

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

Jean-Marc Piveteau elected President of SCNAT

On 26 April 2025, the Swiss Academy of Sciences (**SCNAT**) announced **the election of Jean-Marc Piveteau as the new president**. A mathematician, he is the former rector of the Zurich University of Applied Sciences. He will succeed Philippe Moreillon on 1 July 2025. He has solid managerial experience and an excellent network within Swiss academia, education, and politics. The full announcement is available [here](#).



Image: portrait of Jean-Marc Piveteau, from SCNAT.

The role of Switzerland in the EPS prize

On April 28, the European Physical Society (EPS) announced the recipients of **[the 2025 High Energy and Particle Physics Prizes](#)**.

The High Energy and Particle Physics Prize has been awarded to **Jürg Gasser, Heinrich Leutwyler, and Martin Lüscher** for their outstanding contributions to theoretical methods that have significantly advanced the understanding of strong interactions in the non-perturbative regime. All three laureates have conducted a substantial part of their academic careers in Switzerland and have held professorships at the University of Bern.

The 2025 Young Experimental Physicist Prize is jointly awarded to **Thea Klæboe Årrestad and Laura Zani** for their exceptional and complementary contributions to experimental particle physics.

Dr. Årrestad is currently a postdoctoral researcher and SNF Ambizione Fellow in the group of Prof. Dr. Günther Dissertori at ETH Zurich. She has been recognized for her pioneering work in applying modern machine learning techniques to particle physics, particularly in real-time data processing and event selection — areas that are critical for managing the enormous data volumes produced by CERN's LHC collider experiments.

The Swiss Physical Society warmly congratulates all the laureates on this well-deserved recognition of their outstanding scientific achievements.

The forthcoming issue of SPG Mitteilungen No. 76 will present an article honouring the scientific works of Jürg Gasser, Heinrich Leutwyler and Martin Lüscher, as well as

contextualising them. It will also feature interviews with some of the laureates discussing their scientific contributions at an early stage in their careers that led to them receiving significant recognition.

Call for pre-proposals under the Swiss Quantum Initiative

The Swiss Quantum Initiative (SQI)

launched a **new call for pre-proposals** on 30 April 2025. The initiative aims to accelerate the development of quantum technologies in Switzerland. **The pre-call is open until 13 June 2025.** Interviews for the selected pre-proposals will take place in July and August.



This call forms part of the Swiss Quantum Commission's initiative to enhance technology readiness ('TRL-enhancing initiative') as part of the financial support measures for 2025–2028. The initiative aims to support the growth of new quantum technologies and encourage collaboration between experts from academia, research institutions and industry.

All information about the call is available [here](#).

Switzerland to Participate in the 2025 International Olympiad on Astronomy and Astrophysics

From August 11 to 21, 2025, Mumbai (India) will host the 18th edition of the [International Olympiad on Astronomy and Astrophysics \(IOAA\)](#).

Switzerland recently established its own national competition in Astronomy and Astrophysics and, for the second time, **has assembled a team to represent the country at the international level.**



The members of the Swiss team traveling to Mumbai are the gold medalists of the national competition:

- **Mikhail Dudko**, Gymnasium Lerbermatt (BE)
- **Pranavendra Tammireddy**, Gymnase de Burier (VD)
- **David Reichmuth**, Kantonsschule Alpenquai (LU)

We wish the Swiss team the very best of success in Mumbai!

Image: the members of the Swiss team, from SCNAT.

Upcoming events on quantum physics and technology

2025 marks the **International Year of Quantum Science and Technology**, celebrating 100 years since the development of quantum mechanics. In Switzerland, the celebrations will consist of a series of fascinating events.

CERN is offering a wide range of events in June and July. On 19 June 2025, **Sparks! 2025 – Imagining Quantum City** will take place. During this event, the public will embark on a futuristic journey to a hypothetical 'Quantum City', exploring how quantum mechanics could one day contribute to the creation of more sustainable and inclusive societies. During the event, CERN will present recent developments in the field of quantum technologies in a comprehensive manner, highlighting their potential long-term impact on areas such as healthcare and communications.

On 19 July 2025, the **STELLAR CERN's summer science festival** will take place. It will last from the afternoon to the evening, offering the public inspiring talks, hands-on activities, and live music. Programme and registration details will be available soon [here](#).

The **University of Zurich** is holding a public symposium, **the Quantum Century Symposium**, featuring accessible talks on the past, present and future of quantum physics, and its philosophical underpinnings. Leading scientists will explain how they use one of the most successful theories in history in their everyday work, how the second quantum revolution will influence our lives with groundbreaking technology, and why we still struggle to understand quantum mechanics. Programme and registration details are available [here](#).

