

LIST OF PUBLICATIONS AND TALKS

Prof. Dr. Jens Chluba
Jodrell Bank Centre for Astrophysics
The University of Manchester
Oxford Road
Manchester M13 9PL, UK

Professor of Cosmology / Royal Society URF
Phone: +44 (0)161 306 2765
Fax: +44 (0)161 275 4247
Jens.Chluba@Manchester.ac.uk
www.jb.man.ac.uk/~jchluba

Refereed Publications

107. L. Hart & **Jens Chluba** (arXiv:1912.04682)
“Improved model-independent constraints on the recombination era and development of a direct projection method”, *MNRAS*, 495, 4210, (2020)
106. M. Remazeilles & **Jens Chluba** (arXiv:1907.00916)
“Mapping the relativistic electron gas temperature across the sky”,
MNRAS, 494, 5734 (2020)
105. E. Lee, **Jens Chluba** & S. Kay (arXiv:1912.07924)
“Relativistic SZ temperature scaling relations of groups and clusters derived from the BAHAMAS and MACSIS simulations”, *MNRAS*, 493, 3274, (2020)
104. L. Hart & **Jens Chluba** (arXiv:1912.03986)
“Updated fundamental constant constraints from Planck 2018 data and possible relations to the Hubble tension”, *MNRAS*, 493, 3255, (2020)
103. M. Abitbol, C. Hill & **Jens Chluba** (arXiv:1910.09881)
“Measuring the Hubble Constant from the Cooling of the CMB Monopole”,
ApJ, 893, 18 (2020)
102. **Jens Chluba**, A. Ravenni & B. Bolliet (arXiv:1911.08861)
“Improved calculations of electron-ion bremsstrahlung Gaunt factors for astrophysical applications”,
MNRAS, 492, 177 (2020)
101. M. Lucca et al. (arXiv:1910.04619)
“The synergy between CMB spectral distortions and anisotropies”,
JCAP, 2, 26 (2020)
100. A. Sarkar, **Jens Chluba** & E. Lee (arXiv:1905.00868)
“Dissecting the Compton scattering kernel I: Isotropic media”,
MNRAS, 490, 3705, (2019)
99. A. Kogut, M. Abitbol, **Jens Chluba** et al (arXiv:1907.13195)
“CMB Spectral Distortions: Status and Prospects”,
BAAS, 51, 113 (2019)
98. **Jens Chluba** et al (arXiv:1903.04218)
“Spectral Distortions of the CMB as a Probe of Inflation, Recombination, Structure Formation and Particle Physics”, *BAAS*, 51, 184 (2019)
97. D. Paoletti, **Jens Chluba**, F. Finelli & J.A. Rubino-Martin (arXiv:1806.06830)
“Improved CMB anisotropy constraints on primordial magnetic fields from the post-recombination ionization history”, *MNRAS*, 484, 185 (2019)
96. M. Remazeilles, B. Bolliet, A. Rotti & **Jens Chluba** (arXiv:1809.09666)
“Can we neglect relativistic temperature corrections in the Planck thermal SZ analysis?”,
MNRAS, 483, 3459-3464 (2019)
95. T. Mroczkowski, D. Nagai, K. Basu, **Jens Chluba** et al. (arXiv:1811.02310)
“Astrophysics with the Spatially and Spectrally Resolved Sunyaev-Zeldovich Effects: A Millimetre/Sub-millimetre Probe of the Warm and Hot Universe”, *Space Science Reviews*, 215, 17 (2019)

