

Report of the Commission C15

Atomic, Molecular and Optical Physics

on the occasion of the IUPAP C&CC Meeting in London,
October 31 to November 2, 2011

The Commission C15 has met on July 27, 2010 in Belfast, Northern Ireland during the International Conference on Photonic, Elelectronic and Atomic Collisions 2011 (ICPEAC).

Our field of Physics is dominated by the two large International Conferences ICAP and ICPEAC which are held successively every 2 years. From this point of view due the high selforganization of the Physists in our field, IUPAP does not play a dominant role like in several other fields. This is the reason why we meet only once a year.

Unfortunately most members of our Commission have their main activities in only either ICAP or ICPEAC so that the attendance during each of these meetings is not satisfactory. One additional reason in the case of the ICPEAC in Belfast this year was that 3 persons could not come on short notice due to urgent personal reasons.

The ICPEAC this year was attended by more than 600 physicist from about 30 countries. A good number of the 200 students have been supported by us. This makes clear that our involvement and support from the side of IUPAP is very valuable. The participants had no problem to receive their visas. We very much hope that this also holds true for the next ICPEAC meeting in China.

Most important for our commission was the selection of the IUPAP Young Scientist Prize in AMO Physics. The overall response with 30 nominations was very good, although only 6 were new this year. Ian Spilman from NIST in Gaithersburg and the University of Maryland was selected to be the 2011 prize winner *for research in ultra cold gases leading to completely new effects including artificial gauge field and spin-orbit splitting for atoms. In both cases the effective interaction between atoms fundamentally altered owing to the interaction with light.* He presented his prize winning talk on *Modifying interatomic interactions using Raman coupling: a tale of colliding Bose-Einstein condensates* at the ICPEAC in Belfast.

All nominations are still available at: <http://physics.nist.gov/IUPAP2010>.

It was decided that the Chairman informs all nominees about the outcome of this years Prize and asks for an update for the coming year.

The other important part of our meeting was the decision on the support of next years conferences. The main Conference for 2012 is the *International Conference on Atomic Physics* (ICAP) which will be held in Pallaiseau near Paris in July 2012. This is a Conference Type A with about 700 participants. Our vote for strong support of this conference is unanimous. In addition the Committee strongly supported the *Conference on Highly Charged Ions*, which will be held in Heidelberg in September 2012. This is a B Conference with about 300 participants.

The Commission declined to support 3. *International Conference on current developments in Atomic Molecular, Optical and Nano Physics* in New Delhi/India. The request failed to meet the deadline.

It was decided to have the next Commission meeting during the ICAP in Pallaiseau near Paris next year in July 2012.

The Commission discussed about the nominations for the next C-15 Committee and suggested 13 names which should be taken in first priority and further 3 names in the second priority.

Burkhard Fricke
(Chair of C15)