The 2024 Nobel Prizes in Physics and Chemistry

An important task for the SPS is to communicate scientific findings of general interest beyond the scientific community through their outreach activities. This was recently achieved spectacularly in [Issue No. 75 of SPS Communications](#), which featured first-hand appraisals of the **2024 Nobel Prizes in Physics and Chemistry**. The two related articles received very positive feedback.

Figure 3, which is discussed in the second article about the 2024 Nobel Prize in Chemistry, illustrates the breakthrough in de novo protein

design by automated computation realised by David Baker and his team in 2003. Top7 is the first entirely new protein, both structurally and in terms of sequence, designed by automated computation with full optimisation of both the backbone and the side chains.

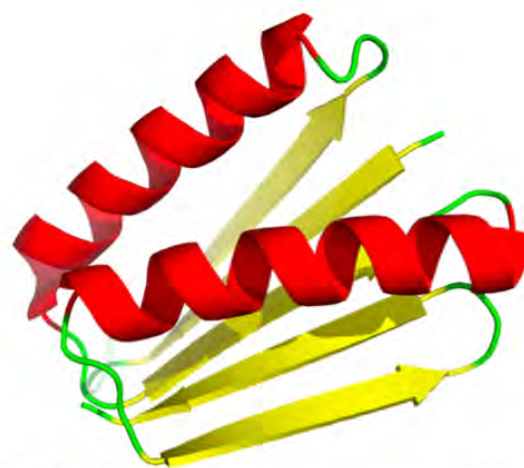


Figure 3. X-ray structure of the computationally designed TOP7 protein (PDB 1qys) [9]. Alpha helices are shown in red, loops shown in green and beta sheets in yellow [9].

[9] Kuhlman, B. *et al.*, Design of a Novel Globular Protein Fold with Atomic-Level Accuracy. *Science* **302**, 1364–1368 (2003).

EMPA workshop on photonic Sensing for Environment and Health

On Tuesday, September 30, 2025, [Empa](#) will host the **'Photonic Sensing for Environment and Health'** workshop at its **Akademie in Dübendorf**. During this one-day event, participants will explore cutting-edge

photonic technologies that address critical challenges in environmental monitoring and healthcare. The programme includes lab tours and presentations from leading experts, who will discuss the latest developments in photonics-based sensing systems. Key topics include optical sensors for monitoring air and water quality, compact spectroscopic systems for early disease diagnosis, and integrated photonic platforms for wearable health monitoring.



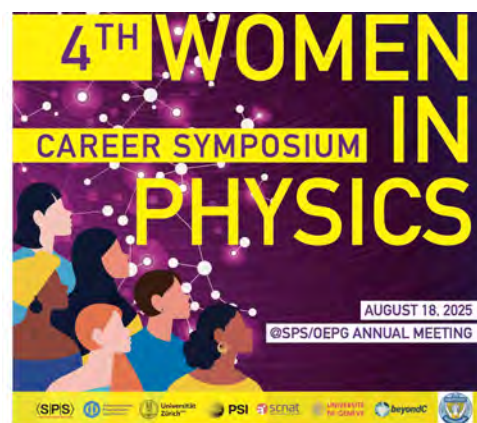
Registration is open until 19 September 2025 and costs CHF 90 (CHF 50 for students).

WHAT'S NEW ON DIVERSITY AND INCLUSION

The 4th Women in Physics Symposium

The **2025 Annual Meeting of the Swiss Physical Society** is being organised in collaboration with the Austrian Physical Society (ÖPG). It will take place from 18 to 22 August 2025 at the University of Vienna.

On the afternoon of 18 August, [the 4th Women in Physics Symposium](#) will be held. The symposium aims to support female early-career scientists from undergraduate to postdoctoral level. This event is organised by the SPS Commission for Diversity, Equity and Inclusion and the ÖPG Group for Equal



Opportunities in Physics, and will feature a series of career talks. These talks will provide information on navigating a career in physics from the personal perspective of invited speakers, who will cover several career levels. Travel funds for Swiss participants are available on request (wip@sps.ch).

Confirmed speakers include **Francesca Primas** from the European Southern Observatory, **Kimberly Modic** from the Institute of Science and Technology Austria, **Beatrix Hiesmayr** from the University of Vienna, **Anna Spindler** from Infineon, and Florencia Canelli from the University of Zurich.

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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