

9th Meeting of the IUPAP Working Group on Accelerator Science (WG14)

June 02, 2022 16:00 – 18:00 CET

Virtual Meeting

Attendees: Gianluigi Arduini, Maher Attal, Bob Bingham, Caterina Biscari, Yunhai Cai, Swapan Chattopadhyay, Simon Connell, Stuart Henderson, Di-Jing Huang, Sylvie Jaquemot, Oliver Kester, In Soo Ko, Tadashi Koseki, Liu Lin, Mats Lindroos, Michael Moyers, Simon Mullins, Vaishali Naik, Qing Qin, Thomas Roser, Aliz Simon, Liangting Sun, Minh Quang Tran, Alessia Valenza.

Excused: Nikolai Lobanov, Lia Merminga, Mike Seidel.

Agenda and slides available at [9th WG14 meeting \(2 June 2022\) · Indico \(cern.ch\)](#)

Topic 1: Introductions - Welcome new members

New members:

- Simon Connell, University of Johannesburg and African Light Source, South Africa
- In Soo Ko, Korea Basic Science Institute, Korea
- Bridinette Thiodjio Sendja, University of Yaounde', Cameroon

Welcome to the new members. Unfortunately Bridinette Thiodjio Sendja did not manage to join.

Topic 2: Agenda, Minutes and Follow-up of actions (see slides: https://indico.cern.ch/event/1163888/contributions/4887592/attachments/2459379/4216411/Meeting_20220602_Agenda%26Follow-up%20of%20actions_aspresented.pptx) - G. Arduini

The draft minutes of the previous meeting are approved.

Follow-up of actions:

1. Membership: the composition and geographical and gender representation have been presented. After some discussion it is decided to “freeze” the present composition and not to seek for a Russian representative given the present international situation (see also IUPAP statement: [IUPAP Statement on the events occurring in Ukraine, 2022-03-01 - IUPAP: The International Union of Pure and Applied Physics](#)). We might reconsider this (including the possibility of including an Ukrainian representative) at a later stage.
2. Promotion of Accelerator Science: S. Chattopadhyay, in collaboration with L. Rivkin, will develop further the promotional aspects of accelerator science and technology globally and will report on it at a future meeting of WG14. **Action: Swapan, Lenny → round table today (Swapan to lead the discussion) → presentation at the next meeting**
3. Publications: WG14 should provide a position statement and a plan of action. Caterina (lead), Di-Jing, Gianluigi, Nikolay, Oliver will address this. **L. Lin will participate to the JACoW stakeholder meeting at IPAC22 and will liaise with C. Biscari to launch the discussion. Action: Caterina and Liu.**
4. Interactions with other commissions/committees/WG/Organizations (IAEA/ICFA/ICUIL...) **→ IAEA to be discussed today. ICFA-BD panel next meeting.**

5. IPAC as WG14 Conference and IPAC MoU. Action: Gianluigi (lead), Caterina, Lenny, Lia, Lin, Tadashi to resume the discussions → Gianluigi is trying to organize a meeting of the sub-committee in June → report at the next meeting
6. Communication (Web site, etc.). Vaishali volunteered to help with the website (thank you!) → on the agenda today

Topic 3: IAEA Physics Section on Accelerators: possible activities/collaboration with WG14 (no slides) – A. Simon

IAEA Physics Section on accelerators is particularly interested in the uses of low energy accelerators (e.g. electrostatic accelerators) for ion beam analysis applied to archaeometry, forensics, geology, etc. This could be a domain for joint initiatives (e.g. workshops) between IUPAP WG14 and IAEA. As an example, a joint ICTP-IAEA Advanced Workshop on Future Trends in Multidisciplinary Ion Beam Analysis is being organized 10-14 October at ICTP Trieste (<https://indico.ictp.it/event/9832/>). WG14 could help in suggesting/providing lecturers on low-energy compact accelerators and their application. Aliz will circulate the information concerning the Workshop.

