YAO-LUN YANG

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CONTACT INFORMATION

Department of Astronomy, University of Texas at Austin
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RESEARCH INTERESTS

Early Stage Star Formation, Infall & Outflows, Astrochemistry, Interstellar Medium, Atomic and Molecular Spectroscopy, and Infrared & Radio Astronomy

EDUCATION

2019 Ph.D. Astronomy (expected)
The University of Texas at Austin, U.S.A. Advisor: Prof. Neal J. Evans II
Dissertation: *The Structure of Class 0 Protostars*

2016 M.A. Astronomy
The University of Texas at Austin, U.S.A. Advisor: Prof. Neal J. Evans II
Thesis: *The Class 0 Protostar BHR71: Herschel Observations and Dust Continuum Models*

2012 B.S. Physics
National Taiwan University, Taiwan Advisor: Dr. Ciska Kemper (ASIAA)
Project: *Molecular Hydrogen in Diffuse Interstellar Medium of the Large Magellanic Cloud*

AWARDS AND RECOGNITIONS

Concentration in Teaching and Mentoring, UT-Austin
Professional Development Award ($600), UT-Austin
University Graduate Continuing Fellowship (2017-2019, $80 000), UT-Austin
Fred T. Goetting, Jr. Memorial Endowed Presidential Fellowship ($10 000), UT-Austin
Summer Internship ($14 120), STScI
Outstanding Thesis Award ($1000), UT-Austin
Summer Student Fellowship ($1300), ASIAA
College Student Research Training Fellowship ($1500), National Science Council, Taiwan

PUBLICATION

First-Author and Significant Contribution Refereed Journal Articles

[4] **Yang, Y.-L.**, Green, J. D., Evans, N. J. II, et al. 2018, "CO in Protostars (COPS): *Herschel*-SPIRE Spectroscopy of Embedded Protostars", ApJ, 860 174

[3] **Yang, Y.-L.**, Evans, N. J. II, Green, J. D. et al. 2017, "The Class 0 Protostar BHR71: *Herschel* Observations and Dust Continuum Models", ApJ, 835, 259

[2] Green, J. D., **Yang, Y.-L.**, et al. 2016, "The CDF Archive: Herschel PACS and SPIRE Spectroscopic Data Pipeline and Products for Protostars and Young Stellar Objects", AJ, 151, 75

[1] Larson, R. L., Evans, N. J., Green, J. D., **Yang, Y.-L.** 2015, "Evidence for Decay of Turbulence by MHD Shocks in the ISM via CO Emission", ApJ, 806, 70

Other Refereed Journal Articles

[5] Yi, H-.W., Lee, J-.L., Liu, T, **et al.** 2018, "Planck Cold Clumps in the λ Orionis complex. II. Environmental effects on core formation", ApJS, 236, 2

[4] Karska, A, Kaufman, M. J., Kristensen, L. E., **et al.** 2018, "The Herschel-PACS Legacy of Low-mass Protostars: Far-IR Gas Properties and Their Origin in FUV-illuminated C-shocks", ApJS, 235, 30

[3] Liu, T, Kim, K.-T., Juvela, M, **et al.** 2018, "The TOP-SCOPE Survey of Planck Galactic Cold Clumps: Survey Overview and Results of an Exemplar Source, PGCC G26.53+0.17", ApJS, 234, 28

[2] Green, J. D., Jones, O. C., Keller, L. D., **el al.** 2016, "The Mid-infrared Evolution of the FU Orionis Disk", ApJ, 832, 4

[1] Naslim, N., Kemper, F., Madden, S. C., **et al.** 2015, "Molecular Hydrogen Emission in the Interstellar Medium of the Large Magellanic Cloud", MNRAS, 446, 2490-2504

OBSERVING PROGRAMS

ALMA, cycle 4, 1 hr (as PI)
SOFIA/GREAT, cycle 6, 4.1 hrs (as PI, \$41 000 awarded)
SOFIA/FORCAST, cycle 6, 3.9 hrs (as Co-I, \$7 000 awarded)
SOFIA/GREAT, cycle 4, 5.3 hrs (as Co-PI, \$56 000 awarded)
SOFIA/FORCAST, cycle 4, 3 hrs (as Co-I, \$33 000 awarded)
Harlan J. Smith Telescope/DIAFI, 4 nights (as on-site observer)
IRTF/TEXES, 2016, 2 nights (as Co-I & on-site observer)
IRTF/TEXES, 2015, 1 night (as Co-I & on-site observer)
IRTF/TEXES, 2014, 1 night (as Co-I & on-site observer)

CONTRIBUTED TALKS

6th GMT Science Meeting: Stars Birth & Death, Honolulu, HI 2018
231st AAS Meeting, National Harbor, DC 2018
2017 Asia-Pacific Regional IAU Meeting, Taipei, Taiwan 2017
72nd International Symposium on Molecular Spectroscopy, UIUC, IL 2017
230th AAS Meeting, Austin, TX 2017
Star Formation 2016, Splinter session, Exeter, UK 2016
Workshop on Dense Cores, Monterey, CA 2014
12 Seminar Talks at NRAO/UVa, ASIAA, Subaru Telescope, IfA/U of Hawaii, Leiden University, ESO-Garching, MPIA (Heidelberg), STScI, East Asia Observatory, CfA/Harvard, and U of Arizona

UNDERGRADUATE STUDENT MENTORING

- Alyssa Ramos (2018, *currently as a chemist in pharmaceutical industry*): Exploratory study on the complex organic molecules at the early phase of star formation, involving an archival study using the ALMA archive and simulating synthetic spectra of COMs.
- Rebecca Larson (2014–2016, *currently PhD student at UT Austin*): Constrain the decay of turbulence shocks with *Herschel* observations of starless molecular clouds.

PUBLIC OUTREACH AND PROFESSIONAL SOCIETY MEMBERSHIP

- Organizer, Astronomy on Tap ATX, Austin, TX, 2016–
  Monthly astronomy talk held in a local bar joined by more than 250 audience
- Talk, "*Will They Call Me on My Cell Phone: How the Drake Equation Estimates the Odds of Finding ET*", Astronomy on Tap ATX, Oct. 2016
- Talk, "*Astronomical Observations*", Astronomy Student Association, UT-Austin, Mar. 2015
- Talk, "*How to Make A Star*", Westcave Preserve, Jan. 2015
- Talk, "*From Cold Gas to Hot Stars*", Astronomy Student Association, UT-Austin, Mar. 2014
- American Astronomical Society Member, 2017–