

IUPAP Working Group 9 : Report to the C&CC Meeting October 2018

The Annual Meeting of IUPAP WG.9 was held at the Academia delle Scienze, Bologna, Italy, September 7 – 8, 2018.

Discussion about the present membership of IUPAP WG.9 :

Concerns were expressed about the participation in IUPAP WG.9 by the representatives of India and China. The current member of IUPAP WG.9 from India is the director of the Inter-University Accelerator Centre (IUAC) in New-Delhi but due to Indian Government regulations the travel funds to attend the meetings of IUPAP WG.9 are lacking. The current invitation to be the member of IUPAP WG.9 from China is the director of the Institute of Modern Physics of the Chinese Academy of Sciences in Lanzhou. A solution to this membership from China is pending.

A recommendation was made to contact CERN management to have a nuclear physics representative from the CERN programs with ALICE, ISOLDE, and alike to join IUPAP WG.9.

Updating IUPAP Report 41 : Research Facilities in Nuclear Physics

As of January 2018 the descriptions of the various nuclear physics facilities with an identifiable users group have been updated. Following the Nuclear Science Symposium (NSS) held at the RIKEN Tokyo Office, August 30 – 31, 2017, the seven succinct summaries of the various presentations made have also been published in arXiv:1805.10504[nucl-ex]. The updated IUPAP Report 41 can be found at: www.triumf.info/hosted/iupap/icnp/index.html . For future nuclear science symposia more extensive summaries of the state of nuclear science and required research developments and facilities may be published as a stand-alone report provided funding can be obtained or a journal can be found to publish the contents at no page charge.

The Neutrino Panel :

The panel is currently being formed in consultations with the IUPAP Working Groups WG.1 (ICFA), WG.9, and WG.10, and the IUPAP Commissions C4, C11, C12. Heidi Schellman, Chair of IUPAP C11, is in charge of forming the panel and the formulation of its terms of reference.

POPA Report – Neutrons for the Nation :

The APS Panel on Public Affairs (POPA) commissioned a workshop in April 2017 to examine the scientific needs for neutrons currently produced by civilian research reactors and identify the obstacles and challenges to meeting those needs without the use of highly enriched uranium (HEU). The final report from the POPA study includes the state of neutron facilities worldwide in this context. A lengthy discussion followed.

Nuclear Science Symposia :

Upon the request of Timothy J. Hallman, Associate Director for Nuclear Science in the US Department of Energy to hold the IUPAP Nuclear Science Symposia at intervals of two years a NSS was held at SURA Headquarters in Washington, DC, June 4 – 5, 2015. It was followed by the NSS at the RIKEN Tokyo Office, August 30 – 31, 2017. Consequently the next NSS should take place in 2019. The International Nuclear Physics Conference (INPC2019) is scheduled in Glasgow, UK, July 28 – August 2, 2019 and also the IUPAP C12 meeting at INPC2019 in connection with awarding the three IUPAP Young Scientist Prizes in Nuclear Physics. Previous NSS were held at TRIUMF in 2009 and at Laboratori Nazionali di Frascati in 2012. Usually the Annual General Meeting (AGM) of IUPAP WG.9 follows the AGM of IUPAP C12. For various reasons including logistics the NSS should not take place at INPC2019. Active participation in the NSS is required from Funding Agency/Government Representatives and need to be consulted in organizing the NSS. The date and venue of the next IUPAP NSS are under consideration.

An ad-hoc group of IUPAP WG.9 members has been charged with developing a statement to strengthen the free and open access statement of IUPAP as it concerns nuclear physics facilities.

Nuclear Science at the Deep Underground Science Facilities :

The search for neutrino-less double beta-decay, the search for dark matter particles interactions, neutrino oscillations and CP violation, are involving various aspects of nuclear physics/nuclear science and belong within the perspective of IUPAP WG.9. There exists today a large number of such facilities. IUPAP WG.9 has a member representing these facilities.

Long Range Planning for Nuclear Science :

Long Range Planning Reports were presented by the Chair of ANPhA (Asia-Pacific), the Chair of NSAC (USA), the Chair of NuPECC (European Union). In addition there were presentations about the Five Year Planning Exercise by TRIUMF, about the Nuclear Science in Latin-America, and on the I'Themba Laboratories and SAIF in Zuid-Afrika. All these are being posted at the above website.

Willem T.H. van Oers

Secretary of IUPAP WG.9

TRIUMF, October 15, 2018