94. P. Ade et al. (arXiv:1808.07445)
“The Simons Observatory: science goals and forecasts”,
JCAP, 2, 56 (2019)
93. Pranjal Trivedi, Johannes Reppin, **Jens Chluba** & Robi Banerjee (arXiv:1805.053151)
“Magnetic heating across the cosmological recombination era: results from 3D MHD simulations”,
MNRAS, 481, 3401 (2018)
92. Mathieu Remazeilles & **Jens Chluba** (arXiv:1802.10101)
“Extracting foreground-obscured μ -distortion anisotropies to constrain primordial non-Gaussianity”,
MNRAS, 478, 807 (2018)
91. Jens Erler, Kaustuv Basu, **Jens Chluba** & Frank Bertoldi (arXiv:1709.01187)
“Planck’s view on the spectrum of the Sunyaev-Zeldovich effect”,
MNRAS, 476, 3360 (2018)
90. CORE Collaboration (arXiv:1704.04501)
“Exploring Cosmic Origins with CORE: B-mode Component Separation”,
JCAP, 4, 023 (2018)
89. CORE Collaboration (arXiv:1707.04224)
“Exploring Cosmic Origins with CORE: mitigation of systematic effects”,
JCAP, 4, 022 (2018)
88. CORE Collaboration (arXiv:1704.05764)
“Exploring Cosmic Origins with CORE: effects of observer peculiar motion”,
JCAP, 4, 021 (2018)
87. CORE Collaboration (arXiv:1609.07263)
“Exploring cosmic origins with CORE: Extragalactic sources in cosmic microwave background maps”,
JCAP, 4, 020 (2018)
86. CORE Collaboration (arXiv:1703.10456)
“Exploring Cosmic Origins with CORE: Cluster Science”, *JCAP*, 4, 019 (2018)
85. CORE Collaboration (arXiv:1707.02259)
“Exploring Cosmic Origins with CORE: gravitational lensing of the CMB”,
JCAP, 4, 018 (2018)
84. CORE Collaboration (arXiv:1612.00021)
“Exploring Cosmic Origins with CORE: Cosmological Parameters”,
JCAP, 4, 017 (2018)
83. CORE Collaboration (arXiv:1612.08270)
“Exploring Cosmic Origins with CORE: Inflation”,
JCAP, 4, 016 (2018)
82. CORE Collaboration (arXiv:1705.02170)
“Exploring cosmic origins with CORE: The instrument”,
JCAP, 4, 015 (2018)
81. CORE Collaboration (arXiv:1706.04516)
“Exploring cosmic origins with CORE: Survey requirements and mission design”,
JCAP, 4, 014 (2018)
80. Ludovico Capparelli, Eleonora Di Valentino, Alessandro Melchiorri & **Jens Chluba** (arXiv:1712.06965)
“Impact of theoretical assumptions in the determination of the neutrino effective number from future
CMB measurements”, *PRD*, 97, 063519, (2018)
79. Luke Hart & **Jens Chluba** (arXiv:1705.03925)
“New constraints on time-dependent variations of fundamental constants using Planck data”,
MNRAS, 474, 1850, (2018)
78. **Jens Chluba**, Colin Hill & Maximilian Abitbol (arXiv:1701.00274)
“Rethinking CMB foregrounds: systematic extension of foreground parametrizations”,
MNRAS, 472, 1195, (2017)

