



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

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Member of the
Swiss Academy of Sciences

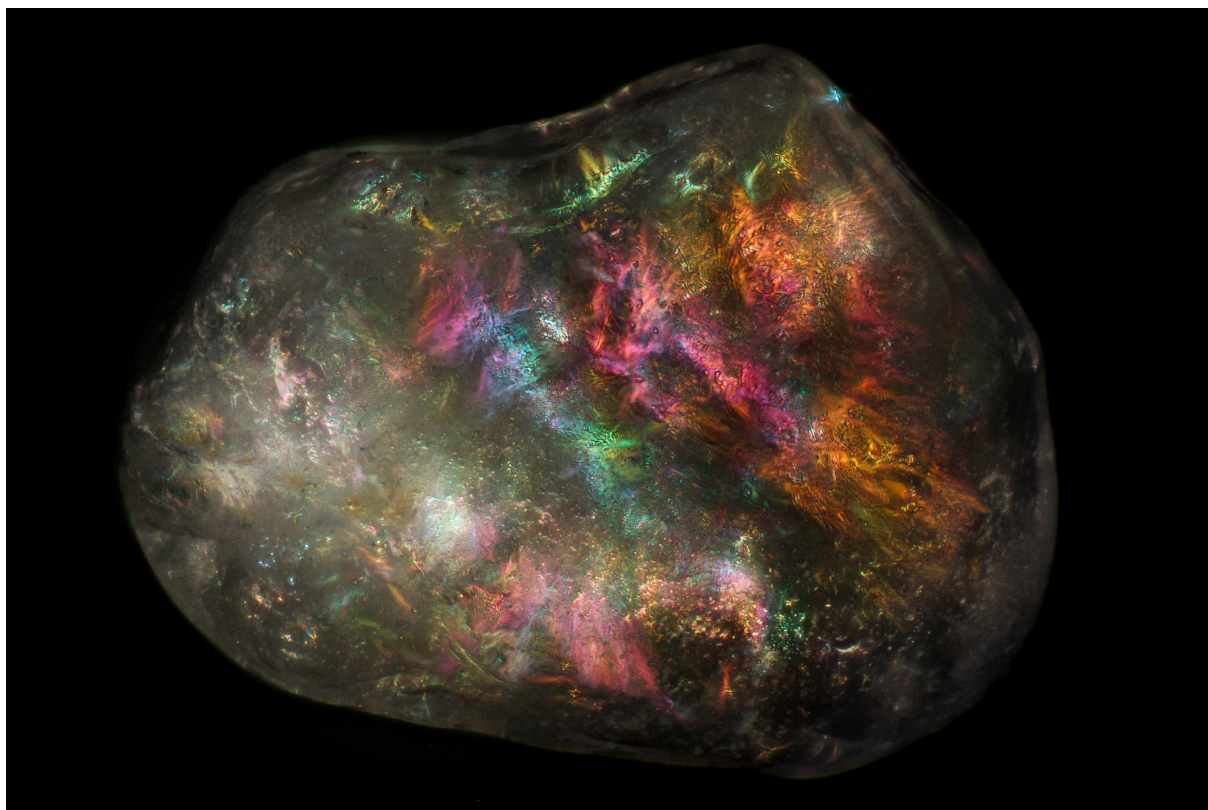
SGK / SSCr NEWSLETTER

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Report of the Annual Meeting of the SGK/SSCr 2018, Sept. 12
Announcement of the General Assembly 2019 in Sion

On the cover:

A grain of sand (quartz, 0.5 mm diameter) from the French Atlantic coast, seen between two crossed polarizers. A stack of 73 individual photographs with different focus plane was combined with the program PICOLAY (Heribert Cypionka).

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The President's Page



Dear Members of the Swiss Society for Crystallography,

At our 2018 annual meeting at the PSI in Villigen, the general assembly of the Swiss Society for Crystallography elected me as president. Being a member of the society since my PhD, my passion goes to a broad range of applied crystallographic research in the merging world of chemistry, physics and biology. I am much honored to have received this prestigious nomination and I'm glad to take this duty and opportunity to serve the Swiss crystallographic community for the next three years.

