



Report from the EPS Plasma Physics Divisional Board

Development of the Division

The “Beam Plasma & Inertial Fusion” and “Low Temperature & Dusty Plasmas” sections have changed the line-up of their committees and new representatives have been nominated within the EPS PPD Board: Dimitri Batani (BPIF - France) and Achim von Keudell (LTDP - Germany). A new member from Russia – Oleg Petrov – has also been co-opted to improve the geographical balance. Considering that a presence on the Web is essential for the visibility of the Division, the website at <http://plasma.ciemat.es/eps/> has finally been updated.

Board meetings

The Board met twice in 2012, the 1st of July in Stockholm and the 27th of November in Paris.

Stockholm EPS / ICPP Conference 2012

The 39th European Physical Society Conference on Plasma Physics, combined with the 16th International Congress on Plasma Physics, was held in Sweden, at the Stockholm Waterfront Congress Centre, from the 2nd to the 6th of July, 2012. It was hosted by the Royal Institute of Technology (KTH) and was locally organized by a team from the Space and Plasma Physics Department coordinated by Svetlana Ratynskaia and Lars Blomberg. The conference attracted about 780 delegates coming from 48 countries. A number of satellite meetings took place during and just after the conference, including the 2012 EFTSOMP (Electric Fields, Turbulence and Self-Organisation in Magnetized Plasmas) workshop.

Thanks to interaction-friendly state-of-the-art premises and to a very pleasant atmosphere, as well as to the quality of the program proposed by the Program Committee (PC) chaired by Ambrogio Fasoli, the conference was a success and reflected the richness of plasma physics, from its most fundamental aspects to its academic and industrial applications, including fusion for energy. The PC was, for that purpose, structured into four sub-committees, representing *Magnetic Confinement Fusion* (MCF – chaired by Volker Naulin), *Beam Plasma and Inertial Fusion* (BPIF – chaired by Luis Silva), *Basic, Space and Astrophysical Plasmas* (BSAP – chaired by George Morales) and *Low Temperature and Dusty Plasmas* (LTDP – chaired by Padma Shukla). The proceedings, covering contributed orals and posters, were published in the Europhysics Conference Abstracts (ECA) Series (vol. 36F) and are available online at <http://ocs.ciemat.es/EPSICPP2012PAP/html> thanks to the PC Scientific Secretary Boudewijn van Milligen (CIEMAT, SP). The invited papers were published in the December 2012 special issue of Plasma Physics and Controlled Fusion (vol. 54(12)) and can be consulted at <http://iopscience.iop.org/0741-3335/54/12>.

Espoo EPS Conference 2013 (<http://eps2013.aalto.fi/>)

The 2013 Local Organising Committee is chaired by Taina Kurki-Suonio, with the help of Markus Airila as Scientific Secretary. The 2013 Programme Committee, chaired by Volker Naulin, met twice, in November 2012 in Paris and in March 2013 in Espoo. Its composition is given below. Fruitful suggestions were received from individual scientists and institutional laboratories through the EPS/PPD Open Forum.

- Volker Naulin PC chair (DK), Sylvie Jacquemot EPS/PPD chair (FR), *ex-officio*, Cary Forest APS, Atsushi Fukuyama JSPF
- *Magnetic Confinement Fusion*: Clemente Angioni sub-chair (DE), Ian Chapman (UK), Teresa Estrada (SP), Boris Kuteev (RU), Thierry Loarer (FR), Jef Ongena (BE), Monica Spolaore (IT) and Peter de Vries (NL)
- *Basic, Space and Astrophysical Plasmas*: Stefan Poedts sub-chair (BE), Tahar Amari (FR), Tony Bell (UK), Ivo Furno (CH) and Alessandro Retino (AT)
- *Beam Plasma and Inertial Fusion*: Marco Borghesi sub-chair (UK), Jan Badziak (PL), Gonzalo Figueira (PT), Luca Labate (IT), Daniele Margarone (CZ), Olga Rosmej (DE) and Francesco Javier Sanz Recio (SP)
- *Low Temperature and Dusty Plasmas*: Svetlana Ratynskaia sub-chair (SE), Jan Benedikt (DE), Nerea Bordel (SP), Åshild Fredriksen (NO), Eva Kovacevic (FR) and Deborah O’Connell (UK)

A Plasma Diagnostic Satellite Workshop is organised in conjunction with the conference. Its Program Committee is composed of: Tony Donn  (NL - chair), Dimitri Batani (FR), Uwe Czarnetzki (DE), Nataly Ganushkina (FI), Andrea Murari (UK) and Svetlana Ratynskaia (SE).

