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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 and the Asterochronometry group.

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
- MSc Astronomy,** 2016–2019
Department of Physics & Astronomy, Aarhus University, Denmark.
- BSc Physics,** 2013–2016
Department of Physics & Astronomy, Aarhus University, Denmark.

Publications

An up-to-date list of publications can be found at my ADS library
ui.adsabs.harvard.edu/public-libraries/VoJI-I0hQmeylc72urzHUw.

Committees & collaborations

- PLATO Data Center (PDC),** 2023–
Leader of WP374210 (Seismic Diagnostics using Forward Stellar Modelling).
- PLATO Science Management (PSM),** 2019–
Member of PSM Work Package 125 (Determination of Stellar Parameters).
- PLATO Science Consortium,** 2019–
Member.
- HAYDN Science Consortium,** 2021–
Member.
- Equity & Equality Committee,** 2017–2021
Department of Physics & Astronomy, Aarhus University.
Member and working group leader.
- TESS Asteroseismic Science Consortium (TASC),** 2017–
Member.
- Instrument Center for Danish Astrophysics (IDA),** 2017–2018
Member of the board, Chair of Working Group 7, and member of 4 additional Working Groups.
- Kepler Asteroseismic Science Consortium (KASC),** 2017–
Member.

Programming languages

Proficient: Python, Bash, Git, MATLAB, ADQL, SQL, Wordpress, Jekyll
Familiar with: C, IDL, LabVIEW

Teaching experience

- PhD student, Stellar Astrophysics Centre (SAC),** **2017–2021**
Department of Physics & Astronomy, Aarhus University, Denmark.
Alongside my PhD research projects, I followed courses at the Master/PhD level and worked as a teaching assistant at the institute in the following courses:
- Relativity & Astrophysics, autumn 2017, BSc course (10 ECTS), 1 unit
 - Galaxies & Cosmology, spring 2018, BSc course (10 ECTS), 1 unit
 - Relativity & Astrophysics, autumn 2018, BSc course (10 ECTS), 1 unit + administrative work
 - Relativity & Astrophysics, autumn 2019, BSc course (10 ECTS), 2 units
- Teacher,** **2016–2017**
Egaa Gymnasium, Denmark.
Upper-secondary school teacher in the course *Astronomy C*.
- Coordinator of Astronomy Internships for ninth graders,** **2016–2017**
Department of Physics & Astronomy, Aarhus University, Denmark.
Organizer and teacher of a semi-annual week-long internship on how to study and work in the fields of astronomy and astrophysics aimed at students in the last years of primary school.
- Interim Teacher,** **2015**
Teknisk Gymnasium Viby, Aarhus Tech, Denmark.
Interim teacher in Physics. Week 8 2015 through week 17 2015.
- Homework tutor,** **2012–2013**
Teknisk Gymnasium Viby, Aarhus Tech, Denmark.
Organizer of and tutor in the homework café. August 2012 through June 2013.

Related Experience

- Guest researcher,** **2020**
Max-Planck-Institut für Astronomie (MPIA), Germany.
Research stay at MPIA working with Dr. Coryn Bailer-Jones on *Gaia*-related projects.
Stay got interrupted due to the COVID-19 crisis.
- BASTA, Bayesian STellar Algorithm,** **2016–**
Core team member of the development team behind BASTA, a grid-based stellar modelling approach written in Python 3 for inference of stellar parameters.
- Space Astrometry for Astrophysics,** **2019**
International School of Space Science, Italy.
Summer school about understanding the scientific construction of the *Gaia* catalogue and its current and future scientific potential in synergy with the large ground-based spectro-photometric surveys.
- Astrostatistics and Astroinformatics XIV,** **2018**
Pennsylvania State University, USA.
Summer school about statistics and scientific computing within the field of astrophysics.
- CHARA Array, The Center for High Angular Resolution Astronomy Array,** **2016**
Mount Wilson, USA.
Research trip to the CHARA Array for 10 nights of observations. Experience with the graphical interface for the Precision Astronomical Visual Observations (PAVO) beam combiner and the PAVO data analysis pipeline.
- EuroPython 2016,** **2016**
Bilbao, Spain.
Attendee at the EuroPython conference.
- Introduction to Complex Systems,** **2015**
Faculty of Science, Utrecht University, the Netherlands.
Summer School in August about emergence, robustness, and predicability of patterns.
Funded by a Professor Jens Lindhards Forskningslegat.

Outreach activities	Lecturer, 2020 – Folkeuniversitet. Invited serial lecturer on <i>How our Galaxy came to be</i> at different venues in Denmark.
	Astronomy on Tap Aarhus. 2017 – 2019 Invited serial speaker and assistant organiser.
Supervision	PhD student, Angharad Weeks, 2022 – Mullard Space Science Laboratory, University College London. Informal co-supervisor, project title <i>Characterisation of exoplanet host stars using Gaia and asteroseismology.</i>
	MSc student, Malte Klockmann Pein Malmberg, 2022 – 2023 Aarhus University. Co-supervisor, project title <i>Dating of substructures in the Milky Way.</i>
	MSc student, Jens Reersted Larsen, 2022 – 2023 Aarhus University. Informal co-supervisor, project title <i>Analysing metal-poor stars and constraining their core overshooting.</i>
	MSc student, Julie Thiim Gadeberg, 2020 – 2021 Aarhus University. Informal co-supervisor, project title <i>Building the Milky Way Halo.</i>
Extracurricular activities	Auditor, 2017 – 2020 TÅGEKAMMERET, Aarhus University. Elected for fiscal years 2017/2018 and 2018/2019 and as alternate auditor for 2019/2020
	Treasurer (KA\$\$), 2015–2016 TÅGEKAMMERET, Aarhus University. Appointed for the board year 2015/16 from September 2015 to September 2016.
	Auditor, 2014 – 2016 Mat/Fys-Tutorgruppen, Aarhus University. Elected for the fiscal years 2014/2015 and 2015/2016.
	Tutor, 2015 Mat/Fys-Tutorgruppen, Aarhus University.
	Board member, 2014 Socialistisk Folkeparti Ungdom Aarhus (SFU Aarhus). Elected from May 2014 to December 2014
	Treasurer, 2014 Socialistisk Folkeparti Ungdom Aarhus (SFU Aarhus). Elected from December 2013 to May 2014
	Party Committee (FU), 2013–2014 TÅGEKAMMERET, Aarhus University. Appointed for the board year 2013/14 from September 2013 to September 2014.
	Organizational Vice Chairman, 2013 Socialistisk Folkeparti Ungdom Aarhus (SFU Aarhus). Elected from May 2013 to December 2013
	Board member, 2012–2013 Socialistisk Folkeparti Ungdom Aarhus (SFU Aarhus). Elected from May 2012 to May 2013