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Job announcement

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# Postdoctoral position in observational Solar Physics

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Locarno, 5 September 2023

## General description

Istituto ricerche solari Aldo e Cele Daccò (IRSOL) seeks to appoint a motivated postdoctoral scientist for carrying out a research project in the field of solar observational spectropolarimetry.

IRSOL is a solar physics research institute affiliated to Università della Svizzera italiana and located in Locarno, Switzerland. The institute owns an observatory with a 45cm solar telescope, equipped with state-of-the-art instrumentation for high precision and accurate spectropolarimetry. The key instrument is the ZIMPOL polarimetric system. For observations requiring high spatial resolution, observing campaigns with ZIMPOL are regularly organized at the largest European solar telescope GREGOR, thanks to a collaboration agreement with the Leibniz-Institut für Sonnenphysik (KIS), Freiburg, Germany.

Besides observations, research groups at IRSOL are active in theoretical modeling of polarized radiation in the solar atmosphere, MHD simulations of solar and stellar atmospheres, developing advanced methods for spectropolarimetric data analysis and modeling, and applications for space weather research.

## Tasks

The postdoctoral researcher (postdoc) will participate in an ongoing project supported by the Swiss National Science Foundation (SNSF) dedicated to observational spectropolarimetry. One of the scientific goals of the postdoctoral project is to contribute to a study of the evolution of the solar hidden magnetism with the solar cycle and a possible role of the global and local solar dynamo. Accordingly, the postdoc is expected to participate in a dedicated synoptic spectropolarimetric observational program, in data analysis and further development and enhancement of high-precision spectropolarimetric observational methods. The postdoc will participate and help in the organization of observing campaigns that IRSOL carries out at the GREGOR telescope. The postdoc is also expected to collaborate with members of the observing group at IRSOL and particularly with a PhD student funded through the same SNSF project, whose thesis project is related with a study of the magnetic field evolution during solar flares.



## Candidate profile

We seek a postdoctoral scientist who holds a PhD-degree and a Master Diploma in physics or astronomy, with research experience in solar physics, preferably related to observations, polarimetry and instrumentation. The candidate should further have experience in programming (in particular IDL and Python), be proficient in written and spoken English and have excellent communication skills.

## Practical information

The project is funded by the Swiss National Science Foundation (SNSF). The position is available for a time period of **3 years** starting from **January 2024**.

The yearly gross salary is 87'125 CHF for the first year and increases up to 92'250 CHF in the third year.

Applications should be sent by email to Dr. R. Ramelli ([renzo.ramelli@irsol.usi.ch](mailto:renzo.ramelli@irsol.usi.ch)) and should include the following matter:

- 1) Curriculum vitae;
- 2) statement of research interest;
- 3) digital copies of the master diploma including course grades;
- 4) digital copy of the PhD certificate;
- 4) contact information for two potential professional references.

Please quote in email subject the job title as 'postdoc position'.

Review of applications will start on **October 1<sup>st</sup> 2023** and continue until the position is filled.

Questions concerning the advertised position should be directed to Dr. Renzo Ramelli ([renzo.ramelli@irsol.usi.ch](mailto:renzo.ramelli@irsol.usi.ch)).