

## **Commission C2 – SUNAMCO**

Commission on Symbols, Units, Nomenclature, Fundamental Constants and Atomic Masses

9 September 2013

**Membership:** The Director of the BIPM is *ex-officio* a full Member of C2 without national affiliation. Michael Kuhne retired as Director on 31 December 2012 and has been replaced as a Member of C2 by the new Director, Martin Milton.

**Succession Planning:** This is an area where C2 may run into a real problem of continuity and sustainability: the Secretary, Jens Dilling, is in his third term; the Vice-Chair, Jörn Stenger, is in his second term but has indicated that he does not wish to proceed to the position of Chair; and Stephen Lea is Chair in his second term, having been somewhat anomalously Secretary in his first term. Other members currently in their second term have not been very active, although this is in part due to the difficulty in meeting as a full Commission without budget.

**Supported Conferences:** C2 supported one conference in 2012: the Conference on Precision Electromagnetic Measurement (CPEM 2012), Washington DC, USA, 1–6 July 2012. Despite their best efforts to identify suitable candidates, the conference organizers were unable to allocate all of the funds for travel for physicists from developing countries and reimbursed IUPAP US\$5,000 of unused funds.

**Awards:** C2 expects to continue to advertise and award the IUPAP Young Scientist (Early Career) Prize in Fundamental Metrology biennially (normally making two awards) and hence is making no award in 2013.

**Meetings:** A small number of commission members met on Monday 10 June 2013 at BIPM, Sèvres, in advance of a meeting of the CCU. The principal topic was succession planning as discussed above.

**Representation:** IUPAP's representative at the meeting of the Consultative Committee for Units of the CIPM, held at the BIPM, 11–12 June 2013, was C2 Member William Phillips (USA). Unfortunately he was unable to be present and his contribution was presented by past C2 Chair Peter Mohr (USA), present as representative of NIST. C2 Members Jörn Stenger (Germany) and Stephen Lea (UK) were also present as national representatives and C2 Associate Member Savely Karshenboim (Russia) as an invitee of the President of the CCU, Ian Mills. The meeting addressed issues associated with the eventual implementation of the “New SI”, including the *mis en pratique* of the new definition of the kelvin. There was also a discussion, led by William Phillips and Peter Mohr, of the way angle and count rate are treated in the current SI, these being found by many to be unsatisfactory.

Clemens Elster (Germany) and Wolfgang Wöger (Germany) have represented IUPAP at meetings of the Joint Committee for Guides in Metrology (JCGM) and its working groups in Nov/Dec 2012 and May/June 2013. Reports from the Nov/Dec meetings have been received and are appended below.

**Proposal for a resolution at the 2014 GA:** It has been suggested that the debate on angle and count rate in the SI begun at the CCU meeting could be taken forward in the form of an IUPAP GA resolution (in favour of an approach more palatable to physicists), this being the means IUPAP has at its disposal to influence formally the decisions of the CIPM.

**Red Book:** Work continues on the informal project to update the SUNAMCO Red Book (IUPAP-25 "Symbols, Units, Nomenclature and Fundamental Constants in Physics"). A web domain, [www.sunamcoredbook.org](http://www.sunamcoredbook.org), and hosting have been obtained with a view to getting an online version available quickly, pending future development of the IUPAP website.

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