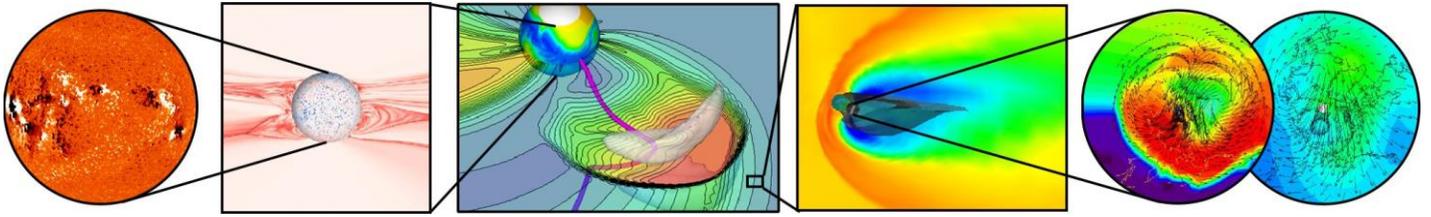


## STFC PhD Studentships in the Science of Space Weather at University of Reading



We welcome you to apply for STFC-sponsored studentships in the Department of Meteorology at the University of Reading. The Department hosts a vibrant [Space and Atmospheric Electricity](#) group whose research interests span the remit of Space Weather from the Sun through the heliosphere to Earth. In the Department of Meteorology, you will have access to state-of-the-art computing facilities and a large, internationally-renowned research community of 50 academics, over 100 post-doctoral scientists and around 70 PhD students. Our large PhD student community is especially welcoming, providing support and professional opportunities to enhance your postgraduate studies.

This year, we are pleased to offer two fully-funded STFC studentships. You can find potential project ideas and research interests below. We encourage interested applicants to contact the staff members listed to discuss how these projects may be further tailored to suit their talents and interests.

### **Origins of the solar wind** ([Prof. Mathew Owens](#) – application funding reference GS19-017)

The recently launched Parker Solar Probe and the upcoming Solar Orbiter missions provide the first direct observations of the newly formed solar wind. These will be used to test theories of solar wind energisation and release.

### **Origin and evolution of detailed structure in coronal mass ejections (CMEs)** ([Prof Christopher Scott](#) – application funding reference GS19-028)

Advances in CME imaging over the past two decades have revealed detailed structure that is not explained by simple geometric modelling. In this study the successful candidate will investigate the origin of this complex structure by combining long-term data sets such as from the SOHO and STEREO spacecraft while benefitting from new insights from the more recent Solar Orbiter and Solar Probe missions.

### **New models of Outer Radiation Belt dynamics** ([Dr. Clare Watt](#) – application funding reference GS19-019)

Here at Reading we are building new models of the wave-particle interactions that shape the extent and strength of Earth's Outer Radiation Belt. Guided by data from the NASA Van Allen probes, Magnetosphere Multiscale mission and the ESA Cluster constellation, you will have the opportunity to construct state-of-the-art models to explore why the amount and location of the high-energy electron population in near-Earth space is so variable.

### **Application Procedures**

Note that these UKRI studentships are open to applicants who fulfil the residency requirements (see "Residence Requirements" [here](#)). These studentships would be suitable for applicants who have achieved at least an upper second class degree (or equivalent) in physics, mathematics or similar physical science.

Please see further details for how to apply to the Department of Meteorology here:

<http://www.reading.ac.uk/met/phd-programmes/met-detailed-offer-information.aspx?#apply>

Please quote the studentship funding reference supplied above. We will begin reviewing applications for STFC studentships from the 21<sup>st</sup> February, 2019. A STFC Open Day is planned in the Meteorology Department at the Reading Whiteknights campus on Wednesday 27<sup>th</sup> February 2019 so that you can meet the group, including current PhD students, and interview for a place. Virtual interviews (e.g. via Skype) are available for those who cannot attend an interview in Reading in person.