LUCY WRIGHT

University of Bristol, Wills Memorial Building, Queens Road, Bristol, BS8 1RJ, UK
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PhD Research Student in Geophysics at the University of Bristol. Remote sensing the atmosphere of Saturn's moon Titan using infrared spectra acquired by NASA/ESA's Cassini-Huygens mission.

EDUCATION

PhD Geophysics Sept 2021 - present
University of Bristol | School of Earth Sciences

- Supervisors: Dr Nick Teanby, Dr Will Seviour, Professor Dann Mitchell.
- Funded by the Science and Technology Facilities Council (STFC).
- Using the NEMESIS radiative transfer tool to perform atmospheric retrievals of Cassini/CIRS infra-red spectra. Mapping trace species in Titan's stratosphere to investigate dynamics and seasonal evolution. I write **Python** and **BASH** for data analysis.

PGCE Secondary Science (Physics) Sept 2020 - Jul 2021
University of Cambridge | Faculty of Education

- Teaching science to students aged 11 - 18, reviewing science education literature and conducting research.

MPhys Physics (Second Class, Division One) Sept 2016 - Jul 2020
University of Oxford | Department of Physics

- Masters research project dissertation title: *Exploring the Time Delay Between the Pressure and Seismic Signals Generated by Dust Devils on Mars* (First Class in Masters).
- Masters-level modules: The Physics of Atmospheres and Oceans; Particle Physics.
- Undergraduate-level modules: Classical and Quantum Mechanics, Fluid Dynamics, Thermodynamics, Electromagnetism, Optics, Electronics, Special and General Relativity, Mathematics, and Statistics.

CONTRIBUTED CONFERENCE POSTERS AND TALKS

Oct 2023 DPS-EPSC *"Seasonal Evolution of Titan's Stratospheric Composition as a Probe of Atmospheric Dynamics at the Equator"*, Wright, L., et al. (poster)
Jul 2023 Bristol Earth Sciences Enhancing Research Culture *"What's going on at Titan's equator?"*, Wright, L., et al. (talk)
Jun 2023 Titan Through Time (TTT) VI *"A HCN Gradient at Titan's Stratospheric Equator"*, Wright, L., et al. (poster)
Sept 2022 EPSC *"Stratospheric HCN and Evolution of a Mixing Barrier in Titan's Equatorial Region from Low-Resolution Cassini/CIRS Spectra"*, Wright, L., et al. (poster)
Mar 2023 PLANET-ESLAB *"Evolution of Titan's Stratospheric HCN in High Spatial Resolution"*, Wright, L., et al. (poster)
Sept 2022 EPSC *"Stratospheric HCN and Evolution of a Mixing Barrier in Titan's Equatorial Region from Low-Resolution Cassini/CIRS Spectra"*, Wright, L., et al. (poster)

Jun 2022 BPSC *"High-Resolution Observations of Titan's Equatorial Dynamics using Cassini CIRS Spectra"*, Wright, L., et al.
Mar 2020 LPSC *"Exploring the Miss-Distance as a Possible Cause of Non-Simultaneity in Pressure and Seismic Signals of Martian Dust Devils"*, Wright, L., et al. (abstract) (poster)

PROFESSIONAL AWARDS

- **2023** Winner of the Outstanding Poster Contest (Outer Solar Systems and Comets), DPS-EPSC 2023 *"Seasonal Evolution of Titan's Stratospheric Composition as a Probe of Atmospheric Dynamics at the Equator"*
- **2023** Best Talk, Bristol Earth Sciences Enhancing Research Culture *"What's going on at Titan's equator?"*
- **2022** Winner of the Outstanding Poster Contest (Outer Planet Systems), EPSC *"Stratospheric HCN and Evolution of a Mixing Barrier in Titan's Equatorial Region from Low-Resolution Cassini/CIRS Spectra"*

PREVIOUS ACADEMIC PROJECTS

Dust Devils on Mars Oct 2019 - May 2020
University of Oxford | Atmospheric, Oceanic and Planetary Physics (AOPP)

- Investigated martian atmospheric vortices or 'dust devils' by analysing (using **Python**) atmospheric pressure and seismic signals detected by NASA's InSight lander.
- Appointed as a science team member of NASA's InSight mission and presented research to the InSight Atmospheres Working Group.

[cancelled due to COVID-19] **InSight Lander Noise Analysis** Jun - Sept 2020
University of Oxford | Atmospheric, Oceanic and Planetary Physics (AOPP)

- Was offered a research job to model the seismic noise due to wind on InSight's solar panels.

Telescope Network Connectivity and Microquasar Spectral Analysis Jul - Aug 2020
University of Oxford | Astrophysics

- Worked for Professor Katherine Blundell OBE, who has built observatories in schools in India, Chile, South Africa and Australia as part of her Global Jet Watch Project.
- Took time understanding the network connectivity (**Python**) to communicate with observatories remotely and investigated dynamics of microquasar SS433 from GJW-acquired spectra.

Videography and Website Design for Global Jet Watch Jun - Sept 2018
University of Oxford | Astrophysics

- Designed prototypes of an education website and created the front-end (using **html**, **css**).

TEACHING AND OUTREACH

Teaching Support Assistant Oct 2021 - present
University of Bristol | School of Earth Sciences
Undergraduate courses in: Atmospheric Processes; Global Seismology; Tectonics, Mapping, and Remote Sensing; Numerical Methods and Programming; Computing (**MATLAB**); Physics and Chemistry.

Fieldwork Teaching Support Assistant Mar 2022; Mar 2023
University of Bristol | School of Earth Sciences
Environmental Geoscience Fieldwork, 2nd year undergraduate 4-day fieldwork in Wales.

Designing Tools for Astrophysics Education for Global Jet Watch Jun - Sept 2019
University of Oxford | Astrophysics Designed infographics to educate the children in schools in India, Chile, South Africa and Australia, particularly girls who might not otherwise be given the opportunity to learn Physics.

OTHER ROLES

Organiser of the School of Earth Sciences PhD student seminar series (2023, University of Bristol).
UK Planetary Forum (UKPF) Member (2023 - present).
Institute of Physics (IOP) Scholar (2020 - 2021).
Royal Astronomical Society (RAS) Fellow (2020 - present).
Women's 1st Team Captain (2017 - 2018, Oxford University Water Polo Club)
Elected member of Vincent's Blues Sports Club (2019 - present).