Earl Patrick Bellinger, Ph.D.

bellinger@phys.au.dk

Interests

Astrophysics, stellar evolution, asteroseismology, artificial intelligence, machine learning, data science

Current Position

Postdoctoral Research Fellow, Stellar Astrophysics Centre, Aarhus, Denmark	2018 – 2021
Visiting Fellow, University of New South Wales, Sydney, Australia	2019 – 2020

Education

Ph.D. Computer Science, University of Göttingen, Germany	2018
M.Sc. Computer Science, Indiana University, USA (GPA: 3.95/4.0)	2014
B.Sc. Computer Science, SUNY Oswego, USA (GPA: 3.81/4.0, ranked #1 overall)	2012
B.Sc. Applied Mathematics, SUNY Oswego, USA (*summa cum laude*)	2012

Past Research Positions

Research Assistant, **Max Planck Institute for Solar System Research**, Germany	2015 – 2018
Visiting Assistant in Research, **Yale University**, USA	2016 – 2017
Research Assistant, **Indiana University**, USA	2013 – 2015
Guest Researcher, **NIST Information Technology Laboratory**, USA	2013 – 2014
Research Student, **National Institute of Informatics**, Japan	2013
SURF Fellow, **NASA Jet Propulsion Laboratory**, USA	2012
REU Student, **Federal University of Alagoas**, Brazil	2011
REU Student, **Federal University of Santa Catarina**, Brazil	2010

Teaching Positions

Assistant, Department of Physics & Astronomy, **Aarhus University**, Denmark	2018, 2019
Teaching Assistant, Department of Astronomy, **Yale University**, USA	2017
Assistant, Institute for Astrophysics, **University of Göttingen**, Germany	2016
Associate Instructor, School of Informatics & Computing, **Indiana University**, USA	2012
Seminar Leader, Honors Department, **SUNY Oswego**, USA	2010

Selected Honors & Awards

Stellar Astrophysics Centre Postdoctoral Fellowship	2018 – 2021
National Physical Science Consortium Graduate Fellowship	2012 – 2017
SUNY Oswego Presidential Scholarship	2008 – 2012
Oebele Van Dyk Outstanding Computer Science Senior Award	2012
SUNY Chancellor's Award	2012
SUNY Oswego Student/Faculty Collaborative Challenge Grant	2011
NSF IRES / SUNY Oswego Global Laboratory Scholarship	2010, 2011
SMART Grant	2010, 2011

Publishing

37 publications (17 first author), 202 citations, h-index of 8, Erdős number of 3

Selected Scientific Articles

E. P. Bellinger (2020). A seismic scaling relation for stellar age II. The red giant branch. *Monthly Notices of the Royal Astronomical Society: Letters*, 492 (1).

E. P. Bellinger et al. (2020). When a Period Is Not a Full Stop: Light Curve Structure Reveals Fundamental Parameters of Cepheid and RR Lyrae Stars. *MNRAS*, 491 (4).

E. P. Bellinger (2019). A seismic scaling relation for stellar age. *MNRAS*, 486 (4).

E. P. Bellinger & J. Christensen-Dalsgaard (2019). Asteroseismic constraints on the cosmic-time variation of the gravitational constant from an ancient main-sequence star. *ApJ Letters*, 887 (1).

E. P. Bellinger et al. (2019). Testing stellar evolution with asteroseismic inversions of a main sequence star harboring a small convective core. *The Astrophysical Journal*, 885 (2), 143.

E. P. Bellinger et al. (2017). Model-independent measurement of internal stellar structure in 16 Cygni A and B. *The Astrophysical Journal*, 851 (2), 80.

E. P. Bellinger et al. (2016). Fundamental parameters of main-sequence stars in an instant with machine learning. *The Astrophysical Journal*, 830 (1), 20.