First of all, let me thank Prof. Piero Macchi from the University of Bern for his work as the president during the past three years and for giving continuous support and advice to the board of the society. New activities have recently been introduced into the portfolio of the society and we will continue this effort of passing our enthusiasm about crystallography and related research to the younger generation. At the same time I would like to welcome our new board members Dr. Dubravka Šišak Jung (Dectris) and Dr. Pascal Schouwink (EPFL Sion).

In 2018 we introduced the 'Howard Flack Crystallographic Lecture Series' with Prof. Omar Yaghi from the University of California, Berkeley as a first invited speaker traveling around the different Swiss institutions giving 7 lectures in 5 days. The great success leads to the continuation this autumn with the visit of Prof. Matt Rosseinsky from the University of Liverpool. He works on new materials for solid oxide fuel cells and ceramic gas separation and catalytic membranes and we will mount together with him and our Swiss research institutions an exciting science program. Please mark already your agendas with the 4-8th November 2019 for this crystallographic highlight!

For the third time, the Swiss Society for Crystallography offers a prize for the best PhD thesis in crystallography. The call is now open and you can find the details in this newsletters. I encourage our young colleagues to present their thesis results highlighting the exciting and expanding world of crystallography into new fields. This year's winner will also have the opportunity to give an oral presentation on our annual assembly in September.

This year's annual meeting will be organized on the 4th of September 2019 at the EPFL in Sion by Dr. Pascal Schouwink and I'm looking forward to learning more about the youngest crystallographic sites in Switzerland!

During the last assembly at the PSI, we announced that travel support will, in addition to support for our young scientists, also be opened to our retired colleagues, which gives me the opportunity to thank them warmly as they are a very active part of our community and contribute on many occasions.

The spirit of crystallography continuously progresses, which is related to enormous technology jumps with respect to new source and detector technologies, and software developments, but also by taking opportunities that crystallography offers when migrating into new research domains triggered by the needs of our society.

Thank you for your great support.

I wish you a successful 2019 and hope to meet you on one of our events!

Antonia Neels
(President of the SGK-SSCr)

News

News from the SNBL

The current agreement between Switzerland and Norway about the SNBL will expire at the end of 2020. A new Swiss funding scheme for the SNBL is being discussed between the SNX, PSI, SERI and Swiss Federal Institutions and universities. More details will follow in the next issue of the Newsletter.

Paul Karrer Lecture by Prof. Dr. Makoto Fujita



Universität
Zürich^{UZH}

Paul Karrer Medal Ceremony and Lecture

Prof. Dr. Makoto Fujita
The University of Tokyo, Japan

**Coordination Self-Assembly:
From the Origins to the
Latest Advances**

June 12th | 2019 | 17:00
Aula KOL G 201
Rämistrasse 71

[Prof. Dr. Makoto Fujita](#)

June 12th | 2019 | 17:00, University of Zurich

Aula | KOL G 201 | UZH Main Building | Rämistrasse 71 | Zürich

Report of the 2018 Annual Meeting of the Swiss Society for Crystallography SGK-SSCr

11-12 September 2018

Paul Scherrer Institute, Villigen

The 2018 edition of the meeting was entitled “The Breadth of Crystallography” in order to highlight how vast a field of science is covered by one of the most field-crossing disciplines.

The meeting had a pleasant start on the evening of September 11 with the Social Dinner, held at the OASE restaurant within the Paul Scherrer Institute (PSI). The scientific part of the meeting started on September 12, 2019 in the morning in the main building (WHGA) of the PSI. The meeting revolved around three invited lectures, chosen as to cover as much of the different aspects of crystallography as possible. So, firstly we had the pleasure to hear about crystal growth and production – with an in-depth visit into the complex theoretical background – from Dr. Ing. Hans Scheel of General Protection Engineering GmbH, who spoke immediately after the welcome address by the outgoing President Prof. Piero Macchi. Then, as a robust second fare, Prof. Wendy Lee Queen, EPFL Valois, switched to chemical crystallography and molecular Lego games relating structure to function. Finally, magnetic and electron correlation crystallography had its spotlight with the enticing talk of Prof. Johan Chang from the University of Zurich.

