



**Schweizerische Gesellschaft für Kristallographie
Société Suisse de Cristallographie
Società Svizzera di Cristallografia
Swiss Society for Crystallography**

**Sektion für Kristallwachstum und Kristalltechnologie
Section de Croissance et Technologie des Cristaux**

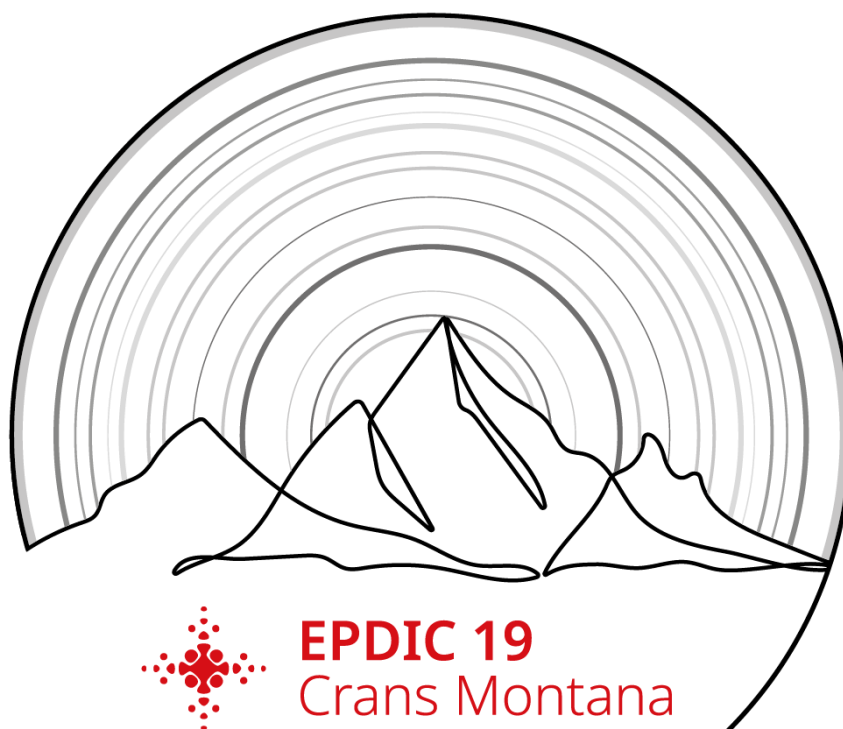


SGK / SSCr NEWSLETTER

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Recent developments in operando beamline capabilities, news, and events
across Switzerland and beyond!

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Official logo of EPDIC19, the 19th European Powder Diffraction Conference 23 – 26
June, 2026, Crans Montana, Switzerland

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The President's Page



The highlight of this year's Society life will be the 19th European Powder Diffraction Conference from June 23rd to 26th in Crans Montana. Registration and poster abstract submission are still open, please check it out (<https://www.epdic19.com>). The organizing committee led by Pascal Schouwink and supported by many members of our Society have done a fantastic job so far, so that we can all look forward to this event. After the European Crystallographic Meeting in Basel in 2016, this will be the next major crystallographic conference in Switzerland, 10 years later.

But there are other highlights this year. The 27th Congress and General Assembly of the IUCr will take place in Calgary from August 10th to 18th. As in the previous editions of the IUCr meeting, Swiss researchers will contribute to the program again with many talks and with their work in committees and commissions. It is very important that our Society is well represented and strongly inter-connected with other Societies and colleagues at the world level. Our Vice-President Ekaterina Pomjakushina and I will represent Switzerland at the General Assembly (during three long evenings). The Society will also be involved in a workshop about reproducibility in practice organized by Ludmila Leroy from Dectris. Registration is still open.

The board of the Society decided to choose a topic different from powder diffraction for the events in the second half of the year. The Annual Meeting will be under the theme "Hierarchical Order: Complex Assemblies in Life and Materials Science" on September 3rd at EMPA in St. Gallen. Prior to the Annual Meeting, a workshop on Small-Angle X-ray Scattering (SAXS) will take place at the same venue. Many thanks to Bruno Silva and Antonia Neels for organizing both events.

The Howard Flack Lecture Series will continue to focus on life science and soft matter. Professor Ilme Schlichting from the Max-Planck Institute for Medical Research in Heidelberg, Germany, will talk about the use of X-ray free electron lasers to elucidate biochemical mechanisms. These lectures will be exciting for a broad audience because they will touch on state-of-the-art technical developments, crystallographic challenges and biological processes. The lectures will take place between December 7th and 11th at University of Zurich, Paul-Scherrer Institute, University of Fribourg, EPF Lausanne, and University of Geneva. A more detailed announcement can be found in this edition of the newsletter, and later with times and locations of lecture halls on our website swiss-crystallography.ch.

You see that 2026 will be a rich year for the Society and we hope that many of you will actively participate in the Society's events. And don't forget, we offer travel grants for junior and retired members of the Society.

Simon Grabowsky

Reports on Activities 2025

Report of the Annual Meeting of the SSCr 2025

Pascal Schouwink

The 2025 Annual Meeting of the Swiss Society for Crystallography took place on 9–10 September 2025 at the École Polytechnique Fédérale de Lausanne (EPFL), in Lausanne – organized by Arnaud Magrez (EPFL, Department of Physics) and Pascal Schouwink (EPFL, Department of Chemistry and Chemical Engineering) – and focused on the theme of *Materials Discovery*. With a total of 102 participants, the event brought together our community, as well as our usual instrumentation specialists and sponsors.

In addition to the main meeting, the third edition of the annual SSCr topical workshop was held, preceding the conference on September 9th, *Computational Methods in Crystallography*, and providing participants with insights into modern computational approaches that increasingly complement experimental techniques in structure determination and materials design. A report on this workshop is found in this same newsletter.

A special feature of our annual meeting in Lausanne was the guided visit to the mineralogical and geological collections of the State Museum of Natural Sciences. Prior to the conference dinner in the old city center, interested participants joined an exclusive evening tour led by Nicolas Meisser. This visit offered a unique opportunity to explore an exceptional collection of minerals and rocks in a more intimate setting and was widely appreciated as both an educational and social highlight of the meeting.

