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Will Handley

Education

2012–2016 **University of Cambridge**, *PhD: Astrophysics*, Prof. A. Lasenby & Prof. M. Hobson.
2008–2012 **University of Cambridge**, *MA, Msc: Natural Sciences*, Gonville & Caius College.
2001–2008 **Alleyn's School**, *A levels, GCSEs*, London.

Experience

Research

Oct 2016– **Junior Research fellow**, *Gonville & Caius College*, University of Cambridge.

Jul-Sep 2016 **Postdoctoral position**, *Prof. H. Peiris*, University College London.
Searching for features in the primordial power spectrum.

2012–2016 **PhD: Astrophysics**, *Prof. A. Lasenby & Prof. M. Hobson*, University of Cambridge.
Kinetic initial conditions for inflation: Theory, observations & methods.

2011–2012 **Part III Dissertation**, *Prof. P. Alexander*, University of Cambridge.
Investigating the origins of cosmic magnetism.

Summer 2011 **Summer Research Student**, *Prof. M. Faulkes & Dr. J. Spencer*, Imperial College.
Folded spectrum full configuration interaction quantum Monte Carlo.

Summer 2011 **Summer Research Student**, *Dr. R. Blumenfeld*, University of Cambridge.
Geometry and field equations of granular systems.

2010–2011 **Research Review**, *Prof. S. Gull*, University of Cambridge.
Literature Survey of the Physics-Philosophy crossover field of measurement theory.

Summer 2010 **iGEM Team Physicist**, *Dr. J. Haseloff*, University of Cambridge.
E-glowli 2010 iGEM team (placed in final 6) http://2010.igem.org/Team:Cambridge

Teaching

2013-present	Part II Physics: General relativity	*Supervising*
2012-present	Part IA Mathematics for NatSci	*Supervising, Tripos classes*
2013	Part II Theoretical Physics 1 & 2	*Demonstrating*
2006–2012	Maths and Science Tuition	*Individual coaching, key stage 1 — STEP*

Selected Outreach

Over the course of my career I have given 16 public outreach talks including:

May 2015 **Intro. to Astronomy: Beyond the Milky Way**, *IoA Public Talk*, Cambridge.
May 2015 **To infinity and beyond: Dark Energy**, *Pint of Science*, Cambridge Brewhouse.
Jan. 2014 **The first 3 yocto-pico seconds**, *Three minute wonder*, Cavendish Laboratory.

Awards & Prizes

Jun. 2018	Gruber Prize (co-shared with Planck)	*Gruber Foundation*
Dec. 2013	Best presentation	*Cavendish grad. students conference*
Jun. 2012	Best theoretical part III project	*University of Cambridge*
	Physics prize	*Gonville & Caius College*

Summer 2011	Undergraduate Research Bursary	*Nuffield Foundation*
	UROP Studentship	*Imperial College*
Summer 2010	iGEM Studentship	*Wellcome Trust*
2009–12	Junior and Senior Scholarships	*Gonville & Caius College*

Academic Talks

May. 2018 **Planck, inflation and the future of inflationary constraints**, *Consistency of Cosmological Datasets*, Cambridge, UK.

May. 2018 **Maximum entropy priors with derived parameters in a specified distribution**, Cambridge, UK.

May. 2018 **Nested Sampling: an efficient and robust Bayesian inference tool for astrophysics and cosmology**, ICIC, UK.

April. 2018 **Introduction to statistics**, *CosmoTools 18*, RWTH Aachen, Germany.

Jan. 2018 **Advances in Nested Sampling & astrophysical application**, Cambridge, UK.

Aug. 2017 **PolyChord 2.0: Fast cosmological inference with nested sampling**, *Cosmo 17*, Paris, France.

Jun. 2017 **Modern Bayesian Inference: Theory and Practice**, RWTH Aachen, Germany.

Mar. 2017 **Parameter estimation and Model comparison**, *CosmoTools 17*, Madrid, Spain.

Feb. 2017 **PolyChord 2.0: Advances in Nested Sampling & astrophysical application**, CCA, US.

Sep. 2016 **PolyChord 2.0 & the future of nested sampling**, University College London, UK.

May. 2016 **PolyChord 2.0 & the future of nested sampling**, University of Sussex, UK.

Mar. 2016 **PolyChord & the future of nested sampling**, Edinburgh, UK.

Dec. 2015 **PolyChord: next generation nested sampling**, Max Planck Institute, Germany.

Feb. 2015 **PolyChord: next generation nested sampling**, University of Sussex, UK.

Dec. 2013 **Kinetic dominance in the pre-inflationary universe**, Cavendish grad. conference.

Computer skills

Programming	MPI parallelisation, C++, FORTRAN, Mathematica, Maple, Python
Computing	Unix, Bash, zsh, vim, git, svn, LaTeX, Ti*k*Z, VMs
OS	Linux & HPC supercomputing (Experienced), Windows & OSX (Familiar)

Publications

[1] W. Handley, M. Hobson, and A. Lasenby, MNRAS **453**, 4384 (2015), arXiv:1506.00171 .
[2] W. Handley, M. Hobson, and A. Lasenby, MNRAS **450**, L61 (2015), arXiv:1502.01856 .
[3] W. Handley, S. Brechet, A. Lasenby, and M. Hobson, PRD **89**, 063505 (2014), arXiv:1401.2253 .
[4] W. Handley, A. Lasenby, and M. Hobson, arXiv (2016), arXiv:1612.02288 .
[5] W. Handley, A. Lasenby, and M. Hobson, PRD **94**, 024041 (2016), arXiv:1607.04148 .
[6] S. Hee, J. Vázquez, W. Handley, *et al.*, MNRAS **466**, 369 (2017), arXiv:1607.00270 .
[7] E. Higson, W. Handley, M. Hobson, and A. Lasenby, arXiv (2017), arXiv:1704.03459 .
[8] E. Higson, W. Handley, M. Hobson, and A. Lasenby, arXiv (2017), arXiv:1703.09701 .
[9] G.-B. Zhao *et al.*, arXiv (2017), arXiv:1701.08165 .
[10] C. Rumsey *et al.*, MNRAS **460**, 569 (2016), arXiv:1604.06120 .
[11] S. Hee, W. Handley, M. Hobson, and A. Lasenby, MNRAS **455**, 2461 (2016), arXiv:1506.09024 .
[12] The CORE collaboration, arXiv (2017), arXiv:1707.04224 .
[13] The CORE collaboration, arXiv (2017), arXiv:1707.02259 .
[14] The CORE collaboration, arXiv (2017), arXiv:1706.04516 .
[15] The CORE collaboration, arXiv (2017), arXiv:1705.02170 .
[16] The CORE collaboration, arXiv (2017), arXiv:1704.05764 .

[17] The CORE collaboration, arXiv (2017), arXiv:1704.04501 .
[18] The CORE collaboration, arXiv (2017), arXiv:1703.10456 .
[19] The CORE collaboration, arXiv (2016), arXiv:1612.08270 .
[20] The CORE collaboration, arXiv (2016), arXiv:1612.00021 .
[21] The CORE collaboration, arXiv (2016), arXiv:1609.07263 .
[22] The Planck collaboration, A&A **594**, A20 (2016), arXiv:1502.02114 .
[23] The Planck collaboration, A&A **594**, A1 (2016), arXiv:1502.01582 .

References

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Prof. Mike Hobson, +44 (0)1223 339992, mph@mrao.cam.ac.uk