77. Maximilian Abitbol, **Jens Chluba**, Colin Hill & Bradley Johnson (arXiv:1705.01534)
“Prospects for measuring cosmic microwave background spectral distortions in the presence of foregrounds”, *MNRAS*, 471, 1126, (2017)
76. Tomohiro Nakama, **Jens Chluba** & Marc Kamionkowski (arXiv:1703.10559)
“Shedding light on the small-scale crisis with CMB spectral distortions”, *PRD*, 95, 121302, (2017)
75. Jonathan McKinney, **Jens Chluba**, Maciek Wielgus, Ramesh Narayan, et al. (arXiv:1608.08627)
“Double Compton and Cyclo-Synchrotron in Super-Eddington Disks, Magnetized Coronae, and Jets”, *MNRAS*, 467, 2241, (2017)
74. Mayuri Rao, Ravi Subrahmanyam, Shankar Udaya & **Jens Chluba** (arXiv:1611.04602)
“Modeling the Radio Foreground for detection of CMB spectral distortions from Cosmic Dawn and Epoch of Reionization”, *ApJ*, 840, 19, (2017)
73. **Jens Chluba**, Ema Dimastrogiovanni, Mustafa Amin & Marc Kamionkowski (arXiv:1610.08711)
“Evolution of CMB spectral distortion anisotropies and tests of primordial non-Gaussianity”, *MNRAS*, 466, 2390, (2017)
72. Mayuri Rao, Ravi Subrahmanyam, Shankar Udaya & **Jens Chluba** (arXiv:1607.07453)
“GMOSS: All-sky model of spectral radio brightness based on physical components and associated radiative processes”, *ApJ*, 153, 12, (2017)
71. Chris Carilli, **Jens Chluba**, Roberto Decarli, et al. (arXiv:1607.06773)
“ALMA Spectroscopic Survey in the Hubble Ultra Deep Field: implications for spectral line intensity mapping at millimeter wavelengths and CMB spectral distortions”, *ApJ*, 833, 6, (2016)
70. Planck Collaboration (arXiv:1502.01589)
“Planck 2015 results. XIII. Cosmological parameters”, *A&A*, 594, 63, (2016)
69. Planck Collaboration (arXiv:1502.01582)
“Planck 2015 results. I. Overview of products and scientific results”, *A&A*, 594, 38, (2016)
68. Planck Collaboration (arXiv:1502.01594)
“Planck 2015 results. XIX. Constraints on primordial magnetic fields”, *A&A*, 594, 27, (2016)
67. Emanuela Dimastrogiovanni, Lawrence M. Krauss & **Jens Chluba** (arXiv:1512.09212)
“Constraints on Gravitino Decay and the Scale of Inflation using CMB spectral distortions”, *PRD*, 94, 023518, (2016)
66. **Jens Chluba** (arXiv:1603.02496)
“Which spectral distortions does Λ CDM actually predict?”, *MNRAS*, 460, 227, (2016)
65. **Jens Chluba** & Yacine Ali-Haïmoud (arXiv:1510.03877)
“COSMOSPEC: fast and detailed computation of the cosmological recombination radiation from hydrogen and helium”, *MNRAS*, 456, 3494, (2016)
64. Colin Hill, Nick Battaglia, **Jens Chluba**, Simone Ferraro, et al. (arXiv:1507.01583)
“Taking the Universe’s Temperature with Spectral Distortions of the Cosmic Microwave Background”, *PRL*, 115, 261301, (2015)
63. **Jens Chluba** (arXiv:1506.06582)
“Green’s function of the cosmological thermalization problem - II. Effect of photon injection and constraints”, *MNRAS*, 454, 4182, (2015)
62. S. Balashev, E. Kholupenko, **Jens Chluba**, A. Ivanchik & D. Varshalovich (arXiv:1505.06028)
“Spectral Distortions of the CMB Dipole”, *ApJ*, 810, 6, (2015)
61. Mayuri Rao, Ravi Subrahmanyam, Shankar Udaya & **Jens Chluba** (arXiv:1501.07191)
“On the detection of spectral ripples from the Recombination Epoch”, *ApJ*, 810, 19, (2015)

