RUOYAN WANG

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RESEARCH INTERESTS

My interests cover various aspects of stars and planets, including both atmospheres and interiors. I focus on studying these celestial objects from an astrophysical perspective. In general, I am interested in any topics on stellar and planetary science.

EDUCATION

MSc. Astronomy - Leiden University 2018 - 2020
Master thesis: Cataloging and Visualizing Cradles of Planet Formation
Advisor: Matthew Kenworthy

First year thesis: Detection of Transiting Exoplanets on the Bright End with MASCARA/TESS
Advisor: Ignas Snellen

BSc. Physics (Astrophysics) - University of California, Santa Cruz 2013 - 2017
Senior thesis: Atmospheric Models of Brown Dwarfs
Advisor: Jonathan Fortney

ACADEMIC EXPERIENCE

Undergraduate Research Assistant 2016 - 2018
University of California, Santa Cruz

•Modeled brown dwarf atmospheres spanning a wide range of atmospheric metallicity, C/O ratios, and cloud properties, encompassing atmospheres of effective temperatures and gravities.
•Analyzed the expected temperature-pressure profiles and emergent spectra from an atmosphere in radiative-convective equilibrium.

MSI Tutor for PHYS 6C: Introductory Physics III Fall 2016
University of California, Santa Cruz

•Reviewed and answered questions regarding to the class materials.
•Taught sessions handling the difficult conceptual and written problems covered in assignments.
•Helped control the pace of the class to ensure that most students could follow.

Observer Spring 2017
Lick Observatory

•Observed with the Nickel 1m telescope to measure Pluto's proper motion and parallax, along with its angular separation to Charon, to calculate its various physical properties (distance, mass, radius, density), with supplemental data acquired from Hubble and New Horizons.
•Observed with the Shane 3m Kast double spectrograph to measure the rotation curve of UGC-08787 to determine if dark matter exists in the galaxy.

PUBLICATIONS

R. Wang, M. A. Kenworthy: "A simplified 3d Reconstruction of Circumstellar Disks from 2d Data.", in prep

PRESENTATIONS

Annual Physical and Biological Science Summer Research Symposium August 2016, August 2017
University of California, Santa Cruz

231th AAS Meeting January 2018
Washington, D.C., USA

INTERNSHIP/INDUSTRIAL TRAINING

China National Petroleum Corporation (CNPC) June 2014 - August 2014
Xining, China

•Learned about the features of various equipments relating to the entire automation process of oil refinary.
•Involved in a geophysical survey for petroleum and natural gas exploitation and extraction in plateau involving deep well cememting under high pressure and temperature.
•Processed and analyzed data acquired from artificial seismic waves for oil prospecting in the Qaidam Basin.

OUTREACH SERVICE

Gapper International Voluntourism August 2015
Galle, Sri Lanka

•Learned about the ecosystem of sea turtles and the balance between wildlife and human activities.
•Helped design a passive sonar to listen and record sea turtles during mating seasons, and also to observe their reactions to different musics.

SCHOLARSHIP/HONOR/AWARD

Astronomy Master Scholarship - Leiden University 2018, 2019
Granted a tuition waiver till home fee for outstanding academic merit as a non EU/EEA international student.

Undergraduate Dean's Honor - University of California, Santa Cruz 2013, 2015
"Students qualify for the Dean's Honors List when they have completed a minimum of 15 units of which 10 are units for letter grade with a grade point average in the range required for University Honors at graduation for the current academic year."

Regents Scholarship - University of California, Santa Cruz 2013 - 2017
"The Regents Scholarship carries the highest honor awarded by the University of California, Santa Cruz to entering undergraduates."