

# Agnibha Banerjee

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## Education

The Open University, UK PhD Student	Feb. 2022 - Present
• Exploring Exo-Venuses with JWST   Supervisor: Dr Joanna Barstow	
Indian Institute of Science Education and Research (IISER), Kolkata B.S. - M.S. Dual Degree in Physics	2021
• CGPA: 9.08/10	
Adamas International School Class XII, Council for the Indian School Certificate Examinations (CISCE)	2016
• Percentage: 97.0%	

## Publications

6. **Banerjee, A.**; Barstow, J.K.; Gressier, A.; Espinoza, N.; Sing, D.K.; et al. ApJL, 975, L11, 2024  
Atmospheric retrievals suggest the presence of a secondary atmosphere and possible sulfur species on L 98-59 d from JWST NIRSpec G395H transmission spectroscopy
5. Gressier, A.; Espinoza, N.; Allen, N.H.; Sing, D.K.; **Banerjee, A.** et al. ApJL, 975, L10, 2024  
Hints of a sulfur-rich atmosphere around the 1.6  $R_{\oplus}$  Super-Earth L98-59 d from JWST NIRSpec G395H transmission spectroscopy
4. **Banerjee, A.**; Barstow, J.K.; Haswell, C.A.; Lewis, S.R. MNRAS, 523, L64, 2023  
Effect of centrifugal force on transmission spectroscopy of exoplanet atmospheres
3. Rustamkulov, Z.; Sing, D.K.; Mukherjee, S. et al. (including **Banerjee, A.**) Nature 614, 659–663, 2023  
Early Release Science of the exoplanet WASP-39b with JWST NIRSpec PRISM
2. JWST Transiting Exoplanet Community Early Release Science Team (including **Banerjee, A.**) Nature 614, 649–652, 2023  
Identification of carbon dioxide in an exoplanet atmosphere
1. Nguyen, T.G.; Cowan, N.B.; **Banerjee, A.**; Moores, J.E. MNRAS, 499, 4605, 2020  
Modelling the atmosphere of lava planet K2-141b: implications for low and high resolution spectroscopy

## Awards & Recognitions

EXOHOST Workshop Travel Funding	Aug. 2024
First Prize at The Open University Graduate School Poster Competition	Jun. 2024
RAS Travel Grant to Travel to ExoClimes VI	Jun. 2023
Second Prize at The Open University Graduate School Poster Competition	Jun. 2022
MITACS Globalink Research Internship	May 2019 - Aug. 2019
Top 1% (Top 25) in the National Graduate Physics Examination	Jun. 2018
Kishore Vaigyanik Protsahan Yojana (KVPY) Fellowship	Aug. 2017
Jagadis Bose National Science Talent Search Senior Scholarship	Oct. 2016
DST INSPIRE Scholarship	Aug. 2016
Top 1% all-India in Class XII Examinations	Mar. 2016

## Research Experience

Indian Institute of Science Education and Research (IISER), Kolkata

Sep. 2020 - Jul. 2021

Supervised by: Dr. Dibyendu Nandi

Masters Thesis Project

- Learned and implemented techniques for atmospheric retrieval of exoplanets.

McGill University, Montreal

May 2019 - Aug. 2019

Supervised by: Dr. Nicolas B. Cowan

- Implemented analytical models for calculating the incident light map on ultra-short period exoplanets.

## Skills

**Programming** Python, Java, C, SQL, JavaScript, LaTeX, Git/GitHub

**Software** MATLAB, Mathematica

**Operating Systems** Linux, Windows, MacOS

**Languages** English, Bengali, Hindi

## Talks & Posters

Invited Talk at Max Planck Institute for Astronomy, *Heidelberg (Online)*

Sep. 2024

Talk at National Astronomy Meeting 2024, *Hull*

Jul. 2024

Invited Talk at Oxoplanet Journal Club, *Oxford*

Jun. 2024

Talk at Nemesis Symposium 4, *Oxford*

Jun. 2024

Poster at Exoplanets 5, *Leiden*

Jun. 2024

Unconference Session lead at dot Astronomy 13, *Madrid*

Apr. 2024

Poster at UK Exoplanet Meeting 2024, *Birmingham*

Apr. 2024

Talk at OU Physics Research Day 2023, *Milton Keynes*

Nov. 2023

Talk at UK Exoplanet Meeting 2023, *London*

Aug. 2023

Talk at Open Dialogues across Physics and Astronomy 2023, *Milton Keynes*

Feb. 2023

Poster at UK Exoplanet Meeting 2022, *Edinburgh*

Aug. 2022

Adaptive Optics and Its Applications in Astronomy, *IISER, Kolkata*

Nov. 2019

Exoplanets Very Close to Their Host Star, *McGill Space Institute, Montreal*

Aug. 2019

## Conferences & Workshops Attended

EXOHOST Workshop, *Tartu*

Aug. 2024

National Astronomy Meeting 2024, *Hull*

Jul. 2024

Royal Society Summer Science Exhibiton, *London*

Jul. 2024

Nemesis Symposium 4, *Oxford*

Jun. 2024

Exoplanets 5, *Leiden*

Jun. 2024

dot Astronomy 13, *Madrid*

Apr. 2024

UK Exoplanet Meeting 2024, *Birmingham*

Apr. 2024

UK Exoplanet Meeting 2023, *London*

Aug. 2023

Sagan Exoplanet Summer Workshop 2023, *Online*

Jul. 2023

ExoSLAM/ExoClimes VI, *Exeter*

Jun. 2023

Ariel Dry Run Workshop, *London*

May. 2023

JWST Proposal Planning Workshop, *Hertfordshire*

Jan. 2023

Ariel Consortium, *Bologna (Online)*

Oct. 2022

UK Exoplanets Meeting 2022, *Edinburgh*

Aug. 2022

STFC Introductory Summer School in Astronomy, *Dundee*

Aug. 2022

NEMESIS Users Meeting 3, *Oxford*

Jun. 2022

British Planetary Science Conference, 2022, *Milton Keynes*

Jun. 2022

Astrobiology Mars Rover Workshop, *Milton Keynes*

Apr. 2022

ERS Data Challenge with Simulated Data Workshop, *Online*

Mar. 2022

Code/Astro 2021, *Online*

Jun. 2021

## Institute Service & Volunteering

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PGR Community Organiser The Open University	2024
Volunteer Royal Society Summer Science Exhibition	Jul. 2024
President RocSoc, The Open University	2023
Volunteer GAIA Data Release 3 Outreach Event, Teesside	Jun. 2022
Volunteer European Astronomical Society Annual Meeting 2021	Jul. 2021
Data Analyst and Website Designer CESSI IISER Kolkata outreach initiative on COVID-19	Jun. 2020 - Jul. 2021
Class Representative Department of Physical Sciences, IISER Kolkata	Aug. 2019 - Jul. 2020