Evangelia (Eva) Deliporanidou

Cambridge, UK | evadeliporanidou@gmail.com | ed650@cam.ac.uk | 07745116896
linkedin.com/in/evadeliporanidou | Google scholar profile

Summary

PhD candidate in Astrophysics at the University of Cambridge with advanced programming, mathematical, and data analysis skills. Experienced in statistical modelling, machine learning, and problem-solving in complex scientific datasets.

Education

University of Cambridge, PhD in Astrophysics — Oct 2023 – Present

- Design and refine algorithms to predict solar and stellar flux variation
- Applying regression techniques, statistical modelling and ML to interpret astrophysical trends

University College London (UCL), MSc in Astrophysics — Sept 2022 – Sept 2023

- **MSc Thesis:** Towards a 3D map of the dust of the Nuclear Stellar Disk of the Milky Way

University of Strathclyde, BSc (Hons) in Physics — Sept 2019 – Sept 2022

- First Class Honours (80/100) and differed entry into second year

Skills & Tools

Coding Languages: Python ($\sim 10^4$ lines), IDL ($\sim 10^6$ lines), R (Beginner), Matlab (Intermediate), SQL (Intermediate), Fortran (Intermediate), HTML (Beginner).

Libraries: numpy, pandas, PyTorch, TensorFlow, scikit-learn.

Machine Learning & AI: Deep Learning, Physics-informed ML, Bayesian Statistics, Markov Chain Monte Carlo.

Languages: Greek (Native), English (Fluent), German (Intermediate), Spanish (Beginner).

Experience

Undergraduates' Supervisor, University of Cambridge — Oct 2022 – Present

- Guiding students through complex differential equations, Lagrangian & Hamiltonian mechanics and breaking down abstract mathematical problems

Fundraiser , Buffalo Fundraising Consultants — Oct 2021 - Oct 2022

- Optimising call strategies, improving engagement efficiency
- Handling approximately 60 dials / 2 full calls per hour with a total success rate of 68 %

Additional Education/Experience

QRT Trading Academy, Cambridge University Algorithm Trading Society (CUATS) — 2026

- Trading & Risk Management
- Alpha modelling, portfolio construction, execution in practise
- LSEG data training and use

Machine Learning, DeepLearning.AI - Stanford (via Coursera) — 2025

- Supervised ML: Regression & Classification
- Advanced Learning Algorithms
- Unsupervised Learning, Recommenders, Reinforcement Learning

Data Analysis Workshop, Imperial College London — 2024

- Learning Bayesian methods and numerical techniques for astrophysical data analysis.

- Applying data analysis approaches to large datasets, improving model selection and parameter estimation.

CS50's Introduction to Cybersecurity, Harvard (online) 2024

- Learning ore cybersecurity principles: threat identification, risk assessment, and mitigation.
- Gaining hands-on skills in account security, multi-factor authentication, and social engineering awareness.

Publications

CHIANTI—An Atomic Database for Emission Lines—Paper. XVIII. Version 11, Advanced Ionization Equilibrium Models: Density and Charge Transfer Effects Oct 2024
R.P. Dufresne, Giulio Del Zanna, P. R. Young, K. P. Dere, Evangelia Deliporanidou, W. T. Barnes, E. Landi
10.3847/1538-4357/ad6765

Modelling Stellar Irradiances I: The transition regions of FGKM stars Oct 2024
Evangelia Deliporanidou, Giulio Del Zanna
10.1093/mnras/stae2299

H, He-like recombination spectra VI: quadrupole l-changing collisions Apr 2025
Evangelia Deliporanidou, N R Badnell, P J Storey, G Del Zanna, G J Ferland,
10.1093/mnras/staf608

Modelling Stellar Irradiances – II. Correlations of solar irradiances with proxies of activity along a cycle May 2025
Evangelia Deliporanidou, G Del Zanna, T N Woods, D Woodraska
10.1093/mnras/staf812

Modelling Stellar Irradiance - III: A predictive model for solar irradiances accepted 2026
Evangelia Deliporanidou, G Del Zanna

Awards & Honours

PhD stipend: Modelling the emission of the outer solar atmosphere

Talks & Conference Participation

- **Cool Stars 22:** Modelling stellar TR of FGMK stars with advanced ionisation equilibrium
- **NAM 2024, ESPM-17:** Correlation of solar irradiances with proxies of activity along a cycle
- **UKSP, ESPOS, NAM 2025** A predictive model for solar irradiances

Societies & Activities

- President of the Cambridge University Hellenic Society
- Member of the Cambridge University Algorithmic Trading Society
- Member of the tennis & chess societies