IAEA Physics Section on Accelerators has also developed a series of e-learning courses (see e-learning website <https://elearning.iaea.org/m2/course/index.php?categoryid=108>) including also one on electrostatic accelerators. Organizing joint e-learning courses could be a possible area of collaboration. S. Connell mentioned that African students are one of the main users of MOOCs but he noted that it is important to make sure that the offer is well structured and such that it can be integrated with a University curriculum. This can help in building capacity in Developing Countries. M. Lindroos believes that the majority of the students of the Lund University MOOC (3000 so far with 1000 getting a formal degree) are from developing countries. He will provide some more information for the next meeting. Action: Mats

IAEA Accelerator Knowledge Portal ([Pages - Accelerator Knowledge Portal \(iaea.org\)](https://www.iaea.org/accelerator-knowledge-portal)) is a data base of: Accelerator-Based Neutron Sources, Boron Neutron Capture Therapy (BNCT) facilities, Electrostatic Accelerators, Synchrotron Light Sources, X-ray Free Electron Laser Sources.

B. Bingham noted that a possible area of collaboration in the organization of workshops could be Accelerator Driven Systems.

In summary possible area of collaborations include:

- Common Workshops, in particular in the domain of low energy accelerators
- Documentation and communication on the possible uses of accelerators
- Training and in particular dissemination of the available resources and/or contact with relevant universities for their possible integration in University Curricula

Topic 4: WG14 and promotion of Accelerator Science – round table (no slides) - S. Chattopadhyay

Some possible areas for promotion of accelerator science were touched in the discussion concerning the previous topic.

B. Bingham mentioned that it would be important to establish prizes for Young Scientists e.g. for the best thesis work presented at IPAC. Gianluigi and Quang noted that only commissions can establish prizes for Young Scientists. IPAC has already prizes for Young Scientists (e.g. the EPS-AG Bruno Touschek Prize at the IPAC conferences in Europe). As a Working Group we could ask the IPAC conferences receiving financial support from IUPAP to dedicate part of the money for a prize: this could be the best poster prize or a prize for the best master thesis work presented at the conference.

Given the lack of time it was proposed that ideas from the WG members on how to promote Accelerator Science should be sent to S. Chattopadhyay by the end of July in preparation of S. Chattopadhyay's report at the next meeting in September. **Action: all WG members to send their ideas to S. Chattopadhyay by the end of July**

Topic 5: Website (see link: <https://iupap-wg14.web.cern.ch/>)

Gianluigi presented the present status of the IUPAP WG14 website which has been created by Alessia Valenza from CERN. V. Naik has also joined the team. He thanked them warmly.

For the first page it would be good to add pictures of possible other applications of accelerators or ongoing developments in the field with a short message. S. Jacquemot suggested to have at least one page about future accelerators (e.g. EUPRAXIA). Gianluigi fully supported this suggestion and asked Sylvie to send a possible picture and text. **Action: S. Jacquemot.**

O. Kester noted that it would be good to have an introduction to the WG and mandate in the first page. This will be added.

S. Connell asked whether an alias related to IUPAP could be used for the website. This will be investigated. He also added that it might be good to have links to social media. This will be investigated too.

Gianluigi asked all the working groups members to go through the site and send contributions (e.g. figures with short message related to accelerators) or suggestions.

Possible "articles" that could be added but needing contributions from the WG members:

- Accelerators as Machines enabling discoveries in several fields?
- A short article on what are accelerators, CERN has a web page on that: <https://home.cern/science/accelerators> . Should we use that?
- What are the accelerators used for?

The following links could be added:

- Site containing job openings in the various accelerator centres (not to single vacancies but sites providing list of vacancies and regularly updated)
- Links to Learned Societies Accelerator Groups (e.g. EPS-AG, APS-DB, etc.)

Action: WG members to **pro-actively** contribute to the content of the web page

Topic 6: Future Meetings

Next meetings are tentatively scheduled on:

- September (week starting 26/9)
- November (week starting 21/11)

Notes written by Gianluigi Arduini (14/06/2022)

List of pending actions:

1. Promotion of Accelerator Science: ideas from the WG members on how to promote Accelerator Science should be sent to S. Chattopadhyay by the end of July in preparation of S. Chattopadhyay's report at the next meeting in September. **Action: all WG members.**
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5. M. Lindroos believes that the majority of the students of the Lund University MOOC (3000 so far with 1000 getting a formal degree) are from developing countries. He will provide some more information for the next meeting. **Action: Mats**
6. Website: S. Jacquemot suggested to have at least one page about future accelerators (e.g. EUPRAXIA). Gianluigi fully supported this suggestion and asked Sylvie to send a possible picture and text. **Action: Sylvie.**
7. Communication (Web site, etc.). **Action: WG members to pro-actively contribute to the content of the web page**