

# Kan Chen

Department of Physics and Astronomy, University College London

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## Education

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- **University College London (UCL)** *2021.11 - 2025.5*  
PhD candidate in Astrophysics  
Supervisors: Dr. Mihkel Kama & Dr. Paola Pinilla  
*London, UK*
- **University of Cambridge** *2019.9 - 2020.6*  
MASt (=MSc) in Astrophysics  
Supervisor: Dr. Marco Tazzari  
Thesis: Characterising the Properties of Protoplanetary Disks with ALMA  
*Cambridge, UK*
- **Nanjing University (NJU)** *2017.9 - 2019.6*  
Master candidate of Astrometry and Celestial Mechanics  
*Nanjing, China*
- **Sun Yat-sen University (SYSU)** *2013.8 - 2017.6*  
BEng in Theoretical and Applied Mechanics  
*Guangzhou, China*

## Research Interests

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- Protoplanetary disks: simulations of planet and disk interactions and kinematics
- Planet formation: theory, in the context of streaming instability
- Disk observations: characterize protoplanetary disk properties with ALMA data

## Publications [\[ADS\]](#)

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- Mind the kinematics simulation of planet-disk interactions: time evolution and numerical resolution  
**Chen K.**, Dong R., accepted by ApJ
- Planet Gap-opening Feedback on Disk Thermal Structure and Composition  
**Chen K.** et al., 2024, MNRAS, 527, 2049
- How Efficient Is the Streaming Instability in Viscous Protoplanetary Disks?  
**Chen K.**, Lin M.-K., 2020, ApJ, 891, 132

## Awards

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- Joint Scholarship of UCL Dean's Prize & China Scholarship Council (**£42,200×4**) *2021-2025*
- UCL Astro annual research grant (**£1,200×4**) *2021-2025*
- UCL Physics and Astronomy PhD Student Conference Fund (**£1,100**) *2023-2024*
- UCL Astro small grants (**£1,000**) *2023-2024*
- ASIAA visiting studentship (**£1,200**) *2019*
- The First Prize Postgraduate Admission Scholarship, NJU (**£1,000**) *2017*
- ASIAA summer studentship (**£800**) *2017*
- The First Prize Scholarship, SYSU (**top 3%, £220**) *2014-2015*
- Meritorious Winner, Mathematical Contest in Modeling (USA) *2015*

## Scientific Talks and Presentations

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- **Seminar**, MSSL Astro Seminar, University College London, online *2024.10*
- **Poster**, New Heights in Planet Formation, Garching, Germany *2024.7*
- **Talk**, London Exoplanet Day, London, UK *2024.5*
- **Seminar**, ET Science Seminar Series, Shanghai Astronomical Observatory, online *2024.4*
- **Seminar**, Astrobiology and Planetary Exploration (APEX) Seminar, London, UK *2024.2*
- **Talk**, Exoplanets and planet formation 2023, Beijing, China *2023.12*
- **Talk**, UK Exoplanet Meeting 2023, London, UK *2023.8*
- **Poster**, Protostars and Planets VII, Kyoto, Japan *2023.4*

## Teaching and professional services

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- **Assistant supervisor for master project** (with Paola Pinilla), Andrew Allan, UCL *2023-2024*
- **Teaching assistant**, Computational practical physics I & II, UCL *2022-2023*
- **Student host**, UCL Astro seminar series *2023-2024*
- **Organiser**, UCL Origins of Planetary Chemical Diversity group meeting *2022-2023*

## Computing Experience

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- Kinematic simulations of planet-disk interactions, University of Victoria/Compute Canada,  $1.8 \times 10^4$  Nvidia A100 GPU hours allocated

## Outreach and professional development

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### Outreach

- **Mentor**, In2ScienceUK initiative <sup>1</sup> *2023.7*
- **Mentor**, Shift25 initiative <sup>2</sup> *2023.7*

### Professional development

- **EXOHOST school on Planet formation and populations**, Tartu, Estonia *2024.9*
- **European ALMA School 2024**, Manchester, UK *2024.6*
- **1st Dustbusters School on Protoplanetary Disks**, Gargnano, Italy *2022.5*
- **Sagan Exoplanet Summer Workshop**, online *2021.6*
- **TIARA Summer School on Origins of the Solar System**, Taipei, Taiwan *2018.7*

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<sup>1</sup><https://in2scienceuk.org>

<sup>2</sup><https://www.shift25.org.uk>