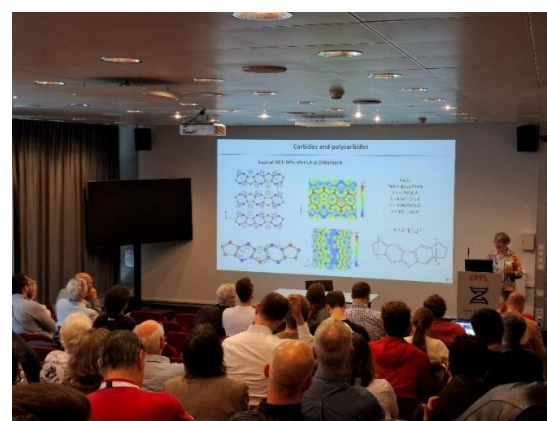
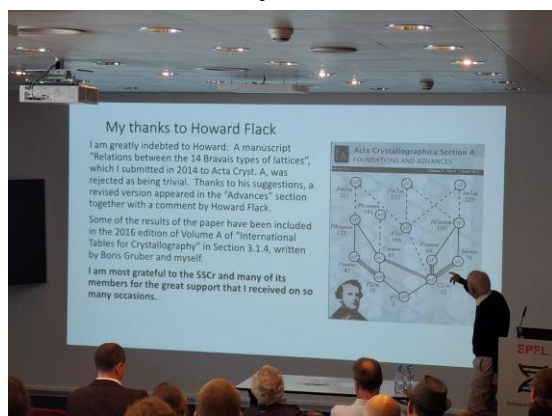
The scientific program of the conference day covered a broad range of topics related to materials discovery, with an emphasis on the interplay between structure, properties, and synthesis. The three sessions were led by our invited speakers, Prof. Natalia Dubrovinskaia (University of Bayreuth, Germany) discussed the use of high-pressure crystallography to access and characterize materials at extreme conditions, illustrating how such approaches can reveal new structural phases and unexpected physical properties. Dr. Federica Bertolotti (University of Insubria, Italy) focused on nanomaterials, presenting recent advances in probing structural defects and dynamic disorder in halide perovskite nanocrystals. Dr. Olivier Mentré (University of Lille, France) addressed bulk materials discovery and crystal growth, with particular attention to low-dimensional transition metal phosphates (Cr, Mo, W).



The PhD Prize Award lecture was delivered by Yevheniia Kholina, who presented her work on correlated disorder in Prussian Blue analogues. Her contribution emphasized how a detailed understanding of local structure can enable its targeted control, opening perspectives for tuning material properties. Fun fact, her PhD supervisor, Arkadiy Simonov, received the very same award many years ago, illustrating a noteworthy continuity in high-quality research within this area.

Further recognitions included the awarding of honorary memberships to Hans-Beat Bürgi and Hans Grimmer, in recognition of their exceptional and long-standing contributions to crystallography and to the Swiss Society for Crystallography. Hans-Beat was honored for his remarkable 60-year career in chemical crystallography (1965–2025). His work has significantly shaped our understanding of chemical bonding and structural chemistry, and his sustained engagement with the community reflects a lifelong commitment to the field.

Our second Hans (Grimmer) was recognized for his important contributions to crystallographic theory and symmetry, as well as for his long-standing dedication to the Society. In his lecture, he shared personal reflections on his enduring connection with the community and its evolution over the years.



Impressions from the scientific program. Top: Our ne honorary members Hans Grimmer (left) and Hans-Beat Bürgi (right). Bottom: Our President Simon Grabowsky awarding the PhD prize to Yevheniia Kholina (left) and Natalia Dubrovinskaja during her invited lecture on Materials Discovery at Extreme Conditions.

Both awardees stand as inspiring examples for younger scientists, illustrating the lasting impact of scientific excellence, curiosity, and active involvement in the crystallographic community.

The meeting also benefited from the strong support of its sponsors and exhibitors, namely Anton Paar, Bruker, Dectris, Eldico, Rigaku, STOE, Instrumat, and Malvern. Their participation contributed to fruitful exchanges on the latest developments in instrumentation and methodology. Overall, the Lausanne meeting combined a diverse and engaging scientific program with opportunities for discussion, networking, and informal exchange. The inclusion of the workshop, now in its third year, and the museum visit added further depth to the event, making this edition both scientifically rewarding and memorable.

Satellite Workshop at ECM35 in Poznan

Simon Grabowsky



A practical introduction to
synchrotron experiments

DECTRIS
detecting the future



This satellite workshop was offered by SSCr and sponsored by Dectris on August 25th, 2025, one day before the European Crystallographic Meeting in Poznań. The workshop aimed to answer pragmatic questions that both new and experienced synchrotron users may have when trying to optimize their beamtime. These include finding a suitable beamline, access modes to synchrotrons, proposal writing, designing, and conducting an experiment, troubleshooting during the measurement, and post-experiment activities. We could convince five exceptional speakers to come to Poznań and shape the day together with SSCr: Philip Willmott (Swiss Light Source, back of his head in the photo), Sam Horrell (Diamond Light Source, second row in the photo), Mads R. V. Jørgensen (MAX IV, speaking), Fabia Gozzo (Excelsus Structural Solutions, on her laptop), and Nicola Casati (Swiss Light Source, joined remotely). The talks were of high quality and there was lively discussion between the speakers. Unfortunately, the resonance and interest in the workshop by participants was very low, so that the SSCr board decided to discontinue this series, at least as satellites to ECMs. The previous edition before IUCr 2023 in Melbourne was a great success with the participants.

Synchrotron Powder Diffraction School 2025

Nicola Casati

The 2025 edition of the Synchrotron Powder Diffraction School was successfully held at the Paul Scherrer Institute (Villigen) from September 15th to September 19th. The school is a traditional appointment focusing on synchrotron modern methods for powder diffraction. With 22 participants and 11 different lecturers/tutors the school provides exceptional access to experts on the many different topics in the field, such as quantification, total scattering methods and peak profile analysis.



The first part of the school included lectures to present the diverse aspects of modern synchrotron powder diffraction. This was followed by practical activities, with live measurements performed at the ADvanced Diffraction for Materials Science (ADDAMS) beamline of the recently upgraded Swiss Light Source. Both the high-resolution diffractometer and the fast frontal detection system were used to perform measurements and a live mechanochemical experiment. The last two effective days were devoted to hands-on tutorials of different softwares, such as GSAS-II, Debussy and Topas, providing the students with a good starting foundation to apply them to their scientific goals.

Report on SSCr Topical Workshop 2025

Simon Grabowsky



**Computing Materials
Properties**



The workshop was focused on computational methods in crystallography, with some introductory talks and extended hands-on sessions. These featured the two



software programs CRYSTAL23 and CP2K. It took place on September 9, 2025, at the CECAM headquarters at EPFL in Lausanne. CECAM let us use their excellent facilities and supported us concerning website and registration; everything free of charge. We thank CECAM for this collaboration.

