“天-空-地-井”协同感知空间信息
系列国际高端论坛

报告题目：RF signal processing for Earth observation using GNSS signals

报告时间：2023 年 4 月 25 日 14:00 -16:00

报 告 人：A/Prof. Georges Stienne

工作单位：University of Littoral Opal Coast, France

主办单位：环境与测绘学院

报告人简介：

Georges Stienne, PhD 2013, is since Sept. 2015 an assistant professor at University of Littoral Opal Coast. His works deal with the statistical estimation of the parameters of multi-frequencies Global Navigation Satellite Systems (GNSS) signals, with application to GNSS positioning and GNSS-Reflectometry (GNSS-R), a bi-static remote sensing technique for Earth observation. His interests in GNSS-R lie in the domains of soil moisture estimation, sea state retrieval and altimetry measurements, for which he develops filtering, data fusion, change point detection and regression techniques, with a specific focus on angular data such as the phase of GNSS signals.

报告摘要：

During his talk, Georges Stienne will present a selection of his works in GNSS-Reflectometry, with a focus on signal processing. His talk will first address the collection of raw GNSS-R signals by an RF digitizer and their processing using software-defined receivers. A set of different works in GNSS-R will then be presented with application to ground-based altimetry, airborne sea state retrieval and both ground-based and airborne soil moisture estimation, using the phase, amplitude and frequency of GNSS signals reflected from Earth. In addition to providing high accuracy in the retrieved parameters, a general aim of these works is to be able to provide them with high temporal resolution, up to 1000Hz.