## Commissions

Analysis by Silvina Ponce Dawson, President Designate. Suggestions mainly based on discussions with Commission Chairs and members of the Executive Council.

Except for C1, commissions are the main way in which IUPAP relates to members of the physics community. Most commissions are organized around subfields of physics research (C3-C12; C14-C20). C2, the Commission on Symbols, Units, Nomenclature, Atomic Masses and Fundamental Constants can be somehow included in this group. In this document I will refer to these commissions (C2-C12; C14-C20). These commissions play a key role in creating the feeling of belonging to the community identified with a research subfield. One of the main tools through which this sense of belonging is created/nurtured is the existence of flagship conferences. Awards also contribute to this end. The communities of the different commissions are not completely disjoint, the subfields overlap. Research in physics, on the other hand, evolves. How to accommodate these structures to the ever-changing landscape of physics research without distressing the people involved? When asked about this, one of the Commission Chairs said: "individual physicists do not care about commission matters. They only care about flagship conferences with which they feel a sense of belonging [...] Reshuffling of current commissions is not a big problem, if we carefully find a way to preserve flagship conferences". This issue is always relevant but is particularly important now that there are two Working Groups (on Soft Matter and on Quantum Science and Technology) that should eventually become Commissions or most likely be dissolved (see support information on Working Groups).

The composition of Commissions, on the other hand, is decided (partially) based on the nominations submitted by IUPAP's members and a balance between the number units of each IUPAP member and of people affiliated with it who serve on Commissions is seek (at least, over a nine-year period). Given the current number of IUPAP's members and units, it is possible to reach this balance. Furthermore, since the number of Corporate Associate Members is increasing, we are presenting a resolution to be approved by the 33<sup>rd</sup> General Assembly to increase the number of Commission members. Thus, a drastic change in this total number would affect the very delicate balance between units and Commission members. Commission chairs, on the other hand, are ex officio members of IUPAP who have one vote at the General Assembly. Drastic changes in the number of commissions would also affect the balance between the number of commissions would also affect the balance between the number of commissions would also affect the balance between the number of commissions would also affect the balance between the number of commissions would also affect the balance between the number of commissions would also affect the balance between the number of votes coming from CCs and from other IUPAP members.

Now, to dissolve, merge, rename or create new commissions we should gather the greatest consensus. To this end, it is necessary that the voice of our current commission is heard. The problem is that very frequently messages on this issue are exchanged by email, which is not very efficient. At the EC&CC meeting held in October 2024, it was decided that we should have more frequently Zoom meetings with CCs to advance with the discussion of all these issues. Another suggestion was that we could "cluster" commissions, having one representative that could meet more frequently with the EC. Perhaps, that could be the role of the VPs chosen among Commission Chairs.

Another aspect that was noticed is that sometimes, when the Commission officers are renewed, the information on what is expected from the officers, especially, from Commission Chairs is not completely clear. For a smoother transition, we started to select "nominated chairs" one year before the GA at which the Commission composition is voted. Given that now GAs are held yearly we decided that the GA can vote these nominated chairs (becoming elected chairs) the year before the in person GA at which the new Commission composition is elected. The latter happens triennially at the in-person GAs. The idea is then that the outgoing and the incoming chairs be present at the in-person GA for a smoother transition. At the EC&CC meeting of October 2024 we drafted a resolution to be voted at the 33<sup>rd</sup> GA. Another possibility is to prepare a booklet indicating the main tasks that are expected from a CC.

It would be advisable to have more inter-commission activities, besides the EC&CC meetings at which we mainly discuss finances, policy and decisions on conference sponsorship. The Interdisciplinary Early Career Scientist Prize was a first step in this regard that proved to be very fruitful. The Inter-Commission Symposium that is going to be held as a side event of the 33<sup>rd</sup> GA is another joint activity. We expect that the involvement of Commissions in the International Year of Quantum and in the International Decade of Sciences for Sustainable Development will yield a more cohesive functioning of the Union, eventually lead to the establishment of long-term joint activities.

We have been discussing for quite a while whether to have a large physics conference (perhaps, in connection with the in-person GAs). That would provide a platform for a fruitful exchange on the most recent developments and challenges in our fields of research. Besides having the Interdisciplinary Early Career Scientist Prize, we could have a prize for more established scientist. That is another avenue to explore.

It would be very good if Commissions could contribute to the communications of IUPAP, and make the union more visible within their communities, particularly, at their flagship conferences. It would be excellent if they could also contribute with the development of the transversal issues of interest for IUPAP.