Royal Astronomical Society

The 2023 Fowler Award (G) is awarded to Dr Oliver Allanson

Dr Oliver Allanson has made pioneering advances in quasilinear and non-linear physics of wave-particle interactions in the radiation belts. Dr Allanson has successfully used innovative numerical particle-in-cell experiments to understand how rapid interactions with large-amplitude electromagnetic waves can accelerate and scatter high energy electrons in Earth's radiation belt environment. By quantifying the processes, the results have opened up new avenues to include these non-linear interactions in radiation belt modelling and forecasting, as well as contributing to our broader knowledge of theoretical kinetic physics in space and astrophysical plasmas. Alongside their scientific achievements, Dr Allanson has made key contributions through leadership roles, both in the UK's Magnetosphere, Ionosphere, and Solar-Terrestrial (MIST) community, as well as internationally. These include founding the "MIST Awards Taskforce", which operates to address historical imbalances in the diversity of both national and international scientific awards.

For these reasons, the 2022 RAS Fowler Prize in Geophysics is awarded to Dr Oliver Allanson.

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