



Swiss Society for Photon Science

Newsletter March 2024, No. 4

Dear readers,

In this issue of our newsletter, we announce our General Assembly 2024, which will be held for the first time in the context of the Annual Meeting of the Swiss Physical Society, offering our members an opportunity for scientific networking. At the last General Assembly in 2023, our Society has elected a new president, Lukas Gallmann from ETH Zurich. We briefly introduce him in this newsletter and provide a farewell message from our founding president Thomas Feurer. An important activity of our Society this year will be the preparation of the next iteration of the thematic roadmap for national and international research infrastructures. For this, we ask our members for input. As a result of bilateral agreements between Switzerland and Hungary, funding for joint projects between Swiss researchers and ELI-ALPS has become available. We provide details on this funding opportunity below.

We're looking forward to meeting many of you at the General Assembly, which will take place on September 9th at ETH Zurich, and to many exciting scientific contributions to the Photon Science sessions at the Annual Meeting of the Swiss Physical Society.

Lukas Gallmann – President SSPh

News from the SSPh

General Assembly 2024 on September 9th – Save the date!

Our General Assembly 2024 will take place on Monday, September 9th at 1 pm at ETH Zurich (ETZ/GLC buildings in walking distance from the ETH Zentrum campus, link: <https://ethz.ch/en/campus/access/zentrum.html>). For the first time, we hold our General Assembly in the context of the Annual Meeting of the Swiss Physical Society (SPS), which will host special events on Monday and run its regular scientific program from Tuesday to Friday. This will allow us to organize dedicated Photon Science sessions as an integral part of the SPS Annual Meeting scientific program.

On Monday, following the General Assembly, we will offer an apéro to our members. This is followed by a special symposium in honor of Louis de Broglie and the 100th anniversary of the establishment of the wave/particle dualism organized by SPS. As a highlight of the Monday special events and jointly organized by SSPh and SPS, we are excited to announce a public evening lecture by Prof. Anne l'Huillier, winner of the 2023 Nobel prize in physics, on “the route to attosecond pulses”.



Anne l'Huillier, Nobel laureate in Physics 2023, will give a public evening lecture on September 9th (image source: Encyclopaedia Britannica, courtesy of Lunds Universiteit, Kenneth Ruona)

Our Photon Science session will focus on science with and of X-ray free-electron lasers and general (laboratory based) ultrafast science and techniques. However, we also strongly encourage submissions from other areas of Photon Science, which will be integrated into existing sessions of the SPS Annual Meeting. Please submit your abstracts through the website of the SPS Annual Meeting (<https://indico.cern.ch/event/1382917/>). Submission deadline is May 1st. Please note that participation in all events on Monday will be free of charge and does not require registration.

Participation in the scientific program of the SPS Annual Meeting from Tuesday to Friday, including the Photon Science session, will require registration via the SPS website (<https://indico.cern.ch/event/1382917/>, deadline August 15th) and payment of the associated fee. As a member of the SSPh you are entitled to a discounted fee of CHF 150.- (students before Master's degree pay a lower CHF 100.- fee). Looking forward to seeing many of you there!

Changes in the SSPh Board

At our 2023 General Assembly, which was held on August 28th at PSI, Lukas Gallmann from the Department of Physics of ETH Zurich has been elected new president of the SSPh. Throughout his career, Lukas Gallmann has worked in the field of ultrafast science: initially on the generation and characterization of some of the shortest laser pulses and more recently on the application of attosecond science for studying fast processes in solids. He succeeds the founding president of our society, Thomas Feurer, who has since taken up a position as the managing director of the European XFEL in Hamburg. Please find below a farewell message from Thomas Feurer.

Dear Members of SSPh,

having served as the first president of the Swiss Society for Photon Science (SSPh) has been a real challenge but also a pleasure. I have seen it become a cornerstone institution within Switzerland's photon science landscape, dedicated to advancing the frontiers of photonics research and facilitating access to state-of-the-art beamlines at large-scale facilities in Switzerland and elsewhere. With virtually no time to prepare, we had been charged with compiling the first ever roadmap for photon science in Switzerland, and we managed. I am incredibly thankful for the experience and for the opportunity to work with all the fantastic colleagues on the managing board. The fact that I am the only member who paid the life-long membership fee should tell you how strongly I believe in purpose and mission of SSPh.

