

CHRISTOPHER LINDSAY

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EDUCATION

Yale University

Astronomy PhD Candidate. (M.S., M.Phil. in Astronomy, 2022)

August 2020 - Present

New Haven, CT

University of Southern California (USC)

B.S. Astronomy; B.A. Environmental Studies; Jazz Studies Minor

August 2016 - May 2020

Los Angeles, CA

RESEARCH EXPERIENCE

Graduate Research in Stellar Astrophysics

Advisor: Professor Sarbani Basu

August 2020 - present

Yale University

- Using asteroseismic data and modelling techniques to investigate interior mixing and angular momentum processes in evolved solar-type oscillators.
- Answering stellar evolution questions using subgiant star asteroseismology
- Investigating stellar flares and solar flare in *TESS*, *Kepler*, and Solar Dynamics Observatory (SDO) data with machine learning. Advising Yale University Junior Daniel Chang.

Undergraduate/Graduate Research in Helioseismology

Advisor: Professor Edward Rhodes

August 2016 - present

University of Southern California

- Processed solar oscillation data from SDO and the Solar and Heliospheric Observatory (SOHO) satellites in order to examine solar atmospheric properties across multiple solar cycles.
- Took helioseismic data at the Mount Wilson Observatory 60' solar tower as part of the Birmingham Solar Oscillations Network (BiSON) group.
- Supported NASA's JUNO mission with CH₄ imagery data taken with the Mount Wilson 100" telescope.

PUBLICATIONS

[[Listed Here in a Public ADS Library](#)]

First Author Papers

- **Christopher Lindsay**, Joel Ong, and Sarbani Basu. 2022 (*ApJ*, 931:116) *Mixed Mode Asteroseismology of Red Giant Stars Through the Luminosity Bump*

Co-author Papers

- Hans Deeg, et.al. (incl. **C. Lindsay**) 2021 (*in press, JAAVSO*) *Maintaining the Ephemeris of 20 CoRoT Planets: Transit Minimum Times and Potential Transit Timing Variations*
- J. Cabrera, et.al. (incl. **C. Lindsay**) 2015 (*in press, A&A*) *Transiting exoplanets from the CoRoT space mission XXVII. CoRoT-28b, a planet orbiting an evolved star, and CoRoT-29b, a planet showing an asymmetric transit*

Papers Under Review

- **Christopher Lindsay**, Joel Ong, and Sarbani Basu. 2022 (*ApJ*) *Near-Core Acoustic Glitches are Not Oscillatory: Consequences for Asteroseismic Probes of Convective Boundary Mixing*

INVITED TALKS

IfA Astrocoffee Talk at the University of Hawai'i

Prospects for Probing the Evolution and Internal Structures of Stars With Asteroseismology Honolulu, USA

January 13th 2023

TEDx talk at the University of Southern California

Exoplanet Astronomy and the Nobel Prize Hidden in Plain Sight

March 25th 2022

Los Angeles, USA

CONTRIBUTED CONFERENCE POSTERS AND TALKS

TASC6/KASC13: Poster and Pitch Talk <i>Red Giant Seismology: Seismic Signatures of Convective Overshoot</i>	July 2022 Leuven, Belgium
Cool Stars 21: Poster <i>Mixed Mode Asteroseismology of Red Giants Through the Luminosity Bump</i>	July 2022 Toulouse, France
AAS 240: Talk <i>Red Giant Seismology: Seismic Signatures of Convective Overshoot</i>	June 15th 2022 Pasadena, CA
TESS Science Conference 2: ePoster <i>Red Giant Seismology: Seismic Signatures of Convective Overshoot</i>	August 2021 Online and Cambridge, MA

ADDITIONAL CONFERENCE AND WORKSHOPS ATTENDED

Life and Death: From Stars to Compact Objects <i>Attended workshop as a student</i>	August-September 2022 Asiago, Italy
MESA Summer School 2022 <i>Attended workshop as a student</i>	August 2022 Santa Barbara, CA
Fifty Years of the Skumanich Relations <i>Attended</i>	February 2022 Boulder, CO

TEACHING FELLOW EXPERIENCE

ASTR 120: Galaxies and the Universe <i>Instructor: Michael Faison</i>	January 2022 - May 2022 Yale University
PHYS 401: Advanced Classical Physics <i>Instructor: Professor Nikhil Padmanabhan</i>	September 2021 - December 2021 Yale University
ASTR 120: Galaxies & the Universe <i>Instructor: Professor Robert Zinn</i>	July 2021 - August 2021 Yale University
ASTR 135: Archaeoastronomy <i>Instructor: Michael Faison</i>	January 2021 - May 2021 Yale University
ASTR 155: Introduction to Astronomical Observing <i>Instructor: Michael Faison</i>	August 2020 - December 2020 Yale University

ADDITIONAL WORK & SERVICE EXPERIENCE

Graduate Student Affiliate for Benjamin Franklin College <i>Benjamin Franklin College</i>	October 2022 - Present Yale University
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- Promoting interactions between undergraduates and graduate students and working with the Head of College, college staff, and undergraduate students to organize social and educational activities throughout the year

Graduate Student Assembly Representative and Secretary <i>Yale Graduate School of Arts & Sciences</i>	May 2021 - Present Yale University
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- Serving as the Astronomy department representative and Secretary of the Yale Graduate School of Arts & Sciences' Graduate Student Assembly

Resident Assistant (RA) <i>Supervisor: Dr. Sally Behpoornia</i>	July 2016 - May 2020 University of Southern California
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- Mentoring communities of 30-60 students each year, planning events, and promoting student involvement, mental health and inclusion

AWARDS, FELLOWSHIPS, AND HONORS

Yale Gruber Science Fellow	August 2020 - Present
<i>"Awarded to the most highly ranked applicants to Yale PhD programs in the life sciences, cosmology, and astrophysics. This Fellowship is the most prestigious award offered by Yale's Graduate School of Arts and Sciences to incoming science students in recognition of their outstanding accomplishments and exceptional promise." Includes Stipend and Tuition for the first two years of study and an additional \$9,500 award.</i>	
USC Order of the Laurel and the Palm	May 2020
<i>"The highest honor accorded to undergraduates completing their programs of study. Less than one percent of undergraduates earning their degrees are selected as members of the Order of the Laurel and the Palm."</i>	
USC Provost Research Fellowships	May 2019 - May 2020
USC Summer Undergraduate Research Fund (SURF)	Summers 2017 & 2018
USC Student Opportunities for Academic Research (SOAR)	August 2016 - May 2018
USC Warren Bennis Scholars Leadership Program	August 2018 - May 2020
USC Trustee Scholar (Full Tuition Remission)	August 2016 - May 2020
USC University Scholarships	August 2016 - May 2020
USC Resident Honors Program	August 2016 - May 2020
USC Thematic Option Honors Program	August 2016 - May 2020
Regeneron Science Talent Search (STS) Scholar	2017
Davidson Fellows Laureate (\$50,000 award)	2016