60. Yacine Ali-Haimoud, **Jens Chluba** & Marc Kamionkowski (arXiv:1506.04745)
“Constraints on Dark Matter Interactions with Standard Model Particles from Cosmic Microwave Background Spectral Distortions”, *PRL*, 115, 071304, (2015)
59. **Jens Chluba**, Daniela Paoletti, Fabio Finelli & Jose Alberto Rubino-Martin (arXiv:1503.04827)
“Effect of primordial magnetic fields on the ionization history”,
MNRAS, 451, 2244, (2015)
58. Razieh Emami, Emanuela Dimastrogiovanni, **Jens Chluba** & Marc Kamionkowski (arXiv:1504.00675)
“Probing the scale dependence of non-Gaussianity with spectral distortions of the cosmic microwave background”, *PRD*, 91, 123531, (2015)
57. **Jens Chluba**, Jan Hamann & Subodh Patil (arXiv:1505.01834)
“Features and new physical scales in primordial observables: Theory and observation”,
IJMPD, 24, 1530023, (2015)
56. **Jens Chluba**, Liang Dai, Daniel Grin, Mustafa Amin & Marc Kamionkowski (arXiv:1407.3653)
“Spectral distortions from the dissipation of tensor perturbations”,
MNRAS, 446, 2871, (2015)
55. **Jens Chluba** (arXiv:1405.1277)
“Tests of the CMB temperature-redshift relation, CMB spectral distortions and why adiabatic photon production is hard”, *MNRAS*, 443, 1881, (2014)
54. Donghui Jeong, Josef Pradler, **Jens Chluba**, & Marc Kamionkowski (arXiv:1403.3697)
“Silk Damping at a Redshift of a Billion: New Limit on Small-Scale Adiabatic Perturbations”,
PRL, 113, 061301, (2014)
53. **Jens Chluba**, Liang Dai, Donghui Jeong, Marc Kamionkowski & Amanda Yoho (arXiv:1404.2798)
“Linking the BICEP2 result and the hemispherical power asymmetry through spatial variation of r ”,
MNRAS, 442, 670, (2014)
52. Liang Dai & **Jens Chluba** (arXiv:1403.6117)
“New operator approach to the CMB aberration kernels in harmonic space”,
PRD, 89, 123504, (2014)
51. Joseph Silk & **Jens Chluba**
“Next Steps for Cosmology”,
Science, 344, 586, (2014)
50. **Jens Chluba** (arXiv:1312.6030)
“Refined approximations for the distortion visibility function and μ -type spectral distortions”,
MNRAS, 440, 2544, (2014)
49. **Jens Chluba** & Liang Dai (arXiv:1309.3274)
“Multiple scattering Sunyaev-Zeldovich signal II: relativistic effects”,
MNRAS, 438, 1324, (2014)
48. Philippe Andre et al. (arXiv:1310.1554)
“PRISM (Polarized Radiation Imaging and Spectroscopy Mission): an extended white paper ”,
JCAP, 02, 006, (2014)
47. Donghui Jeong, **Jens Chluba**, Liang Dai, Marc Kamionkowski and Xin Wang (arXiv:1309.2285)
“The effects of aberration on partial-sky measurements of the cosmic microwave background temperature power spectrum”, *PRD*, 89, 023003, (2014)
46. **Jens Chluba** and Donghui Jeong (arXiv:1306.5751)
“Teasing bits of information out of the CMB energy spectrum”,
MNRAS 438, 2065, (2014)
45. **Jens Chluba**, Liang Dai & Marc Kamionkowski (arXiv:1308.5969)
“Multiple scattering Sunyaev-Zeldovich signal I: lowest order effect”,
MNRAS, 437, 67, (2014)
44. **Jens Chluba** (arXiv:1304.6121)
“Distinguishing different scenarios of early energy release with spectral distortions of the cosmic microwave background”, *MNRAS*, 436, 2232, (2013)

