# **ZIYAN XU**

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#### **EDUCATION**

Peking University

Beijing, China

Ph.D Candidate in Astrophysics

2015 - 2021 (Expected)

Peking University

Beijing, China

B.S. in Astronomy, specializing in Astrophysics

2010 - 2015

## RESEARCH EXPERIENCES

Peking University

2015 - Present

Advisor: Prof. Gregory Herczeg

Ph.D Researcher

Probing protoplanetary disk wind with absorption line spectroscopy

· Dust dynamics in MRI turbulent protoplanetary disks

Collaborator: Prof. Xuening Bai (Tsinghua University)

· Atmospheric dynamics and circulation in warm Jupiters

Collaborator: Prof. Adam Showman (University of Arizona / Peking University)

University of California, Santa Barbara

2014 - 2015

Student Intern Advisor: Prof. Ruth Murray-Clay

· The effect of MRI turbulence on pebble accretion - data analysis

Harvard-Smithsonian Center for Astrophysics

2014 - 2015

Student Researcher Advisor: Prof. Xuening Bai

· The effect of MRI turbulence on pebble accretion - simulation setup

# SELECTED CONFERENCE PRESENTATIONS & SEMINARS

## Planet Formation Workshop, Tokyo, Japan

· Contributed talk, Dust Settling and Clumping in MRI Turbulent Protoplanetary Disks (November 2019)

#### Great Barriers in Planet Formation, Palm Cove, Australia

- · Contributed talk, Probing Protoplanetary Disk Wind with Absorption Line Spectroscopy (July 2019)
- · Poster, Dust Settling and Clumping in MRI Turbulent Protoplanetary Disks (July 2019)

# Formation and Evolution of Solar System and Exoplanetary Systems, Urumqi, China

· Poster, Dust Settling and Clumping in MRI Turbulent Protoplanetary Disks (July 2019)

## East Asian Observatory, Hilo, Hawaii

· EAO Seminar Talk, Absorption Lines as a Possible Probe of Protoplanetary Disk Wind (March 2019)

#### Astrochemistry 2018: Past, Present and Future, California Intitute of Technology, CA

· Poster, C II Absorption Lines as a Possible Probe of Disk Photoevaporative Wind (July 2018)

## OWL Summer Program, University of California, Santa Cruz, CA

· Contributed talk, Pebble Accretion in Turbulent Protoplanetary Disks (July 2017, attendee July 2018)

#### University of New South Wales, Syndey, Australia

· Astro Seminar Talk, Physical Processes in Protoplanetary Disks: Pebble Accretion and Disk Photoevaporation (March 2018)

# Exoplanets and Planet Formation, Shanghai, China

· Poster, Pebble Accretion in Turbulent Protoplanetary Disks (December 2017)

# Stanford University, CA

· KIPAC Tea Talk, Pebble Accretion in Turbulent Protoplanetary Disks (July 2017)

## SELECTED OBSERVING, TEACHING & OUTREACH EXPERIENCES

#### James Clerk Maxwell Telescope, Mauna Kea, Hawaii

· Observer, 4 nights (February 2019)

# **Peking University**

- · Teaching assistant, Modern Astronomy (Fall 2019 & Spring 2019)
- · Teaching assistant, Stellar Structure and Evolution (Fall 2017)
- · Volunteered at The China-US Universities Astronomy Collaboration Summit (June 2016)

# Xinglong Station of National Astronomical Observatory, China

· Short-term visit to Xinglong Station of National Astronomical Observatory and The Large Sky Area Multi-Object Fiber Spectroscopic Telescope (LAMOST) (April 2011)

#### **AWARDS**

- · Specialty Scholarship (academic award), Peking University (December 2019)
- · Presidential Scholarship, Peking University (December 2018)
- · National Scholarship of China (December 2017)
- · Student Award for Outstanding Scientific Research, Peking University (2016 & 2017)
- · May 4th Scholarship, Peking University (December 2016)

#### TECHNICAL STRENGTHS

Astrophysical Athena/Athena++, RADMC-3D, MITgcm, VisIt, DS9, IRAF

**Programming** Python, MATLAB, C/C++, Fortran, shell, LaTeX

Language Skills Native Mandarin speaker

#### **PUBLICATIONS**

- \* Xu, Z. & Bai, X.-N., Dust Dynamics in Turbulent Protoplanetary Disk Rings, in prep
- \*2020 Xu, Z. & Bai, X.-N., Dust Settling and Clumping in MRI Turbulent Protoplanetary Disks, to be submitted
- \*2020 **Xu, Z.**, Herczeg, G. J., et al., *Probing Protoplanetary Disk Winds with C II Absorption*, to be submitted
- 2017 **Xu, Z.**, Bai, X.-N., & Murray-Clay, R. A., Pebble Accretion in Turbulent Protoplanetary Disks, ApJ, 847, 52