

Spaceborne GNSS Reflectometry for Remote Sensing of Ionosphere, Atmosphere, Oceans, and Inland Water Bodies



Professor Jade Morton

University of Colorado Boulder

20 Nov 2023



11:30 a.m.



**Conference Room, 3/F,
Mong Man Wai Building**



[Zoom Link](#) (Mixed-mode)

ID: 992 4969 9833 Passcode: 983837

Spaceborne GNSS reflectometry (GNSS-R) is an emerging technology that utilizes GNSS signals reflected off Earth surface and received by low Earth orbiting (LEO) satellites with side- or downward-looking antennas. GNSS-R has demonstrated feasibility in both scatterometry applications using delay Doppler maps constructed from the reflection signals and altimetry applications using code and carrier phase range measurements of direct and reflected signals. This presentation will discuss the latest progress in GNSS-R technologies and applications in retrieve ocean wind speed, surface height variations over ocean, sea ice, land ice, rivers, and lakes, and ionosphere total electron content and disturbances over polar and equatorial areas for space weather and natural hazardous event monitoring. Challenges in real-time GNSS-R implementations will also be addressed.



Enquires: 3943 5494 eesc@cuhk.edu.hk