The scientific program was of course completed and extended by five contributed talks by Prof. Hans Grimmer (PSI, emer.), Prof. Radovan Černý (Uni Geneva), Dr. Amin

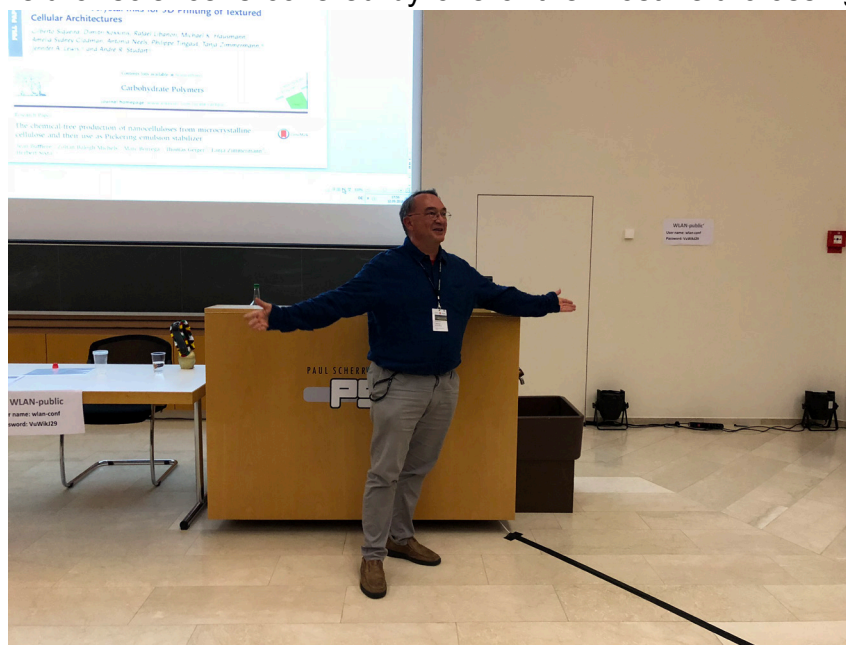


Figure 1: The Organizer Antonio Cervellino welcomes the participants

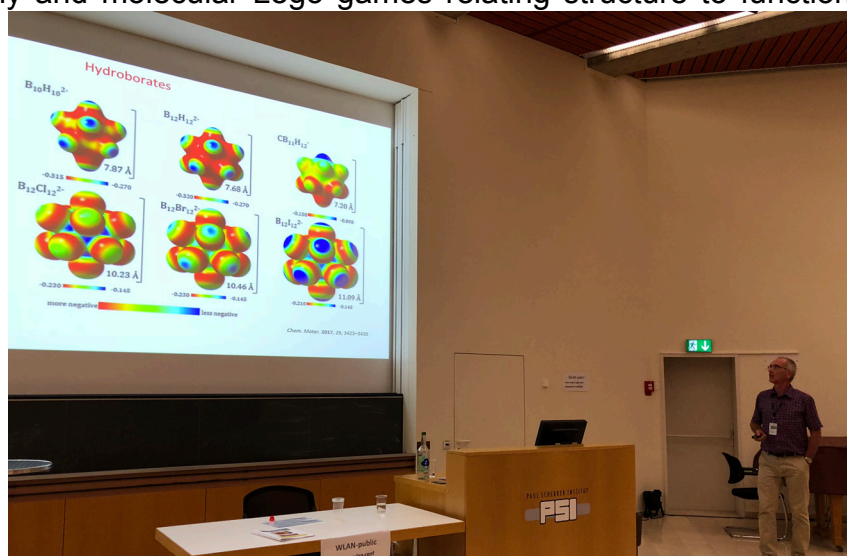


Figure 2: Radovan Černý giving a talk about Metal Hydro-Borates for Li- and Na-ion batteries.

Sadeghpour (EMPA), Dr. Sumit Maity (PSI) and Dr. Zoltan Balogh-Michels (EMPA). A poster session completed the scientific part. 14 posters were exposed and an independent jury had the ingrate task to select a winner for the SGK-SSCr poster prize. The prize was assigned to Mr. Tomasz Poreba for the contribution titled “Bonding in polyiodides under high pressure”.

The meeting of course is always the occasion for the annual General Assembly of the SGK-SSCr, where all important decisions for the coming year are ratified and the final balance of the past year is approved. In this occasion, also new board members are elected to replace those whose terms of office expire, in this occasion

two new members - Dr. Pascal Schouwink and Dr. Dubravka Šišak-Jung - were elected. Our best wishes for a fruitful work.

We must conclude with a farewell and see you again at the next annual meeting in Sion.



Figure 3: The president Antonia Neels is congratulating the winner of the poster prize Tomasz Poreba and the co-author Michelle Ernst .