The teaching team consisted of Janine George (BAM Berlin), Silvia Casassa and Chiara Ribaldone (University of Turin), Jan Wilhelm and Štěpán Marek (University of Regensburg), and Michelle Ernst (University of Bern). They guided the computational training activities expertly and with great didactical skills. Thank you very much!

The workshop was well received by the approximately 40 participants who came from across most of the Swiss Universities and institutions such as EMPA.

Organizer: Simon Grabowsky (University of Bern)



SGK/SSCr Travel Grants 2025-2026

We congratulate Timo Markus Felder and Eva Bervas for receiving an SSCr travel grant for 2025-2026.

EuroMOF 2025 -21-24 September 2025, Heraklion, Greece

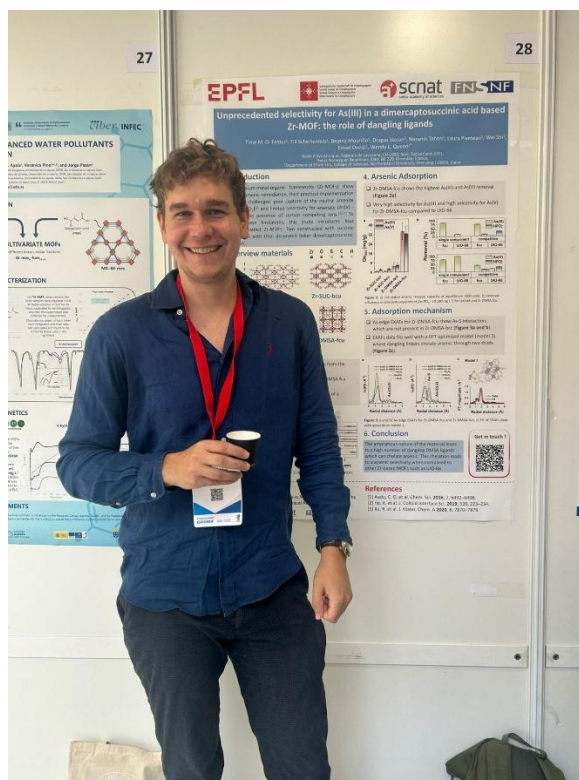
Timo Markus Felder, EPFL

I had the opportunity to attend EuroMOF 2025, held in Greece, a major international conference focused on Metal-Organic Frameworks (MOFs), Covalent Organic Frameworks (COFs), and other porous materials. The meeting brought together leading researchers, students, and industrial partners from across the world to share the latest developments in synthesis, characterization, and applications of porous materials.

Throughout the conference, I attended numerous insightful talks covering topics ranging from gas storage and separation, and catalysis, to the integration of artificial intelligence and machine learning into the design and discovery of new MOFs. The event provided an excellent platform for exchanging ideas and learning about innovative research directions in the field. I particularly enjoyed the lively discussions during poster sessions and networking events, which created opportunities to connect with other scientists and explore potential collaborations.

I also had the chance to present my work in the form of a poster, which was among the ones awarded the Best Poster Prize. In this work, we explored different Zr-based MOFs and found that the material showing the lowest crystallinity exhibited the best performance for arsenic removal from water. Using PDF and XAS analysis we found that the enhanced arsenic performance lies in rotatable ligands and their role to chelate arsenic.

Beyond the scientific program, the venue and organization were excellent, and the overall atmosphere of the meeting was both engaging and inspiring. Attending EuroMOF 2025 was a highly rewarding experience that deepened my understanding of current trends in framework materials.



12-16 April 2026- 2026 Powder Diffraction and Rietveld Refinement School in Durham, UK.

Eva Bervas, PSI, University of Basel

Thanks to the SSCr Travel Award, I was able to attend the 2026 Powder Diffraction and Rietveld Refinement School in Durham, UK. As soon as we arrived on Sunday afternoon, we were greeted with refresher lectures on point group symmetry and matrix operations.

However, we soon moved on to more advanced topics such as dealing with unusual peak shapes, microstructures or magnetic refinements. We were also lucky enough to have been given a TOPAS license for the duration of the school. This meant that after each lecture we were able to easily put into practice what we had learnt and gain practical experience of how to deal with tricky structures.

One tutorial I was especially fond of was called “spot the errors”. We were given eight data files which were all (allegedly) X-ray powder diffraction patterns of Y_2O_3 . However, each of these files contained errors which we needed to figure out purely through Rietveld refinement. For example, one pattern was acquired with variable slit size, and another was actually a neutron diffraction pattern. I thought this was a very instructive practical exercise to really make sure we had understood everything that was taught during the school. My group even finished this exercise in the fastest time, earning us a box of chocolates.

Even during our evenings and breaks, we were still thinking of crystallography. For example, whilst walking around the city, we had to complete a quiz about Durham which included finding the point groups of various statues and buildings. The organisers also prepared a pub quiz for us where we had to guess locations based on pictures of landmarks. It turns out all of these places were former EPDIC host cities. I would like to thank again the SSCr for funding this trip and allowing me to take part in this extremely fun and insightful school.



Obituary

Benno P Schoenborn

By Robert Knott

The Scientific Community is deeply saddened by the passing of Benno Schoenborn who passed away on September 23, 2025. The Community has lost an extraordinary Swiss scientist whose dedication and visionary leadership made enormous contributions to the field of Structural Biology and has left a lasting legacy.

Benno was born on May 2 1936 and grew up in Basel Switzerland and, in 1955, graduated with Matura from College Kanton Schwyz. However, from



an early age Benno regarded the world as an exciting place to be explored and, following graduation from College, he visited his sister living in California and enrolled as an undergraduate at the University of California (UC) Los Angeles. In 1958 he was awarded a BA Degree with a major in Physics.

At this critical time in his career, Benno met Jenny Glusker, a Postdoctoral Fellow visiting UC from Oxford University, and Jenny's boundless enthusiasm for the study of biological structure encouraged him to explore this field for career opportunities.

On graduation from UC, Benno searched for a PhD project that would use his solid background in Physics to apply to problems in Structural Biology. On the other side of the world, the Australian crystallographic community at that time was small and world class so he decided to study for a PhD in the Physics Department at the University of New South Wales where he found a problem involving the stereochemistry of compounds used by insects for communication and defence. The project required a good understanding of the fundamentals of crystallography, and very careful data collection and analysis. Benno was awarded a PhD in 1962.

