KUAN WANG

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https://kuanwang-astro.github.io

EDUCATION

2011 - 2015, B.S., Physics and Astronomy

University of Science and Technology of China, School of the Gifted Young

2015 - , Ph.D., Physics

University of Pittsburgh, Kenneth P. Dietrich School of Arts & Sciences

RESEARCH INTERESTS

- Galaxy–halo connection
- N-body simulations
- Cosmology
- Assembly bias
- Halo structure

PUBLICATIONS

How to Optimally Constrain Galaxy Assembly Bias: Supplement Projected Correlation Functions with Count-in-cells Statistics

Kuan Wang, Yao-Yuan Mao, Andrew R. Zentner, Frank C. van den Bosch, Johannes U. Lange, Chad M. Schafer, Antonio S. Villarreal1, Andrew P. Hearin, and Duncan Campbell

Monthly Notices of the Royal Astronomical Society, https://doi.org/10.1093/mnras/stz1733

Concentrations of Dark Haloes Emerge from Their Merger Histories

Kuan Wang, Yao-Yuan Mao, Andrew R. Zentner, Johannes U. Lange, Frank C. van den Bosch, Risa H. Wechsler

ArXiv preprint, https://arxiv.org/abs/2004.13732

The immitigable nature of assembly bias: the impact of halo definition on assembly bias

Antonio S. Villarreal, Andrew R. Zentner, Yao-Yuan Mao, Chris W. Purcell, Frank C. van den Bosch, Benedikt Diemer, Johannes U. Lange, **Kuan Wang**, Duncan Campbell

Monthly Notices of the Royal Astronomical Society, https://doi.org/10.1093/mnras/stx2045

Maturing satellite kinematics into a competitive probe of the galaxy halo connection

Johannes U. Lange, Frank C. van den Bosch, Andrew R. Zentner, **Kuan Wang**, Antonio S. Villarreal

Monthly Notices of the Royal Astronomical Society, https://doi.org/10.1093/mnras/sty2950

Updated Results on the Galaxy-Halo Connection from Satellite Kinematics in SDSS

Johannes U. Lange, Frank C. van den Bosch, Andrew R. Zentner, **Kuan Wang**, Antonio S. Villarreal

Monthly Notices of the Royal Astronomical Society, https://doi.org/10.1093/mnras/stz1466

Cosmological Evidence Modelling: a new simulation-based approach to constrain cosmology on non-linear scales

Johannes U. Lange, Frank C. van den Bosch, Andrew R. Zentner, **Kuan Wang**, Andrew P. Hearin, Hong Guo

Monthly Notices of the Royal Astronomical Society, https://doi.org/10.1093/mnras/stz2664

PRESENTATIONS

Forecast of Observational Constraint on Galaxy Assembly Bias

- LSST DESC Meeting, TJP General Session

  Carnegie Mellon University, July 24, 2018

- Galaxy Lunch Seminar

  Yale University, May 2, 2019

- Halo and Galaxy Assembly Bias Conference, Observational Tests Session

  Tsung-Dao Lee Institute, June 13, 2019

- Galaxy Quenching Conference

  Aspen Center for Physics, February 14, 2020

Halo Concentration from Merger History

- Astrolunch

  University of Pittsburgh, October 18, 2019

ONGOING PROJECTS

Observational constraints on galaxy–halo connection using counts-in-cell statistics

PROGRAMMING LANGUAGES

Python, C/C++, R

TRAININGS

LSSTC Data Science Fellowship Program

University of Pittsburgh, April 30 to May 4, 2018

Summer School in Statistics for Astronomers XIV

Penn State University, May 29 to June 2, 2018

Summer School in Astroinformatics

Penn State University, June 4 to June 8, 2018

LSST DESC DE School

Carnegie Mellon University, July 23, 2018

University of California, Berkeley, February 25, 2019

AWARDS AND FELLOWSHIPS

NAOC Undergraduate Scholarship	Spring 2015
Mary E Warga Fellowship	Fall 2015, Summer 2016
Arts and Sciences Graduate Fellowship	Fall 2018, Summer 2020
Andrew Mellon Predoctoral Fellowship	Fall 2020, Spring 2021