Alistair J. Chopping

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Durham University Department of Mathematical Sciences

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I am currently a PhD student under the supervision of Dr Charlotte Sleight, in the Department of Mathematical Sciences at Durham University. I am interested in the interplay between holography and the cosmological bootstrap, as well as in the conformal bootstrap programme.

Employment

• Graduate Teaching Assistant. October 2022 - Present Department of Mathematical Sciences, Durham University, UK.

Education

• PhD Mathematical Sciences - Theoretical Physics. October 2021 - Present Department of Mathematical Sciences, Durham University, UK.

Supervisor: Dr Charlotte Sleight. Project: Bootstrapping Holography.

• MPhys (Hons) Theoretical Physics. September 2017 - June 2021 Department of Physics, Swansea University, UK.

Grade: 1st Class Honours, 89% Average.

MPhys Thesis: Black Holes and The Information Loss Paradox.

Supervisors: Professor Timothy Hollowood & Professor S. Prem Kumar.

Grades include:

100% in Quantum Mechanics II, Mathematical Methods I and Physics Simulation,

99% in Statistical Physics and Foundations of Astrophysics,

94% in Advanced Particle Physics,

92% in General Relativity,

89% in Quantum Field Theory.

Academic Experience

Honours & Awards

- STFC PhD Studentship September 2021 March 2025 Durham University, UK.
- PM Davidson Prize 2021 Swansea University, UK.

A departmental prize for master's-level research in theoretical physics.

Attended Conferences, Workshops & Schools

- Lezioni Avanzate di Campi E Stringhe (LACES), November/December 2022 Galileo Galilei Institute for Theoretical Physics, Italy.
- Paths to Quantum Field Theory, August 2022 Durham University, UK.
- North British Mathematical Physics Seminar, June 2022 University of York, UK.
- Higgs Centre School of Theoretical Physics, May/June 2022 University of Edinburgh, UK.

Conference & Seminar Organisation

• Early Career Researchers in Mathematics (ECRM), *July 2023* Durham University, UK.

Co-organiser. A conference designed to bring together graduate students in Mathematics from across the UK, and across a wide variety of disciplines.

• Theoretical Physics Student Seminar Series, September 2022 - Present Durham University, UK.

Co-organiser. A seminar series with participants from the particle theory groups in both the mathematics and physics departments at Durham, in an effort to foster a stronger connection between the two.

Internal Talks

- Student Seminar, March 2023 Durham University, UK.
- Journal Club, February 2023 Durham University, UK.

Teaching Experience

Teaching Assistant

• Tutor for Single Mathematics A, Michaelmas & Epiphany terms 2022/23 Durham University, UK.

Undergraduate module covering elementary calculus, complex numbers and linear algebra.

Additional Information

Computing Skills

- Programs & Programming Good knowledge of LATEX, Mathematica & Microsoft Office. Previous experience with Python from several undergraduate courses.
- Operating Systems Good knowledge of Microsoft Windows.

Foreign Language Skills

• Italian - Elementary proficiency.

Referees

• Dr Charlotte Sleight, Department of Mathematical Sciences and Computer Science, Durham University, UK.

 $E-mail: \ charlotte.sleight@durham.ac.uk.$

• Dr Ben Hoare, Department of Mathematical Sciences and Computer Science, Durham University, UK.

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