This not only gave him a thorough background in crystallography, but also collaborations and friendships that would last throughout his career. Benno also met and married Catherine, an Australian girl; an accomplished artist; and a wonderful partner with Benno. Sadly, Catherine passed away in 2000 after a battle with cancer. Following PhD graduation, Benno had a Postdoctoral Fellowship in the Physiology Department at the University of New South Wales, and then a Doctoral Fellowship in the Pharmacology Department at UC Medical Center (UCSF San Francisco), to study the molecular pharmacology of anaesthetics. In 1963-1964 he was appointed Assistant Research Associate at UCSF, and then Associate Professor until 1967.

During his UCSF tenure, Benno was also Visiting Scientist in the Laboratory of Molecular Biology (LMB Cambridge) working with Max Perutz and John Kendrew (Nobel Prize in Chemistry 1962) on the structure of proteins in general, and the binding

of xenon to myoglobin in particular. For Benno, a map depicting actual H atom location was clearly needed to better understand the structural details of binding, and to make a more accurate calculation of the binding energies.

Despite a number of challenges, the first experimental data established beyond doubt that Neutron Protein Crystallography would provide valuable information on the structure of proteins. The data also established that major advances in instrumentation, data collection and data analysis were essential in order to maximise the contribution of the technique. In 1967 Benno took up the challenge and was appointed an Associate Biophysicist in the Biology Department at Brookhaven National Laboratory (BNL), an appointment which set the course for his career.

Throughout his career, Benno continued to have adjunct research and teaching appointments at universities in the USA, UK, Europe and Australia, however since the scientific questions he posed required large experimental facilities, his primary career appointments were national laboratories.

Whilst his main scientific interests and outputs were to be in neutron-based techniques, with his strong background in X-ray techniques he always positioned himself to take full advantage of the complementarity. Accordingly, to achieve his scientific goals, Benno developed the Center for Structural Biology at BNL. The Center included tenured scientists as well as engineers and specialist technicians. The scientific facilities developed were used by a large group of students and scientists from universities, national laboratories and industry.

In 1980 he was awarded the prestigious Ernest O Lawrence Award in Life Sciences: 'For the innovative development and creative application of neutron scattering and diffraction techniques to the analysis of macromolecular structure and biological organization and function'.

In 1992 Benno decided to move to Los Alamos National Laboratory (LANL) to a pulsed neutron source, and concentrate on taking Neutron Protein Crystallography to the next level. As Senior Fellow, he set about designing a state-of-the-art Protein Crystallography Station (PCS), and with improvements in instrumentation and neutron source utilisation, Benno certainly opened up new research opportunities.

Benno formally retired from LANL in May 2009 with the intention of relaxing and enjoying the lifestyle in Santa Fe, however his appointment as Senior Fellow continued - he still had a few ideas! In 2016 he was awarded the ACA Robert Bau Award for his lifetime contribution to the field of Neutron Protein Crystallography.

Benno's scientific network was extensive and truly international. For example, he was Chair of three international Neutrons in Biology conferences (1975, 1981 and 1995). The conferences provided a valuable record of achievements and indicted the incredible expansion of the field. The Neutrons in Biology conference held in Santa Fe in 2009 highlighted the enormous range of problems being addressed; and celebrated his formal retirement from LANL.

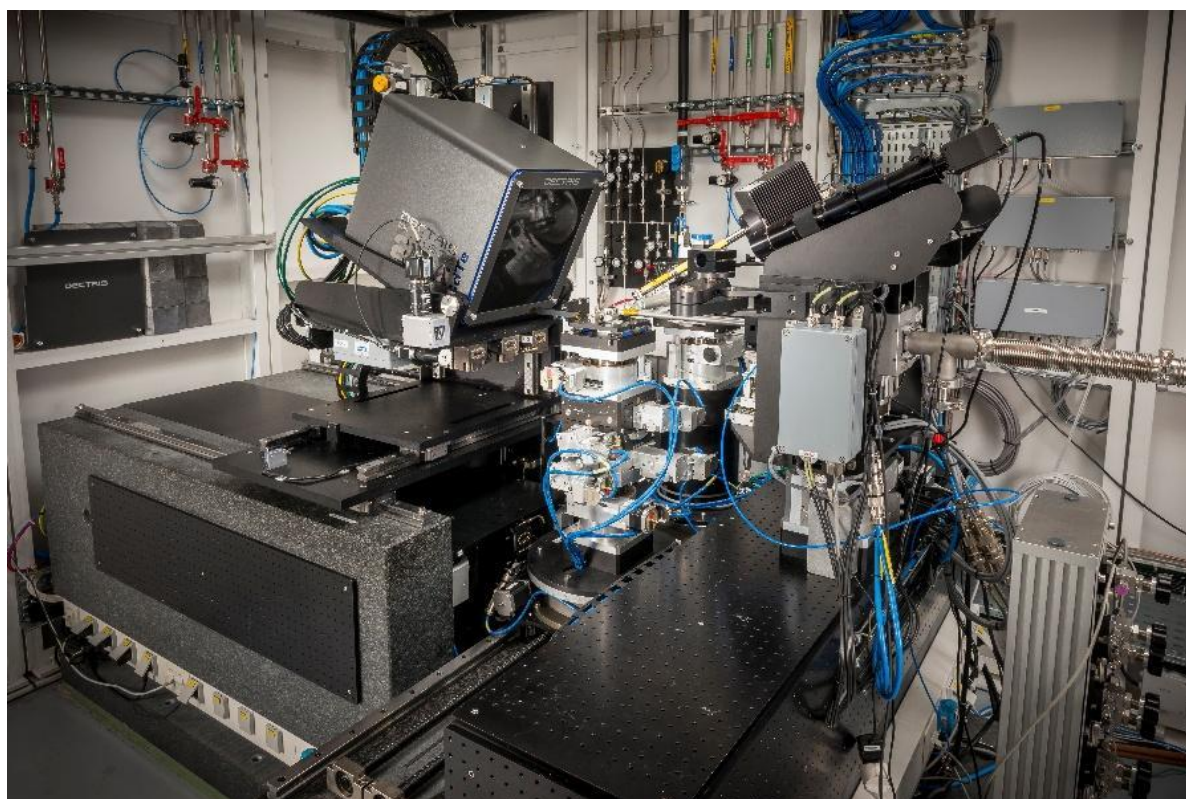
Benno was an amazing scientist, a leader and an inspiration for many. His contributions to understanding complex problems in Structural Biology are extraordinary. From high resolution structure of soluble proteins; to biomolecular hydration; intact and reconstituted membrane structure; multi-component systems from membrane bound proteins to ribosome structure.