43. **Jens Chluba** & Dan Grin (arXiv:1304.4596)
“CMB spectral distortions from small-scale isocurvature fluctuations”,
MNRAS, 434, 1619, (2013)
42. **Jens Chluba** (arXiv:1304.6120)
“Green’s function of the cosmological thermalization problem”,
MNRAS, 434, 352, (2013)
41. C. Coppola, D. Galli, F. Palla, S. Longo & **Jens Chluba** (arXiv:1306.1107)
“Non-thermal photons and H₂ formation in the early Universe”,
MNRAS, 434, 114, (2013)
40. Liang Dai, Donghui Jeong, Marc Kamionkowski & **Jens Chluba** (arXiv:1303.6949)
“The pesky power asymmetry”,
Phys. Rev. D, 87, 123005, (2013)
39. Calabrese et al. (arXiv:1302.1841)
“Cosmological parameters from pre-planck cosmic microwave background measurements”, *Phys. Rev. D*, 87, 103012, (2013)
38. Marziah Farhang, Dick Bond, **Jens Chluba**, & Eric R. Switzer (arXiv:1211.4634)
“Constraints on perturbations to the recombination history from measurements of the CMB damping tail”, *ApJ*, 764, 9, (2013)
37. **Jens Chluba**, Eric R. Switzer, Daisuke Nagai, & Kaylea Nelson (arXiv:1211.3206)
“Sunyaev-Zeldovich signal processing and temperature-velocity moment method for individual clusters”, *MNRAS*, 430, 3054, (2013)
36. **Jens Chluba**, Daisuke Nagai, Sergey Sazonov, & Kaylea Nelson
“A fast and accurate method for computing the Sunyaev-Zeldovich signal of hot galaxy clusters”, *MNRAS*, 426, 510, (2012)
35. **Jens Chluba**, Adrienne Erickcek, & Ido Ben-Dayan
“Probing the inflaton: Small-scale power spectrum constraints from measurements of the CMB energy spectrum”, *ApJ*, 758, 76 (2012)
34. **Jens Chluba**, Rishi Khatri & Rashid Sunyaev
“CMB at 2×2 order: The dissipation of primordial acoustic waves and the observable part of the associated energy release”, *MNRAS*, 425, 1129, (2012)
33. **Jens Chluba**, Jeffrey Fung & Eric R. Switzer
“Radiative transfer effects during primordial helium recombination”,
MNRAS, 423, 3227, (2012)
32. Rishi Khatri, Rashid Sunyaev & **Jens Chluba**
“Mixing of blackbodies: entropy production and dissipation of sound waves in the early Universe”,
A&A, 543, A136, (2012)
31. Marziah Farhang, Dick Bond & **Jens Chluba**
“Semi-blind Eigen-analyses of Recombination Histories Using CMB Data”,
ApJ, 752, 88, (2012)
30. Rishi Khatri, Rashid Sunyaev & **Jens Chluba**
“Does Bose-Einstein condensation of CMB photons cancel μ -distortions created by dissipation of sound waves in the early Universe?”, *A&A*, 540, A124, (2012)
29. **Jens Chluba** & Rashid Sunyaev
“The evolution of CMB spectral distortions in the early Universe”
MNRAS, 419, 1294-1314, (2012)
28. Gert Hütsi, **Jens Chluba**, Andi Hektor & Martti Raidal
“WMAP7 and future CMB constraints on annihilating dark matter: implications on GeV-scale WIMPs”,
A&A, 535, 26, (2011)
27. **Jens Chluba**
“Fast and accurate computation of the aberration kernel for the CMB sky”
MNRAS, 415, 3227-3236, (2011)

