

DRAFT RESOLUTION of the XXVIII<sup>th</sup> General Assembly of IUPAP  
to form a new IUPAP Commission on Accelerator Science.  
(presented by the United States Liaison Committee of IUPAP)

WHEREAS the science of accelerators is rich and challenging. Particle beams are many-body systems with non-isotropic, non-thermal distribution, exhibiting many collective instabilities and self-organizing phenomena when interacting with electromagnetic fields and plasmas. Accelerator Science uses a rich assortment of concepts, devices and materials to accelerate and diagnose beams. Accelerator Science impacts and advances many branches of science such as materials science, nuclear science, and elementary particle science, as well as commercial, medical and environmental applications, and

WHEREAS international collaboration is common in Accelerator Science, as is indicated by large international conferences (*e.g.* IPAC) and large and small projects (*e.g.* LHC, neutron and photon sources) worldwide, and

WHEREAS Accelerator Science is not currently represented in IUPAP as its own discipline. The C11 Commission on Particles and Fields' mission includes the support for the exchange of information on accelerators used in particle physics, and C11 has endorsed the annual International Particle Accelerator Conference series that was initiated by the international accelerator science community in 2010, and

WHEREAS the IUPAP working group, International Committee for Future Accelerators (ICFA), has served as a forum for accelerator facilities to work together to facilitate international collaborations in the construction and use of accelerators for high energy physics. The IUPAP working group (WG9) International Cooperation in Nuclear Physics (ICNP) maintains a compendium of Nuclear Physics facilities worldwide, and

WHEREAS the use of accelerators in research extends to many other fields and applications, it is time to acknowledge Accelerator Science as a cross cutting field of physics.

Therefore the XXVIII<sup>th</sup> General Assembly of IUPAP this VII<sup>th</sup> day of November, 2014, resolves to do the following:

1. Create a new IUPAP commission dedicated to Accelerator Science.
2. Set the mission of the IUPAP Accelerator Science Commission to promote the exchange of information and views among the members of the international scientific community in the general field of Accelerator Science including, but not limited to, the following:
  - a. the theory and experiments concerned with the nature and properties of particle accelerators and beam physics;

- b. the improvement of international communications in Accelerator Science through the sponsorship of professional meetings;
- c. the future of accelerator facilities for various fields that benefit science and society;
- d. the industrial, medical, energy production and environmental applications of relevant accelerator technologies.