

JOEL C. ZINN

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Research Associate

School of Physics, University of New South Wales
Sydney, NSW 2052, Australia

EDUCATION

Ohio State University

Ph.D. in Astronomy

August 2014 – May 2019

M.S. in Astronomy

December 2016

Princeton University

B.A. in Astrophysical Sciences, magna cum laude

June 2013

Minor in Theatre

PUBLICATIONS ([ADS](#))

Zinn, J. C.; Pinsonneault, M. H.; Huber, D.; Stello, D.; Stassun, K; Serenelli, A., *Testing the radius scaling relation with Gaia DR2 in the Kepler field*, ApJ, 2019, submitted

Zinn, J. C.; Pinsonneault, M. H.; Huber, D.; Stello, D. *Confirmation of the Gaia DR2 parallax zero-point offset using asteroseismology and spectroscopy in the Kepler field*, ApJ, Volume 878, Issue 2, (2019) ([arXiv:1805.02650](#))

Sharma, S.; Stello, D.; Bland-Hawthorn, J.; Hayden, M. R.; **Zinn, J. C.**; (+ 32 additional authors), *The K2-HERMES survey: age and metallicity of the thick disk*, MNRAS, 2019, submitted

Zinn, J. C.; Stello, D.; Huber, D.; Sharma, S., *Bayesian Asteroseismology data Modeling Pipeline and its application to K2 data*, ApJ, 2018, submitted.

Buder, S.; (+ 40 additional authors); **Zinn, J. C.**; and Žerjal, M., *The GALAH survey: second data release*, MNRAS, Volume 478, Issue 4, 2018 ([arXiv:1804.06041](#))

Hon, M.; Stello, D.; and **Zinn, J. C.**, *Detecting solar-like oscillations in red giants with deep learning*, ApJ, Volume 859, Issue 1, 2018 ([arXiv:1804.07495](#))

Abolfathi, B.; (+ 345 additional authors); **Zinn, J. C.**; and Zou, H., *The fourteenth data release of the Sloan Digital Sky Survey: first spectroscopic data from the Extended Baryon Oscillation Spectroscopic Survey and from the second phase of the Apache Point Observatory Galactic Evolution Experiment*, ApJS, Volume 235, Issue 2, 2018 ([arXiv:1707.09322](#))

Albareti, F. D.; (+ 341 additional authors); **Zinn, J. C.**; and Zou, H., *The 13th data release of the Sloan Digital Sky Survey: first spectroscopic data from the SDSS-IV Survey Mapping Nearby Galaxies at Apache Point Observatory*, ApJS, Volume 233, Issue 2, 2017 ([arXiv:1608.02013](#))

Zinn, J. C.; Huber, D.; Pinsonneault, M. H.; Stello, D., *Evidence for spatially-correlated Gaia parallax errors in the Kepler field*, ApJ, Volume 844, Issue 2, 2017 ([arXiv:1706.09416](#))

Huber, D.; **Zinn, J. C.**; et al. (+ 18 additional authors) *Asteroseismology and Gaia: testing scaling relations using 2200 Kepler stars with TGAS parallaxes*, ApJ, Volume 844, Issue 2, 2017 ([arXiv:1705.04697](#))

Zinn, J. C.; Kochanek, C. S.; et al. (+ 12 additional authors), *Variable classification in the LSST era: exploring a model for quasi-periodic light curves*, MNRAS, Volume 468, Issue 2, 2017 ([arXiv:1612.04834](#))

Kennedy, M. R.; Callanan, P.; Garnavich, P. M.; Fausnaugh, M.; **Zinn, J. C.**, *XMM-Newton observations of the peculiar cataclysmic variable Lanning 386: X-ray evidence for a magnetic primary*, MNRAS, Volume 466, Issue 2, 2017 ([arXiv:1612.04397](#))

