

# 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

7. **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
6. 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
5. Welbanks, L. et al. In prep.  
JWST Early Release Science: A Unified Near-Infrared Spectrum of WASP-39 b
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 Supervised by: Dr Dibyendu Nandi	Sep. 2020 - Jul. 2021
• Learned and implemented techniques for atmospheric retrieval of exoplanets.	
McGill University, Montreal Supervised by: Dr Nicolas B. Cowan	May 2019 - Aug. 2019
• Implemented analytical models for calculating the incident light map on ultra-short period exoplanets.	

## Skills

<b>Programming</b>	Python, Java, C, SQL, JavaScript, LaTeX, Git/GitHub
<b>Operating Systems</b>	Linux, Windows, MacOS
<b>Languages</b>	English, Bengali, Hindi

## Talks & Posters

Invited Talk at Max Planck Institute for Astronomy, <i>Heidelberg (Online)</i>	Sep. 2024
Talk at National Astronomy Meeting 2024, <i>Hull</i>	Jul. 2024
Invited Talk at Oxoplanet Journal Club, <i>Oxford</i>	Jun. 2024
Talk at Nemesis Symposium 4, <i>Oxford</i>	Jun. 2024
Poster at Exoplanets 5, <i>Leiden</i>	Jun. 2024
Unconference Session lead at dot Astronomy 13, <i>Madrid</i>	Apr. 2024
Poster at UK Exoplanet Meeting 2024, <i>Birmingham</i>	Apr. 2024
Talk at OU Physics Research Day 2023, <i>Milton Keynes</i>	Nov. 2023
Talk at UK Exoplanet Meeting 2023, <i>London</i>	Aug. 2023
Talk at Open Dialogues across Physics and Astronomy 2023, <i>Milton Keynes</i>	Feb. 2023
Poster at UK Exoplanet Meeting 2022, <i>Edinburgh</i>	Aug. 2022
Adaptive Optics and Its Applications in Astronomy, <i>IISER, Kolkata</i>	Nov. 2019
Exoplanets Very Close to Their Host Star, <i>McGill Space Institute, Montreal</i>	Aug. 2019

## Conferences & Workshops Attended

EXOHOST Workshop, <i>Tartu</i>	Aug. 2024
National Astronomy Meeting 2024, <i>Hull</i>	Jul. 2024
Royal Society Summer Science Exhibiton, <i>London</i>	Jul. 2024
Nemesis Symposium 4, <i>Oxford</i>	Jun. 2024
Exoplanets 5, <i>Leiden</i>	Jun. 2024
dot Astronomy 13, <i>Madrid</i>	Apr. 2024
UK Exoplanet Meeting 2024, <i>Birmingham</i>	Apr. 2024
UK Exoplanet Meeting 2023, <i>London</i>	Aug. 2023
Sagan Exoplanet Summer Workshop 2023, <i>Online</i>	Jul. 2023
ExoSLAM/ExoClimes VI, <i>Exeter</i>	Jun. 2023
Ariel Dry Run Workshop, <i>London</i>	May. 2023
JWST Proposal Planning Workshop, <i>Hertfordshire</i>	Jan. 2023
Ariel Consortium, <i>Bologna (Online)</i>	Oct. 2022
UK Exoplanets Meeting 2022, <i>Edinburgh</i>	Aug. 2022
STFC Introductory Summer School in Astronomy, <i>Dundee</i>	Aug. 2022
NEMESIS Users Meeting 3, <i>Oxford</i>	Jun. 2022
British Planetary Science Conference, 2022, <i>Milton Keynes</i>	Jun. 2022
Astrobiology Mars Rover Workshop, <i>Milton Keynes</i>	Apr. 2022
ERS Data Challenge with Simulated Data Workshop, <i>Online</i>	Mar. 2022
Code/Astro 2021, <i>Online</i>	Jun. 2021

**Institute Service & Outreach** \_\_\_\_\_

Outreach Article: A distant planet seems to have a sulphur-rich atmosphere, hinting at alien volcanoes	2024
The Conversation	
PGR Community Organiser	2024
The Open University	
Volunteer	Jul. 2024
Royal Society Summer Science Exhibition	
President	2023
RocSoc, The Open University	
Volunteer	Jun. 2022
GAIA Data Release 3 Outreach Event, Teesside	
Volunteer	Jul. 2021
European Astronomical Society Annual Meeting 2021	