Lewis Napper

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🌐 https://lewisn3142.github.io/

Education

2021 – · · · · 🔖 **Ph.D. Mathematics, University of Surrey.**
Thesis: *Monge–Ampère Geometry and Vortices.*
Supervisors: Dr. M. Wolf and Prof. I. Roulstone.

2017 – 2021 🔖 **M.Math. 1st class (hons) Mathematics, University of Surrey.**
Thesis: *Algebraic Bethe Ansatz for $\mathfrak{su}(2)$ Spin Chains and Beyond*.
Supervisors: Prof. A. Torrielli and Dr. A. Prinsloo.
Average grade: 98%

2010–2017 🔖 **Therfield Secondary School and Sixth Form**
A-level: 3 *A*, 1 A (plus 1 A at AS level).*
GCSE: 9 *A* including English and German Language,* 3 *A,* 1 *B*
Other: D*2 Cambridge Nationals ICT, A FSMQ Additional Mathematics

Employment History

2019 – · · · · 🔖 **Teaching Assistant, University of Surrey**

– Supervised undergraduate MATLAB and R-Studio programming labs for Statistics and Numerical Methods modules. Was regularly contacted by students from other courses for help due to my high quality teaching and code debugging.

– Supported the delivery of 10 different undergraduate modules, including those in which I had no prior experience, providing students with clear and concise feedback within a week of work submission.

– Edited notes and exercises for 3 modules to a high standard, consequently becoming an invited expert for the Journal of Geometry and Physics.

2019–2020 🔖 **Undergraduate Researcher, University of Surrey**

– Awarded a London Mathematical Society funded research bursary, supervised by Dr. J. Grant, to study synthetic general relativity.

– Initiated a collaboration with outstanding researchers at the University of Vienna, resulting in 2 scientific publications.

2016–2017 🔖 **Customer Service Representative, Toolstation**

– Partnered with an amazing team to provide exceptional customer service, product displays, and warehouse organisation, resulting in us earning Which? Retailer of the year 2016.

– My personal assistance was often requested due to my comprehensive knowledge of stock and efficient resolution of customer requests.

– Trusted to take on supervisory activities where necessary, including shop opening, cash reconciliation, stock-control, and training new hires.

Skills

Scripting	🔖	Moderate MATLAB, Mathematica, R-Studio, and Python experience through undergraduate study, teaching, and research.
Programming	🔖	Basic C$\sharp$ and C++ (inc. SFML/GLUT) experience from reviewing and debugging other researchers' code, as well as producing personal projects including a raycaster and cellular automata.
Web Development	🔖	Html, css, JavaScript, and JQuery frontend skills developed through making title cards for Surrey Film society viewings, a hydration reminder app, and my own website. See also my Github page.
Other Software	🔖	Microsoft Office Suite (Word, Excel, Powerpoint), LaTeX typesetting, Adobe Photoshop, Affinity Serif Suite.
Report Writing	🔖	Refined writing skills during my Ph.D. and Professional Skills university module, resulting in successful grant applications worth over £3000, as well as 3 scientific publications.
Public Speaking	🔖	Contributed 8 talks for conferences and seminars over the past 2 years, including invited talks at Imperial College London and the University of Sorbonne. See my website for sample slides.

Select Experience

Awards and Achievements

2018	🔖	**WorldQuant Regional Finalist** Member of the Surrey team for the WorldQuant Championships, for which I learnt WebSim and reached the regional final.
2017	🔖	**Surrey Merit Scholarship** Awarded to undergraduate students at the University of Surrey entering with exceptional A-level grades.
2017–2021	🔖	**Mathematics Department Prize for Excellence** Annual award for the best performance in a year of an undergraduate/master's degree.

Activities

Work Experience	🔖	1 week of work experience at MatOrtho Orthopaedic Engineering, UK (2017) including SolidWorks CAD training.
Societies	🔖	Academic secretary of the Surrey Maths Society, for which I produced updated graphic design, ran revision sessions, and organised seminars with invited speakers. Active member of the Surrey Film Society.
Arts	🔖	Presented art at the Surrey Youth Voice Awards and at my Sixth Form art festival, accompanying the latter by playing guitar as part of a live band. Produced digital and traditional art for art-shares and paid commissions.

References

Dr. Martin Wolf
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University of Surrey,
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Prof. Alessandro Torrielli
Professor of Mathematics,
University of Surrey,
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