Emily L. Hunt – Curriculum Vitae

On request emily.hunt.physics@gmail.com emily.space emilyhunt

Education & Employment

2023-2024, Postdoc, Heidelberg University, Germany

Ph.D. 2023, Heidelberg University, Germany

Thesis: "Improving the census of open clusters in the Milky Way with data from Gaia"
Advisor: S. Reffert

M.Phys. 2019, University of Bath, United Kingdom

Thesis: "Inference of photometric galaxy redshifts with a mixture density network"
Advisor: S. Wuyts

Selected Presentations

Colloquium – University of Vienna, Austria	2024
Talk, .Astronomy 12 – Flatiron Institute, New York, NY, USA	2023
Colloquium, Königstuhl Colloquium – MPIA, Heidelberg, Germany	2023
Invited talk, EAS (SS34) – Valencia, Spain	2022
Invited talk, EAS (S32) – Leiden, Netherlands	2021

Open-source software

Bluesky Astronomy feeds – lead developer of astronomy community feeds on Bluesky social network, which are used daily by hundreds of astronomers to interact

ocelot – lead developer of an upcoming open cluster analysis Python package

Teaching & Supervision

Machine learning*, MWGaia Dr. Schl., University of Coimbra, Portugal	2024
Astronomy Lab Course, Heidelberg University	2021
Introduction to Astronomy I, Heidelberg University	2020
Co-supervisor of MSc student, Heidelberg University	2020-2021

* = as a primary lecturer

Awards

Ernst Patzer Award for an excellent publication (press release)	€2000 – 2023
University of Bath IMI Undergraduate Research Internship	£2000 – 2018

Selected Outreach

Invited talk – OUTer SPACE, Max Planck Institute for Astronomy 2023
Interviewed for article – Space.com 2021
Interviewed for article – Thrillist.com 2020
Radio interview – Deutschlandfunk (public radio) & Neue Zürcher Zeitung 2020

Meeting organization & service

SOC for .Astronomy 13 (Madrid, Spain) 2024
SOC for .Astronomy 12 (New York, NY, USA) 2023
Reviewer for A&A, MNRAS ongoing

Relevant expertise

Programming languages

Python: expert (e.g. numpy, tensorflow, emcee)
JavaScript: intermediate (Svelte, SvelteKit)
C/C++: intermediate
Java: basic

Tools and scripting languages

Git/GitHub: expert
LaTeX: expert
HTML/CSS: intermediate
ADQL/SQL: basic

Languages

English: native speaker
German: intermediate

Publications

ADS search

First author

4. **Emily L. Hunt**, Tristan Cantat-Gaudin, Friedrich Anders *et al.* (2024). "The completeness of the open cluster census towards the Galactic anticentre". A&A, submitted

3. **Emily L. Hunt** and Sabine Reffert (2024). "Improving the open cluster census. III. Using cluster masses, radii, and dynamics to create a cleaned open cluster catalogue". A&A, 686, A42
(18 citations)

2. **Emily L. Hunt** and Sabine Reffert (2023). "Improving the open cluster census. II. An all-sky cluster catalogue with Gaia DR3". A&A, 673, A114
(109 citations)

1. **Emily L. Hunt** and Sabine Reffert (2021). "Improving the open cluster census. I. Comparison of clustering algorithms applied to Gaia DR2 data". A&A, 646, A104
(81 citations)

Co-author

2. Dane Spaeth, Sabine Reffert, **Emily L. Hunt** *et. al* (2024). "Non-radial oscillations mimicking a brown dwarf orbiting the cluster giant NGC 4349 No. 127". A&A, 689, A91

1. Cameren Swiggum *et. al* (incl. **Emily L. Hunt**) (2024). "Most nearby young star clusters formed in three massive complexes ". Nature, 661, 8019, p.49-53