## Sal Wanying Fu

Contact Information Email: wanying.fu@pomona.edu Website: http://swfu.github.io

**EDUCATION** 

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

May 2019

Overall GPA: 3.87

Research Interests Dynamical modeling of the Milky Way and its satellites based on observed properties Cosmological context of MW dwarf galaxies and stellar populations

Research EXPERIENCE Observatories of the Carnegie Institution of Washington

Undergraduate Research Fellow

Jun 2016-Sep 2018

Advised by: Dr. Josh Simon, Dr. Gwen Rudie

The Origin and Classification of the Sgr II Satellite

Apr 2018-Present

Using optical spectroscopy to determine dark matter content and metallicity dispersion of Sgr II satellite. Modeling orbit of satellite to infer its possible origins.

The Origin of the 300 km/s Stream Near Seque 1

Jun 2017-Present

Identified new members of 300S stream in APOGEE-2 and SEGUE survey data. Used dynamical modeling techniques and chemical abundance analysis to infer the origin of the stellar stream. Work culminated in paper publication and poster presentation.

Chemical Abundances of UMi dSph in APOGEE

Jun 2016-Aug 2016

Identified systematic velocity variation in timeseries velocity data of very faint stars from the APOGEE-2 proto-DR14 reduction.

Pomona College Department of Physics and Astronomy

Undergraduate Research Assistant Advised by: Dr. Philip Choi

Jan 2016-May 2016

Search for NEO Objects using TMO

Jan 2016-May 2016

Conducted remote observing program using Pomona's 1-m Table Mountain Observatory to search for faint, near-earth objects.

Presentations

Publications and S. W. Fu, J. D. Simon, et al. The Origin of the 300 km s<sup>-1</sup> Stream

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

AWARDS

Goldwater Scholar Pomona College Scholar

Tileston Physics Prize Moncrief Astronomy Prize 2018 Jun 2016-Present

Jan 2018

Sep 2016

MENTORING EXPERIENCE	ASTR101: Observational Astronomy, Mentor & Lab TA, ASTR51: Introductory Astronomy, Mentor 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 2018 Spring 2018 Fall 2017 Spring 2017 Fall 2016 Spring 2016
LEADERSHIP AND ORGANIZATIONS	Physics Department Liaison ALPhA, Women in Physics Group	Jan 2016-Present some time period

Organizations