Yu-Yen Chang | Curriculum Vitae

Department of Physics, National Chung Hsing University
145 Xingda Rd., South Dist., Taichung City 402

📞 +886-4-2284-0427#713 • ✉ yuyenchang@phys.nchu.edu.tw
yuyenchang.astro@gmail.com

Research

o **Assistant Professor, Physics Department, NCHU**, Taiwan	2020-present
o Postdoctoral Fellow, ASIAA, Taiwan Advisor: Dr. Wei-Hao Wang and Dr. Lihwai Lin	2016-2020
o Postdoctoral Fellow, CEA-Saclay, France Advisor: Dr. Emeric Le Floc'h	2014-2016
o Postdoctoral Fellow, Max Planck Institute for Astronomy, Germany Advisors: Prof. Dr. Hans-Walter Rix and Prof. Dr. Arjen van der Wel	2014
o ASIAA Summer Student Program, ASIAA, Taiwan Supervisor: Dr. Patrick Koch	2007

Education

o **Ph.D.**: **Astronomy** International Max Planck Research School for Astronomy and Cosmic Physics at the University of Heidelberg, Germany Thesis: *Galaxy Shapes through Cosmic Time –* *Intrinsic Structure of Early-type Galaxies at High Redshift* Supervisors: Prof. Dr. Hans-Walter Rix and Prof. Dr. Arjen van der Wel	2013
o **M.S.**: **Physics** National Taiwan University, Taiwan Thesis: *The Correlation between Global Parameters of Galaxies and* *its Implications on the Role of Dark Matter in Structure Formation* Supervisors: Prof. Dr. Pisin Chen and Dr. Wei-Hao Wang	2010
o **M.S.**: **Radio Astronomy and Space Science** Chalmers University of Technology, Sweden Thesis: *The Influence of Large-Scale Filaments* *on Cluster SZE Observations and on some Cosmological Parameters* Supervisor: Dr. Patrick Koch / Examiner: Prof. Dr. Cathy Horellou	2009
o **B.S.**: **Communication Engineering** National Chiao-Tung University, Taiwan Thesis: *STBC MIMO-OFDM system* Supervisor: Prof. Dr. Ta-Sung Lee	2007

Publication

First Author Papers (N=10; 380 citations)

- **Yu-Yen Chang**, Lihwai Lin, Hsi-An Pan, Chieh-An Lin, Bau-Ching Hsieh, Connor Bottrell, Pin-Wei Wang, *SDSS-IV MaNGA: Unveiling Galaxy Interaction by Merger Stages with Machine Learning*, **ApJ, 937, 97**, 2022.

- **Yu-Yen Chang**, Bau-Ching Hsieh, Wei-Hao Wang, Yen-Ting Lin, Chen-Fatt Lim, Yoshiki Toba, Yuxing Zhong, Siou-Yu Chang, *Identifying AGN host galaxies by Machine Learning with HSC+WISE*, **ApJ, 920, 68**, 2021.

- **Yu-Yen Chang**, Emeric Le Floc'h, Stéphanie Juneau, Elisabete da Cunha, Mara Salvato, Avishai Dekel, Francesca Civano, Stefano Marchesi, Hyewon Suh, and Wei-Hao Wang, *Unveiling Sizes of Compact AGN Hosts with ALMA*, **ApJ, 888, 44**, 2020.

- **Yu-Yen Chang**, Nicholas Ferraro, Wei-Hao Wang, Chen-Fatt Lim, Yoshiki Toba, Fangxia An, Chian-Chou Chen, Ian Smai, Hyunjin Shim, Yiping Ao, Andy Bunker, Christopher J. Conselice, William Cowley, Elisabete da Cunha, Lulu Fan, Tomotsugu Goto, Kexin Guo, Luis C. Ho, Ho Seong Hwang, Chien-Hsiu Lee, Minju Lee, Michał J. Michałowski, I. Oteo, Douglas Scott, Stephen Serjeant, Xinwen Shu, James Simpson, and Sheona Urquhart, *SCUBA-2 Ultra Deep Imaging EAO Survey (STUDIES) II: Structural Properties and Near-Infrared Morphologies of Faint Submillimeter Galaxies*, **ApJ, 865, 103**, 2018.

- **Yu-Yen Chang**, Emeric Le Floc'h, Stéphanie Juneau, Elisabete da Cunha, Mara Salvato, Francesca Civano, Stefano Marchesi, Olivier Ilbert, Yoshiki Toba, Chen-Fatt Lim, Ji-Jia Tang, Wei-Hao Wang, Nicholas Ferraro, Megan C. Urry, Richard E. Griffiths, Jeyhan S. Kartaltepe, *Infrared Selection of Obscured Active Galactic Nuclei in the COSMOS Field*, **ApJS, 233, 19**, 2017b.

