

Laura Elina Uronen

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EDUCATION **Integrated MPhys Astrophysics (Hons), 1st Class** **2018 - 2023**

University of St Andrews, Scotland, UK

Dissertation title: "Partial eclipse of the heart for HD 181793"

Supervisors: Andrew C. Cameron, Tom Wilson.

The project focused on determining the stellar characteristics of HD 181793, which I presented as a newly-identified eccentric heartbeat system. I used MCMC model fitting on transit and radial velocity data and spectral separation of the stellar components to determine the system parameters.

The British College of Benalmádena, Spain **2014 - 2018**

A-level Mathematics (A*), French (A*), Physics (A), Chemistry (A).

EXPERIENCE **Research internship** **Summer 2022**

University of St Andrews School of Physics

Supervisor: Juan Hernández Santisteban.

Six week summer research position. Studied the cataclysmic variable PHL 1445 to establish the nature of the secondary object in the system as an evolved brown dwarf. Used Python to work with VLT spectra and conduct Doppler tomography to obtain a model-independent radial velocity for the secondary object and thus determine its mass. Analysis of the spectral lines also confirmed the star as an evolved brown dwarf in agreement with stellar binary evolution theory.

President **2022 - 2023**

University of St Andrews Physics Society

I organise and chair biweekly meetings for the committee, arrange our events calendar and delegate the organisational aspects to the appropriate committee members, coordinate with other Societies and the School, and attend and oversee our events. Jointly with the Treasurer I am in charge of managing and overseeing the Society's funding and successfully organised a sponsorship for the Society this year.

Various positions **2019 - 2022**

2021-2022 Vice President, *University of St Andrews Physics Society*

2021-2022 Class Representative, *School of Physics and Astronomy*

2019-2023 Student Ambassador, *School of Physics and Astronomy*

2019-2021 Events & Publicity Officer, *University of St Andrews Physics Society*

AWARDS

- Hong Kong PhD Fellowship Award, 2023.
- Vice-Chancellor's HKPFS Scholarship, Chinese University of Hong Kong, 2023.
- Student Staff Council Vacation Award, University of St Andrews, 2022.
- Deans' List 2019, 2020, 2021.

SKILLS

- Fluent English, Finnish, French; conversational Spanish; basic German and Mandarin Chinese.
- Extensive experience with Python particularly in astronomical statistical data analysis and spectral modelling. Completed a module on machine learning methods.
- Experience in Fortran 90 in creating gravitational N-body simulations and running Monte Carlo radiation transport simulations, worked with grid code.
- Good team communication and problem-solving skills from university group projects and extracurricular activities.
- Experienced in public speaking and presentation through course assignments and society activities.

CONFERENCES

- Organiser and chair for the St Andrews Interdisciplinary Science Conference, 2023.
- Presented at the St Andrews Physics Junior Honours Burn Conference, 2021.
- Presented at the IOP Forum of University Societies Event, 2019.
- Attendee: UKSEDS National Student Space Conference, 2019, 2021, 2023.