Emily L. Hunt – Curriculum Vitae

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

Education & Employment

2025-29, Postdoc, University of Vienna, Austria

2025-25, Postdoc, Max Planck Institute for Astronomy, Germany

2023-24, 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 star cluster analysis Python package

Teaching & Supervision

ISM & Star Formation*, University of Vienna	2025
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

JWST TAC – Cycle 5 External reviewer (upcoming) 2025
Co-Chair at EAS 2025: Symposium S3 (Cork, Ireland) 2025
SOC for Roman Galactic Plane Survey Workshop (online) 2025
SOC for .Astronomy 13 (Madrid, Spain) 2024
SOC for .Astronomy 12 (New York, NY, USA) 2023
Reviewer for A&A, ApJ, AJ, 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
ADQL/SQL: expert
HTML/CSS: intermediate

Languages

English: native speaker
German: intermediate

Publications

ADS search

First author

5. **Emily L. Hunt**, Tristan Cantat-Gaudin, Friedrich Anders *et al.* (2025). "The selection function of the Gaia DR3 open cluster census". Preprint (submitted to A&A)

4. **Emily L. Hunt**, Tristan Cantat-Gaudin, Friedrich Anders *et al.* (2025). "The completeness of the open cluster census towards the Galactic anticentre". A&A, 699, A273

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
(107 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
(251 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
(112 citations)

Co-author

5. Alexis L. Quintana, **Emily L. Hunt**, and Hanna Parul (2025). "How many stars form in compact clusters in the local Milky Way?". A&A, 701, L2

4. Richard I. Anderson and **Emily L. Hunt** (2025). "A birds-eye view of stellar evolution through populations of variable stars in Galactic open clusters". A&A, 700, L13

3. Sebastian Ratzenböck, João Alves, **Emily L. Hunt** *et. al* (2025). "Toward the fabric of the Milky Way: I. The density of disk streams from a local 250^3 pc^3 volume". A&A, 694, A307

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
(20 citations)