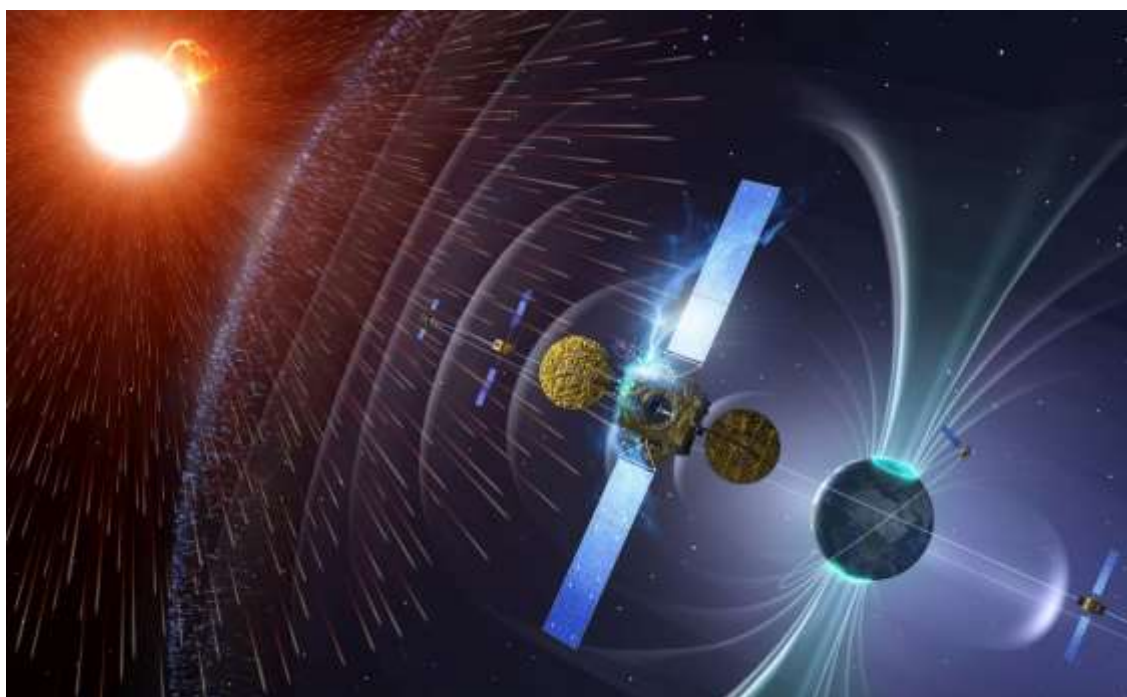


Café Scientifique Headingley

Monday 11 April 2022
Space Weather



By Jonathan Mound

Outline: Our planetary magnetic field is generated in Earth's core and has shielded the atmosphere from the charged particles of the solar wind for billions of years. This magnetic shielding helped the Earth retain its water and oxygen, thereby playing a key role in long term planetary habitability (in contrast to worlds without magnetic fields like Venus and Mars). Additionally, our magnetic field plays a major role in moderating space weather impacts on modern infrastructure such as power grids and satellite navigation. The impact of space weather events can be severe: a 1989 geomagnetic storm disrupted the Hydro-Quebec power grid causing a province-wide blackout, though this event is small compared to the historically observed 1859 Carrington event. This talk will cover some of the physical processes associated with space weather and its wide-ranging impacts, as well as ongoing work by researchers at Leeds and elsewhere to better understand how space weather might affect the UK in the coming decades.

Jon Mound is an Associate Professor in Geophysics at the University of Leeds. He uses numerical and theoretical studies to investigate the dynamics and interactions of Earth's core and mantle. He has worked on the development and application of new techniques to identify signals in observations of geomagnetic variation that arise from core dynamics on both short (annual to decadal) and long (millennial) time scales. He obtained his PhD in Physics from the University of Toronto in 2001 and subsequently worked there as well as at the University of British Columbia and Harvard University before joining Leeds in 2006.

Venue: The New Headingley Club, 56 St Michael's Rd., Leeds LS6 3BG

Time: Room opens at 7:30; talk begins promptly at 7:45pm

Entry: Donation please for room hire and expenses: **£3 at the door**



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