RSPP seminars

Prof Steven J. Schwartz

Imperial College London

"Shocking stuff from MMS"

Steven J Schwartz, together with the MMS team

"The NASA's Magnetospheric Multiscale Mission is comprised of four spacecraft in tight (10's km) tetrahedral formation carrying instruments of unprecedented capability, notably in the resolution of electron and ion particle distributions at 30 ms and 150 ms respectively. The particle and fields instruments are highly calibrated providing a precise view of space plasma microphysics. Over the first two dayside seasons, focussed on reconnection at the terrestrial magnetopause, solar wind conditions also compressed the magnetosphere enabling MMS to traverse the Earth's bow shock. This seminar will present some highlights of results to date, which include identification of shock ripples at nearly perpendicular shocks and a detailed investigation of the structure of an adolescent Hot Flow Anomaly. As MMS apogee has now been raised to 25 Re, MMS bow shock encounters in the seasons ahead will cover a much wider range of solar wind conditions. Additionally, evolving mission objectives will enable more bow shock data to be downloaded at the highest resolution".

UNIVERSITY OF LEICESTER

Wednesday, May 31st at 2 pm in Physics LTB