

Success for “Physics on Stage” Festival in Geneva

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Can you imagine how much physics is in a simple match of ping-pong, in throwing a boomerang, or in a musical concert? Physics is all around us and governs our lives. But who is going to maintain these technologies and develop new ones in the future? Recent surveys show a frightening decline of interest in physics and technology among Europe's citizens, especially school children. Fewer and fewer young people enrol in physics courses at Europe's universities while scepticism towards science and technology is spreading and causing great concern among governments and educators.

This is the background for several current initiatives that aim at raising the public awareness of science in Europe. With the European Science and Technology Week, the European Commission has become an increasingly active partner in this important process, supporting a range of projects to stimulate public interest in science. The flagship project of this year was the “Physics on Stage” Science Teaching Festival, the final, high point of the year-long programme of that name (cf. *The Messenger* No. 99, p. 46, March 2000).

This unique project was organised jointly by CERN, ESA and ESO, in collaboration with the European Physics Society (EPS) and the European Association for Astronomy Education (EAAE) and was supported by the EC. It took place at CERN during the week of November 6–10, when about 550 physics educators, government officials and media representatives from more than 25 European countries came together to show how fascinating and entertaining physics can be. There were also overseas visitors, including Chilean representation at ESO's initiative.

Each of the delegates to the festival had been selected in the course of the year by “Physics on Stage” National Committees in each of the countries. Mostly through national competitions, these committees had identified the most outstanding projects for promoting science in their area which were then presented at the Geneva Festival.

The colourful centrepiece of this week was the Physics Fair. Like in a real marketplace, each country had its own stand where delegates could show their projects, programmes or experiments and at the same time gain inspiration from the exhibits of other countries.

Other important elements of the meeting were plenary presentations and ten most impressive, staged performances. Here art and science came together to offer strong and persuasive communication about physical concepts as well as scientific controversies.



CERN photographer Laurent Guiraud caught this symbolic act at the “Physics on Stage” Festival in Geneva. In the front row: Commissioner Philippe Busquin, Member of European Parliament Christian Rovsing, CERN Director General Prof. Luciano Maiani.

But “Physics on Stage” was more than stunning experiments and pure fun. In 13 workshops around carefully selected, central themes related to the current problems, the many delegates were confronted with a wide spectrum of issues, ranging from science teaching in primary and secondary schools, the delicate balance between addressing the topics of the day versus teaching basic concepts, woman and physics, the role of the European organisations in the context of science teaching and, not least, a dedicated attempt to describe in quantitative terms the magnitude and effect of the current disenchantment with science, and physics in particular.

The resulting reports, including a series of well-defined recommendations, will be made publicly available as soon as possible. With input from all corners of Europe and representing the outcome of intensive discussions among participants with a broad range of backgrounds, this will be useful and interesting reading for all related parties, including the makers of European educational policies.

Already in the preparation phase, “Physics on Stage” had attracted the vivid interest of the teaching community. By the time of the festival, “Physics on Stage” had also caught the attention of European decision-makers. High-ranking politicians from several countries (including Spain and the UK) visited the meeting in its early phases. On November 9, Philippe Busquin, European Commissioner for Research, spent a full day at the event, together with Prof. Luciano Maiani, Director-

General of CERN, Dr. Catherine Cesarsky, Director-General of ESO, and Mr. Christian Rovsing, member of the European Parliament and of its Committee on Industry, External Trade, Research and Energy. The distinguished guests moved around within the fair area, witnessing experiments, discussing many different issues with the participants, speaking to school children in remote areas of the continent via webcam and obviously enjoying the exciting and cordial atmosphere. In addition to the current member countries of the European Union, the participation of several candidate countries provided welcome opportunities for information and contacts.

“Physics on Stage” was clearly a unique event. Nothing like it has ever happened in terms of international exchange, collaboration and presentation of state-of-the-art science and technology education methods and means. It is therefore not surprising that Europe's leading intergovernmental science organisations, ESA, CERN and ESO, as organisers of this very successful project, are looking for ways to maintain the momentum now gained, through new joint projects in the field of public understanding of science.

ESO is producing an 18-min video about the Festival that will become available in early January 2001. Full information about the outcome, including the complete workshop reports and recommendations, etc., will be placed at the “Physics on Stage” Festival website at:

<http://CERN.web.cern.ch/CERN/Announcements/2000/PhysicsOnStage/>