URTE ADOMAITYTE

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EDUCATION

PhD Applied Mathematics, Disordered Systems group at King's College London   Oct 2021 - present
- Area of research: theory of deep learning and statistical inference in high dimensions using tools of statistical physics such as the replica method, random matrix theory, machine learning simulations in Python, C++
- Academic representative of the Disordered Systems PhDs; PGR representative for Equality, Diversity and Inclusion
- Founder and lead of the Piscopia Society KCL Committee
- Supervisors: Dr Gabriele Sicuro and Dr Pierpaolo Vivo

MSc Applied Mathematics, Imperial College London, Distinction   Oct 2020 - Oct 2021
- Thesis on agent-based modelling of opinion formation via differential equations, Python simulations
- Marjorie McDermott Scholarship by the Imperial Maths Department, academic representative of the MSc Applied Maths cohort

BA (Hons) Maths and Philosophy with a year abroad, King's College London, First Class honours   Sept 2016 - Jul 2020
- Thesis on noise filtering of financial correlation matrices and non-stationarity in financial time series via the Wishart ensemble
- Modules: Financial Mathematics I & II, Numerical Methods, Advanced Logic, International Politics of Energy

3rd year of BA abroad, University of California, Los Angeles,   Sept 2018 - Jun 2019
- Modules: Honours Maths, Cognitive Science, Psychology, Computer Science (C++), Philosophy of Language, Mandarin
- Activities: Directed Reading Program in Algebraic Topology, Undergraduate Mathematics Students Association

International Baccalaureate (IB) Diploma at Vilnius Lyceum, Lithuania, score 40/45   Sept 2014 - Jun 2016

PEER-REVIEWED PUBLICATIONS

- UA, A. Tonshniwal, G. Sicuro, L. Zdeborová, *Planted Matching Problems on Random Hypergraphs,*   Nov 2022
  Phys. Rev. E 106, 054302.

UNDER REVIEW

- Mahalakshmi Sabanayagam*, Freya Behrens*, UA*, Anna Dawid, *Dissecting the Decision Boundary via the Hessian: A Perspective on Generalization*

PROFESSIONAL EXPERIENCE

Graduate Teaching Assistant at King's College London, MSc and BSc level   Oct 2021 - present
- Teaching Numerical and Computational Methods with Python, Econophysics, Probability and Statistics**,** Calculus

Quantitative Researcher at Syntropy (optimisation of internet data routing protocols)   Sept 2020 - Dec 2020
- Designed and analysed quantitative models, performed sensitivity analysis, data visualisation
- Refactored Excel velocity and volatility models to Python using pandas, numpy, plotly, scipy

Software Engineer at Danske Bank in Vilnius, Lithuania   Jun 2020 - Sept 2020
- Worked with large datasets, databases and stream-processing software for real-time and historical market data feed handling in-house, close collaboration with the Copenhagen HQ quant team, using Java, SQL, HTML (student program)

Junior Researcher in Mathematical Physics at King's College London   Summer 2018, 2019
- Reviewed literature on random matrix theory applications in finance, neuroscience
- Analysed statistics of sparse correlation random matrices using statistical physics tools, simulations in MATLAB and Python
- Awards: King's Undergraduate Research Award (2019), EPSRC Summer Vacation Bursary (2018)

Fundraiser at Amnesty International UK   Summer 2017
- Delivered fast pitches to inform and encourage people to set up a monthly donation in the streets of London

CONFERENCES AND SUMMER SCHOOLS

- G-Research Spring into Quant Finance   April 2023
- Summer School on Statistical Physics and Machine Learning, École Physique des Houches   July 2022
- Statistical Physics of Deep Learning Summer School, Lake Como School of Advanced Studies   June 2022
- Random Matrices, Random Graphs and Statistical Physics for Machine Learning and Inference, ICTP   May 2022

ADDITIONAL SKILLS

Languages v1.0	English, French, Lithuanian - fluent • Italian, Spanish - intermediate
Languages v2.0	Python • C++ • SQL • HTML • TeX
IT	Github • Jira • HPC clusters • slurm • shell • MS Office • OS X • MS Windows
Interests	AI • Neuroscience • Cognitive Science • International Affairs • Long Distance Running • Nutrition