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Research Interests	Cosmology and Extragalactic Astrophysics Large-scale structures, weak gravitational lensing, intrinsic alignment of galaxies, galaxy-halo connection, galaxy formation and evolution	
Appointment	Postdoctoral Research Associate Steward Observatory, University of Arizona	Sep 2019 - Present
Education	Ph.D in Physics Department of Physics, Carnegie Mellon University, Pittsburgh, PA USA	Aug 2014 - Aug 2019
	M.S. in Astrophysics Graduate Institute of Astrophysics, National Taiwan University, Taipei, Taiwan	Sep 2012 - Jun 2014
	B.S. in Physics Department of Physics, National Taiwan University, Taipei, Taiwan	Sep 2008 - Jun 2012
Scientific Collaborations	<ul style="list-style-type: none">• Large Synoptic Survey Telescope Dark Energy Science Collaboration (LSST DESC)• Dark Energy Survey (DES)	
Teaching Experience	• Introduction to Astronomy, CMU	Fall 2017
	• From Quarks to Black Holes, NTU	Spring 2013
Departmental Service	• Co-organizer of Astrosnacks and Hack hours The joint student seminars between CMU and Pitt focusing on astrophysics and coding.	2017-2018
	• LOC of LSST DESC Collaboration meeting at CMU	Summer 2018

Publications

1. **H.-J. Huang**, T. Eifler, R. Mandelbaum, and the DES Collaboration. **Dark energy survey year 1 results: Constraining baryonic physics in the universe**. MNRAS, February 2021
[ADS](#) [arXiv:2007.15026](#)
2. T. Eifler, H. Miyatake, E. Krause, C. Heinrich, V. Miranda, C. Hirata, J. Xu, and et al. **Cosmology with the Wide-Field Infrared Survey Telescope – Multi-Probe Strategies**. *arXiv e-prints*, page arXiv:2004.05271, April 2020
[ADS](#) [arXiv:2004.05271](#)
3. T. Eifler, M. Simet, E. Krause, C. Hirata, **H.-J. Huang**, X. Fang, V. Miranda, R. Mandelbaum, and et al. **Cosmology with the Wide-Field Infrared Survey Telescope – Synergies with the Rubin Observatory Legacy Survey of Space and Time**. *arXiv e-prints*, page arXiv:2004.04702, April 2020
[ADS](#) [arXiv:2004.04702](#)
4. **H.-J. Huang**, T. Eifler, R. Mandelbaum, and S. Dodelson. **Modelling baryonic physics in future weak lensing surveys**. MNRAS, 488(2):1652–1678, Sep 2019
[ADS](#) [arXiv:1809.01146](#)
5. Y.-T. Lin, **H.-J. Huang**, and Y.-C. Chen. **An Analysis Framework for Understanding the Origin of Nuclear Activity in Low-power Radio Galaxies**. AJ, 155:188, May 2018
[ADS](#) [arXiv:1803.02482](#)
6. **H.-J. Huang**, R. Mandelbaum, P. E. Freeman, Y.-C. Chen, E. Rozo, and E. Rykoff. **Intrinsic alignment in redMaPPer clusters - II. Radial alignment of satellites towards cluster centres**. MNRAS, 474:4772–4794, March 2018 [ADS](#) [arXiv:1704.06273](#)
7. **H.-J. Huang**, R. Mandelbaum, P. E. Freeman, Y.-C. Chen, E. Rozo, E. Rykoff, and E. J. Baxter. **Intrinsic alignments in redMaPPer clusters - I. Central galaxy alignments and angular segregation of satellites**. MNRAS, 463:222–244, November 2016
[ADS](#) [arXiv:1605.01065](#)
8. Y.-T. Lin, R. Mandelbaum, Y.-H. Huang, **H.-J. Huang**, N. Dalal, B. Diemer, H.-Y. Jian, and A. Kravtsov. **On Detecting Halo Assembly Bias with Galaxy Populations**. ApJ, 819:119, March 2016
[ADS](#) [arXiv:1504.07632](#)
9. T. Inagaki, Y.-T. Lin, **H.-J. Huang**, B.-C. Hsieh, and N. Sugiyama. **Stellar mass assembly of brightest cluster galaxies at late times**. MNRAS, 446:1107–1114, January 2015
[ADS](#) [arXiv:1409.4820](#)

- Presentations & Conferences**
- 2018**
 - Accurate lensing in the era of precision Cosmology UC Berkeley Jan 14-16
 - Talk:** Modeling uncertainties of baryon in cosmic shear
 - BCCP cosmology seminar UC Berkeley Oct 9
 - Talk:** Astrophysical systematics in weak lensing
 - CosmoClub UC Santa Cruz Oct 8
 - Talk:** Astrophysical systematics in weak lensing
 - Tea talk Stanford Oct 5
 - Talk:** Modeling baryonic physics in weak lensing
 - LSST DESC Collaboration Meeting CMU Jul 23-27
 - Talk:** Modeling baryonic physics in weak lensing for LSST
 - Machine Learning in Science and Engineering CMU Jun 06-08
 - Machine Learning & time domain astrophysics workshop CMU Jun 05
 - LSST DESC WL general telecon Mar 12
 - Talk:** Mitigating baryon's effect on weak lensing observables
 - SnowCluster: the physics of galaxy cluster SLC, Utah Mar 18-23
 - Poster:** Intrinsic alignments of galaxies in redMaPPer clusters
 - 2017**
 - Cosmology on the beach Punta Mita Dec 10-16
 - Talk:** Mitigating baryon's effect on weak lensing observables
 - LSST DESC Collaboration Meeting Stony Brook U. Jul 10-14
 - Poster:** Intrinsic alignments of galaxies in redMaPPer clusters
 - The Galaxy-Halo Connection Across Cosmic Time KITP May 15-19
 - Poster:** Intrinsic alignments of galaxies in redMaPPer clusters
 - 2016**
 - Statistical Challenges in Modern Astronomy VI CMU Jun 06-10
- References**
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