

David N. Hosking

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Curriculum Vitae

Employment

University of Edinburgh, *Schools of Physics & Astronomy and Mathematics*

2026 – Lecturer in Theoretical Plasma Physics

University of Cambridge, *Department of Applied Mathematics & Theoretical Physics (DAMTP)*

2025 – 2026 Research Fellow of Gonville & Caius College

Princeton University, *Princeton Center for Theoretical Science (PCTS)*

2022 – 2025 Postdoctoral Fellow

Education

University of Oxford, *Department of Physics*

2018 – 2022 DPhil in Astrophysics, advised by A. A. Schekochihin and S. A. Balbus

‘The decay of MHD turbulence and the primordial origin of magnetic fields in cosmic voids’

2014 – 2018 MMathPhys in Mathematical and Theoretical Physics (distinction)

Distinctions

2025 Awarded £10,000 by OpenStar Technologies to support summer undergraduate studentships

2023 *PhD Research Award*, European Physical Society, Plasma Physics Division

2022 *Michael Penston Thesis Prize*, Royal Astronomical Society

2022 *Exceptional Inter-Division PhD Prize*, International Astronomical Union

2021 Graduate Prize Scholar, Merton College, University of Oxford

Students advised

2026 – T. Hollingsworth, MPhil in Scientific Computing project, U. of Cambridge (from Jan 2026)

2025 – 2026 N. Nigam, Institute of Astronomy Part-III project (co-advisor with H. N. Latter), U. of Cam.

2025 R. Kesavan, undergraduate summer project, University of Cambridge

2025 L. Swinnerton, undergraduate summer project, University of Cambridge

2024 – Z. Hemler, Astrophysical Sciences PhD project (co-advisor with M. W. Kunz), Princeton U.

2023 – 2025 J. K. J. Hew, undergraduate project (co-advisor with C. Federrath), Australian National U.

2021 R. Madan, undergraduate summer project (co-advisor with A. A. Schekochihin), U. of Oxford

Teaching

2027 Group-project advisor, Theoretical Methods for Fusion and Astrophysical Plasmas, School of Physics & Astronomy, U. of Edinburgh

2026 Viva examiner, Numerical Recipes, School of Physics & Astronomy, U. of Edinburgh

2023 Invited lecturer, NSF/APS-DPP Summer School on Plasma Physics for Astrophysicists

2021 Teaching assistant (2 classes), MMathPhys Advanced Topics in Plasma Physics, U. of Oxford

Teaching assistant (2 classes), MMathPhys Advanced Fluid Dynamics, U. of Oxford

2020 Teaching assistant (2 classes), MMathPhys Advanced Fluid Dynamics, U. of Oxford

Tutor (3 classes and ~ 12 tutorials), Physics, Thermal and Statistical Physics review, Merton College, University of Oxford

2019 Tutor (8 classes and ~ 32 tutorials), Physics, 2nd-year Mathematical Methods, Merton & Corpus Christi Colleges, University of Oxford

Tutor (4 classes and ~ 16 tutorials), Physics, 1st-year Mathematical Methods, Corpus Christi College, University of Oxford

Selected invited talks and conference leadership

2026	Invited talk, <i>Thermodynamics of Plasmas</i> workshop, Bernoulli Center, EPFL, Oct. 5-7
2026	Invited talk, <i>17th WPI Plasma Kinetics Working Meeting</i> , Vienna, Jul. 27 - Aug. 7
2026	Invited seminar, Imperial College London, Feb. 20
2025	Invited tutorial, UK Atomic Energy Authority (UKAEA) Theory Workshop, Oct. 22
2025	Invited tutorial, <i>Relativistic Plasma Physics: From the Lab to the Cosmos</i> , KITP, Santa Barbara, Sep. 12
2025	Invited talk, UK Atomic Energy Authority (UKAEA), Jun. 16
2025	Invited talk, Simons Symposium on Multi-Scale Physics, Jun. 11
2025	Invited talk, UCLA Plasma Seminar, May 16
2025	Invited talk, MIT Plasma Science and Fusion Center (PSFC), Apr. 17
2025	Invited talk, Sherwood Fusion Theory Conference, Apr. 9
2024	Invited talk, International Astronomical Union General Assembly (PhD Prize), Aug. 6-15
2024	Invited talk, <i>Making waves and instabilities: The excellent adventures of Steve Balbus in space</i> , University of Oxford, Jul. 29 - Aug. 1
2024	Invited talk, <i>Interconnections between the Physics of Plasmas and Self-gravitating Systems</i> , KITP, Santa Barbara, Jun. 3 - Jul. 26
2024	Invited talk, <i>Bernoulli Center program on primordial magnetic fields</i> , EPFL, May 13-24
2024	Invited talk, University of Wisconsin–Madison, Apr. 29
2024	Principal organiser , PCTS Workshop, <i>Synergistic approaches to particle transport in magnetized turbulence, from the laboratory to astrophysics</i> , Apr. 15-17
2024	Invited talk, University of New Hampshire, Mar. 28
2023	Invited talk, Highlights meeting of the Royal Astronomical Society (PhD Prize), Dec. 8
2023	Invited talk, University of Cambridge, DAMTP, Dec. 2
2023	Invited talk, 49th EPS Conference on Plasma Physics (PhD prize), Jul. 1
2022	Invited talk, 64th Annual Meeting of the APS Division of Plasma Physics, Oct. 20
2022	Invited talk, NORDITA workshop on astrophysical plasma dynamo, Jun. 2
2021	Invited talk, University of Toulouse, Dec. 1
2021	Invited talk, Princeton University, Oct. 8
2021	Invited talk, University of Mexico, Sep. 22
2021	Invited talk, <i>Journal of Plasma Physics</i> ‘Frontiers of Plasma Physics’ Colloquium, Aug. 26
2021	Invited talk, Center for Computational Astrophysics (CCA), Apr. 3
2021	Invited talk, NORDITA, Jan. 12
2020	Invited talk, Institute for Advanced Study, Princeton, Dec. 4

Service

2025	Principal organiser, DAMTP Astrophysical Fluid Dynamics informal-seminar series
2024	Instructor (7 classes, 21 hours), NJ-STEP prison-teaching initiative, New Jersey, USA
2024	Volunteer teacher, solar-eclipse classes at Princeton Community Park Elementary School
2020	Lecturer, UNIQ access program for Physics, University of Oxford
2019 – 21	Undergraduate admissions interviewer, Physics, Merton College, University of Oxford
2019 –	Referee for <i>Physical Review Letters</i> , the <i>Journal of Plasma Physics</i> , the <i>Journal of Fluid Mechanics</i> , the <i>Open Journal of Astrophysics</i> and <i>Astronomy & Astrophysics</i> .