*, 594, A8.
97. Planck Collaboration, Adam, et al. (2016), Planck 2015 results. VII. High Frequency Instrument data processing: Time-ordered information and beams, *Astronomy and Astrophysics*, 594, A7.
98. Planck Collaboration, Ade, et al. (2016), Planck 2015 results. VI. LFI mapmaking, *Astronomy and Astrophysics*, 594, A6.
99. Planck Collaboration, Ade, et al. (2016), Planck 2015 results. V. LFI calibration, *Astronomy and Astrophysics*, 594, A5.
100. Planck Collaboration, Ade, et al. (2016), Planck 2015 results. IV. Low Frequency Instrument beams and window functions, *Astronomy and Astrophysics*, 594, A4.
101. Planck Collaboration, Ade, et al. (2016), Planck 2015 results. III. LFI systematic uncertainties, *Astronomy and Astrophysics*, 594, A3.
102. Planck Collaboration, Ade, et al. (2016), Planck 2015 results. II. Low Frequency Instrument data processings, *Astronomy and Astrophysics*, 594, A2.
103. Planck Collaboration, Adam, et al. (2016), Planck 2015 results. I. Overview of products and scientific results, *Astronomy and Astrophysics*, 594, A1.
104. Matsumura, T., et al. (2016), LiteBIRD: Mission Overview and Focal Plane Layout, *Journal of Low Temperature Physics*, 184, 824.
105. Suzuki, A., et al. (2016), The Polarbear-2 and the Simons Array Experiments, *Journal of Low Temperature Physics*, 184, 805.
106. Inoue, Y., et al. (2016), POLARBEAR-2: an instrument for CMB polarization measurements, *Millimeter, Submillimeter, and Far-Infrared Detectors and Instrumentation for Astronomy VIII*, 9914, 99141I.
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112. Planck Collaboration, Ade, et al. (2016), Planck intermediate results. XXXVII. Evidence of unbound gas from the kinetic Sunyaev-Zeldovich effect, *Astronomy and Astrophysics*, 586, A140.
113. Planck Collaboration, Ade, et al. (2016), Planck intermediate results. XXXVI. Optical identification and redshifts of Planck SZ sources with telescopes at the Canary Islands observatories, *Astronomy and Astrophysics*, 586, A139.
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115. Planck Collaboration, Aghanim, et al. (2016), Planck intermediate results. XXXIV. The magnetic field structure in the Rosette Nebula, *Astronomy and Astrophysics*, 586, A137.
116. Planck Collaboration, Ade, et al. (2016), Planck intermediate results. XXXIII. Signature of the magnetic field geometry of interstellar filaments in dust polarization maps, *Astronomy and Astrophysics*, 586, A136.
117. Planck Collaboration, Adam, et al. (2016), Planck intermediate results. XXXII. The relative orientation between the magnetic field and structures traced by interstellar dust, *Astronomy and Astrophysics*, 586, A135.
118. Planck Collaboration, Arnaud, et al. (2016), Planck intermediate results. XXXI. Microwave survey of Galactic supernova remnants, *Astronomy and Astrophysics*, 586, A134.

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120. Planck Collaboration, Ade, et al. (2016), Planck intermediate results. XXIX. All-sky dust modelling with Planck, IRAS, and WISE observations, *Astronomy and Astrophysics*, 586, A132.
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123. Planck Collaboration, Fermi Collaboration, et al. (2015), Planck intermediate results. XXVIII. Interstellar gas and dust in the Chamaeleon clouds as seen by Fermi LAT and Planck, *Astronomy and Astrophysics*, 582, A31.
124. Planck Collaboration, Aghanim, et al. (2015), Planck intermediate results. XXVII. High-redshift infrared galaxy overdensity candidates and lensed sources discovered by Planck and confirmed by Herschel-SPIRE, *Astronomy and Astrophysics*, 582, A30.
125. Planck Collaboration, Ade, et al. (2015), Planck intermediate results. XXVI. Optical identification and redshifts of Planck clusters with the RTT150 telescope, *Astronomy and Astrophysics*, 582, A29.
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127. Ade, P. A. R., et al. (2015), a Measurement of the Cosmic Microwave Background B-Mode Polarization with Polarbear, *Publication of Korean Astronomical Society*, 30, 625.
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129. Planck Collaboration, Ade, et al. (2015), VizieR Online Data Catalog: Updated Planck catalogue PSZ1 (Planck+, 2015), *VizieR Online Data Catalog*, J/A+A/581/A14.
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133. Planck Collaboration, Ade, et al. (2015), Planck intermediate results. XXII. Frequency dependence of thermal emission from Galactic dust in intensity and polarization, *Astronomy and Astrophysics*, 576, A107.
134. Planck Collaboration, Ade, et al. (2015), Planck intermediate results. XXI. Comparison of polarized thermal emission from Galactic dust at 353 GHz with interstellar polarization in the visible, *Astronomy and Astrophysics*, 576, A106.
135. Planck Collaboration, Ade, et al. (2015), Planck intermediate results. XX. Comparison of polarized thermal emission from Galactic dust with simulations of MHD turbulence, *Astronomy and Astrophysics*, 576, A105.
136. Planck Collaboration, Ade, et al. (2015), Planck intermediate results. XIX. An overview of the polarized thermal emission from Galactic dust, *Astronomy and Astrophysics*, 576, A104.
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139. Abazajian, K. N., et al. (2015), Inflation physics from the cosmic microwave background and large scale structure, *Astroparticle Physics*, 63, 55.
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141. Planck Collaboration, Ade, et al. (2014), Planck 2013 results. XXXI. Consistency of the Planck data, *Astronomy and Astrophysics*, 571, A31.
142. Planck Collaboration, Ade, et al. (2014), Planck 2013 results. XXX. Cosmic infrared background measurements and implications for star formation, *Astronomy and Astrophysics*, 571, A30.
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