26. Richard J. Shaw & **Jens Chluba**
"Precise cosmological parameter estimation using COSMOPREC"
MNRAS, 415, 1343-1354, (2011)
25. **Jens Chluba** & Rajat M. Thomas
"Towards a complete treatment of the cosmological recombination problem"
MNRAS, 412, 748-764, (2011)
24. **Jens Chluba**, Geoff Vasil & Jonathan Dursi
"Recombinations to the Rydberg states of hydrogen and their effect during the cosmological recombination epoch", *MNRAS*, 407, 599-612, (2010)
23. Jose Alberto Rubino-Martin, **Jens Chluba**, Chad Fendt & Benjamin Wandelt
"Estimating the impact of recombination uncertainties on the cosmological parameter constraints from cosmic microwave background experiments", *MNRAS*, 403, 439-452, (2010)
22. **Jens Chluba** & Rashid Sunyaev
"Ly alpha escape during cosmological hydrogen recombination: the 3d-1s and 3s-1s two-photon processes", *Astronomy & Astrophysics*, 512, A53, (2010)
21. **Jens Chluba** & Rashid Sunyaev
"Cosmological recombination: feedback of helium photons and its effect on the recombination spectrum", *MNRAS*, 402, 1221-1248, (2010)
20. **Jens Chluba**
"Could the Cosmological Recombination Spectrum Help Us Understand Annihilating Dark Matter?", *MNRAS*, 402, 1195-1207, (2010)
19. **Jens Chluba** & Rashid Sunyaev
"Cosmological hydrogen recombination: influence of resonance and electron scattering"
Astronomy & Astrophysics, 503, 345-355, (2009)
18. Rashid Sunyaev & **Jens Chluba** (arXiv:0908.0435)
"Signals from the epoch of cosmological recombination (Karl Schwarzschild Award Lecture 2008)", *Astronomische Nachrichten*, 330, 657, (2009)
17. **Jens Chluba** & Rashid Sunyaev
"Pre-recombinational energy release and narrow features in the CMB spectrum"
Astronomy & Astrophysics, 501, 29-47, (2009)
16. Chad Fendt, **Jens Chluba**, Jose Alberto Rubino-Martin & Benjamin Wandelt
"RICO: A New Approach for Fast and Accurate Representation of the Cosmological Recombination History", *ApJS*, 181, 627-638, (2009)
15. **Jens Chluba** & Rashid Sunyaev
"Time-dependent corrections to the Ly α escape probability during cosmological recombination"
Astronomy & Astrophysics, 496, 619-635, (2009)
14. **Jens Chluba** & Rashid Sunyaev
"Evolution of low-frequency features in the CMB spectrum due to stimulated Compton scattering and Doppler broadening", *Astronomy & Astrophysics*, 488, 861-865, (2008)
13. Jose Alberto Rubino-Martin, **Jens Chluba** & Rashid Sunyaev
"Lines in the cosmic microwave background spectrum from the epoch of cosmological helium recombination", *Astronomy & Astrophysics*, 485, 377-393, (2008)
12. **Jens Chluba** & Rashid Sunyaev
"Two-photon transitions in hydrogen and cosmological recombination"
Astronomy & Astrophysics, 480, 629-645, (2008)
11. **Jens Chluba** & Rashid Sunyaev
"Is there a need and another way to measure the Cosmic Microwave Background temperature more accurately?", *Astronomy & Astrophysics*, 478, L27-L30, (2008)
10. **Jens Chluba** & Rashid Sunyaev
"Cosmological hydrogen recombination: Ly α line feedback and continuum escape"
Astronomy & Astrophysics, 475, 109-114, (2007)

9. **Jens Chluba**, Sergey Sazonov & Rashid Sunyaev
“Double Compton emission in an isotropic, mildly relativistic thermal plasma”
Astronomy & Astrophysics, 468, 785-795, (2007)
8. **Jens Chluba**, Jose Alberto Rubino-Martin & Rashid Sunyaev
“Cosmological hydrogen recombination: populations of the high level sub-states”
MNRAS, 374, 1310-1320, (2007)
7. **Jens Chluba** & Rashid Sunyaev
“Free-bound emission from cosmological hydrogen recombination”
Astronomy & Astrophysics Letters, 458, L29-L32, (2006)
6. Jose Alberto Rubino-Martin, **Jens Chluba** & Rashid Sunyaev
“Lines in the cosmic microwave background spectrum from the epoch of cosmological hydrogen recombination”, *MNRAS*, 371, 1939-1952, (2006)
5. Joern Dunkel, **Jens Chluba** & Rashid Sunyaev
“Accretion of helium and metal-rich gas onto neutron stars and black holes at high luminosities”
Astronomy Letters, 32, 257-262, (2006)
4. **Jens Chluba** & Rashid Sunyaev
“Induced two-photon decay of the 2s level and the rate of cosmological hydrogen recombination”,
Astronomy & Astrophysics, 446, 39-42, (2006)
3. **Jens Chluba**, Gert Hütsi & Rashid Sunyaev
“Clusters of galaxies in the microwave band: influence of the motion of the Solar System”
Astronomy & Astrophysics, 434, 811-817, (2005)
2. **Jens Chluba** & Rashid Sunyaev
“Superposition of blackbodies and the dipole anisotropy: A possibility to calibrate CMB experiments”,
Astronomy & Astrophysics, 424, 389-408, (2004)
1. **Jens Chluba** & Karl Mannheim
“Kinetic Sunyaev-Zeldovich effect from galaxy cluster rotation”
Astronomy & Astrophysics, 396, 419-427, (2002)

