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amaliestokholm.github.io

# Amalie Stokholm

*Galactic Archaeology, asteroseismology & stellar modelling*

## Experience

- Postdoctoral Research Fellow, CartographY,** 2023 —  
Sun, Stars & Exoplanets group, University of Birmingham, UK.  
Working with Dr. Guy Davies and Prof. William Chaplin.
- Postdoctoral Researcher, Asterochronometry,** 2021 – 2023  
Dipartimento di Fisica e Astronomia, Università di Bologna, Italy.  
Working with Prof. Andrea Miglio.

## Education

- PhD, Stellar Astrophysics Centre (SAC),** 2017 – 2022  
Department of Physics & Astronomy, Aarhus University, Denmark.  
PhD project written under supervision of Dr. Víctor Aguirre Børsen-Koch.

## Publications

A complete list of my publications and my metrics can be found through ADS here  
[ui.adsabs.harvard.edu/public-libraries/VoJI-I0hQmeylc72urzhUw](https://ui.adsabs.harvard.edu/public-libraries/VoJI-I0hQmeylc72urzhUw).

## Awards

**KIF Prize Winner 2023:** *Female Physicist of the year 2023* awarded by  
the Danish Network of Women in Physics, see [kvinderifysik.dk/kif-prize-2023](https://kvinderifysik.dk/kif-prize-2023).

## Committees & collaborations

- PLATO Data Center (PDC),** 2023 —  
Leader of Work Package 374210 *Seismic Diagnostics using Forward Stellar Modelling*.
- Early Career Development Network (ECDN),** 2023 —  
School of Physics and Astronomy, University of Birmingham, UK,  
Postdoc representative for the School of Physics and Astronomy.
- Referee,** 2021 —  
Regular referee for *Astronomy and Astrophysics*, *Monthly Notices of the Royal Astronomical Society*, and telescope proposals.
- HAYDN Science Consortium,** 2021 —  
Member of the consortium.
- PLATO Science Management (PSM),** 2019 – 2023  
Member of PSM Work Package 125 (Determination of Stellar Parameters).
- PLATO Science Consortium,** 2019 —  
Member of the consortium.
- TESS Asteroseismic Science Consortium (TASC),** 2017 —  
Member of the consortium.
- Kepler Asteroseismic Science Consortium (KASC),** 2017 —  
Member of the consortium.

Committees & collaborations	<b>BAYesian STellar Algorithm (BASTA),</b> 2017 — Core member of the development team behind BASTA, an open-source Bayesian framework for accurate and precise inference of stellar properties such as mass, radius, and age..
	<b>Equity &amp; Equality Committee,</b> 2017 – 2021 Department of Physics & Astronomy, Aarhus University, Denmark, Member and working group leader..
	<b>Instrument Center for Danish Astrophysics (IDA),</b> 2017 – 2018 Member of the board, Chair of Working Group 7, and member of 4 additional Working Groups..
Selected talks	<b>Contributed talk, TASC8/KASC15,</b> Porto, Portugal. 2024 Talk: <i>Exploring the Galactic helium enrichment law.</i>
	<b>Invited seminar, Astrophysics seminar,</b> University of Birmingham, UK. 2023 Talk: <i>Learning about the Milky Way by learning about its stars.</i>
	<b>Invited talk, Getting ready for PLATO,</b> University of Warrick, UK. 2023 Talk: <i>Asteroseismic inference for populations of stars.</i>
Teaching experience	<b>Teacher,</b> 2023 – 2024 School of Physics & Astronomy, University of Birmingham, UK. Teacher in the project <i>Preparing for the ESA PLATO Mission: Asteroseismology of K-type dwarfs</i> in the module <i>Group Studies</i> for Year 3 students (20 credits).
	<b>Teaching Assistant,</b> 2017 – 2021 Department of Physics & Astronomy, Aarhus University, Denmark. Teaching multiple groups/units of students in the BSc courses: <i>Relativity &amp; Astrophysics</i> (10 ECTS) and <i>Galaxies &amp; Cosmology</i> (10 ECTS).
	<b>High School Teacher,</b> 2016 – 2017 Egaa Gymnasium, Denmark. Upper-secondary school teacher in the course <i>Astronomy C</i> .
Supervision	<b>Year 4 students, George Hookway &amp; Iwan Stephens,</b> 2023 – 2024 University of Birmingham, UK. Co-supervisor, project title <i>Using Hierarchical Bayesian Modelling to Characterise the Radius Valley.</i>
	<b>PhD student, Angharad Weeks,</b> 2022 — Mullard Space Science Laboratory, University College London, UK. Informal co-supervisor, project title <i>Characterisation of exoplanet host stars using Gaia and asteroseismology.</i>
	<b>MSc student, Malte Klockmann Pein Malmberg,</b> 2022 – 2023 Aarhus University, Denmark. Co-supervisor, project title <i>Dating of substructures in the Milky Way.</i>
	<b>MSc student, Jens Reersted Larsen,</b> 2022 – 2023 Aarhus University, Denmark. Informal co-supervisor, project title <i>Analysing metal-poor stars and constraining their core overshooting.</i>
	<b>MSc student, Julie Thiim Gadeberg,</b> 2020 – 2021 Aarhus University, Denmark. Informal co-supervisor, project title <i>Building the Milky Way Halo.</i>

## Outreach

**Astronomy in the City**, University of Birmingham Observatory, UK.

**2024**

Invited lecturer, speaking about *The Story Written in the Stars*.

**Folkeuniversitet**, Denmark.

**2020 – 2023**

Invited serial lecturer in the lecture series *Universets Gåder* (en: *Riddles of the Universe*) on the topic of *Hvordan er vores egen Galakse blevet til?* (en: *How has our own Galaxy come to be?*) at different venues across Denmark.

**6 Degrees of Science**, Aarhus, Denmark.

**2018**

Invited guest speaker, speaking about *Galactic Archaeology – how Indiana Jones-science relate to everyday life*.

**Astronomy on Tap**, Aarhus, Denmark.

**2017 – 2019**

Invited serial speaker, speaking about e.g. *The Mystery of the Star of Bethlehem* and *Asteroseismology - what shaky stars can tell us about the Universe*.