SEMINAR

專題演講

國立中央大學 太空科學與工程學系

Department of Space Science and Engineering, National Central University

Time

Thursday,December 5, 2024
11:00 – 12:00

Place

健雄館(科四館)

S4-917 教室
Room S4-917,
Chien-Shiung Building

Pickup ions, photoelectrons and negative ions in the solar system

Prof. Andrew Coates
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Ion pickup and consequent mass loading is the key mechanism by which comets interact with the solar wind. In addition, the pickup process is important in planetary magnetospheres and near moons. Ionospheric photoelectrons have distinctive spectra and can be used as tracers of magnetic connectivity near Mars, Venus, Titan and Earth. Unanticipated negative ions are present at several locations in the Saturn system, including in Titan's ionosphere where heavy ions feed Titan's haze and deposit tholins on the surface, in the Enceladus plumes where water clusters and other ions are seen, and at Rhea and Dione where weak atmospheres are present. In this talk we will review these processes and observations from space missions in these planetary environments.