Postdoctoral Scholar position in the context of PRISM/RTRA project

Area: GNSS-R application
Duration: 12 months
Start date: October 1, 2014
Salary: according to experience ranging from 2836 (less than 2 years to Postdoctoral position) to 3185 euros/year (> 2 years).

In the last years, passive observations of land and ocean surfaces, using in particular, sources of opportunities from positioning satellites (GNSS), has been a very dynamic research and development topic. Several teams have already demonstrated the relevance of such approaches for airborne observations.

Job description

The successful candidate will join an interdisciplinary team engaged in application of microwave remote sensing for geophysical parameters characterization. The aim of this job is to propose new developments to address the feasibility of GPS system signals over land and ocean surfaces. This analysis will be based on date acquired during airborne campaigns:

- A new airborne instrument, called GLORI (GLObal Navigation satellite system Reflectometry Instrument), proposed by CESBIO, will participate to different airborne measurements in the autumn of 2014.
- Other data are acquired during CAROLS campaigns during 2010, in collaboration with Barcelona University, with GOLD-RTR instrument.

The proposed research axes are:
- Development & implementation of methods to analyze airborne GNSS-R data;
- Theoretical analysis of bistatic scattering;
- Discussion of relationships between airborne measurements and geophysical parameters (soil moisture or ocean roughness).

Qualifications:
The successful candidate must hold a Ph.D.
Fields of expertise: GNSS-R, bi-static electromagnetic modeling, signals processing.

Application details:
Applicants are asked to email a letter of interest (five pages maximum) outlining research experience, and academic and professional qualifications, a curriculum vitae, and contact information for two references. The position duration is for one year (12 months).

Applications and inquiries should be directed to:
Mehrez Zribi.
CESBIO, 18, Avenue Edouard Belin,
31400, Toulouse, Cedex 9
Tel: (33) 5 61 55 85 25/ E-mail: Mehrez.Zribi@cesbio.cnes.fr

About CESBIO
The CESBIO is associated to many projects related to the definition of spatial mission and to the use and the interpretation of multispectral remote sensing data linked with environmental problematic (carbon, energy and water budget). With three spatial missions (SMOS, Venμs, BIOMASS) under its scientist responsibility, the laboratory is strongly investigated in spatial remote sensing applications. Future potentialities of one other spatial mission, MISTIGRI, are also investigated and some activities concern the preparation of the Sentinel-2 mission. Linked to these spatial missions, the CESBIO is involved in different calibration/validation campaigns located in Australia, Mali, Spain, Morocco, Mexico, and France... Terrain and airborne campaigns are one entire part of the laboratory activities with the participation and the scientific responsibility of many international and national campaigns over large climatic range (from temperate to semi arid places) like the NAFE (National Airborne Field Experiment), Hapex-Sahel, AMMA (African Monsoon Multidisciplinary Analyses), SMOSMANIA, CAROLS... experiments. Satellite data analysis is also one important part of the CESBIO activities, with a particularly interest in the potentialities of combining multiresolution and multispectral data acquired by space and airborne sensors since the 90’s (FORMOSAT, SPOT, MODIS, SSMI, ASTER, ERS, SIR-C, X-SAR, ENVISAT, RADARSAT-2, ALOS, TERRASAR-X, SMOS, ERASME...), mixing active and passive remote sensing. Consequently, most of the laboratory members are identified as Principal Investigators of research projects (ESA, CSA, DLR, JAXA...) dealing with microwave, optical and thermal data, and with many publications in the domain.