

C16 report 2012-2013

submitted by Robert Bingham (Chair)

I. IUPAP C16 SPONSORED/ENDORSED CONFERENCES

The XXXI International Conference on the Phenomenon in Ionized Gases (ICPIG) Granada, Spain July, 2013.

II. C16 2012 YOUNG SCIENTIST PRIZE IN PLASMA PHYSICS

Purpose: The IUPAP Commission C16 Young Scientist Prize recognizes exceptional achievement in the study of plasma physics by scientists at a relatively junior stage of their career. The recipient must be no more than eight years post PhD (excluding career interruptions) by the deadline of the competition, and is expected to have displayed significant achievement and exceptional promise for future achievement in an area of plasma physics. The Prize will consist of 1,000 Euro and a Medal and Certificate. The prize selection committee will consist of C16 commission members.

2013 Award Winner: Peter Bruggeman won the IUPAP C16 Young Scientist Prize.

The citation reads:

For studies that have provided fundamental insights into the nature of plasmas in and in contact with liquids, and of basic phenomena in non-equilibrium atmospheric-pressure discharges.

Peter Bruggeman carried out his research at the University of Eindhoven, NL. He has now taken up the position of Richard and Barbara Nelson Associate Professor of Mechanical Engineering at the University of Minnesota, USA.

The IUPAP C-16 medal and certificate were presented at the XXXI International Conference on the Phenomenon in Ionized Gases (ICPIG), Granada, Spain July, 2013. IUPAP is considering renaming the Young Scientist Award in the future as the *Early Career Award*.

III. IUPAP C16 COMMISSION MEETINGS

July 2013 – XXXI International Conference on the Phenomenon in Ionized Gases (ICPIG) Granada, Spain.

November 11 – 15, 2013 Annual meeting of the APS Division of Plasma Physics (DPP), Denver, CO.

The C16 meeting is scheduled to take place at the this meeting.

IV. FUTURE MEETINGS

The following conferences have requested IUPAP support.

The International Congress in Plasma Physics (ICPP), 15th -19th August 2014, Lisbon, Portugal. Organised by Professor Tito Mendonca. ICPP is a category A conference.

The International Conference on the Physics of Dusty Plasmas (ICPDP) 16th -20th May 2014, Dehli, India. Organised by Avinash Khare, University of Dehli, India. ICPDP is a category B conference.

V. OTHER C16 COMMISSION ACTIVITIES

Response to the Royal Society Questionnaire: The C16 Commission Chair, Robert Bingham, suggested that the grand challenge in plasma physics is fusion energy, and that the National Ignition Facility (NIF) at Livermore, and The International Thermonuclear

Experimental Reactor (ITER), being built in Cadarache, France, are to plasma physics, equivalent to the LHC at CERN.

Footnote: In August the National Ignition recorded the highest yield fusion shot. It is making steady progress towards ignition and gain.