

EUROPEAN SOLAR MAGNETISM NETWORK

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ABSTRACT

The future *European Solar Magnetism Network* (ESMN) will continue and expand collaborations of the past *European Solar Magnetometry Network* (ESMN). Both ESMN incarnations are funded by the European Commission, in the Fourth and Fifth Framework programmes respectively. The major past and future ESMN activity is the employment/deployment of European postdocs.

Keywords: solar physics, European research, European Commission

1. THE PAST ESMN

During the past four years, ESMN stood for *European Solar Magnetometry Network* and denoted a collaboration of eight European solar physics research groups funded by a grant from the FP4-TMR programme of the European Commission. It ended a month before this conference.

The past ESMN partners were:

- Sterrekundig Instituut Utrecht
- Instituto de Astrofísica de Canarias, La Laguna
- Osservatorio di Capodimonte, Naples
- Institute of Theoretical Astrophysics, Oslo
- Research Station for Astrophysics, Stockholm
- Astrophysikalisches Institut, Potsdam
- DASOP, Meudon
- ESA Space Science Department, Noordwijk

and the proposal goal was “to integrate the development and usage of the European solar telescopes on the Canary Islands with space observation and data interpretation and theoretical analysis”. As its name indicated, the ESMN concentrated on solar magnetometry but in a rather broad sense.

The size and constitution of the ESMN were strongly dictated by EC FP4/TMR constraints. The above selection was partially based on political considerations. The absence of *e.g.*, the Kiepenheuer Institute in Germany and the whole UK are obvious non-political deficits. It would be preferable to set up Europe-wide networks including *all* pertinent solar physics groups, but so far this was impossible by the overly strict rules of the Fourth and Fifth Framework programmes. See Rutten (2001) for a wider-perspective discussion of the upcoming Sixth

Framework European Research Area from the solar physicist point of view.

The main benefit of the ESMN funding from Brussels (1,250 k€ in total) was the recruitment of postdocs and some predocs (PhD students), eventually making up a total of 18 “ESMN fellows” employed by the ESMN during 320 “fellow-months”. Some fellows are at this meeting.

The activities of the ESMN were quite varied, ranging from telescope design and construction to theory and simulation. The common link was indeed the use of the Canary Island solar telescopes and SOHO, with sunspot dynamics, spectropolarimetry, and numerical MHD simulations receiving most emphasis. In my opinion the SVST → NSST change represents the most amazing feat. Obviously, most of these activities would have happened also without an ESMN, but it is fair to say that they were boosted by ESMN fellows and by ESMN collaborations, in some cases considerably. The ESMN website¹ includes the yearly reports and the mid-term and final reports to the EC in which the ESMN exploits are spelled out in detail.

In my own case, I have been extremely happy with being able to hire Peter Sütterlin as ESMN postdoc at Utrecht (my very first postdoc; the solar physics support at Utrecht doesn’t extend to postdoc positions, the principal motivation for me to start and coordinate the ESMN notwithstanding the relatively large overload of paperwork required by Brussels bureaucracy). He brought the speckle expertise developed at Göttingen by de Boer, Kneer, himself and others to the Dutch Open Telescope and turned that innovative telescope into a consistent long-sequence speckle imager. The beautiful DOT speckle movies are available at <http://dot.astro.uu.nl>; many were shown during this conference.

Another ESMN activity was the organization of three outstanding schools. The first one was the “Radiative Transfer and Radiation Hydrodynamics” Summer School in Oslo during June 1999. The second became the Canary Islands Winter School on “Astrophysical Spectropolarimetry” in November 2000. The Dwingeloo Spring School “Solar Magnetism” in April 2002 was co-organised with the more theory-inclined PLATON sister network.

¹<http://esmn.astro.uu.nl/>

2. THE FUTURE ESMN

A draft contract for the *European Solar Magnetism Network* under the EC's Fifth Framework RTN Programme went to Brussels a few days before the start of this conference. It is likely to start per October 1, 2002, again have a duration of four years, and again have about 1.4 M€ to spend, primarily on postdoc salaries. The future ESMN partners are (adding names of local ESMN “scientists-in-charge”):

- Sterrekundig Instituut Utrecht
Robert J. Rutten (ESMN coordinator)
- Instituto de Astrofísica de Canarias, La Laguna;
Javier Trujillo Bueno
- Osservatorio Astrofisico di Arcetri, Florence
Gianna Cauzzi
- Institute of Theoretical Astrophysics, Oslo
Mats Carlsson
- Institute for Solar Physics, Stockholm
Göran B. Scharmer
- Astrophysikalisches Institut, Potsdam
Jürgen Staude
- LESIA, Meudon
Brigitte Schmieder
- ESA Space Science Department, Noordwijk
Bernhard Fleck
- Astronomical Institute Czech Acad. Sciences,
Ondřejov
Michal Sobotka
- Astronomical Institute Slovak Acad. Sciences,
Tatranska Lomnica
Ales Kučera
- Department of Astronomy, Eötvös University,
Budapest
Kristóf Petrovay

The addition of three “Associated State” partners herald future EC membership expansion — but most of the ESMN funding will go to hiring one postdoc per Western partner. Some predoc hiring at shorter durations is likely to occur as well.

The goal is to continue ESMN activities, in principle “more of the same” but with some emphasis shift from magnetometry techniques to science applications.

The ESMN will again organize three advanced schools in similar formats as the three past ESMN schools. The first one is likely to be integrated into a Canary Island Winter School, the second one to be a third edition of the highly successful Oslo School on radiative transfer and radiation hydrodynamics, and the third one will again teach solar magnetism, again in Dwingeloo or in Tratranska Lomnica.

3. JOB OPPORTUNITIES

Applications to ESMN postdoc positions are welcome anytime as email to the author. Starting dates must fall at or after the official ESMN starting date sometime this autumn (2002). Appointment durations will usually be 2.5 years. Only candidates that are EU or Associated State nationals below 36 years of age can apply, they must be from another country than where the hiring institute is located, and they may not have spend more than 18 months in the hiring country during the past two years. More information is available on the ESMN website at URL <http://esmn.astro.uu.nl>.

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REFERENCES

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