Invited article

Operando XAS, diffraction and total scattering combined at SNBL's BM31 beamline

Dragos Stoian, Kenneth Marshall and Wouter van Beek, SNBL at ESRF

The mission of the Swiss-Norwegian Beam Lines at ESRF (SNBL) is to provide scientists from Switzerland and Norway, from both academia and industry, with advanced synchrotron radiation instrumentation that is specifically tailored to their needs. The consortium was formed in 1990, and the beamlines opened in 1994. At that time BM01 hosted two end-stations operating in parallel. BM01A (now BM01) has always been at the forefront of crystallography, whereas BM01B (now BM31) has established the combination of spectroscopy and scattering methods and, more importantly, providing it as a standard tool for its materials chemistry user community. The BM01B station moved in 2016 to a new port BM31 and together with the ESRF-EBS upgrade in 2020 a new cryogenic monochromator was installed. In 2022, the end-station was completely rebuilt, housing 16 ion chambers, various fluorescence detectors and a Dectris CdTe Pilatus 2M for scattering experiments. Today's BM31 scientific case relies on the capability to automatically and seamlessly combine multi-edge XAS (X-ray absorption spectroscopy) with XRD (powder X-ray diffraction) and xPDF (X-ray pair distribution function - total scattering) while performing (automated) in-situ or operando experiments. The new BM31 optics and end-station are specifically designed from their inception for the combination of techniques and benefit from the latest technological advances in synchrotron instrumentation. This represents a breakaway concept compared with traditional single-technique beamlines and continues along the lines of the earlier original works at SNBL at the turn of the century. A vast multi-technique sample environment development program is also constantly ongoing in close collaboration with the user community. The station is now permanently equipped with low and high temperature stages, gas distribution systems, high pressure catalytic operando flow cells, and ancillary equipment such as mass-spectrometers, mass flow meters, back pressure regulators and fast switching valves all of which are fully integrated into the control system. Moreover, a batch of static pressure, electrochemistry, liquid and solid battery cells, has been developed. For example, the solid-state battery cell has temperature and pressure control feedback systems integrated. Ongoing instrumental developments are targeted towards ammonia chemistry and will become online soon.



SNBL's BM31 end-station with its sample- and multiple detector stages

For inspiration, a few references are provided to highlight the wide variety of scientific projects that can be performed and how users are exploiting at best the BM31 capabilities. The first example concerns the bespoke solid-state battery cell employed with combined XAS and XRD to track the phase and redox chemistry simultaneously (ACS Energy Lett. 2026, 11, 2, 1761–1768). The second example describes the water harvesting mechanism in a prototypical MOF with giant pores; this was studied with the novel approach based on XAS, xPDF, PXRD, and molecular dynamics (MD) simulations to gain quantitative insights into the structural and dynamical properties of water adsorbed within MIL-100(Fe) (J. Am. Chem. Soc. 2025, 147, 44, 40507–40518). The third example highlights the formation of high entropy alloys (HEA) materials (EES Catal., 2023,1, 950-960). By employing in-situ PXRD and five-element XAS, the reduction of all individual elements (Pt, Ir, Os, Rh, Ru) is followed alongside the crystallization of HEA nanoparticles in a single experiment. It is demonstrated that the formation of HEA nanoparticles is governed by stochastic principles and the inhibition of precursor mobility during the formation process favours the formation of a single phase. The fourth example describes an operando XAS (both XANES and EXAFS) study providing insights on how to design more stable copper-based electro-catalysts for CO₂ reduction: Nat. Mater. 23, 680–687 (2024). A fifth example illustrates a high-pressure heterogeneous catalysis experiment investigating the role of Fe promotion over Rh supported catalysts into the reaction mechanism of syngas conversion towards ethanol (C₂) formation. Combined Fe and Rh spectroscopies were instrumental in establishing the RhFe alloy formation, stable under working conditions and promoting high activity and increased ethanol selectivity (J. Am. Chem. Soc. 2025, 147, 12890–12896).

Concerning proposals, there are two deadlines per year, in the beginning of March and September. Please see: <https://smis.esrf.fr/> The beamtime at SNBL is shared between 3 categories of users, 1/3 for Norway, 1/3 for Switzerland and 1/3 for the whole of Europe. Swiss users have access to both Swiss and European shares. The European share is highly oversubscribed and a fee is required for the Swiss usage of time. For more information, please contact: Dr. Wouter van Beek, wouter@esrf.fr.

Announcements

The Annual Meeting of the Swiss Society for Crystallography SGK / SSCr 2026

St. Gallen, 3 September 2026

“Hierarchical Order: Complex Assemblies in Life and Materials Science”



We are pleased to invite you to the annual meeting of the SSCr 2026, which will take place on Thursday, September 3rd, at **Empa - St.Gallen**. This year's meeting theme is **“Hierarchical Order: Complex Assemblies in Life and Materials Science”**. We look forward to spending this day with you, discussing the recent developments in Swiss structural science, and enjoying a pleasant time networking and catching up.

Organizers

Bruno Silva, Center for X-ray Analytics and Laboratory for Biointerfaces, Empa
Antonia Neels, Center for X-ray Analytics, Empa

Confirmed Invited Speakers

Prof. Peter Schurtenberger (Lund University)
Prof. Matthias Karg (Martin-Luther-Universität Halle-Wittenberg)
(additional speakers to be announced)

Abstract submission deadline: 17 July 2026

Conference website: <https://sscr2026.empa.ch/>

The SSCr Workshop 2026 “Practical Introduction to SAXS: From Data Reduction to Structural Insights”

Empa St. Gallen, 2 September 2026

Registration: <https://sscr2026.empa.ch/saxs-workshop>

Organizer: Bruno Silva, bruno.silva@empa.ch

Small-angle X-ray scattering (SAXS) is a powerful technique to probe the structure and organization of materials at the nanoscale. However, going from raw data to physically meaningful results is often less straightforward than expected, and critical steps such as background subtraction, absolute scaling, and model-fitting are frequently underappreciated or misunderstood.

This workshop will provide a practical, hands-on introduction to SAXS, focusing on how to obtain reliable scattering curves and extract key structural parameters. Participants will work through real datasets and explore key steps in SAXS data reduction, including correction for sample transmission, background subtraction, and conversion to absolute scale. The workshop will also show how model-free quantities, such as the radius of gyration, can be obtained. In a second part, the focus will shift towards model fitting and interpretation using freely available software, illustrating how structural information can be obtained from SAXS data.

