

Report on the activity of WG9 – Period October 2021-June2022

The activity mainly concerns two issues: the update of Report 41 and the organization of a symposium and of the annual meeting which took place in June 14 and 15 2022 in Washington DC at SURA. In addition, our webpage is being renovated.

The scientific secretary Willem van Oers stepped down as scientific secretary of the Chair of IUPAP WG.9. It is thanks to his great dedication and continuous attention that WG9 has obtained its high international recognition. All members of WG9 heartily thank him for his invaluable work.

Iris Dillmann from TRIUMF is nominated as new scientific secretary. She was warmly welcomed by all participants in this meeting. Iris Dillmann started this duty a few months ago and she has already worked on the re-styling on the WG9 webpage and in the preparation of this meeting.

Membership changes

- Navin Alahari has stepped down as director of GANIL and is replaced by Patricia Chomaz as director and is serving on IUPAP WG.9.

- Gerda Neyens has stepped down as group leader of CERN-ISOLDE and is replaced by Sean John Freeman who is serving on IUPAP WG.9.

IUPAP Report 41

The Report gives a worldwide perspective of research and research facilities in Nuclear Science.

The Introduction to the Report outlines the key physics issues that have led to the nuclear science facilities existing or being planned:

- The nuclear physics as studied from its beginning; nuclear structure and nuclear reactions, the formation of the elements throughout the universe including the super-heavy elements.
- The structure of the nucleon consisting of quarks and gluons within the Standard Model.
- Fundamental symmetries leading to physics beyond the Standard Model and with the study of neutrino properties through neutrino-less double beta-decay and neutrino oscillations.
- Nuclear energy in the era of climate change and global warming.

- Applications of nuclear physics to the benefit of society, e.g. as in nuclear medicine.

The Report provides a brief description of the nuclear facilities that have an acknowledged User Organization. The Report is being considerably revised and updated over the years and most of the material to update the description of the facilities has been collected. In the next months the editing of the new material will be completed.

As in the past editions, the symposium of this year also covered very well the topics of Report 41 listed above. Interesting updates were presented followed by fruitful discussions.

Long Range Planning Organization Reports

Long range plan reports were presented for ALAFNA by Alinka Lepine-Szily (Universidade de Sao Paulo), for ANPhA by Weiping Liu (CIAE), for NSAC by Gail Dodge (Old Dominion University), and for NuPECC by Marek Lewitowicz (GANIL). In addition there were reports on long range planning of Nuclear Science in Africa by Rudolph Nchodu (iThemba laboratories) and on KEK (Japan) by Naohito Saito. The meeting of C12 will be held in September 2022 during the INPC in Cape Town (12-17 September 2022).

Presentations at the Nuclear Science Symposium and IUPAP WG.9 Annual General Meeting:

The agenda of these two meetings and the links to the actual presentations are in: <https://meetings.triumf.ca/e/iupap-wg9-2022>