

Dear Reader,

This Newsletter is intended for all SPS members, researchers, industries, students, interested specialists and physics friends. Feel free to share this Newsletter within your community, and follow this [link](#) if you want to add a person to our mailing list.

If you wish to give your contribution with news or suggestions, please do not hesitate to contact me at: margherita.boselli@cern.ch

Kind regards,

Margherita Boselli

WHAT'S NEW IN SWITZERLAND

Physics in Advent 2024 starting in a few hours

Physics in Advent is a special and unique Advent calendar where young researchers, school classes and anyone interested can try out a do-it-yourself physics experiment at home or school every day from 1 to 24 December 2024.

Participation is particularly rewarding for Swiss students and school classes, who can win special prizes offered by the Swiss Physical Society, SCNAT and our sponsors Metrohm Stiftung and supermagnete.ch.

The challenge starts in a few hours, do not miss the opportunity to [register!](#)



CERN has a new Director General

On 6 November 2024, the [CERN Council elected Professor Mark Thomson as the new Director General](#).

Professor Mark Thomson is a British physicist with extensive scientific and management experience. He is currently Executive Chair of the Science and Technology Facilities Council (STFC) in the UK and Professor of Experimental Particle Physics at the University of Cambridge. Throughout his career, Professor Thomson has worked on several experiments at CERN, and since 2018 he's been the UK delegate to the CERN Council.



Professor Mark Thomson will officially take up his post in early 2026, succeeding current Director General Fabiola Gianotti.

Portrait of Professor Mark Thomson selected as the new Director-General of CERN, starting in 2026 (credits from CERN).

Applications for CERN's International Teacher Programmes 2025 are now open!

In the summer of 2025, CERN will offer two **two-week residential programmes** for in-service **high school science teachers**. Both programmes will be conducted entirely in English and are open to teachers from all over the world. **The International High School Teacher Programme (HST) 2025** will take place **from 6 to 19 July 2025** and the **International Teacher Weeks Programme (ITW) 2025** will take place from **3 to 16 August 2025**.



Teachers can find out more about these fully-funded programmes and **apply by 13 January 2025** via the CERN Teacher Programmes website (<http://teachers.cern>).

Beamline for Schools 2025 has started!

Beamline for Schools is a physics competition for **high school students from all around the world** inviting them to propose an experiment they would like to perform at a particle accelerator. The popular competition celebrates its 12th edition in 2025. Three winning teams will be selected, two of which will perform their experiments at CERN and one at DESY. **Additional prizes** will be awarded to **up to 70 selected teams**. All teams that **preregister** can follow several online events to prepare for the competition. Preregistered teams will also be invited to **virtual visits to CERN and DESY**. The deadline for the submission of proposals is **10 April 2025 at 23:59 CEST**. Further information can be found on the competition [website](#). The Beamline for Schools competition is fully funded via the [CERN & Society Foundation](#).



Girls in science is looking for science ambassadors

Join the ranks of ambassadors for women and girls in science and technology!

CERN, the University of Geneva's Scienscope, EPFL and the Annecy Particle Physics Laboratory (LAPP) are joining forces to celebrate the International Day of Women and Girls in Science. From 10 to 14 February 2025, female science ambassadors will visit local schools to talk to students about their careers. The aim is to change the way students view science, engineering and technology careers and show that they are as accessible to girls as they are to boys.



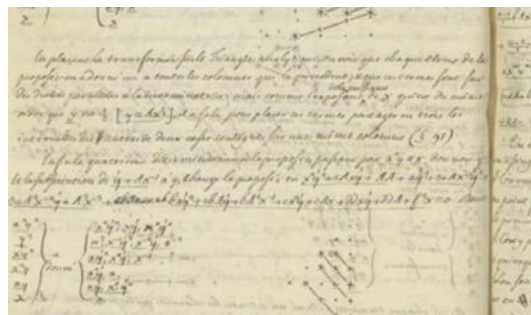
Women and Girls in Science and Technology Week is a huge success every year. As a result, the organisers are always looking for more volunteer scientists who are willing to give up some of their time to visit schools. Do not hesitate and join the adventure by [registering](#): the deadline is **15 December 2024**.

The Mathematics Department of the University of Geneva celebrates its 300th anniversary

In 2024, the [Department of Mathematics at the University of Geneva](#) will celebrate its **300th anniversary**. Its history began in 1724 with the creation of the first permanent chair of mathematics, shared by Gabriel



Cramer and Jean-Louis Calandrini. Since then, several brilliant mathematicians have contributed to the excellence of this department, which today hosts researchers such as Stanislav Smirnov and Hugo Duminil-Copin.



The University of Geneva is celebrating this achievement with a series of events on Wednesday 27 November, aimed at the general public and providing an insight into the research carried out in the Mathematics Department. More information is available [here](#).

Image: Bibliothèque de Genève, Ms. Jallabert 48, fol. 67v

Publication of the Technology Monitoring of Nuclear Energy

As part of the [Swiss Monitoring Energy Strategy 2050](#), the Swiss Federal Office has just published a very interesting document summarising the state of the art in nuclear energy technology. The [Technology Monitoring of Nuclear Energy](#) is available in pdf format by clicking on the link.



The aim of the Energy Strategy 2050 is to change the direction of Switzerland's energy policy. Specifically, its aim is to describe how Switzerland can phase out the use of nuclear energy by 2050. Of course, this process is complex and requires a significant increase in energy efficiency, the increased use of renewable energies and the reduction of CO2 emissions.

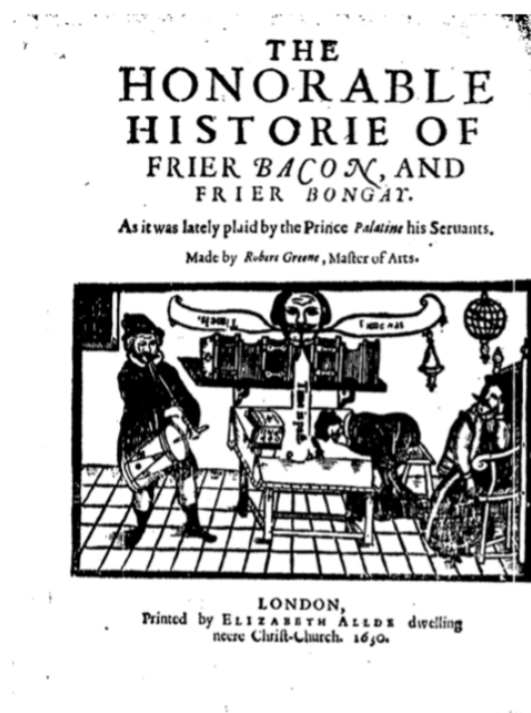
WHAT'S NEW IN THE WORLD

IOP special volume dedicated to history and philosophy of physics

IOP Science has just published a special [open access volume of the Journal of Physics](#) to mark the **10th anniversary of the St Cross Centre for the History and Philosophy of Physics (HAPP)**.

This unique volume contains HAPP papers from a decade of semester-long one-day conferences and stand-alone lectures and seminars. This collection can contribute to discussions about the philosophy and methods that inform current research in physics, and will be useful to the general public and to scientists.

Image: frontispiece of Greene's play The Honorable Historie of Frier Bacon and Frier Bongay.



The Swiss Physical Society (SPS) unites persons interested in physics from university, schools, research, development and industry. The SPS promotes the scientific exchange of ideas in Switzerland and with its international environment.

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