

2008 IEEE International Conference on Plasma Science (ICOPS 2008)

The 35th IEEE International Conference on Plasma Science (ICOPS 2008), sponsored by the Plasma Science and Applications Committee (PSAC) of the IEEE Nuclear and Plasma Sciences Society (NPSS), was held at the Congress Center in Karlsruhe, Germany, from June 15 through June 19, 2008. This is the second time that the ICOPS Conference was held outside North America, following the initial event in Jeju, Korea, in 2003. We are delighted to report that ICOPS 2008 proved to be a very successful event. The conference welcomed over 550 attendees from 42 countries around the globe. We are pleased to report that approximately 25% of the total registrants were students, evidence that the conference appeals to future plasma scientists.

The ICOPS 2008 technical program was superb with the technical topics organized into seven broad areas. Each area was headed by a Technical Area Coordinator (TAC) who also served as a member of the technical committee. The technical areas were:

- Basic Processes in Fully and Partially Ionized Plasmas
- Microwave Generation and Plasma Interactions
- Charged Particle Beams and Sources
- High Energy Density Plasma Applications
- Industrial, Commercial and Medical Plasma Applications
- Plasma Diagnostics
- Pulsed Power and other Plasma Applications.

Across these technical areas, there was a total of 33 separate technical topics representative of the wide scope of scientific endeavor embraced at ICOPS 2008. Each topic was managed by an individual Session Organizer (SO), who was responsible for organizing the technical sessions. This includes reviewing submitted abstracts, selecting invited talks, determining oral and poster papers, ordering the sessions and communicating with other SO's. The full session list can be viewed at

www.icops2008.org. From 642 paper submissions 619 abstracts were accepted and the technical program consisted of 7 plenary talks (addressing the seven technical areas), 59 invited keynote talks, 231 oral contributed presentations in 5 parallel sessions and 322 posters. 287 abstracts came from Europe, 157 from North America, 155 from Asia, 11 from Australia, 5 from Africa and 4 from South America. The topics attracting the highest number of abstracts were: Medical, Biological and Environmental Applications, Fast Z-Pinches and X-Ray Lasers, Nonequilibrium Plasma Applications and High Pressure and Thermal Plasma Processing. The technical success of ICOPS 2008 can be largely attributed to the TACs and SOs who diligently solicited high-quality contributions and organized the sessions. See www.icops2008.org for a list of the TACs and SOs.

The seven plenary talks which were presented by worldwide well-respected members of the plasma science community enriched the technical program.

A Special Issue of *IEEE Transactions on Plasma Science* (TPS) will be published to document ICOPS 2008, in addition to the Conference Record-Abstract Book. The Special Issue is devoted to Plenary and Invited Talks from ICOPS 2008. Steve Gitomer of Los Alamos National Laboratory, the Editor-in-Chief, along with the Guest Editors Gerd Gantenbein, Stefan Illy and Georg Müller, all from the Institute of Pulsed Power and Microwave Technology (IHM) at Research Center Karlsruhe (FZK), Germany, are overseeing this Special Issue.

ICOPS 2008 also featured a 2-day Minicourse on Microwave Processing of Materials, organized by Lambert Feher of the IHM/FZK. The course attracted 16 attendees from industry and academia. The technical program consisted of 10 lectures and a visit to the HEPHAISTOS-Experimental Center at IHM/FZK.

ICOPS offers a Student Grant Travel program to encourage student participation to the conference. The Chair of the Student Travel Grant Committee (a PSAC/ExCom function) has been John Luginsland of NumerEx. Travel grants were awarded to 9 students assisting their attendance to ICOPS 2008. The on-site IEEE membership booth was run by Oliver Prinz of IHM/FZK and Dan Jobe (Past Chair of PSAC/ExCom). A total of 121 new members (record!) to IEEE signed up.

To facilitate networking and social interaction, ICOPS 2008 hosted a welcome reception on Sunday evening, a reception by the mayor of Karlsruhe in the City Hall of Karlsruhe on Monday evening, a wine tasting evening with local food in the Palatinate (Pfalz) on Tuesday evening and a banquet in the Palace of Schwetzingen on Wednesday evening. All events were extremely well attended. At the ICOPS 2008 banquet, John H. Booske of the University of Madison-Wisconsin and Y.Y. Lau of the University of Michigan received IEEE/NPSS Fellow Certificates, Paul K. Chu of the City University of Hongkong got the 2007 IEEE/NPSS Merit Award and Steven Gold of the U.S. Naval Research Laboratory (NRL) received the 2008 IEEE/NPSS Richard F. Shea Distinguished Member Award.

Phillip Sprangle of the NRL was the winner of the annual Plasma Science and Applications Committee Award which was also presented by Ron Gilgenbach (Chair of PSAC/ExCom) at the ICOPS 2008 banquet.

Two awards combined with checks were granted for the two best student papers to Ioana A. Biloiu of West Virginia University, USA, and Sameer Kalghatgi of Drexel University, USA, for their oral and poster presentations, respectively. In addition, certificates were given to the two runners-up Puthenparampil Wilson of Queen's University Belfast, UK, and Peter Bruggeman of Ghent University, Belgium. The Best Student Paper Award Committee was headed by the PSAC Award Committee Chair Monica Blank of Communications & Power Industries, USA.

Tours for companions, a guided historical walk in Karlsruhe, sightseeing in the City of Speyer and a Heidelberg tour were organized.

ICOPS 2008 benefited greatly from the generous support of a number of organizations. Supporters of ICOPS 2008 included: Research Center Karlsruhe, University of Karlsruhe, German IEEE Section NPSS Chapter and the European Office of Aerospace Research & Development (EOARD). Volunteers from the Research Center Karlsruhe also provided invaluable hands-on support before, at and after the conference.

We sincerely thank all those involved, in particular the Conference Executive Committee: Technical Program Committee Chair Günter Dammertz, Conference Managers Gabriela Bertsch and Martina Huber, Treasurer Georg Müller, Abstracts Manager Stefan Illy, Exhibition Organizer Wolfgang Frey, Poster Session Organizer Bernhard Piosczyk, LAN and WLAN Organizers Jens Flamm and Daniel Mellein, LCD Equipment Manager Kevin Paulus, Laboratory Visitor Organizer Guido Link, Minicourse Co-Chair Lambert Feher and Companion Program Managers Manuela Wettstein and Jutta Thumm. Their contributions were crucial in ensuring the great success of ICOPS 2008.

For additional information, please visit the website at www.icops2008.org or contact Manfred Thumm at manfred.thumm@ihm.fzk.de or Hansjoachim Bluhm at hansjoachim.bluhm@ihm.fzk.de.



Manfred Thumm
ICOPS 2008 Chair



*ICOPS 2008 Awards Ceremony:
J. Booske, Y. Lau, P. Sprangle,
R. Gilgenbach, S. Gold, M. Thumm and
P. Chu (from left to right)*



Hansjoachim Bluhm
ICOPS 2008 Co-Chair