The workshop is designed for beginners, including Master's students, PhD students, and postdoctoral researchers, but is open to anyone interested in gaining a practical understanding of SAXS data reduction and analysis.

Further details, including the final programme and registration information, will be announced on the website (<https://sscr2026.empa.ch/saxs-workshop>).

Registration website: <https://sscr2026.empa.ch/saxs-workshop>

Howard Flack Lecture Series 2026



Swiss Society for Crystallography

The Howard Flack

Crystallographic Lecture Series

On the topic:

X-ray free electron-laser based structural biology

The 2026 Howard Flack Lecture Series will focus on biochemical mechanisms studied by ultrafast time-resolved femtosecond crystallography with Professor Ilme Schlichting as our invited Flack Lecturer. Professor Schlichting is a pioneer in structural biology by using the brightest time-resolved radiation sources to generate molecular movies of biological processes.

December 7th to December 11th, 2026

Professor Ilme Schlichting

Max-Planck Institute for Medical Research, Heidelberg, Germany

Talks at Uni Zurich (Dec 7), PSI (Dec 8), Uni Fribourg (Dec 9), EPF Lausanne (Dec 10), and Uni Geneva (Dec 11)

A more detailed schedule will be published soon on swiss-crystallography.ch/en/flack_lectures.

Structural biology, especially scattering techniques using X-rays and electrons, has enabled high-resolution insights into the structure and function of molecules, assemblies, and cells. However, radiation damage remains a key limitation, particularly for redox-sensitive cofactors, where it can obscure true chemical states and reaction mechanisms. X-ray free-electron lasers (XFELs), which are nearly 10 billion times more brilliant than conventional synchrotrons, overcome this constraint by delivering ultrafast femtosecond pulses that outrun radiation damage. This “diffraction-before-destruction” approach allows researchers to capture intact structures from tiny crystals and even follow biochemical processes in real time, revealing transient intermediates and dynamic changes during enzymatic reactions. As a result, XFELs are transforming our ability to directly observe molecular mechanisms under near-physiological conditions.



The **Howard Flack Lecturer Award** is conferred annually by the Swiss Society for Crystallography on a scientist who is making or has made significant recent contributions to the field of structural science or involving the use of structural science in the chemical, biological, physical, medicinal, or materials sciences. The awardee is then normally invited for a week-long tour of Switzerland to present seminars as part of The **Howard Flack Lecture Series** at several Swiss institutions and research facilities.

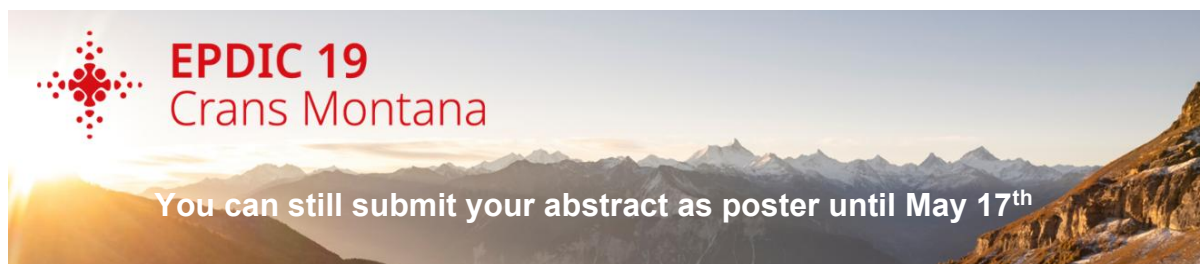
The Howard Flack Lecture Series was created by the SGK/SSCr in 2018 in honour of **Howard Flack** (1943–2017), a colleague and a friend, who is remembered for his enormous contributions to crystallography and structural science in general and to Swiss science in particular. This initiative has attracted interest from the Swiss Academy of Sciences (Platform, Mathematics, Astronomy and Physics, to which we belong), which partially sponsors the lecture series.

Howard undertook his PhD studies with Kathleen Lonsdale at University College London, then worked as a research assistant in the Cavendish Laboratory in Cambridge, UK. How better to become interested in research and crystallography? He moved to the Laboratoire de Cristallographie at the University of Geneva, Switzerland in 1971 and spent the rest of his career there. David Watkin and Dieter Schwarzenbach eloquently describe his life and work in *J. Appl. Cryst.* **2017**, *50*, 666.

Howard made many significant contributions to the field of crystallography but is perhaps best known for his seminal ideas concerning the determination of absolute structure by X-ray diffraction, which originated in 1983, but were constantly being improved upon and extended until his untimely passing. Prior to 1983, it was challenging to determine the absolute configuration of chiral organic molecules, even though this information was vitally important for many chemists and for the pharmaceutical industry, in particular. Howard developed a robust mathematical algorithm, which improved substantially the ease and reliability of the absolute structure determination. This algorithm is now incorporated in all the usual software and produces a value, now known widely as the Flack parameter, which most people take for granted these days. This development is described articulately by David Watkin in *Tetrahedron: Asymmetry* **2017**, *28*, 1189. Additional information on absolute structure determination can be found in A. Linden, *Tetrahedron: Asymmetry* **2017**, *28*, 1314 and references therein.

Howard was a humble man, who had a special sense of humour. The Swiss Society for Crystallography is proud to name an award and lecture series in his honour.

EPDIC 2026



Twenty years ago, the European Powder Diffraction Conference, EPDIC10, was held on the shores of Lake Geneva. This June, EPDIC returns to Switzerland for its 19th edition, this time in the vibrant Valais region, at the heart of the Swiss Alps, in Crans-Montana (23–26 June).

In recent years, this part of Western Switzerland has evolved into a centre of excellence in sustainability, health, and clean technologies, playing a growing role in advancing research, education, and innovation in an alpine setting.

Founded in 1991, EPDIC has become a cornerstone of the powder diffraction community. Over the decades, it has served as a vital platform for the exchange of scientific knowledge, spanning over several scientific fields and advances in experimental techniques. The conference brings together leading experts, early-career researchers, and industry professionals, who gather to share insights and discuss current trends and challenges in powder diffraction, across X-ray, neutron, and increasingly electron-based methods. At the same time, different approaches such as total scattering, small-angle scattering, and X-ray absorption spectroscopy have become ever more prominent, reflecting the continuously expanding scope of EPDIC and its ability to attract new communities year after year.

