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
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

31 publications (15 first author), 177 citations, h-index of 7, Erdős number of 3

Selected Scientific Articles

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

E. P. Bellinger (2019). A seismic scaling relation for stellar age. *Monthly Notices of the Royal Astronomical Society*, 486 (4).

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. (2019). Stellar ages, masses and radii from asteroseismic modelling are robust to systematic errors in spectroscopy. *Astronomy & Astrophysics*, 622, A130.

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.