Call for applications for a Postdoctoral Position in Labex PLAS@PAR, Cluster of Excellence in Plasma Physics - Paris

Title of the postdoctoral project: Probing Saturn's magnetosphere with auroral observations of Cassini and Hubble

Project description:

The research project primarily aims at investigating the auroral processes and the dynamics at various timescales of Saturn's magnetosphere, through the analysis of remote ultraviolet (UV) auroral observations recently acquired by the Cassini/UVIS spectro-imager and the Hubble Space Telescope (HST), complemented by *in situ* radio and plasma measurements of the Cassini spacecraft. The main objective of this project is to build and exploit a high level database of Cassini/UVIS auroral observations in the frame of the APIS service, and to take advantage of multi-platform measurements to disentangle and characterize the different components of kronian aurorae (e.g. energy budget, dynamics from short-term scales to solar/seasonal variations) and constrain the underlying acceleration processes. The Cassini 'Grand Finale', made of a series of high-inclination orbits, provided unprecedented vantage views on both the northern and southern UV aurorae together with unique *in situ* measurements along the auroral field lines. These observations were supported by coordinated HST instantaneous observations of the northern UV aurorae near solstice, precisely scheduled during the Cassini traversal of auroral field lines. Coincidentally, HST similarly observed the UV aurorae of other giant planets which offer an extended frame for comparative planetology.

Requirements for the candidate:
The applicant should master the basics of magnetospheric and auroral physics, have a documented past experience with space-based plasma observations and skills in massive data processing.

Location and starting date:
The project will ideally start in Sept. 2018 (or before) at LESIA-Observatoire de Paris, 5 place Jules Janssen, 92190 Meudon, France.

Salary: in the range 3000-3200€/month (gross), according to experience.

Duration: 18 months.

Apply:
Application deadline is fixed on April 30th 2018.

Applications with CV, copies of degree diplomas and grades, two reference letters, and copies of any previous research-related work statement of motivation.

The application should be sent preferably by e-mail to: laurent.lamy@obspm.fr

Postdoctoral offer 2018