The story of EPDIC19 began, in a way, at EPDIC17 in Šibenik, Croatia. During a casual conversation over lunch, Dubravka Sisak-Jung, Paula Abdala, and I briefly joked about the idea of organizing a future edition. Shortly after, we discovered that Antonia Neels had been having similar conversations, perhaps even during the same lunch. What began as a lighthearted thought quickly took shape as an organizing committee came together with remarkable ease, once again illustrating how closely aligned the Swiss crystallographic community can be.

The committee is led by three former presidents of the Swiss Society for Crystallography (SSCr): Antonia Neels (EMPA), Radovan Černý (University of Geneva), and myself (EPFL). Paula Abdala (ETH Zurich), Céline Besnard (University of Geneva), and Nicola Casati (PSI) complete the core team. Together, we have been working for nearly two years to bring EPDIC19 to life, beginning with the bid at EPDIC18 in Padua in August 2024.

This effort is yet another example of the SSCr's continued engagement in international activities and in hosting major events in structural science. The most recent of these was ECM30 in Basel in 2016, chaired by Jürg Schefer, also a former SSCr president.

Microsymposia at EPDIC19:

- MS01** Functional Materials: state of the art and advances
- MS02** In-situ and -operando: structure, methods and hardware
- MS03** Short-range order using total scattering and XAS
- MS04** Materials for applications in energy storage and conversion
- MS05** Methodological advances in Research and Industry
- MS06** Nanomaterials, surfaces and interfaces
- MS07** Pharmaceutical and biological materials
- MS08** Neutron scattering in materials science
- MS09** Multi-technique and imaging approaches for structural studies
- MS10** Microstructure, stress and texture analysis
- MS11** ML and general AI approaches for data collection and analysis
- MS12** Advances at large facilities, ultra-fast studies and extreme conditions

Several workshops are organized prior to the conference:

- **The Topas Intensive Course** brings together the community of users and developers of the Topas software package. Sponsored by Bruker AXS.
- **The Rigaku Smartlub Studio II** is designed for a broad range of participants, the course provides practical skills in modern diffraction workflows, including qualitative and quantitative phase analysis and ab-initio crystal structure determination from powder XRD data. Most of the workshop consists of hands-on exercises using representative datasets.
- **The ICDD workshop** will cover both data mining using the ICDD PDF-5+ database and methods of analysis embodied in ICDD PDF-5+ Sieve+ and ICDD MDI JADEPro software.

Open-source software developers get the opportunity to present their tools during **Lachlan's Software Fayre**, which takes place over lunch every day.




It is a pertinent and purposeful moment to host EPDIC back in Switzerland. The Swiss Society for Crystallography is supporting this event financially and logistically, and the Swiss diffraction community as whole is much looking forward to having EPDIC back in our home country in 2026.




Likewise, we look forward to spending these days with you enjoying an exciting scientific program, surrounded by breath-taking panoramic views.




On behalf of the Organizers,
Pascal Schouwink (chair of EPDIC19)




Calendar of Events




2026

	OLEX2 A2Z From Fundamentals to Mastery
	27-30 April 2026
	Dubrovnik, Croatia
	https://hrvatska-udruga-kristalograf.hr/olex2026/




	Electron Crystallography Workshop
	11-13 May 2026
	Venice, Italy
	https://warwick.ac.uk/research/rtp/xrd/electrondiffraction/warwickveniceworkshop/




	International School of Crystallography ERICE 2026
	29 May - 6 June 2026
	Erice, Italy
	https://crystaleric.org/2026/




	7th Instruct Biennial Structural Biology Conference
	27-29 May, 2026
	Brussels, Belgium
	https://instruct-eric.org/ibsbc2026




	9th International Workshop on Crystal Growth Technology
	8-11 June 2026
	Berlin, Germany
	https://www.ikz-berlin.de/en/about-us/events/event/9th-international-workshop-on-crystal-growth-technology-iwcgt-9/




	The Zurich School of Crystallography 2026: Bring Your Own Crystals
	17-27 June 2026
	University of Zurich, Switzerland
	https://www.chem.uzh.ch/linden/zsc/

	GRS. Crystal Engineering: Strategies to Enable Design, Discovery and Application of Crystals
	20-21 June 2026
	Newry, Maine, United States
	https://www.grc.org/crystal-engineering-grs-conference/2026/




	The European Powder Diffraction Conference EPDIC19
	23-26 June 2026
	Crans Montana, Switzerland
	https://swiss-crystallography.ch/en




	11th European Crystallography School (ECS11)
	28 June - 4 July 2026
	Stockholm, Sweden
	https://ecs11.ecanews.org/




	13th American Conference on Neutron Scattering (ACNS 2026)
	12-16 July 2026
	Detroit, MI, United States
	https://ceramics.org/event/american-conference-on-neutron-scattering-2026-acns-2026/

	IUCr 2026 Congress
	11-18 August 2026
	Calgary, Canada
	https://www.iucr2026.org/




	Annual Assembly 2026 SGK SSCr
	2-3 September 2026
	EMPA, St Gallen, Switzerland
	https://sscr2026.empa.ch/




	ESRF/ILL International Student Summer Programme on X-Ray and Neutron Science
	2-19 September 2026
	Grenoble, France
	https://workshops.ill.fr/event/552/




	Science @ FELs 2026
	21-25 September 2026
	PSI, Villigen Switzerland
	https://indico.psi.ch/event/18154/




	XTOP 2026 : 16th Conference on High-Resolution X-ray Diffraction and Imaging
	21-25 September 2026
	Karlsruhe, Germany
	https://www.xtop2026.kit.edu/




2027

	Joint Polish-German Crystallographic Meeting 2027
	15 - 18 February 2027
	Dresden, Germany
	https://dgk-conference.de/

	European Conference on Neutron Scattering
	27 June - 1 July 2027
	Grenoble, France
	https://www.ecns2027.eu/

	16th International Conference on Synchrotron Radiation Instrumentation (SRI)
	23-27 August 2027
	Santos, Brazil
	TBA, https://pages.cnpem.br/sri2027/

	36th European Crystallography Meeting 2027
	23-27 August 2027
	Prague, Czechia
	https://www.xray.cz/ecm36/

	20th International Small Angle Scattering Conference
	12-17 September 2027
	Lund, Sweden
	https://www.sas2027.se/

Calls for proposals at large scale facilities

Beside normal proposals, most facilities allow urgent beam time requests.