Stello, D.; **Zinn, J. C.**; et al. (+ 12 additional authors), *The K2 Galactic Archaeology Program Data Release 1: asteroseismic results from Campaign 1*, ApJ, Volume 835, Issue 1, 2017 ([arXiv:1611.09852](#))

More, A.; Oguri, M.; Kayo, I.; **Zinn, J. C.**; et al. (+ 14 additional authors), *The SDSS-III BOSS quasar lens survey: discovery of 13 gravitationally lensed quasars*, MNRAS, Volume 456, Issue 2, 2016 ([arXiv:1509.07917](#))

Slepian, Z.; Gott, R.; and **Zinn, J. C.**, *A one-parameter formula for testing slow-roll dark energy: observational prospects*, MNRAS, Volume 438, Issue 3, 2014 ([arXiv:1301.4611](#))

(+ 493 additional authors); **Zinn, J. C.**, *The ninth data release of the Sloan Digital Sky Survey: first spectroscopic data from the SDSS-III Baryon Oscillation Spectroscopic Survey*, ApJS, Volume 203, Issue 2, 2012 ([arXiv:1207.7137](#))

PROFESSIONAL SERVICES, ACTIVITIES, AND RECOGNITION

AAS Doxsey Travel Prize	2019
Ann S. Tuttle Citizenship, Engagement, and Outreach Prize	2018
Kavli Institute for Theoretical Physics Graduate Fellowship	2019
Junior Member, American Astronomical Society	2016 – Present

RECENT PRESENTATIONS

Centre College, Danville, KY <i>Red giant asteroseismology and the galaxy (invited talk)</i>	April 2019
AAS 233 <i>Self-consistent radius and distance scales from red giant asteroseismology using K2, Kepler, and Gaia</i>	January 2019
SDSS-IV Collaboration Meeting <i>APOKASC-Gaia self-consistency, Round II: mutually testing scaling relations and</i>	June 2018

parallax systematics with the second data releases of APOKASC and Gaia (contributed talk)

Galactic Archaeology, *Kepler* & *K2* Science Conference IV *June 2017*
Mind the GAP: a 360 degree view of the Galaxy with the K2 Galactic Archaeology Program (contributed talk)

Galactic Archaeology with *Kepler* and *K2*, AAS 229 *January 2017*
K2 red giant asteroseismology with Bayesian Asteroseismology data Modeling (BAM)
(invited talk)

PUBLIC OUTREACH

Show presenter and designer, Ohio State University planetarium *2014 – 2019*
Organizer, Astronomy on Tap (informal lectures at local bars) *2015 – 2016*

TEACHING AND MENTORING

Life in the universe, Head lab instructor, Ohio State University *2014*
Krisann Stephany, Ohio State University Astronomy undergrad *May 2018 – Present*
Supervised her development of a planetarium show, “Origin of the elements”, and aligning its content to national education standards. Collaborated with local teachers for her to create and implement a middle school module based on the show.

OBSERVING EXPERIENCE

LBT Observatory, Large Binocular Telescope *June 2016*
Instrument: Multi-Object Double CCD Spectrograph/Imager; Large Binocular Camera; LUCI (infrared spectrograph/imager)
Description: Ohio State queue observing — **88 hours**

MDM Observatory, 2.4m Hiltner Telescope *September 2015*
Instrument: Ohio State Multi-Object Spectrograph (Blue)
Description: Ohio State queue observing — **88 hours**

MDM Observatory, 2.4m Hiltner Telescope *June 2015*
Instrument: Ohio State Multi-Object Spectrograph (Red)
Description: Deep imaging and spectroscopy of lens candidates, **Principal Investigator** — **24 hours**

PROFESSIONAL SERVICES AND ACTIVITIES

Junior Member, American Astronomical Society *2016 – Present*
Member, Sigma Xi *2013 – Present*

TECHNICAL STRENGTHS

Languages	Python, bash, IDL, Cython, Fortran, HTML
Tools	Latex, Emacs, Starry Night, Scidome, git