Submitted Papers

- M. Remazeilles, A. Rotti & **Jens Chluba** (arXiv:2006.08628)
“Peeling off foregrounds with the constrained moment ILC method to unveil primordial CMB B-modes”, submitted
 - L. Hart, A. Rotti & **Jens Chluba** (arXiv:2006.04826)
“Sensitivity forecasts for the cosmological recombination radiation in the presence of foregrounds”, submitted
 - A. Rotti & **Jens Chluba** (arXiv:2006.02458)
“Combining ILC and moment expansion techniques for extracting average-sky signals and CMB anisotropies”, submitted
 - **Jens Chluba**, A. Ravenni & S.K. Acharya (arXiv:2005.11325)
“Thermalization of large energy release in the early Universe”, submitted
 - A. Ravenni & **Jens Chluba** (arXiv:2005.06941)
“The double Compton process in astrophysical plasmas”, submitted
 - Planck Collaboration (arXiv:1807.06209)
“Planck 2018 results. VI. Cosmological parameters”, submitted
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Contributed Book Chapters

2. **Jens Chluba** (arXiv:1806.02915)
“Future Steps in Cosmology using Spectral Distortions of the Cosmic Microwave Background”, Lecture notes, Varenna International School of Physics “Enrico Fermi”, in press
1. Simon Glover, **Jens Chluba**, Steve Furlanetto, Jonathan Prichard, Daniel Savin
“Chapter Three - Atomic, Molecular, and Optical Physics in the Early Universe: From Recombination to Reionization”, AAMOP, Volume 63, p. 135-270, (2014)

Contributed Publications

7. **Jens Chluba**
“Future Steps in CMB Cosmology”,
Proceedings of the LIIIrd RENCONTRES DE MORIOND
5. Alan Kogut, **Jens Chluba**, Dale Fixsen, Stephan Meyer, David Spergel,
“The Primordial Inflation Explorer (PIXIE)”, Proceedings of the SPIE, 9904, 23, (2016)
4. **Jens Chluba** (arXiv:1405.6938)
“Science with CMB spectral distortions”,
Proceedings of the XLIXth RENCONTRES DE MORIOND
3. Rashid Sunyaev & **Jens Chluba**
“The Richness and Beauty of the Physics of Cosmological Recombination: the Contributions from Helium”, Il Nuovo Cimento B, vol. 122, Issue 9, p.919-934, (arXiv:0802.0772)
2. Rashid Sunyaev & **Jens Chluba**
“The Richness and Beauty of the Physics of Cosmological Recombination”
Frontiers of Astrophysics: A Celebration of NRAO’s 50th Anniversary ASP Conference Series, Vol. 395, Proceedings of the conference held 18-21 June, 2007, at the National Radio Astronomy Observatory, Charlottesville, Virginia, USA. Edited by Alan H. Bridle, James J. Condon, and Garteh C. Hunt., p.35, (arXiv:0710.2879)
1. **Jens Chluba**, Jose Alberto Rubino-Martin & Rashid Sunyaev
“The Cosmological Hydrogen Recombination Spectrum”
Proceedings of Bernard’s Cosmic Stories: from primordial fluctuations to the birth of stars and galaxies, June 26-30, 2006. UIMP, VALENCIA, SPAIN. Meeting abstracts

Science White Papers

- Contributor to numerous White Papers for the *NASA Decadal survey 2020*
- Main author and coordinator of the *ESA Voyage 2050 White Papers*

