



Newsletter

Dear colleagues,

In this issue, the establishment of a training course for research laboratory heads in Tunisia will be presented, following the same training given a few months ago in Colombia.

Then, driven by the health crisis, many conference organizers opted for remote in remote, or sometimes even mixing two modes, physical and remote. If the objective is only to present research, the meeting aspect pushing to set up international collaborations is completely shaken.

Finally, some fellow African physicists are calling for more research in basic and applied physics.

Wishing good reading. ■

Prof. Robert Laurini, president of USF-AWB.

Training of research lab heads in Tunisia

An agreement has just been reached between USF and the Tunisian research laboratory LATIS (Laboratory of Advanced Technology and Intelligent Systems <http://www.latis-eniso.org/>) of the Ecole Nationale d'Ingénieurs de Sousse (<http://www.eniso.rnu.tn/>) to provide training for research laboratories belonging to the doctoral school « Sciences and Technologies ».



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Over a week-long training, with the participants USF experts will discuss several key-aspects such as the identification of promising research areas, the organization of research teams, the setting up of a publications policy, the organization of international outreach and the drafting of a business plan for a research structure.

For more information, contact Robert Laurini <Robert.Laurini@usf-awb.org>. ■

After Covid-19, advocacy for physical/onsite conferences

With the covid-19 sanitary crisis, due to conventional communication technology, research conferences – henceforth referred to as onsite or physical conferences – have evolved from totally onsite to online (or virtual) or to some hybrid mixtures of online and onsite contributions. During the last months, having being program chair of an online conference (previously planned to be onsite), and invited speaker in a hybrid conference, in this text, let me give my feelings. All aspects regarding touristic and economic outcomes in cities are outside the scope of this text.

During several decades, the model of research

conferences, symposia, colloquia or congresses (whatever is their name) has been the following: after some reviews, papers are selected and presented in front of participants. But the role of a conference is not only to deliver papers, but overall to offer a forum for discussions. During coffee breaks, meals and gala dinners, participants can better know each other, and discuss possible collaborations ranging from giving a seminar, being examiner in a PhD committee, to setting up research projects and to organizing joint PhD's. In other terms, onsite conferences are an ideal place offering participants to build partnerships between them for the better advancement of science in addition to a very important moment of conviviality between researchers coming from different countries.



Comparing the situation in several countries, we observe that research bureaucrats tend to give more importance to papers published in journals, because they believe that the quality control is stronger. But I do know conferences in which the probability to be accepted is less than 10 %, i.e., the selection is most drastic. In the other hand, there are journals in which accepted papers are published 18 months or 2 years after: henceforth, those journals tend to deliver obsolete information so to be a sort of cemetery of materials whereas in conferences, this is ongoing and living science.

Several models exist for online conferences. The first one is to mimic onsite conference by organizing them with a tight schedule; for that a good practice from a GMT± 2 point of view is to put eastern (GMT>6) speakers early in the morning and western (GMT<6) later in the afternoon. A more complex situation is when Australians organize a conference (day) and the need for slots for Europeans (night).

The second is to construct a repository with videos and slideshows; finally, this kind of conferences leads to create a collection of webinars.

In totally online conferences, indeed papers are presented for example through Zoom or alike systems, but the interactions between speakers and participants are very low, and

the absence of coffee breaks do not help the necessity of clarification. In addition, do not forget that a lot of people have some syndrome of Zoom fatigue! Indeed, in totally onsite conference, the presence of sneaky questions must challenge the speakers, forcing them to adjust methodology, to clarify objectives and assumptions, to integrate new aspects, to be inform about ongoing research carried out elsewhere in the same domain, to open new perspectives; in short, those discussions will bring new ideas to the speakers and to enrich their works. Those particularly important outcomes are totally absent in fully online conferences. In addition, coffee breaks are an ideal opportunity for junior researchers to improve their English.

Some companies have developed tools for managing online and hybrid conferences, but they totally miss the friendly component for the design of collaboration between participants.

Another argument for onsite conferences is that of the motivation of the listeners: indeed, the fact of moving and meeting other people, will make them more sensitive to their work and will tend to broaden their culture. Conversely, in his/her remote office, because of emergency management s/he will tend to listen less to other interventions: do not forget that a researcher is not only someone who finds original solutions in a specific area, but also must have a broad professional culture.



Consequences for developing countries

In one hand, online conferences by eliminating travelling and accommodation costs will facilitate the diffusion of the work done and the newly acquired knowledge. In the other hand, the absence of contacts will hinder possible cooperation for the setting of newer research projects.

International consequences

It would be interesting to ask sociologists studying the research world, what they think about this evolution.

Researchers used to consider themselves as

citizens of the world and they work together without considering boundaries, since they are in situation of cooperation, i.e., dialectically mixing competition and cooperation. Our feeling is that the multiplication of online conferences will lead to a decrease of international cooperation between research entities. If it will be the future, researchers must innovate and design new instruments for facilitating contacts in each domain.

For the moment being, onsite conferences are a good balance for both knowledge dissemination and international cooperation facilitation.

Long life to onsite conferences!

For more information, contact Robert Laurini <Robert.Laurini@usf-awb.org>. ■

African Strategy for the Development of Basic and Applied Physics

The ability to generate scientific innovation and technological knowledge and translate this into new products is important for the society's economic growth and development. Africa's science, innovation, education and research infrastructure, particularly in fundamental and applied physics, have been under-valued and under-resourced. In developing their own strategy for science and technology, Africans will contribute to the development of their continent taking into account their needs (and not the needs supposedly dictated by the Western world).

They will make it possible to retain skills, and to lead a policy for the reconstruction of science and thereby promote local businesses and contribute to global technological and scientific progress as well as to innovation on the same basis as other continents.

The ASFAP initiative: <https://africanphysicsstrategy.org> aims to set the foundation and framework for the participation of African physicists in defining the education and research priorities within the field of Physics which are most impactful for Africa. It was launched in November 18th, 2020, and the first community general assembly was held on July 2021. The purpose was to initiate the ASFAP broad-based community-driven discussion and action program, leading ultimately to the final Strategy document.

The project timeline includes "calls for proposals", "letters of intent (LoIs)" and/or

"white papers". The process will end with a symposium during which the major findings to go into the final report of the strategy will be presented. The International Advisory Committee will endorse the report before it is published and distributed widely.



At this stage, we invite you to contribute to the <https://indico.cern.ch/event/1061921/> for LoIs.

ASFAP addresses all physics disciplines as well as Engagement and Education. Physics topics: Accelerators, Astrophysics & Cosmology, Atomic & Molecular Physics, Biophysics, Computing & 4IR, Earth Science, Energy, Fluid and Plasma, Instrumentation & Detectors, Light Sources, Materials Physics, Medical Physics, Nuclear Physics, Particle Physics, Optics and Photonics, Theoretical & Applied Mechanics. Engagement: Community Engagement (knowledge and technology transfer, entrepreneurship, industry investments, solutions for employments, skills retention etc.), Physics Education (university and lower grades), increase the number of women in Physics, prepare Young Physicists careers.

Whatever your nationality and the continent you are living in, physicist, student, project leader, academic, working in a company and whatever your skills and position, learned societies, science academies, international organizations, etc., you are all welcome to present ideas, projects, and programs in few lines (title and abstract) that you can develop later. Letter of Interest (LoIs) should not exceed two pages.

Do not hesitate to contact us if you wish to or if you meet any technical problem with the submission process: mail us to <ASFAP-SteeringCommittee@cern.ch>. ■