Jingxuan Yang

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Education

University of Oxford — DPhil Physics 2020-2024

- Studied the composition of exoplanet atmospheres using theoretical and numerical models
- Performed statistical analysis of spectroscopic data from space telescopes (JWST & Hubble)
- Developed the open-source atmospheric retrieval code NEMESISPY (NASA/PyPI/Git/Doc)
- Published 8 peer-reviewed papers, including 3 first-author publications

University College London — MSc Planetary Science 2019-2020

Grade: Distinction

- Built cloud models for exoplanet atmospheres for the European Space Agency's Ariel mission

University of Cambridge — MSci Natural Sciences (Astrophysics) 2015-2019

Grade: First Class

- Used N-body simulations to study impact-driven atmospheric evolution on super-Earths
- Recipient of the Rowley Mainhood Prize for outstanding academic performance

Experience

University of Oxford — Tutor & Lab Demonstrator 2021-2024

- Taught Mathematical Methods, Probability & Statistics, Fluids, Physics of Atmospheres & Oceans
- Supervised the Atmospheric Physics Lab practicals

Menlo Security — Intern Software Engineer (UK Office, Two Summers) 2020-2021

- Developed Python APIs to integrate third-party functionalities for content inspection

Selected Publications

- **Yang** et al., "Testing 2D temperature models in Bayesian retrievals of atmospheric properties from hot Jupiter phase curves", MNRAS, 2023 (link)
- **Yang** et al., "Simultaneous retrieval of orbital phase resolved *JWST*/MIRI emission spectra of the hot Jupiter WASP-43b…", MNRAS, 2024 (link)
- **Yang** et al., "NEMESISPY: A Python package for simulating and retrieving exoplanetary spectra", JOSS, 2024 (link)
- Fisher et al., "NIRISS/SOSS vs HST: Exploring the improved ability to characterise exoplanet atmospheres in the JWST era", MNRAS, 2024 (link)
- Hammond et al., "Two-Dimensional Eclipse Mapping of the Hot Jupiter WASP-43b with *JWST* MIRI/LRS", ApJ, 2024 (link)