

**JOB DESCRIPTION**

**Senior Research Associate in Ionospheric Physics**, Physics Department

**Vacancy Reference: 0148-24**

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| **Job Title:** Senior Research Associate | **Present Grade:** 7 |
| **Department/College:** Physics Department | |
| **Directly responsible to:** Prof. Adrian Grocott | |
| **Supervisory responsibility for:** Some supervision of research students | |
| **Other contacts** | |
| **Internal:** Academic staff and PDRAs in the Space and Planetary Science (SPP) Group | |
| **External:**  National and international collaborators | |
| **Major Duties:**   1. Conduct scientific research into the driving mechanisms behind ionospheric variability; investigate the properties of medium scale travelling ionospheric disturbances (MSTIDs) observed in the high-latitude northern hemisphere ionosphere using the Super Dual Auroral Radar Network (SuperDARN) and European Incoherent Scatter (EISCAT) radars. 2. Apply multichannel maximum entropy spectral analysis (or similar) to a multi-year dataset of SuperDARN ground-backscatter power data to extract MSTID characteristics. Compare to concurrent observations of geomagnetic activity and solar wind drivers to identify MSTIDs with auroral sources. 3. Liaise with project partners; communicate results and progress effectively. 4. Participate in national and international meetings, conferences and workshops; present project results through posters, talks, and seminars; interact with the broader community to communicate project results learn about current advancements in the field. 5. Prepare papers for publication in high-impact, peer-reviewed scientific journals. 6. Participate, and take a leading role, in writing new research proposals on topics related to this work. 7. Engage in training, professional development, and knowledge exchange opportunities offered by the university. 8. Collaborate effectively with other members of the SPP research group and wider Physics department. | |