Figure 4: Lively discussion during the poster session.

Many thanks to the Paul Scherrer Institute, to the SGK-SSCr and to Malvern Panalytical GmbH for supporting the meeting also financially and to all members for their attendance.

Antonio Cervellino
Scientific Organizer

Report on the PSI Powder Diffraction School 2018

The 2018 edition of the PSI Powder Diffraction School - Modern Synchrotron Methods has been held at the Swiss Light Source synchrotron within the Paul Scherrer Institute in Villigen AG from Monday, September 24th to Friday, September 28 2018. The attendance was limited to 40 students because of the limits of capacity of the experimental hatch at the Materials Science X04SA beamline, where the practical exercises were held for five groups of 8 students each.

The program was only marginally changed with respect to the 2016 edition, that was deemed very successful, and the few changes were either in response to the students' feedback, or to respond to contingencies. In particular, the practical organization was mostly outsourced to the CCMX in Lausanne.

The students, limited to 40 in number, were guided through five days of lectures, practicals, and tutorials, aimed at giving them an operational knowledge of the techniques and methods of synchrotron x-ray powder diffraction, starting from general theory through experimental wisdom to target-oriented data analysis.

From Monday morning to Tuesday noon, a series of lectures introduced the students to the most important aspects of powder diffraction – Bragg methods and Total Scattering, neutrons and X-rays, structure and microstructure, present and future.

The next day and half (Tuesday afternoon and the full Wednesday) was the practical exercises at the beamline. The students, divided in manageable groups of eight, rotated between five sessions, the most important ones being the a) experimental practice at the Powder diffraction station of the X04SA-MS beamline, and b) the sample preparation methods. A software installation session (c) was propaedeutic to the data analysis sessions of the Thursday and Friday, a guided visit to the synchrotron (d), and a "Questions and Answers" sessions completed the program.

Thursday and Friday morning, several of the most popular data analysis software suites were demonstrated, as extracting information from powder diffraction data is the most difficult step and a large number of high quality programs are available to the community.

Thursday evening, the Trotte in Villigen hosted the traditional social dinner for the event.

Finally, on Friday afternoon a lively poster session was held with contribution from the students. Participation in the poster session granted formative credits with the EPFL Lausanne.



Students and teachers together before the social dinner on Thursday, in front of the Trotte Villigen

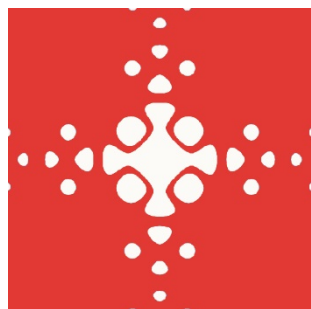
A final word of thanks to all the teachers, who made freely available their knowledge to the benefit of the students: Phil Willmott (PSI); Norberto Masciocchi (Università dell'Insubria); Lynne McCusker (ETHZ); Nicola Casati (PSI); Fabia Gozzo (Excelsus); Matteo Leoni (Università degli Studi di Trento); Mauro Coduri (ESRF); Antonietta Guagliardi (Italian National Research Council); Steven Van Petegem (PSI); Romain Sibille (PSI); Federica Bertolotti (Aarhus University); Radovan Cerny (University of Geneva); Marisa Medarde (PSI).

Many thanks to the students themselves, who attended numerous and did their best to learn the most; to the sponsors, including the Swiss Crystallographic Society, Bruker, DECTRIS, Excelsus Structural Solutions, and the Paul Scherrer Institute, that generously supported this edition; the CCMX secretariat supporter Ms. Carey Sergeant, who made it at all possible; the technical staff of the X04SA-MS beamline, for the support during the practical sessions.

