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Nature of Prominences and their Role in Space Weather

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Brigitte Schmieder
Jean-Marie Malherbe
S.T.Wu

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NATURE OF PROMINENCES AND THEIR ROLE IN SPACE WEATHER

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HELD IN PARIS, FRANCE
JUNE 10–16, 2013

Edited by

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Observatoire de Paris, MEUDON

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Preface

IAU Symposium 300, “Nature of solar prominences and their Role in Space Weather” was coordinated through Division II, with the strong support of Division IV and several commissions. It was held in Paris, France, from 10 to 14 June 2013.

This symposium was dedicated to Einar Tandberg Hanssen. We started the symposium with memories about his career by inviting his two daughters to Paris. Jean Claude Pecker (from the Académie des Sciences), S.T. Wu, R. Moore from Hunstville and B. Schmieder from LESIA (Observatoire de Paris) presented his work from all along his long career as a specialist in solar prominences and Principal Investigator of the UV instrument (UVSP) on-board the Solar Maximum Mission satellite (SMM). 175 scientists from 30 countries attended the meeting at the Ecole Nationale Supérieure de Chimie Paris Tech (Paris Sciences et Lettres Research University). We had 36 participants from France, 25 from the US, 17 from Spain, 15 from the UK, and 14 from China. More than 6 scientists came from each of the following countries : Russia, South Korea, Germany, Belgium and India. Four came from Japan and the Czech Republic. Between 1 and 3 participants came from : Iran, Poland, Argentina, Norway, Brazil, Costa Rica, Tajikistan, Slovenia, Austria, Sweden, Romania, Slovakia, Mexico, Portugal, Serbia, Italy and Canada. Many young researchers attended the meeting and three of them received a prize for the best poster selected by the SOC members. The conference dinner aboard a cruise ship on the Seine during the sunset left all the participants with good memories.

The meeting was divided in 4 Sessions : Prominences (I), Coronal Mass Ejections and Space Weather (II), Ejections from Stars (III) and Instrumentation (IV).

There were 28 invited reviews, 48 contributions and 98 posters. The topics were very interesting. The aim of this IAU Symposium was to present a review of the state-of-the-art theoretical and numerical modeling, and space-borne (Hinode, STEREO and SDO) and ground-based observational studies of prominences and their role in the dynamics of Sun-Earth relations. It also opened new perspectives for people, and especially young ones, working in the field. Prominences have an active role in Space Weather. Magnetic clouds and Interplanetary Coronal Mass Ejections (ICME) associated with erupting prominences can produce severe perturbations in the Earth’s environment. Moreover, huge prominences and CMEs have been detected in solar-type stars (and others) and exoplanets. It was interesting to put the properties of solar prominences in a broader perspective, on one hand, and to present the status of the sophisticated solar analysis to the stellar community on the other hand. Eric Priest made a very lively summary detailing all the sessions and the keynote talks at the end of the meeting (see this issue).

Two american scientists were not allowed to come because of the NASA restrictions and five participants could not come because of visa problems. They were replaced on time and finally all the talks were given on the right schedule.

We would like to thank the meeting sponsors (IAU, KLSA/CAS from China, SCOSTEP, ESA) and from France (SF2A, CNES, Observatoire de Paris, LESIA, IAS, PNST). They allowed us to support financially more than 50 participants.

The editors are also indebted to all the LOC members and particularly E.Pariat and E. Buchlin. We are very grateful to the following reviewers who helped a lot for improving the papers: Chae J., Dasso S., Heinzl P., Jardine M., MacKay D., Schmieder B, Srivastava N., van Driel L., Webb D. assisted by Aulanier G., Démoulin P., Bommier V., Koutchmy S., Ballester J.L., Gopalswamy N, Gilbert H., Gunar S., and Vial J.C. Please notice that

many of the papers contain color figures, which are printed in black and white but which can be viewed online in color.

The editors of IAUS300: B. Schmieder, J.-M. Malherbe and S.T. Wu 25 September 2013

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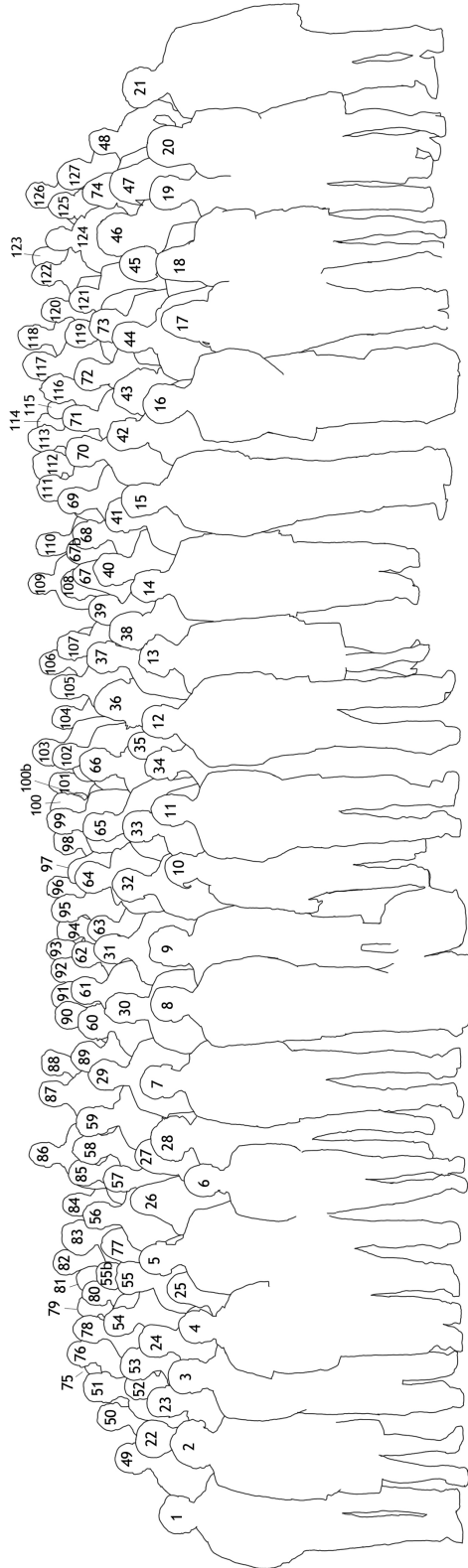
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