Alistair J. Chopping Curriculum Vitae

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I am currently a first-year PhD student under the supervision of Dr Charlotte Sleight, in the Mathematics department at Durham University. I am interested in theoretical high-energy physics; my project is entitled "Bootstrapping Holography", and a description can be found at https://gtr.ukri.org/projects?ref=studentship-2567207.

Education

• PhD Mathematical Sciences - Theoretical Physics. October 2021- Present Department of Mathematical Sciences & Centre for Particle Theory, Durham University, UK. Office MCS3010.

Supervisor: Dr C Sleight.

Project: "Bootstrapping Holography".

• MPhys (Hons) Theoretical Physics. September 2017 - June 2021.

Department of Physics, Swansea University, UK.

1st Class Honours, 89% Overall Average.

Recipient of the PM Davidson Prize for Best Theoretical Project at Level M.

MPhys Thesis: "Black Holes and The Information Loss Paradox".

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

Project culminated in a calculation of the entropy dynamics of a pair of asymptotic– AdS_2 black holes in JT gravity, using the island prescription. Thesis available upon request.

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.

• GCSEs & A-levels September 2009 - June 2017

Hanley Castle High School & Sixth Form Centre, Worcestershire, UK.

A-Levels: Physics, Mathematics, Chemistry, AS-Level Biology.

8 GCSEs, including English Language and English Literature.

Technical Skills

• Computing Skills

Good knowledge IATEX & Microsoft Office. Knowledge of Mathematica (last used for calculations relating to black hole thermodynamics & evaporation for MPhys project). Previous knowledge of *Python* (used for integration, data analysis, solving ODEs & Monte Carlo methods during MPhys degree). Good knowledge of Microsoft Windows operating systems.

• Languages

Modern Greek – Self-taught, elementary proficiency.

References

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

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

• **Professor Timothy Hollowood**, Department of Physics, Swansea University, UK. E-mail: t.hollowood@swansea.ac.uk.

• Professor Carlos Núñez, Department of Physics, Swansea University, UK.

E-mail: c.nunez@swansea.ac.uk.