

The International Union of Pure and Applied
Physics

Working Group WG.9

International Cooperation in Nuclear Physics

Willem T.H.van Oers

Secretary of WG.9

University of Manitoba/TRIUMF

Composition of WG.9

- Anthony W. Thomas, Chair [U. of Adelaide]
- Secretary: Willem T.H. van Oers [TRIUMF/U. of Manitoba]
- Umberto Dosselli, director of SuperB
- Sydney Gales, director of GANIL
- Horst Stoecker, director of GSI
- Victor A. Matveev, director of JINR
- Samuel Aronson, director of Brookhaven National Laboratory
- C. Konrad Gelbke, director of FRIB/NSCL
- Hugh Montgomery, director of Jefferson Laboratory
- Nigel Lockyer, director of TRIUMF
- Hideto En'yo, director of RIKEN
- Shoji Nagamiya, director of J-PARC
- Wenlong Zhan, IMP-Lanzhou
- Zeblon Vilakazi, director of iThemba Laboratories
- Susan Seestrom, Chair of NSAC
- Robert Tribble, Past-Chair of NSAC [Chair-elect of IUPAP WG.9]
- Guenther Rosner, Chair of NuPECC
- Brian Fulton, Past-Chair of NuPECC
- Hideyuki Sakai, Chair of ANPhA
- Dong-Pil Min, Korea Science Foundation
- Alinka Lepine-Szily, Chair of ALAFNA
- Don-Olof Riska, Chair of IUPAP C12

Meetings of WG.9 (2009-2011)

- Annual General Meetings (the last three years)
These preceded the AGM's of IUPAP C12 (the Commission on Nuclear Physics)
- August 30, 2009, at the Institut fuer Kernphysik, Forschungszentrum Juelich [SPIN2009]
- July 4, 2010, at TRIUMF in Vancouver, BC [INPC2010]
- July 24, 2011, at MIT in Cambridge, MA [PANIC2011]

Tasks of IUPAP WG.9

- IUPAP Report 41, a handbook of the nuclear physics facilities world-wide, together with a concise outline of the current nuclear physics challenges
- IUPAP Report 41 as a hard copy published April 12, 2007
- IUPAP Report 41 electronic version posted July 9, 2007
- Latest update of the electronic version posted January 1, 2011
- Website: <http://www.triumf.ca/hosted/iupap/icnp/index.html>

Tasks of IUPAP WG.9

- IUPAP WG.9 members served on the OECD Global Science Forum Working Group on Nuclear Physics preparing a roadmap for nuclear physics (published by OECD in 2008)
- The OECD report charged IUPAP WG.9 among other to provide a framework within which science administrators could meet with each other and with leaders of the discipline of nuclear physics:
- This led to the first Symposium on Nuclear Science, held at TRIUMF, on July 2-3, 2010 with representatives of ANPhA, NuPECC, NSAC and science administrators (DoE, NSF, CEA, CNRS, INFN, MEXT (Ministry of Education, Science, --- and Technology – Japan), CAEA (China Atomic Energy Authority)

Tasks of IUPAP WG.9

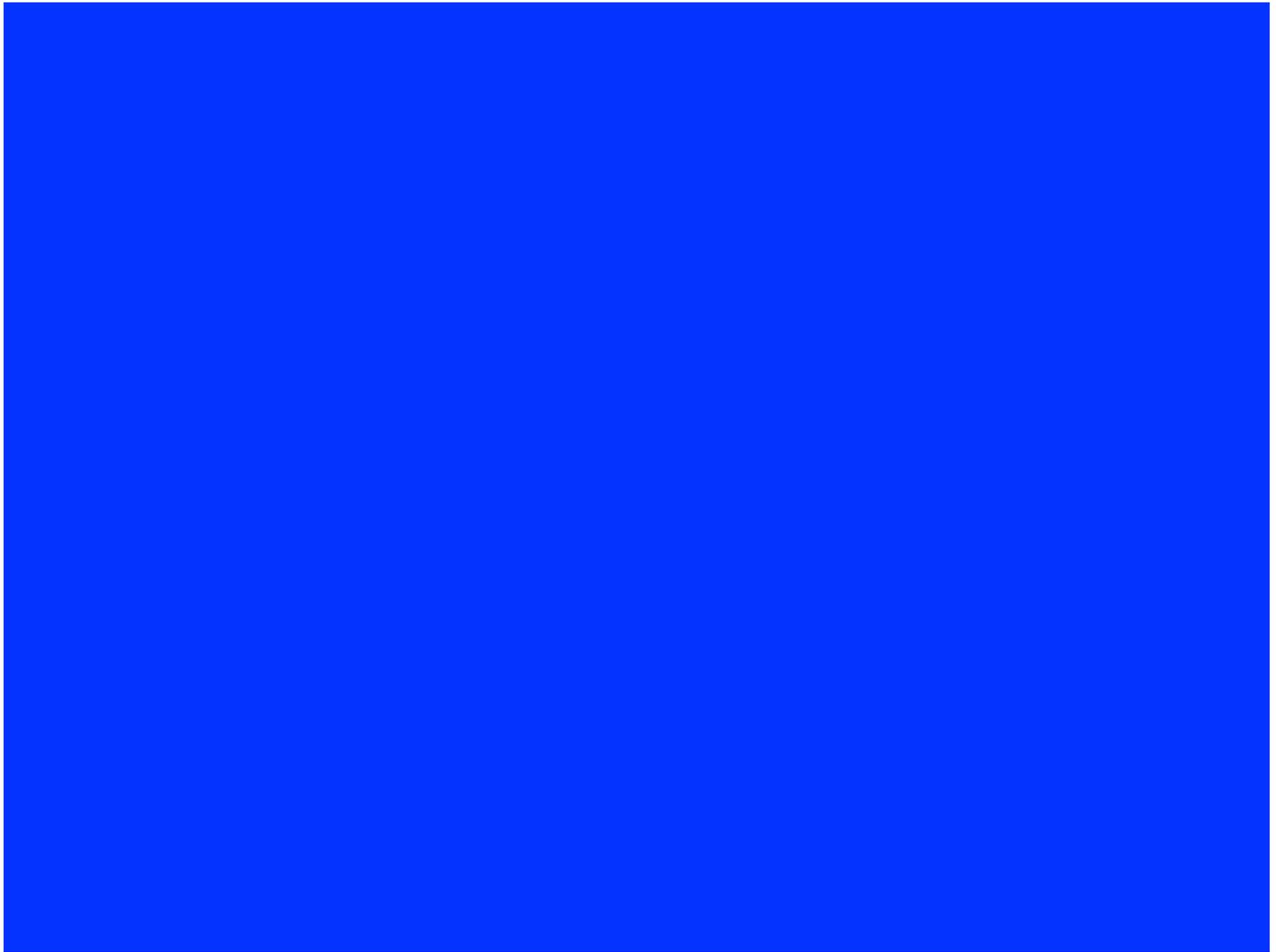
- Planning for the second Symposium on Nuclear Science started at the AGM at MIT in Cambridge, MA
- Tentative dates are June 28 – 29 just before the start of INPC2013 in Florence, Italy
- To be organized through IUPAP WG.9 by representatives of
 - Science Administrators
 - Long Range Planning Committees (ANPhA, NuPECC, and NSAC, and other
 - Nuclear Physics communities