Berlin EPS Conference 2014

The 2014 EPS Plasma Physics Conference will be held in Berlin (Germany) from the 23rd to the 27th of June, 2014. The Local Organising Committee is chaired by Thomas Klingner. The 2014 Programme Committee, as for it, is chaired by Svetlana Ratynskaia and includes:

- for MCF: P. Mantica (IT – sub-chair), P. Brunzell (SE), A. Dinklage (DE), R. Dumont (FR), J. Garcia (FR), J. Hobirk (DE), A. Kendl (AT), R. Pasqualotto (IT), S. Sharapov (UK) and F. Tabares (SP),
- for BPIF: A. Benuzzi-Mounaix (FR – sub-chair), J. Palsey (UK), P. Racza (PL), P. Renaudin (FR), M. Roth (DE) and A. Schiavi (IT),
- for BSAP: R. Bingham (UK – sub-chair), G. Lapenta (BE), C. Michaut (FR) and S. Popel (RU)
- for LTDP: G. Dilecce (IT – sub-chair), R. Engeln (NL), A. Kudryavtzev (RU) and T. Trottenberg (DE).

Suggestions from the community for invited and plenary speakers will be welcome through the Open Forum to be open by the end of the year on the conference website.

Prizes

The EPS Plasma Physics Division took the opportunity of its annual conference to reward researchers who have achieved outstanding scientific or technological results, thus reinforcing excellence in science.

The **2013 Hannes Alfvén Prize** is awarded to **Miklos Porkolab** (MIT Plasma Science and Fusion Center, US) “for his seminal contributions to the physics of plasma waves and his key role in the development of fusion energy”.

The outstanding contributions of Prof. Miklos Porkolab to plasma physics, and his major long-standing scientific interest, is the understanding of plasma-wave interactions and its applications to heating and current drive in fusion relevant magnetized plasmas. He has significantly expanded the field of RF heating through several pioneering experiments conducted on different tokamaks. These experiments covered the whole range of frequencies, from electron and ion cyclotron to lower-hybrid resonances. His contributions to properly developed theories and diagnostic techniques, including CO₂ laser scattering or more recently Phase Contrast Imaging, led to important discoveries such as the role of parametric decay instabilities at high RF powers or the mode conversion of the fast magnetosonic wave into kinetic ion cyclotron waves. Miklos Porkolab also valuably and successfully explored ion Bernstein wave and fast magnetosonic wave electron heating, and lower hybrid wave current drive and profile control in tokamak plasmas. Other areas of significant contributions include studies of plasma turbulence and its impact on energy confinement, laboratory magnetic reconnection, and laser-plasma interaction and inertial confinement fusion. With such a broad scientific expertise in plasma physics, unique contributions to first-rate theories, exciting and novel experiments and development of innovative diagnostic techniques, as well as with a great devotion to science education and service, Miklos Porkolab has had a strong impact on fusion energy research worldwide.

The **2013 Plasma Physics Innovation Prize** of the European Physical Society was not awarded.

The **2013 EPS Plasma Physics Division PhD Research Award** has been judged by an external committee, comprising Jan Hugill (UK), Eugen Stamate (DK), Greg Tallents (UK) and Fritz Wagner (DE), who examined all the candidatures in a process managed by Elisabeth Wolfrum representing the EPS Plasma Physics Division. Based on their conclusions, this year’s awards go to (alphabetical order):

- **Frederico Fiúza**, for his thesis “Multi-scale PIC modeling of high energy density scenarios: from laboratory to astrophysics” (IST/GoLP, PT),
- **Elena Nedanovska**, for her thesis “Thomson scattering from technological plasmas” (QUB, UK),
- **Lidia Piron**, for her thesis “Improved feedback control of MHD instabilities and error fields in reversed-field pinch and tokamak” (Padua, IT), and
- **István Pusztai**, for his thesis “Turbulent and neoclassical transport in tokamak plasmas” (Chalmers, SE).

The **2013 IoP-EPS Poster Prizes** and the **2013 Itoh Project Prize in Plasma Turbulence**, sponsored by the Kyushu University (Japan) and supported by IoP, will be awarded during the conference and their recipients announced during the closing session.

*S. Jacquemot, on behalf of the EPS Plasma Physics Division Board
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