The Scientific Organizers

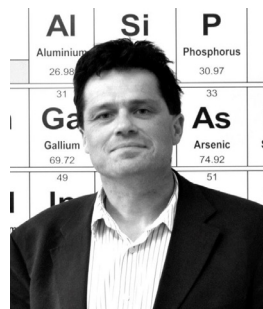
Antonio Cervellino
Nicola Casati

The Howard Flack Crystallographic Lecture Series: Matthew Rosseinsky



Swiss Society for Crystallography Howard Flack Crystallographic Lectures Series

Prof. Dr. Matthew Rosseinsky
(University of Liverpool, UK)



Various places around Switzerland, 4th – 8th November 2019
(detailed program to be announced)

Matthew Rosseinsky obtained his undergraduate degree and D. Phil in chemistry from the University of Oxford. He was a postdoctoral member of the technical staff at AT&T Bell Laboratories before returning to the University of Oxford as a lecturer in chemistry. In 1999, he moved to the University of Liverpool as professor of inorganic chemistry. In 2009, Matthew received the inaugural De Gennes Prize from the Royal Society of Chemistry (RSC) — a lifetime achievement award in materials chemistry that is open internationally and is one of the RSC's three premier awards. He was elected a Fellow of the Royal Society in 2008, and was awarded the Hughes Medal of the Royal Society in 2011 for his highly influential discoveries in the synthetic chemistry of solid state electronic materials and novel microporous structures. In 2013, he became a Royal Society Research Professor, and was awarded its Davy Medal in 2017.

Matt's work addresses the synthesis of new functional materials in bulk and thin-film form for energy and information storage applications, and has been characterized by extensive collaboration with many academic and industrial colleagues. The Rosseinsky group's current areas of interest include materials for batteries and solid oxide fuel cells, multiferroics, thermoelectrics, superconductivity, materials for separation and catalysis, high-throughput materials discovery, and materials for solar energy conversion.

A central topic of Matt's research is the development of new methods of identifying functional materials, emphasising the integration of experiment with computational methods for materials discovery, which includes new tools for crystal structure prediction.

Swiss Society for Crystallography PhD prize

The Swiss Society for Crystallography establishes a prize for the best PhD thesis in crystallography.

Requirements:

The prize is open to

- a) Students, of any nationality, who earned a PhD title from a Swiss University
- b) Students, of any nationality, who earned a PhD title from a University abroad, but carried out significant amount of work for the PhD title at a Swiss Research Institution, like EMPA, PSI or SNBL.
- c) Students of Swiss nationality who earned a PhD title from any University worldwide.

The student must have earned the title between **March 31st 2016 and March 31st 2019**.

The subject of the thesis can be in any area of crystallography (structural biology, chemical crystallography, solid-state physics, crystallography of materials, etc.). The implications of the obtained results for crystallography should be evident.

Application:

The application for the prize should be submitted before **31st May 2019** by the student himself or by the thesis supervisor. The applicant should submit: a) a pdf copy of the thesis; b) a letter of the supervisor approving his/her candidature; c) pdf copies of the articles published from the results obtained during the thesis; d) a pdf scan of the PhD diploma; e) a short CV of the candidate. Applications for this SGK Thesis Prize are accepted only once per applicant.

The application should be sent to the secretary of the Swiss Society of Crystallography (info@sgk-sscr.ch)

The award

The winner will be selected by a commission, based on the quality of the research, the quality of the publications, and the effective contribution of the candidate to the scientific work. The commission may decide not to assign the prize if none of the candidates fit the minimal prerequisites concerning the topic, the quality of the thesis, the papers published from it and the approval of the supervisor.

The winner will be announced before the annual meeting and will be invited to give a short talk of the results of his/her thesis.

The Swiss Society of Crystallography will award the winner with a diploma and will reimburse the participation of the student to the annual meeting.

The award is endowed with CHF 2000.-.

TRAVEL GRANTS for SGK/SSCr Scientists

Our society is supporting members participating at 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 can get 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 CHF 500.
- Postdocs can be supported only for oral presentations with a maximum of CHF 500

Per institute and year, a maximum of two persons can be supported.

Please submit applications to the president of the society including the following:

- conference abstract if applicable, type of presentation/involvement and letter of motivation
- letter of support from your supervisor
- brief budget of expected costs of attending the meeting
- specify the date you first joined the SSCr

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

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

Young Scientist Prize of the Swiss Neutron Science Society 2019

Young Scientist Prize of the Swiss Neutron Science Society 2019, sponsored by SwissNeutronics:

THE PRIZE IS NOW OPEN FOR ALL RESEARCH WORK USING NEUTRON RADIATION AND IS NOT LIMITED TO WORK USING NEUTRON SCATTERING.

CALL FOR NOMINATIONS, deadline January 31st 2019

The Swiss Neutron Science Society hereby announces the call for nominations for the 2019 Young Scientist Prize sponsored by SwissNeutronics.

