Solar magnetism and dynamics & THEMIS users meeting

Meudon (France), November 15-17, 2006

Scientific Organizing Committee

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Sponsorship

CNRS, Programme National Soleil-Terre
Observatoire de Paris-Meudon, Centre International d'Ateliers Scientifiques

FOREWORD

This meeting gathered more than 50 scientists from various nationalities: French, Italian, Spanish, German, Greek, Swiss, one Romanian, one Czech, one Slovak, one Mexican, one Chinese, one U.S. American. Two key figures were invited: B. Lites (HAO, Sac Peak), who was the President of the THEMIS Visiting Committee in 2003-2004, and J.O. Stenflo, personality in Solar Physics and designer of the high-speed polarimeter ZIMPOL invited upon THEMIS in 2007.

After the first outstanding images coming from Hinode/Solar-B, the first THEMIS results obtained with the new MTR mode cameras (spectropolarimetry with high polarimetric resolution) were presented. Then numerous THEMIS results were highlighted to the colloquium ("second solar spectrum", chromospheric lines, molecular lines, hyperfine structure, prominences/filaments, and subjects in emergence: speckle interferometry, stellar and planetary polarimetry). In particular it was shown that the internetwork magnetic field does not seem to have a structuring that may be superimposed to the granular one. Other results and theoretical investigations were presented that permit to situate the THEMIS results in connection with their context, in particular with the first results of the wide field camera CALAS of the Pic-du-Midi, and with the results of the high-speed polarimeter ZIMPOL that will be invited upon THEMIS in 2007. For Solar Corona physics, the dome C site qualities were emphasized, together with the first theoretical investigations of the feasibility of the Zeeman and Hanle tomography.

The P.I. for the database BASS2000 showed its first vector magnetic field map, and announced that the mass inversion (in terms of vector magnetic field) of the data of map type contained in the basis is now starting up.

Finally, the following motion was unanimously adopted at the end of the meeting (minus one voice): "The European solar physicists, and in particular the French ones, gathered at the THEMIS Users Meeting held in Meudon, 2006 November 15-17, express their high interest in the development of a solar European project such as EST. They wish to promote, and participate into, collaborative actions such as a EC Design Study aiming at building a large European solar telescope."

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V. Bommier and S. Sahal-Bréchot