Recognizing the importance of nurturing talent and expertise in Swiss photonics, the SSPh has also placed a strong emphasis on education and training initiatives. I think by now we provide invaluable opportunities for individuals at all stages of their academic and professional journeys to enhance their knowledge, skills, and networks within the field. The SSPh serves as a vibrant hub for knowledge exchange and collaboration, providing a platform for researchers to share ideas, insights, and best practices. Through its annual general assembly, the society fosters dialogue and collaboration among academia and other stakeholders.

In pursuit of its mission, the SSPh is guided by principles of excellence, integrity, and inclusivity, striving to uphold the highest standards of scientific rigor and ethical conduct while promoting diversity and inclusiveness within the photonics community. By embracing an interdisciplinary approach and fostering a culture of openness and collaboration, the society aims to unlock new

frontiers in photonics research, ultimately contributing to Switzerland's position as a global leader in this critical field. I am confident that you will continue to do so and I know that the SSPh is in very good and capable hands. Lastly, I wish all of you the patience it takes to go through the updating process of the roadmap for photon science.

With best regards - Thomas

Update to the Photon Science roadmap - your input wanted

On March 31st, 2021, the Swiss Academy of Sciences (SCNAT) under a mandate by the State Secretariat for Education, Research and Innovation (SERI) published a series of thematic roadmaps for research infrastructures in close collaboration with its scientific member societies and written by the various scientific communities. The goal of these roadmaps was to obtain a bottom-up perspective of scientists on their needs for research infrastructures.



Cover of the 2021 Photon Science roadmap (image source: SCNAT)

These thematic roadmaps formed a starting point for the Swiss roadmap for national research infrastructures 2023, a budgetary planning document for the federal 2025 – 2028 financial period and provide important input for initiation or continuation of Swiss participation in international research organizations or infrastructures. The SSPh was tasked by SCNAT with the collection of community input and the preparation of the associated roadmap around Photon Science (https://scnat.ch/en/uuid/i/4aac4b50-e8a0-5681-97dd-315aaf5345c7-Photon_Science_Roadmap).

Many of you were involved in that process.

Following the 4-year federal funding cycles, an update to the thematic roadmaps is due in 2024. As the SSPh, we will again be in charge of updating the Photon Science roadmap. The SSPh president, Lukas Gallmann, will act as the chair for this effort and Christoph Bostedt from PSI will serve as co-chair. Three groups of experts will oversee updating the roadmap in the domains of synchrotrons, free-electron lasers and institution-based laser platforms. At the same time, we would like to reach out to you to provide input on your scientific needs for research infrastructures by answering the questions below. The scope of the roadmap ranges from infrastructures on the scale of multi-PI institution-based laser platforms to large-scale national or international photon science facilities.

Questions:

1. In which category does your research fit the best?
 - a. Based on synchrotrons.
 - b. Based on x-ray FELs.
 - c. Based on institution-based laser platforms.
 - d. Other _____
2. Have there been significant developments in your field, since 2021, which should be reported in our updated roadmap?
3. Are there fields/directions you feel that are fading out, which should be addressed?

4. Have new directions emerged since 2021, which require large funding efforts and were not present in 2021?

Please send your answers until April 14th to board@swissphotonscience.ch.

Opportunities for Swiss researchers at ELI-ALPS

ELI-ALPS, located in Szeged, Hungary, is a user facility of the European Extreme Light Infrastructure devoted to ultrafast science with a special focus on, but not limited to attosecond science activities (<https://www.eli-alps.hu/>). In the context of Swiss financial contributions to the enlargement of the European Union, a fraction of the budget allocated for Hungary has been designated to support collaborations and exchange between Swiss researchers and ELI-ALPS, with a particular focus on the development of new instrumentation at the facility and knowledge transfer. If you are interested in pursuing research at ELI-ALPS or already have a capability in mind that you would like to see at ELI-ALPS, you are encouraged to get in contact with them. For further information, you may also contact Lukas Gallmann, president@swissphotonscience.ch.