

Foreword

Although science is an international venture, regional meetings do serve important purposes. The solar physics communities in North America and in Europe had been having their regional meetings for many years. With the explosive growth of solar research in several Asia-Pacific countries in the last few years, some of us had been wondering whether the time was ripe for an Asia-Pacific Solar Physics Meeting.

One of us (ARC) sent an e-mail on 24 May 2010 to several senior solar physicists of the Asia-Pacific region, soliciting their opinion whether it would be worthwhile to organize an Asia-Pacific Solar Physics Meeting (APSPM). There were no negative responses to this suggestion. However, while a majority of the persons consulted were extremely enthusiastic about the idea, a few expressed a concern that we should avoid a multiplicity of too many meetings. Do not the IAU Asia-Pacific Meetings or the AOGS Meetings provide adequate platforms for solar physicists of our region to interact together? It was finally decided that we must have one APSPM to judge whether such a meeting would provide any unique opportunities which are not provided by other meetings. We as organizers should not comment how the first APSPM had gone. It should be left to the judgments of other participants whether the Meeting was successful. However, when the question whether APSPMs should continue in future was discussed in the SOC meeting towards the end of the first APSPM, there was unanimous agreement that we should continue to have such meetings of the solar physicists, by the solar physicists and for the solar physicists of our region at regular intervals. Bigger meetings in which solar physics was a small part did not provide quite the same ambience. We are very happy that the Chinese colleagues have volunteered to host the next APSPM tentatively scheduled for 2013.

While the main aim of APSPM was to foster co-operation and interactions amongst solar physicists within the Asia-Pacific region, any solar physicist from anywhere in the world was welcome to attend APSPM. Robertus Erdélyi, who attended APSPM, justified his participation by claiming that his ancestors lived in Asia 5000 years ago! We hope that there will be more participants from outside the Asia-Pacific region in future APSPMs without requiring such justifications.

There was only one dark cloud that hung over a Meeting which all of us otherwise enjoyed. A few days before APSPM, tragedy struck Japan in the form of a devastating earthquake and a tsunami. Some of the Japanese colleagues who had important administrative responsibilities back home had to cancel their trips. We are grateful to several Japanese colleagues who strongly felt that they had to support APSPM and came over here in spite of very difficult conditions at home.

Siraj Hasan, Director of Indian Institute of Astrophysics (IIA), offered to host the Meeting in IIA and also hosted the lunches in addition to the meeting dinner. This enabled us not to have any registration fee. However, this meant that the Meeting did not have any separate funds for such purposes as providing travel support to young participants. We could only provide the local hospitality to a few participants. It was decided in the SOC meeting that there should be a reasonable registration fee in any

future APSPM. Since we had two India-China Solar Physics Meetings previously, the first APSPM was also considered the third India-China Solar Physics Meeting and a major part of the first day was reserved for talks aimed at strengthening interactions between Indian and Chinese solar physicists. Very importantly, this enabled us to obtain financial support for the Indian and Chinese participants through a bilateral agreement between the Department of Science and Technology (India) and the Natural Science Foundation of China, making it possible for a large team of Chinese colleagues to participate in the meeting.

A special effort was made in APSPM to have several oral presentations by PhD students and young participants. To encourage young participants, Takashi Sakurai, editor of *Solar Physics*, offered on behalf of Springer (the publisher of *Solar Physics*) a best paper award in the form of a subscription of *Solar Physics* for 4 years. To be eligible for this award, a participant had to be within 5 years of PhD and less than 40 years in age, with an oral presentation or a poster in APSPM. There were nearly 20 participants who satisfied these criteria. A committee consisting of Jongchul Chae, Robertus Erdélyi, Leonid Kitchatinov, Takashi Sakurai and Jingxiu Wang was given the job of selecting the best paper. This committee found that many papers by young participants were of very high quality. At that stage, Jingxiu Wang, editor of *Research in Astronomy and Astrophysics*, came up with a similar award in the form of a subscription of *Research in Astronomy and Astrophysics*. Finally Siraj Hasan, Director of IIA, again rose to the occasion and offered an award on behalf of IIA. These three awards were respectively given to Ram Ajour Maurya, Hideyuki Hotta and Jie Jiang.

Since too many proceedings are published nowadays without getting much attention of the community, we were initially not sure whether we should think of publishing a Proceedings volume. As this has been a rather unique historic meeting, the SOC felt the need to bring out the Proceedings and the editorial job was thrust upon our initially unwilling shoulders. Although we were initially not very enthusiastic at the prospect of spending a large amount of time on this editorial work, eventually it turned out to be a rewarding experience when we saw the enthusiasm of many participants. In this age of too many proceedings, we were initially sceptical whether many participants would write up their presentations as papers for our Proceedings. To our pleasant surprise, we got papers from about 75% of the potential authors. The SOC decided that posters should not be included in the Proceedings. However, in order to encourage young participants, the committee which selected the best paper awards recommended the inclusion of 4 posters by young participants in the Proceedings volume. Additionally, we invited papers from a few persons who were very eager to attend APSPM but finally could not make it. We are happy to have such papers from Paul Cally, Misha Demidov, Shadia Habbal and Saku Tsuneta. Although we had no participants from Uzbekistan in APSPM, colleagues from the Uzbek Academy of Sciences have contributed a paper in our special section on solar physics in different Asia-Pacific countries. We do hope that this special section will be of particular interest to the readers and the whole volume will be regarded as a document of some historical significance even in this age of too many proceedings.

Apart from providing the necessary funds for the Proceedings, Siraj Hasan has been our friend, philosopher and guide throughout the process of preparing the Proceedings. We are grateful to D. J. Saikia, editor of the publications of Astronomical Society of India (ASI), who showed great enthusiasm for this project and agreed to publish our Proceedings in the *Conference Series* of ASI after consultation with the editorial board. It was a pleasure to work with Sandra Rajiva on the preparation of this volume.

Professor E. N. Parker, the most influential solar physicist of our time, had always taken a special interest in the growth of solar physics in the Asia-Pacific region. On hearing of APSPM, he sent a message for us. We end by quoting the message from Professor Parker: "I am pleased to learn of the Asia-Pacific Solar Physics meeting later in the month. The scientific challenges posed by the Sun and the solar wind and the heliosphere are immense. When I think about the basic unanswered questions, I can see that it will take the efforts and cooperation of all the solar physicists in the Asia-Pacific region, and indeed in the world, to move the subject forward. We should keep in mind the many basic mysteries, e.g. the sunspot, the internal differential rotation of the Sun, the fibril structure of the magnetic field at the visible surface, and the related question whether the field is in a fibril state throughout the convective zone, and then the structure of the solar dynamo throughout the convective zone, and many others. Somehow these phenomena all conform to the basic laws (equations) of physics, and the challenge is to understand how the basic laws produce them. They deserve your serious thoughts. Perhaps something will emerge at the Asia-Pacific Solar Physics Conference."

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