

## **IUPAP Working Group 9: Report to CNILC May 2017**

---

### **Nuclear Science Symposia**

One of the tasks of the IUPAP working Group 9 [WG.9] is to organize with regular intervals a Nuclear Science Symposium in order to be apprised of the currently most relevant nuclear science questions, to discuss the research efforts required to address these nuclear science questions, as well as to assess the research facilities in operation or planned for pursuing these research efforts.

With this in mind WG.9 organized a first nuclear science symposium at TRIUMF, Vancouver, Canada, on July 2 – 3, 2010. A second one at Laboratori Nazionali di Frascati, Italy, on May 31, 2013, and the third one at South-Eastern Universities Research Association (SURA) headquarters in Washington, DC, USA, on June 4 – 5, 2015. At these nuclear science symposia an effort has been made to invite and to have government/funding agency representatives participate in the deliberations. Overviews of current forefront nuclear science research being addressed or intended to be addressed together with the upgrading of current facilities and planned large new facilities are to be given by representatives from Asia, Europe, and North-America.

### **Changes in IUPAP WG.9 membership**

Faical Azaiez has been appointed as Director of i'Themba Laboratories as of February 1, 2016, replacing Kobus Lawrie as member of IUPAP WG.9.

The incoming Scientific Director of GSI as of January 1, 2017, is Paolo Giubellino; he is replacing Karlheinz Langanke as member of IUPAP WG.9 at that time.

As of May 1, 2016, the Chair of NSAC is David W. Hertzog of the University of Washington and Donald F. Geesaman of ANL is then the Past-Chair; both are members of IUPAP WG.9. Susan Seestrom of LANL as the former Past-Chair of NSAC will rotate off IUPAP WG.9.

Dominique Guillemaud-Mueller who was the Deputy-Director of IN2P3/CNRS until September 1, 2016 has resigned as member of IUPAP

WG.9 as of that date. Her replacement is Navin Alahari, Director of GANIL, as confirmed by the present director of IN2P3/CNRS Reynald Pain.

At its AGM IUPAP WG.9 has invited the Director of the Rare Isotope Science Project (RISP) in Korea, Sun-Chan Jeong, to serve as a member of IUPAP WG.9.

As of January 1, 2017, the Chair of ANPhA is Kazuhiro Tanaka; Dong-Pil Min becomes then the Past-Chair. Both are members of IUPAP WG.9.

As of April 3, 2017, Hugh Montgomery has stepped down as Director of Jefferson Laboratory and as member of IUPAP WG.9. He is replaced by the incoming Director of Jefferson Laboratory Stuart Henderson.

The current membership of IUPAP WG.9 can also be found on the website: ( <http://www.triumf.info/hosted/iupap/icnp/index.html> )

### **Open access to scientific data**

The four major international science organizations: ICSU – International Council of Scientific Unions, ISSC – International Social Science Council, IAP – Inter-Academy Panel, and TWAS – Third World Academy of Sciences, have jointly created an accord “Open Data in a Big Data World”, which details principles and practices to support open access to “big data” in publicly funded research.

The Executive of IUPAP WG.9 endorses this accord, but was informed that at present there does not exist unanimous agreement on the wording of the document.

### **Forschungszentrum Juelich – Institut fuer Kernphysik and Cooler Synchrotron and storage ring COSY**

The Executive was informed about the actions under consideration by the Board of Management of the Forschungszentrum Juelich:

- to terminate all contributions of the Forschungszentrum Juelich to the FAIR, HESR, and PANDA projects at GSI, Darmstadt, by the end of 2018;
- to end the operation of the Cooler Synchrotron and storage ring COSY for the proton/deuteron EDM experiment by the end of 2019;
- to phase-out the Institut fuer Kernphysik (IKP) at the beginning of 2020.

Subsequently, the Executive has been in communication with both the Scientific Coordinator for the Directors of the IKP of the Forschungszentrum Juelich and with the Scientific Director of GSI.

Based on its assessment of the above mentioned information the Executive has written letters to the Staatssekretaer Dr. Georg Schuette, Bundesministerium fuer Bildung und Forschung (BMBF), to Dr. Karl Eugen Hutmacher, BMBF, Chair of the Science Board of the Forschungszentrum Juelich, and to Staatssekretaer Dr. Thomas Gruenewald, Ministerium fuer Innovation, Wissenschaft und Forschung of the Bundesstaat Nordrhein-Westfalen, Deputy-Chair of the Science Board of the Forschungszentrum Juelich, expressing concerns about the actions under consideration.

More recent information has indicated that the above dates have been put forward now starting in 2022.

### **Super-Heavy Elements: Validation and Acceptance and Naming for the Periodic Table**

The existing controversy about the various actions undertaken by IUPAC (the International Union of Pure and Applied Chemistry) with regards to the validation of the Super-Heavy Elements has resulted in rather difficult negotiations between IUPAP and IUPAC. The latter organization taking essentially credit for the discoveries of the Super-Heavy Elements as per the announcements which appeared in the scientific and regular press. IUPAP WG.9 received a long expose from Victor A. Matveev, Director of JINR-Dubna, one of the institutions where the relevant research was performed, about the progression of actions leading to the announcement of the validation and naming of the new Super-Heavy Elements by IUPAC. The IUPAP Commission on Nuclear Physics, C12, has undertaken formulating a set of recommendation regarding this matter.

### **Next Nuclear Science Symposium and AGM of IUPAP WG.9 and IUPAP C12**

IUPAP WG.9 has met on Sunday, September 11, 2016, in Adelaide, SA, at the start of the International Conference on Nuclear Physics (INPC2016). The scientific program of the Nuclear Science Symposium as well as the

draft Minutes of the Annual General Meeting (AGM) of IUPAP WG.9 can be found on the above mentioned website.

A date for the next Nuclear Science Symposium and the date for the next IUPAP WG.9 AGM as well as the IUPAP C12 AGM have been set just prior to PANIC 2017 (on the dates August 28 – 30). A three day meeting is being organized. The Nuclear Science Symposia, giving an overview of current nuclear physics and the facilities required to address these, follow a biennial cycle as per the recommendations by the funding agency/government representatives at the last nuclear science symposium in accord with the recommendations put forward by the Organization for Economic Cooperation and Development (OECD) Global Science Forum Working Group on Nuclear Physics in its missive from 2006.

### **Rare Isotope Science Project (RISP) and Accelerator Complex RAON in Korea**

The Executive of IUPAP WG.9 has been approached by the Chair of ANPhA to write a letter to the Honorable Dr. Choi Yanghee, Minister of Science, ICT and Future Planning of Korea, about the existing research structures around the above. Subsequently the Executive of IUPAP WG.9 has written to Dr. Choi Yanghee, on behalf of all its members, suggesting the early establishment of RAON research groups as the core teams of the RAON science programs.

### **South-African Isotope Facility (SAIF) at iThemba Laboratories**

Upon the request of Faical Azaiez, Director of iThemba Laboratories, the Executive of IUPAP WG.9 has written a missive in strong support of establishing and funding of SAIF.

---

Willem van Oers  
Secretary of IUPAP WG

TRIUMF, May 15, 2017