Mathieu Remazeilles CURRICULUM VITAE

Instituto de Física de Cantabria French Nationality: +34 942 200 920 Edificio Juan Jordá Phone: Avenida de los Castros s/n E-mail: remazeilles@ifca.unican.es 39005 Santander, Spain https://orcid.org/0000-0001-9126-6266 **EMPLOYMENT** CSIC Tenured Research Scientist, Consejo Superior de Investigaciones Científicas (CSIC), 2021 -Institute of Physics of Cantabria, University of Cantabria, Spain Research Fellow, Jodrell Bank Centre for Astrophysics, University of Manchester, UK 2020 - 20212013 - 2020Postdoctoral Researcher, Jodrell Bank Centre for Astrophysics, University of Manchester, UK 2011 - 2013Postdoctoral Researcher, Institut d'Astrophysique Spatiale, University of Paris 11, France 2009 - 2011Postdoctoral Researcher, AstroParticule et Cosmologie (APC), University of Paris 7, France 2008 - 2009Teaching and Research Assistant, University of Paris 11, France **EDUCATION** 2005 - 2009PhD in Theoretical Physics (advisor: Martin A. Bucher), University of Paris 11, France Thesis: "Evolution of cosmological perturbations in braneworld universes" (highest honours) 2004 - 2005Master (5th year) of Theoretical Physics, École Normale Supérieure, Paris, France 2003 - 2004Master (4th year) of Fundamental Physics, University of Paris 11, France (ranked 1st with highest honours) Bachelor (3rd year) of Fundamental Physics, University of Paris 11, France 2002 - 2003(ranked 1st with highest honours) 2001 - 2004Engineer's degree of Ecole Nationale Supérieure de Techniques Avancées (ENSTA), Paris, France. French "Grande École" in Engineering and Applied Mathematics. TEACHING EXPERIENCE 2020 - 2021Teaching Assistant (1 hour per week) in quantum mechanics, electromagnetism, and mathematics for undergraduate students in Physics at the University of Manchester, UK. Dec 2019 Invited Lecturer at the XIII Tonale Winter School of Cosmology, Passo del Tonale, Italy. Four lectures on CMB polarization and spectral distortions. Invited Teaching Assistant (8 hours) in data analysis for PhDs at the International Young Apr 2013 Astronomer School on Exploiting the Herschel and Planck data, Paris Observatory, France. Teaching Assistant (96 hours) in mathematics, electromagnetism, mechanics, and optics for 2008 - 2009undergraduate students in Physics at the University of Paris 11, France. Invited Teaching Assistant (16 hours) in probability and statistics for master students at the Oct 2007 African Institute for Mathematical Sciences (AIMS), Cape Town, South Africa. Teaching Assistant (192 hours) in statistical physics, wave physics, solid mechanics, 2005 - 2008geometrical optics for undergraduate students in Physics at University of Paris 11, France. **AWARDS** Gruber Cosmology Prize to the Planck team Marcel Grossmann Award to the Planck scientific collaboration Royal Astronomical Society 2018 Group Achievement Award to the Planck team

REFEREE Nature Astronomy, Physical Review Letters, Physical Review D, Journal of Cosmology and Astroparticle Physics, Astronomy & Astrophysics, The Astrophysical Journal, Monthly Notices of the Royal Astronomical Society

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SCIENTIFIC RESPONSIBILITIES

- 2024 Project manager for the Horizon Europe programme <u>RadioForegroundsPlus</u>.
- 2022 PhD supervisor of Jyothis Chandran and Sefa Pamuk at the University of Cantabria, Spain.
- 2019 Coordinator and co-leader of the Science White Paper "<u>CMB Backlight</u>" in response to the <u>ESA Voyage 2050</u> call for the long-term European space science programme.
- 2018 Member of the CMB collaborations *LiteBIRD*, Simons Observatory, and *PICO*.
- 2016 *LiteBIRD*: Co-lead of the Project Study Group on SZ science for the next-generation CMB satellite mission *LiteBIRD*, primarily dedicated to the search for primordial CMB B-modes and selected by the Japanese space agency JAXA for a launch in the 2030s.
- 2016 2018 *CORE*: Coordinator of the Foregrounds Working Group for the European CMB space mission *CORE*, proposed to ESA in 2017. Lead Author of a *CORE* Collaboration paper.
- 2014 2016 International Space Science Institute: invited member of an international team of 11 scientists in charge of the joint *Planck* ACT analysis project "SZ clusters in the Planck era".
- BINGO: collaborator of the radio telescope experiment BINGO, a funded SKA pathfinder in Brazil, dedicated to BAO measurements through hydrogen 21-cm line intensity mapping.
- 2014 2018 Co-supervisor of three PhD students at the University of Manchester: Lucas Olivari (2014-2017), Carlos Hervias (2014-2017; University of Florida), Tianyue Chen (2015-2018; MIT).
- 2011 2018 *Planck* Scientist for the CMB space mission *Planck*, launched by ESA in May 2009. Corresponding Author of two *Planck* Collaboration papers.

