Hung-Jin Huang

Curriculum Vitae

Contact The McWilliams Center for Cosmology E-MAIL: hungjinh@andrew.cmu.edu

Department of Physics Carnegie Mellon University

5000 Forbes Avenue, Pittsburgh, PA 15213, USA

Research Cosmology and Extragalactic Astrophysics

Interests Large-scale structures, weak gravitational lensing, intrinsic alignment of galaxies,

galaxy-halo connection, galaxy formation and evolution

Educational Ph.D in Physics

(Expected) Aug 2014 - Jul 2019

Website: https://hungjinh.github.io

Background Department of Physics, Carnegie Mellon University, Pittsburgh, PA USA

Thesis project: Astrophysical systematics in weak lensing

M.S. in Astrophysics Sep 2012 - Jun 2014

Graduate Institute of Astrophysics, National Taiwan University, Taipei, Taiwan

Thesis project: Gas motions around the protostar NGC 1333 IRAS 4A2

B.S. in Physics Sep 2008 - Jun 2012

Department of Physics, National Taiwan University, Taipei, Taiwan

Scientific • Large Synoptic Survey Telescope Dark Energy Science Collaboration (<u>LSST DESC</u>)

Collaborations • Dark Energy Survey (DES) (External Collaborator)

Teaching • Introduction to Astronomy, CMU Fall 2017

Experience • From Quarks to Black Holes, NTU Spring 2013

Department • Co-organizer of Astrosnacks 2017-2018

Service The monthly joint student astronomy seminars between CMU and Pitt.

• LOC of LSST DESC Collaboration meeting at CMU Summer 2018

Publications (ADS full list*)

- 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
- 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
- 3. 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
- 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
- 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

Publications in Progress

1. **H.-J. Huang**, T. Eifler, R. Mandelbaum and S. Dodelson. **Modeling baryonic physics** in future weak lensing surveys.

PI	esentations
&	Conferences
	2018

• LSST DESC Collaboration Meeting

Talk: Modeling baryonic physics in weak lensing for LSST

Machine Learning in Science and Engineering

• Machine Learning & time domine astrophysics workshop CMU Jun 05

• LSST DESC WL general telecon

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

 $\textbf{Poster} \hbox{:} \ IIntrinsic \ alignments \ of \ galaxies \ in \ redMaPPer \ clusters$

• 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

CMU Jul 23-27

CMU Jun 06-08

Mar 12

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References

• Rachel Mandelbaum

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• Tim Eifler

Steward Observatory Department of Astronomy, University of Arizona Tucson, AZ 85721, USA

E-MAIL: sdodelso@andrew.cmu.edu

• Scott Dodelson

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