Popular Science Articles

3. Contributed to the Article “Spectral Sensation” by George Musser
News Scan Cosmology
Scientific American, May 2009
 2. **Jens Chluba** & Rashid Sunyaev
“What can the cosmological recombination radiation tell us about the thermal history of the Universe?”
MPA Research Highlight, June 2008
 1. Rashid Sunyaev & **Jens Chluba**
“Cosmological hydrogen recombination lines from redshifts $z \sim 1400$ ”
MPA Research Highlight, July 2007
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List of Recent Invited and Contributed Talks

- Invited (remote) talk, Fourth Zeldovich Meeting, Sept 2020, Minsk, Belarus
- Contributed talk, B-mode from space meeting, Dec 2019, Munich, Germany
- Contributed talk, CoSyne Workshop, Dec 2019, Paris, France
- Contributed talk, Millimetron Workshop, Sept 2019, Paris, France
- Invited talk, Sesto Cosmology Workshop, Feb 2019, Sexten, Italy
- Invited talk, ICTS Workshop 'Cosmology – The Next Decade', Jan 2019, Bangalore, India
- Invited talk, Rencontres de Vietnam, July 2018, Quy Nhon, Vietnam
- Invited talk, PACTS, June 2018, Tallin, Estonia
- Invited talk, Rencontres de Moriond, March 2018, La Thuile, Italy
- Invited talk, Workshop 'The Reionization History of the Univ.', March 2018, Bielefeld, Germany
- Invited talk, Workshop 'CMB in Germany', Jan 2018, Munich, Germany
- Invited talk, DESY Theory Workshop 2017, Sept 2017, Hamburg, Germany
- Invited talk, XIth International Conference, PPC2017, May 2017, Texas, USA
- Invited talk, PONT meeting, April 2017, Avignon, France
- Invited talk, UTQuest Workshop Kyoto, Dec 2016, Kyoto, Japan
- Invited talk, XII Reunion Cientifica de la SE, July 2016, Bilbao, Spain
- Contributed talks, CMB Spectral Distortions workshop, July 2016, Bangalore, India
- Invited talk, Dark Ages and White Nights, June 2016, St. Petersburg, Russia
- Invited talks, CMB/LSS/21cm Workshop, June 2016, Madrid, Spain
- Invited talk, Schwartz/Reisman ITP workshop, Weizmann Institute, May 2016, Tel Aviv, Israel
- Contributed talk, CORE meeting, May 2016, Geneva, Switzerland

List of Recent Seminars and Colloquia

- (Virtual) Colloquium, McGill University, Oct 2020, Canada
 - (Virtual) Astro Colloquium, Observatory of Edinburgh, May 2020, UK
 - Cosmology Seminar, University College London, Oct 2019, London, UK
 - Seminar, University of Bochum, June 2019, Bochum, Germany
 - Cosmology Seminar, University of Nottingham, June 2019, Nottingham, UK
 - Cosmology Seminar, University of Bologna, May 2018, Bologna, Italy
 - Astrophysics Seminar, Warwick University, May 2018, Coventry, UK
 - Cosmology Seminar, LMU, Nov 2017, Munich, Germany
 - Cosmology Seminar, Nov 2017, Marseille, France
 - Cosmology Seminar, Sussex University, Oct 2017, Brighton, UK
 - Cosmology Seminar, April 2017, Helsinki, Finland
 - Cosmology Seminar, Feb 2017, Oslo, Norway
 - OKC Colloquium, Nov 2016, Stockholm, Sweden
 - HEPHY Colloquium, Oct 2016, Vienna, Austria
 - MPA High Energy Seminar, Sept 2016, Garching, Germany
 - PI Cosmology Seminar, May 2016, Waterloo, Canada
 - Astrophysics Colloquium, May 2016, Hamburg, Germany
 - IAS Seminar, April 2016, Princeton, USA
-