- **Yu-Yen Chang**, Emeric Le Floc'h, Stéphanie Juneau, Elisabete da Cunha, Mara Salvato, Francesca Civano, Stefano Marchesi, J. M. Gabor, Olivier Ilbert, Clotilde Laigle, Henry Joy McCracken, Bau-Ching Hsieh, Peter Capak, *Obscured Active Galactic Nuclei triggered in compact star-forming galaxies*, **MNRAS Letters, 466, 103**, 2017a.

- **Yu-Yen Chang**, Arjen van der Wel, Elisabete da Cunha, Hans-Walter Rix, *Stellar Masses and Star Formation Rates for 1M Galaxies from SDSS and WISE*, **ApJS, 219, 8**, 2015.

- **Yu-Yen Chang**, Arjen van der Wel, Hans-Walter Rix, Bradford Holden, Eric Bell, Elizabeth J. McGrath, Stijn Wuyts, Boris Häußler, Marco Barden, S. M. Faber, Mark Mozena, Henry C. Ferguson, Yicheng Guo, Audrey Galametz, Norman A. Grogin, Dale D. Kocevski, Anton M. Koekemoer, Avishai Dekel, Kuang-Han Huang, Nimish P. Hathi, Jennifer Donley, *Structural Evolution of Early-type Galaxies to z=2.5 in CANDELS*, **ApJ, 773, 149**, 2013b.

- **Yu-Yen Chang**, Arjen van der Wel, Hans-Walter Rix, Stijn Wuyts, Stefano Zibetti, Balasubramanian Ramkumar, and Bradford Holden, *Shape Evolution of Massive Early-Type Galaxies: Confirmation of Increased Disk Prevalence at $z > 1$*, **ApJ, 762, 83**, 2013a.

- **Yu-Yen Chang**, Rickon Chao, Wei-Hao Wang, and Pisin Chen, *A Principle Component Analysis of Galaxy Properties from a Large, Gas-Selected Sample*, **Advances in Astronomy, 2012, 208901**, 2012.

Other Peer-review Papers (N=29; 4020 citations)

Journal Referee

- The Astrophysical Journal
- The Astronomical Journal
- Monthly Notices of the Royal Astronomical Society

Selected Talks

- HSC-AGN collaboration meeting, Kagoshima and online (invited) Nov2022
  Unveiling AGN Host Galaxies by Machine Learning
- Cross-Strait Forum on Radio Astronomy, online (invited) Oct2022
  Unveiling Structures of AGN Host Galaxies
- NTNU Seminar, Taipei, Taiwan Dec2021
  Unveiling Galaxies and AGNs by Machine Learning
- NTHU Seminar, Hsinchu, Taiwan Mar2021
  Identifying AGN host galaxies by Machine Learning
- NYCU HEP Seminar, Hsinchu, Taiwan Mar2021
  Unveiling Galaxies and Supermassive Black Holes with Big Data
- *Multiscale Feedback on Galaxy Evolution*, Hsinchu, Taiwan (invited) Oct2020
  Observational Diagnostics of AGN Feedback
- NCU Seminar, Zhongli, Taiwan Sep2020

Successful Telescope Proposals

- PI: ALMA cycle 4
- Co-I: VLT/KMOS; ALMA; JCMT Large Programs(STUDIES-SXDS3;eS2COSMOS;JINGLE II)

Awards and Grants

- MoST and NSTC research grants 2020-2025
- Insight Data Science Fellow 2020
- AS Grants for Young Scholars Attending International Academic Conferences Abroad 2019
- International Max Planck Research School Fellow 2010-2013
- NCTU Exchange Student Award and Scholarship 2006
- NCTU Academic Achievement Award 2004-2006

Technical Skills

- Programming languages: Python, IDL, Matlab, Mathematica, C
- Astronomical tools: MAGPHYS, Le PHARE, CIGALE, GALFIT, SExtractor, GALAPAGOS

Teaching Experiences

- NCHU courses: General Astronomy, General Physics, General Physics Lab, Seminar, ... 2020-
- NCHU student supervision: 2 bachelor, 3 master, and 1 PhD students 2020-
- ASIAA Summer Student Lecture 2017-2019
- ASIAA Summer Student Program 2017 with 2 students 2017
- Heidelberg University tutor on FP36 2011-2012
- National Taiwan University TA on Statistical Physics 2010