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Vacant positions in Solar Physics at IRSOL in Switzerland

Istituto Ricerche Solari Locarno, IRSOL, located in the Italian speaking southern part of Switzerland, is a solar research institute operating a facility optimized for high-precision imaging spectro-polarimetry (see www.irsol.ch). The institute is governed by the foundation FIRSOL. The local scientific staff presently consists of Dr M. Bianda, Dr D. Gisler (part time), and Dr R. Ramelli, and includes Professor Jan Stenflo as affiliated scientist. The recent approval of two major grant applications now allows us to fill two new positions:

(1) A new scientist position on the staff of IRSOL which has become possible through an increased base funding of IRSOL.

(2) A postdoc position dedicated to a project that has been submitted and approved by the State Secretariat for Education and Research, SER, in relation with the participation of IRSOL in the COST (European Cooperation in Science and Technology) Action MP 1104.

1. Scientist position

IRSOL has received a substantial increase in its base funding from the Swiss Federal Government for the next years, which now allows us to fill a new position on the scientific staff.

The selected candidate for the scientist position is expected to promote research topics based on observations that can be done with the unique equipment for spectro-polarimetry at IRSOL, and with the use of ZIMPOL on GREGOR (Tenerife).

Expected profile of the candidate: Well established role in the field of solar physics with a good knowledge in the field of polarimetry, being able to work in a small team, in particular to contribute to and enhance the groups already working in joint projects, national and international, with IRSOL.

Starting date: to be mutually agreed. The initial appointment will be for a period of two years, but as a staff position it may be extended.

2. Postdoc position

The position is the cornerstone of a project that has been approved by the State Secretariat for Education and Research, SER, to strengthen the participation of our Institute in the Cost Action MP 1104: "Polarisation as a tool to study the Solar System and beyond". The title of our project is: "Using the forward scattering Hanle effect to

produce chromospheric magnetic field maps". The main aim is to explore the feasibility of using the forward scattering Hanle effect in the Ca I 4227 Å line as a tool to systematically determine and map chromospheric magnetic fields. While the existence and observability of this effect has been verified by initial work at IRSOL (Anusha et al. 2011, ApJ 737, 95), the aim is now to develop it into a general diagnostic tool, to be used in combination with more traditional Zeeman-effect diagnostics. The observations will be performed at IRSOL using the Gregory-Coudř telescope and the ZIMPOL imaging spectro-polarimeter. Further observations are planned with the German GREGOR facility on Tenerife, where a ZIMPOL-3 system will be installed in 2013. Complementary avenues to explore chromospheric magnetism will also be explored within the framework of this project.

Expected profile of the candidate: Background in solar physics, preferably with experience in polarimetry. The postdoc should be involved in both the observational aspects and the development and application of the theoretical tools. While the staff of IRSOL will assist the postdoc, in particular in teaching and guidance in the use of the instrumentation, a capability for independent work is expected.

Starting date: July 2013 or later.

Remuneration: in the range CHF 75,000 - 78,000 per year; the project is funded for a duration of two years.

For both positions: The application should include CV, publication list, three possible referee addresses, statement of scientific interests and how your background fits the job expectations of the position for which you apply.

Note that you can apply for both positions (with the same CV and publication list). The application should be submitted to IRSOL by e-mail info@irsol.ch . If you have not received a confirmation within three days, please let us know.

Deadline: February 15, 2013.