International Cooperation in Nuclear Physics

- IUPAP WG.9 germinated the formation of ANPhA, the Asia Nuclear Physics Association with membership of Australia, China, India, Japan, Korea, Mongolia, Vietnam, Taiwan
- ANPhA Board meets twice a year (last meeting in April 2011 in Lanzhou, China, with the next one in November 2011 in Vietnam)
- Organizes and promotes Symposia, Workshops, Schools (the latter in particular for younger scientists) and collaborative research efforts at the large scale nuclear physics facilities in Asia
- IUPAP WG.9 also germinated the formation of Asociacion Latino Americana de Fisica Nuclear y Aplicaciones
- Statute and Bylaws adopted at the IX Latin American Symposium on Nuclear Physics and Applications in Quito, Ecuador, in July 2011
- Objectives in terms of education and research efforts similar to ANPhA

Further Initiatives

- Africa: the director of i'Themba laboratories, Zuid Africa, has become a member of IUPAP WG.9
- Nuclear Physics activities in Zuid Africa, Egypt, Algeria, and Nigeria



WG.9 Working Group on International Cooperation in Nuclear Physics (ICNP)

Mandate:

- 1) To provide a description of the landscape of key issues in Nuclear Physics research for the next 10 to 20 years
- 2) To produce (maintain) a compendium of facilities existing or under development worldwide
- 3) To establish a mapping of these facilities onto the scientific questions identified above

IUPAP Report 41: 'Research Facilities in Nuclear Physics' ;
individual laboratory descriptions updated January 2010;
the roadmap for Nuclear Physics is currently being rewritten

Mandate continued

- 4) To identify missing components that would have to be developed to provide an optimized, comprehensive network of international facilities
- 5) To explore mechanisms and opportunities for enhancing international collaboration in nuclear science
- 6) To identify R/D projects that could benefit from international joint effort
- 7) To serve as a source of expert advice for governmental or inter- governmental organizations in connection with efforts to coordinate and promote nuclear science at the international level

: OECD Global Science Forum – Report from the Working Group on Nuclear Physics (May 2008) with formal request to WG.9 for advise on a continuing basis

Mandate continued:

8) To serve as a forum for the future directions of Nuclear Science in the broadest sense

: The IUPAP WG.9 Symposium on Nuclear Physics and Nuclear Physics Facilities, held at TRIUMF, July 2-3, 2010 (first time ever meeting of nuclear physics proponents, laboratory directors, and science administrators in a worldwide setting)

9) To document the cross-disciplinary impact of Nuclear Physics and Nuclear Facilities and to identify mechanisms for expanding (fostering) cross-disciplinary research

IUPAP WG.9 relates to C12

Further IUPAP WG.9 action items:

- Prepare a concise report on what it requires to operate an effective truly international user facility to include possible solutions to the difficulties of access for users from the developing nations.
- Develop the access to sources of funding for networking activities along the lines successfully employed by the European Community.
- Establish sub-committees to coordinate workshops/white-papers/proposals for facilities likely too large for a single country or region and in particular for
 - a future rare-isotope-beam facility
 - a future electron-ion collider
- Pursue the implementation of the OECD recommendations to science funding administrators and the relevant government representatives.