SELECTED CONFERENCES (INVITED SPEAKER)

- 22-24 Nov 2023: "IX Meeting on Fundamental Cosmology", Tenerife, Spain
- 12-15 Dec 2022: "Galactic science and CMB foregrounds", Tenerife, Spain
- 23-27 May 2022: "From Planck to the future of CMB", Ferrara, Italy
- 5-10 July 2021: "16th Marcel Grossmann Meeting" (remotely), Rome, Italy
- 16-19 Dec 2019: "B-mode from space", Max Planck Institute, Garching, Germany
- 15-18 Oct 2018: "CMB foregrounds for B-mode studies", Tenerife, Spain
- 1-7 Jul 2018: "15th Marcel Grossmann Meeting", Rome, Italy
- 12-16 Mar 2018: "Probing fundamental physics with CMB spectral distortions", CERN, Switzerland
- 29 Nov-1 Dec 2017: "CMB foregrounds workshop", UCSD, San Diego, USA
- 11-16 Jul 2016: "CMB spectral distortions from cosmic baryon evolution", Bangalore, India
- 4-8 Jul 2016: "European Week of Astronomy and Space Science", Athens, Greece
- 17-20 May 2016: "Towards a next space probe for CMB observations and cosmic origins exploration", CERN, Geneva, Switzerland (invited speaker & chairperson of the session on foregrounds)

SELECTED PUBLICATIONS (215 referred publications. H-index: 99. Source: SAO/NASA ADS)

- Planck Collaboration (<u>corresponding author</u>: Remazeilles, M.; 200+ co-authors), "Planck 2015 results. XXII. A map of the thermal Sunyaev-Zeldovich effect", A&A 594, A22 (2016). **360 citations.**
- Planck Collaboration (corresponding author: Remazeilles, M.; 150+ co-authors), "Planck intermediate results. XLVIII. Disentangling Galactic dust emission and cosmic infrared background anisotropies", A&A 596, A109 (2016). 301 citations.
- **Remazeilles, M.**, et al (100+ co-authors), "Exploring Cosmic Origins with CORE: B-mode component separation", JCAP 04, 023 (2018). 73 citations.
- Remazeilles, M., Dickinson, C., Eriksen, H. K., Wehus, I. K., "Sensitivity and foreground modelling for large-scale CMB B-mode polarization satellite missions", MNRAS 458, 2032 (2016). 93 citations.
- **Remazeilles, M.**, Dickinson, C., Banday, A. J., Bigot-Sazy, M.-A., Ghosh, T., "An improved source-subtracted and destriped 408 MHz all-sky map", MNRAS 451, 4311 (2015). 274 citations.
- Remazeilles, M., Delabrouille, J., Cardoso, J.-F., "CMB and SZ effect separation with constrained Internal Linear Combinations", MNRAS 410, 2481 (2011). 190 citations.
- **Remazeilles, M.**, Delabrouille, J., Cardoso, J.-F., "Foreground separation with generalized Internal Linear Combinations", MNRAS 418, 467 (2011). **154 citations.**
- **Remazeilles, M.**, Rotti, A., Chluba, J., "Peeling off foregrounds with the constrained moment ILC method to unveil primordial CMB B-modes", MNRAS 503, 2478 (2021). 67 citations.
- **Remazeilles, M.**, Bolliet, B., Rotti, A., Chluba, J., "Can we neglect relativistic temperature corrections in the Planck thermal SZ analysis?", MNRAS 483, 3459 (2019). 51 citations.