Daragh Hollman

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I am currently a PhD student with the Dublin Institute for Advanced Studies studying Mercury's magnetosphere. My research involves how the magnetosphere interacts with the solar environment through the analysis of large data sets from the MESSENGER mission, and upon its arrival, BepiColombo. I'm a Government of Ireland Postgraduate Scholar, fully funded by Taighde Éireann - Research Ireland.

Education

Bachelor's of Science in Physics with Astronomy and Space Science

University College Dublin,

2020-2024

Grade: First Class Honours, 3.74/4.2

Academic Achievements: I recieved an A+ grade on my final project - paper entitled: "Comet 62P/Tsuchinshan 1: A photometric investigation of an evolving dust production rate and other cometary properties at small heliocentric distances post-perihelion". My paper for this project was recommended to represent UCD Physics for the Institute of Physics (IOP) Earnshaw Award.

Publications

Software

Hollman, D. M., Jackman, C. M., Louis, C. K., Rutala, M. J., Huybrighs, H. L. F., & McEntee, S. C. (2024). Juno Universal Plotting Tool v1.1.2. Zenodo. https://doi.org/10.5281/zenodo.8223818

Abstracts

May 2024 - JUPT: A new open-source plotting tool for Juno

Poster at the 3rd Outer Planet Moon-Magnetosphere Interaction Workshop

August 2023 - Visualisation Tools for Space Physics

Poster at the Irish National Astronomy Meeting (INAM).

Presentations

21st October 2024 - A study of Mercury's magnetospheric boundaries with MESSENGER data BepiColombo ESA/JAXA: Hermean Environment Working Group meeting

Experience

Physics Tutor

Self Employed

I have provided private tutoring for students of multiple levels, including Junior Certificate, Leaving Certificate, and undergraduate students.

Teaching Assistant

UCD School of Physics

2023

For the Autumn semester of 2023 I undertook a teaching and learning module, which - along with lectures - included three hours per week teaching the tutorials for first year module "Astronomy & Space Science". This involved preparing for each tutorial, aiding the students in completing it, and providing solutions and feedback on a group and individual basis.

Skills and Awards

- o Taighde Éireann Research Ireland, Government of Ireland Postgraduate Scholarship
- o Technical Skills: Python, Git, Linux
- o Laboratory Skills: Data analysis and visualisation, numerical simulation, image reduction, circuits
- o First Aid Qualified, REC 3 (Rescue and Emergency Care)

Languages

I am fluent in English and have Leaving Certificate Level Irish and French. I am currently learning Dutch in my spare time.

References

Available upon request