



*The Swedish Institute of Space Physics, IRF, is a governmental institute that does basic research and education in space physics, atmospheric physics and space technology. Many of the projects within IRF are large international projects in collaboration with other research institutes and space related organisations. IRF has about one hundred employees at four locations; Kiruna, Uppsala, Umeå and Lund. More information about IRF: [www.irf.se](http://www.irf.se).*

Swedish Institute of Space Physics, Uppsala, Sweden, is seeking candidates for a position as

### **Post-doctoral scientist with interests in planetary space physics**

The specific aim of this project is to *investigate the structure and dynamics of Saturn's ionosphere and its interaction with the charged dust and plasma near its rings*. The Cassini mission will end in 2017 in a spectacular fashion, with close orbits through the ring systems, as well as passages through the upper atmosphere and ionosphere of Saturn. The Radio & Plasma Wave Science (RPWS) instrument package on board Cassini includes a Langmuir probe (LP), designed, built and operated by IRF in Uppsala. Data from this instrument will be analysed during the grande finale, in order to study the ring dust and plasma and make the first ever detailed in-situ measurements of the ionosphere of the gas giant. Specific topics to address include:

- Characterisation of dust and plasma close to and within the rings.
- Characterisation of Saturn's ionosphere at the lowest encountered altitudes.
- Investigate the coupling between the rings and the ionosphere, and possible effects on the latitudinal structure of Saturn's upper atmosphere.
- Characterisation of the north and south auroral topside ionosphere.
- Investigation of whether Saturn lightning storms interact electro-dynamically with the rings.

Candidates should have completed (or expect to complete) a PhD in space physics or a related field during 2013 or later. Candidates planning to obtain their PhD degree before April 2017 may apply for this position. If the candidate has an older degree and wants to refer to special circumstances, such as parental leave, this should be clearly stated. Candidates should demonstrate experience in spacecraft data analysis, as part of national and international collaborations. Experience with theoretical modelling is an advantage. Interest and experience in development of instrumental techniques and methods will be positively valued, as will experience in coordination of scientific activities. The candidate should not currently be an active researcher at the Swedish Institute of Space Physics in Uppsala or the Department of Physics and Astronomy at Uppsala University, Sweden.

Applications should include a CV, a short introduction letter stating the applicant's research interests and relevant experience, a letter from the supervisor stating when the PhD degree is expected (if the PhD degree has not yet been achieved), description and proof of previous post-doctoral positions and/or similar relevant research work (if available), names and contact information for two professional references, and reprints of not more than 4 selected publications. The position is available at the Swedish Institute of Space Physics, located at the Ångström Laboratory in Uppsala, Sweden, from the first half of 2017, for a period of 2 years.

Closing date for applications is **January 26, 2017**.

Further information can be given by:

Associate Professor Jan-Erik Wahlund, +46-18-4715946, [Jan-Erik.Wahlund@irfu.se](mailto:Jan-Erik.Wahlund@irfu.se)

Dr. David Andrews, [david.andrews@irfu.se](mailto:david.andrews@irfu.se)

Dr. Michiko Morooka, [michiko.morooka@irfu.se](mailto:michiko.morooka@irfu.se)

Union representant:

Thomas Leyser, SACO, +46-18-471 59 41, [thomas.leyser@irfu.se](mailto:thomas.leyser@irfu.se)

Applications are accepted, preferably by email to [registrator@irf.se](mailto:registrator@irf.se), or by post to

Swedish Institute of Space Physics (IRF)

Registrator,

Box 812,

981 28 Kiruna,

Sweden

**Give Reference number: Dnr 2.2.1-312/16**

If your application is sent by e-mail you should get a confirmation that we have received it. If you do not get the confirmation within three days, please contact the registrar: tel. +46-980-790 00.