Sal Wanying Fu

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RESEARCH Interests Near-field cosmology, satellite galaxies, photometric metallicities, Galactic dynamics, stellar streams, stellar halos, chemical evolution, large surveys

EDUCATION

Ph.D in Astrophysics, UC Berkeley, Berkeley, CA August 2019-present

PD Soros Fellow, NSF Graduate Research Fellow & Cranor Fellow

Advisor: Prof. Daniel R. Weisz

B.A. Physics, Pomona College, Claremont, CA May 2019

Academic advisors: Prof. Jorge Moreno, Prof. Philip Choi Research advisors: Dr. Joshua D. Simon, Dr. Gwen C. Rudie

Thesis: Small-Scale Tests of Λ CDM Cosmology

RESEARCH APPOINTMENTS Graduate Student Researcher, UC Berkeley
Undergraduate Research Intern, Carnegie Observatories
Undergraduate Research Assistant, Pomona College
Spring 2016

PUBLICATIONS

S. W. Fu, J. D. Simon, et al. 2019. Dynamical Histories of the Crater II and Hercules Dwarf Galaxies, ApJ, 883, 11

S. W. Fu, J. D. Simon, et al. 2018. *The Origin of the 300 km s*⁻¹ *Stream Near Segue* 1, ApJ, 866, 42

Presentations

S. W. Fu, J. D. Simon, and D. R. Weisz. November 2019. *Dynamical History of the Crater II Dwarf Galaxy*. Contributed talk to the "Local Local Group" Meeting at KIPAC in Stanford, CA.

S. W. Fu, J. D. Simon, and D. R. Weisz. June 2019. *Dynamical History of the Crater II Dwarf Galaxy*. Contributed talk to the "Science in Our Own Backyard: Exploring the Galaxy and the Local Group with WFIRST" conference in Pasadena, CA.

S. W. Fu, J. D. Simon, et al. 2019. *Dynamical Histories of the Crater II and Hercules Dwarf Galaxies*. Poster presentation at 233rd AAS Meeting in Seattle, WA

J. D. Simon, S. W. Fu, et al. 2019. The Nature of the Peculiar Milky Way Satellite Sagittarius II. iPoster presentation at 233rd AAS Meeting in Seattle, WA

Sobeck J., ... S. W. Fu, et al. 2019. An Examination of the APOGEE-2 Survey Data for the Draco Dwarf Spheroidal Galaxy. Poster presentation at 233rd AAS Meeting in Seattle, WA

W. Fu, J. D. Simon, et al. *Characterizing the 300 km/s Stream Near Segue 1*. Poster presentation at 231st AAS Meeting in Washington, D.C.

W. Fu, J. D. Simon, et al. A Study of Low-Metallicity Red Giant Stars in the Ursa Minor Dwarf Spheroidal Galaxy Using APOGEE Survey Data. Poster Presentation at the 229th AAS Meeting in Grapevine, TX

| Telescope Allocations | HST/WFC3, HST/ACS imaging; GO-16229, 23 orbits (PI) Magellan/MIKE High-Resolution Spectroscopy, 3 Nights (Co-I) | |
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| Awards | Paul & Daisy Soros Fellowship for New Americans Hertz Fellowship Finalist NSF Graduate Research Fellowship, National Science Foundation | 2020 2020 2019 |
| | dation Cranor Fellowship, UC Berkeley Astrophysics Barry M. Goldwater Scholar, Barry M. Goldwater Scholarship and Excellence in Education Foundation | 2019 2018 |
| | Tileston Junior Physics Prize Pomona College Department of Physics and Astronomy | Nov 2018 |
| | Inaugural FUTURE of Physics at Caltech Cohort Pomona College Scholar, Pomona College | Nov 2018 Jun 2016-Jun 2019 |
| | Tileston Sophomore Physics Prize Pomona College Department of Physics and Astronomy | Jan 2018 |
| | Moncrief Astronomy Prize Pomona College Department of Physics and Astronomy | Sep 2016 |
| Teaching | UC Berkeley (Fall 2019-present) Ay160: Stellar Physics, Graduate Student Instructor Pomona College (Spring 2016-Spring 2019) | Fall 2019 |
| | PHYS128: Electronics (with community partnership) — Mentor ASTR101: Observational Astronomy — Mentor & Lab TA ASTR51: Introductory Astronomy — Mentor | Spring 2019 Fall 2018 Spring 2018 |
| | ASTR101: Observational Astronomy — Mentor & Lab TA ASTR51: Introductory Astronomy — Mentor PHYS70: Spacetime, Quanta and Entropy — Mentor & Lab TA ASTR2: Galaxies and Cosmology — Lab TA | Fall 2017 Spring 2017 Fall 2016 Spring 2016 |
| SERVICE | Community Partnership With Fremont Academy Femineers Physics Department Liaison Physics Cohort Program Organizer Carnegie Summer Student Program Student Leader Community Partnership With Fremont Academy Femineers Carnegie Summer Student Program Student Leader Social Justice in STEM Reading Group Co-Organizer | Jan 2019-May 2019 Jan 2016-May 2019 Jan 2016-May 2019 Jun 2018-Aug 2018 Mar 2018-May 2018 Jun 2017-Aug 2017 Jan 2017-May 2017 |
| PROFESSIONAL SOCIETY MEMBERSHIPS | Phi Beta Kappa American Astronomical Society, Junior Member Sigma Xi Scientific Research Honor Society, Associate Member | May 2019-Present Sep 2016-Present Sep 2018-Present |

Professional References Dr. Daniel R. Weisz Assistant Professor, UC Berkeley dan.weisz@berkeley.edu

Dr. Gwen C. Rudie Staff Scientist, Carnegie Observatories gwen@carnegiescience.edu

Prof. Philip Choi Associate Professor, Pomona College philip.choi@pomona.edu Dr. Joshua D. Simon Staff Scientist, Carnegie Observatories jsimon@carnegiescience.edu

Prof. Jorge Moreno Assistant Professor, Pomona College jorge.moreno@pomona.edu