Please check directly with the facility. (tba = to be announced)

Facility	Deadline(s)	Link
SLS-2		
All except PX	15.10	
Protein crystallography (PX)	15.10	
Mesquik	Contact each beamline scientist	
SINQ/SLS-2	suspended	
Joint x+n proposals (MS/HRPT)		https://www.psi.ch/de/useroffice/proposal-deadlines
SINQ	Close for now	
All instruments regular calls	15.05, 15.11	
SpμS: Swiss Muon Source		
FLAME, GPD, GPS, HAL-9500, LEM	01.06	
DOLLY, FLAME, GPD, GPS, HAL-9500, LEM	01.12	
SwissFEL		
ARAMIS-Alvra, ARAMIS-Bernina	15.03, 15.09	
ESRF		
Standard, BAG proposals	01.03, 10.09	http://www.esrf.fr/UsersAndScience/
Long Term Project, HUB proposals	16.01	
CRG SNBL	01.03, 10.09	www.esrf.fr/UsersAndScience/Experiments/CRG/BM01# For more details on the access mode to SNBL: wouter@esrf.fr
ILL	17.2, 15.9	www.ill.eu/users
FRM II	tba	
All instruments/ Rapid access program		http://www.mlz-garching.de/user-office/
DESY	01.03, 01.09 plus rolling access	https://photon-science.desy.de/users_area/calls_deadlines/index_eng.html

Travel Grants for SSCr Members

Our Society supports members participating in international conferences, workshops, and schools.

Conditions for travel grants for young SSCr members (under 35):

Only current members of the SSCr can be supported financially. Student members are PhD and Master students. They can receive up to CHF 500 for a poster presentation and CHF 750 for an oral presentation. Attendance at a workshop or school outside Switzerland, if the programme does not permit participant presentations, can be supported with up to CHF 500.

Postdocs can be supported only for oral presentations with a maximum of CHF 500. Per institute and year, a maximum of two people can be supported. There are no strict submission deadlines for travel grant applications, requests will be reviewed upon submission. We advise you to submit as early as possible in the year.

Please submit applications to the President of the Society at swiss-crystallography@gmail.com including the following documents:

- Conference abstract if applicable
- Type of presentation/involvement (poster, talk or workshop/school without presentation)
- Letter of motivation (specify the date you first joined the SSCr)
- Letter of support from your supervisor
- Brief budget of expected costs of attending the meeting

A 1-2 page scientific report for the SSCr newsletter is expected within 2 months of the meeting.

Financial support can also be granted to retired SSCr members:

Active participation at an event is required, e.g., presentation, lecture, session chair, organizer.

Young researchers have priority if our budget is limited.

The grant amount will be decided by the board, depending on the available budget, but not exceeding CHF 750.

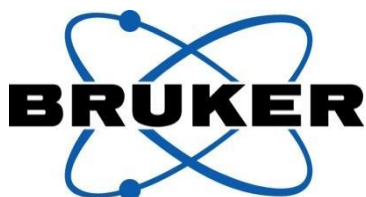
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- Conference abstract if applicable
- Type of presentation/involvement (presentation, lecture, session chair, organizer)
- Brief budget of expected costs of attending the meeting

The board of the SSCr wishes you an exciting year with lots of scientific exchanges around the world!

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Corporate members

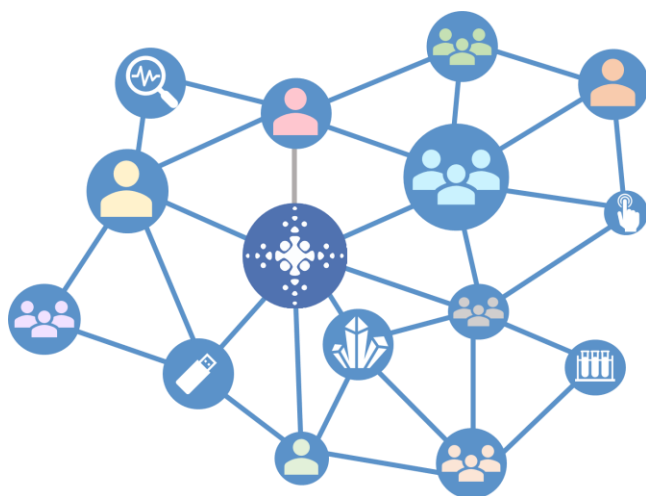


Supporting institutions



(If you would like to see your logo here, please contact our treasurer)

Become a member of the SSCr!



- ✓ Connect with researchers, scientists, and students from across scientific fields.
- ✓ Take part in events organized by the society.
- ✓ Drive the future activities of the society.
- ✓ Benefit from travel grants and PhD awards.
- ✓ Benefit from a network providing access to new collaborations and infrastructure.
- ✓ Stay up to date on upcoming events.


For more information as well as online registration, please go to our website <https://swiss-crystallography.ch/en/membership>

The yearly membership fee is CHF 40 for regular members and CHF 10 for students. SGK/SSCr is a member of the Swiss Academy of Science.

Connect with us!

Web: swiss-crystallography.ch

E-mail: swiss.crystallography@gmail.com:

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Members of the Board of the SSCr for the period 2025 – 2026



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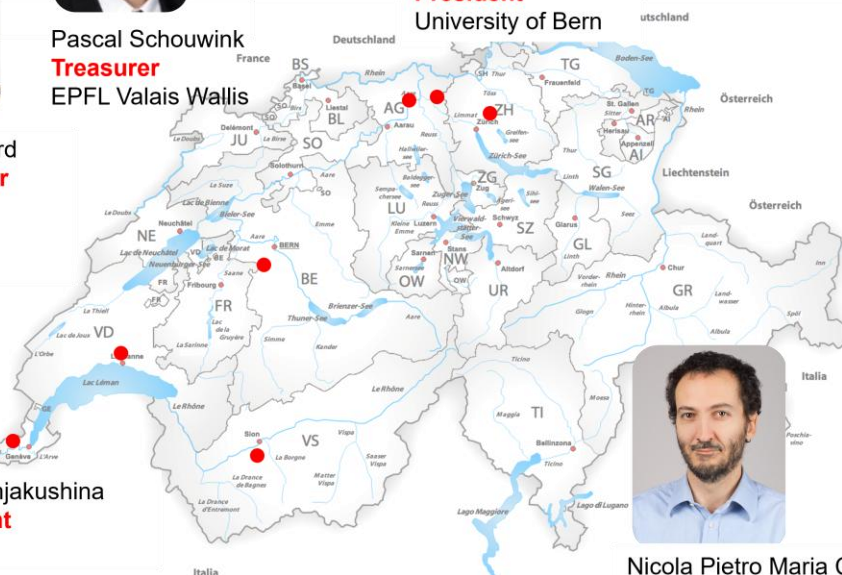
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