Liam Llamazares-Elias

Curriculum Vitae

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Research Experience

Sep. 2025 – Aug. 2028 **Senior Research Associate**, *Department of Mathematics and Statistics, Lancaster University*, Lancaster, UK
Postdoctoral position within the EPSRC Hub in Probabilistic AI (ProbAI Hub)
Supervised by Prof. Chris Nemeth, and Prof. Paul Fearnhead

Education

2025 **PhD in Mathematical Modelling, Analysis and Computation**, *University of Edinburgh*, School of Mathematics
PhD with Integrated Study. Supervised by Prof. Finn Lindgren and Dr. Jonas Latz

2020–2021 **MA in Mathematical Modelling**, *University of Salamanca*
GPA: 9.85/10
Master's thesis: *Mathematical Theory in Non-linear Diffusion Processes, The Porous Medium*. Grade: 10/10 (Summa cum laude)
Link to masters thesis: here

2019–2020 **Master-level Courses (M1 and M2)**, *Département de Mathématiques*, France, Université de Poitiers
GPA: 17.97/20
Erasmus Scholarship

2016–2020 **BSc in Mathematics**, *University of Salamanca*
GPA: 9.14/10
Undergraduate thesis: *Some Results on the Existence and Uniqueness of Solutions to the Navier-Stokes Equations*. Grade: 10/10 (MH)
Link to undergraduate thesis: here

Research Visits

2023 **Participant in the Research Program**, *The Mathematical and Statistical Foundation of Future Data-Driven Engineering*, Isaac Newton Institute for Mathematical Sciences, University of Cambridge. June.

Publications and submitted manuscripts

2024 **L. Llamazares-Elias**, J. Latz, F. Lindgren, *A Parameterization of Anisotropic Gaussian Fields with Penalized Complexity Priors*. Under consideration at the Journal of the American Statistical Association. arXiv

2024 **L.Llamazares-Elias**, S. Llamazares-Elias, J. Latz, S. Klus. Data-driven approximation of Koopman operators and generators: Convergence rates and error bounds. Under consideration at Journal of Computational Dynamics. arXiv

2021 **L. Llamazares-Elias**, S. Llamazares-Elias, A. Martín del Rey, *An Analysis of Contact Tracing Protocol in an Over-Dispersed SEIQR Covid-Like Disease*, Physica A: Statistical Mechanics and its Applications. DOI

Scholarships and Awards

2021–2025 **MAC-MIGS PhD Scholarship**, *University of Edinburgh*, Maxwell Institute Graduate School
Competitive fully funded PhD position

2020–2021 **Collaboration Scholarship**, *Department of Applied Mathematics*, University of Salamanca
Awarded by the Spanish Ministry of Education (Only one scholarship assigned per department)

2020–2021 **Research Scholarship, Porous Medium Equation**, *Institute of Theoretical Physics and Mathematics*, University of Salamanca

Conferences and Workshops

2025 *Data-driven approximation of Koopman operators and generators: Convergence rates and error bounds* at Hidden structures in dynamical systems, optimization, and machine learning workshop in L'Aquila. May.

2024 *Penalized Complexity Priors for Non-Stationary Gaussian Fields* at CMStatistics Conference in London. December.

2024 *Penalized Complexity Priors for Anisotropic and Non-Stationary Gaussian Fields* at Spatial Point Processes Reading Group. December.

2023 *A Parameterization of Anisotropic Gaussian Fields with Penalized Complexity Priors* at CMStatistics Conference in Berlin. December.

2023 *A Parameterization of Anisotropic Gaussian Fields with Penalized Complexity Priors* at Mathematics of Information & Data Science Seminar in Edinburgh. December.

2023 *A Parameterization of Anisotropic Gaussian Fields with Penalized Complexity Priors* at Numerical Analysis of Stochastic Partial Differential Equations (NASPDE) Workshop. April.

Teaching experience

2023-2025 Tutor of Statistical methodology at University of Edinburgh

2023-2024 Tutor of Applied Statistics at University of Edinburgh

Other Experience

2025–Present Organizer of the Computer Science and Machine Learning Reading Group, Lancaster University. Facilitating discussions within the ProbAI Hub.

2022–Present Author of mathematics blog on PDE and stochastic analysis. nowheredifferentiable.com

2023-2024 Participation in reading group on Mean field games and interacting particle systems. Held through the University of Edinburgh and Heriot–Watt University. October–February.

2022 Co-organizer of Reading Group on Malliavin Calculus at the University of Edinburgh, facilitating weekly discussions and presentations among PhD students. June–November.

Other skills

Languages English (Native), Spanish (Native), French (B2), Mandarin (B2 in reading and listening)

Programming Experienced in use of Python, R, C, and Mathematica.