The prize will be awarded to a young scientist in recognition of either a notable scientific achievement in the form of a PhD thesis, which was finished within the last two years, or an exceptional track record in neutron scattering established within 5 years after the PhD degree.

The science should include the use of neutron radiation, and eligible nominees should have a clear affiliation with Swiss neutron research (be member of the Swiss Neutron Science Society, be based in Switzerland, or have conducted experiments at Swiss neutron facilities). The amount of the prize is CHF 1000. The prize will be awarded at the annual meeting of the Swiss Physical Society, which will be held in Zurich, August 26-30, 2019. The recipient will be expected to give a presentation.

Nominations for the prize should be submitted to the Swiss Neutron Science Society (sgn@psi.ch) not later than January 31st 2019. Nominations should include:

- A nomination letter including the motivation for the award
- A CV and publication list
- A digital copy of the nominated work (PhD thesis)
- Letters of support from leading scientists in the relevant field are accepted to support the nomination.

Nominations for the prize will be treated confidentially and will be evaluated by a Selection Committee appointed by the board of the Swiss Neutron Science Society.

With kind regards,
the SGN board

Meetings, Conferences, Workshops, Schools, Courses

Annual SGK/SSCr-Meeting at EPFL Sion



Swiss Society for Crystallography SGK / SSCr Annual Meeting 2019



EPFL Valais
Rue de l'Industrie 17
1950 Sion

Wednesday, September 4, 2019

Meeting Title:

"Energy Materials – From Bulk to Surface Crystallography"

The 2019 annual meeting of the SGK/SSCr will take place at the Swiss Federal Institute of Technology Lausanne at the recently established Energypolis campus of EPFL Valais on Wednesday 4th of September. Topics evolving around energy materials will include in-situ and in-operando applications from surface to bulk crystallographic investigations.

More details on: <https://sgk-sscr2019.epfl.ch/>

Registration: Please register for the meeting and social dinner (vineyards above Sion) on the meeting website given above. The meeting is free of charge (except for accommodation).

Abstract submission: Please use the template available on the meeting website, indicating your preference for poster or oral. Abstracts should be submitted by July 7th, 2019, to sgk-sscr_meeting2019@epfl.ch.

Symposium on the occasion of the „Chemical Landmark 2019“

SCS Symposium on Environmental Sciences

The Symposium addresses the Station's international scientific role and also its remarkable historic background through the example of Max Perutz (Nobel Prize in Chemistry 1962) and his early research work on the High Altitude Research Station.

Chairs of the Symposium and Contacts

Prof. Silvio Decurtins
President of the International Foundation High Altitude
Research Stations Jungfrauoch & Gornergrat
T +41 31 631 4255 / decurtins@dcb.unibe.ch

Prof. Markus Leuenberger
Director of the International Foundation High Altitude
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T +41 31 631 4470 / leuenberger@climate.unibe.ch

Prof. Heinz Gaggeler
President of the Jungfrauoch Commission (SCNAT)
T +41 56 310 4282 / heinz.gaeggeler@psi.ch

Prof. Antonia Neels
President of the Swiss Crystallographic Society
T +41 58 765 4507 / antonia.neels@empa.ch

Symposium office
Mail: info@scg.ch
Phone: +41 31 306 92 92

Registration

Participation to the symposium is free of charge.
Please register on the website before April 10, 2019.

Sponsors and Partners



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Chemistry
Platform of the Swiss Academy of Sciences

HFSJG High Altitude Research Stations
Jungfrauoch & Gornergrat



University of Bern
Department of Chemistry & Biochemistry

www.scg.ch/OnTheTop/2019

SCS Symposium on Environmental Sciences

ON THE TOP

University of Bern
Department of Chemistry & Biochemistry

April 25, 2019, 9 – 17h



Chemical Landmark 2019

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SCS
Swiss Chemical
Society

<https://cl19.chemistrycongresses.ch/en/>



SCS Lectureships 2019



SCS
Swiss Chemical
Society

Prof. Robin Perutz University of York, UK

Tue, April 23, 2019, 16.30h

University of Geneva, Department of Chemistry
Lecture hall A. Tissières, 1S059, Sciences-II, 30 quai Ernest-Ansermet, Genève
«Photochemistry of metal hydride complexes inside an NMR spectrometer:
Breaking the speed limits of NMR»

Wed, April 24, 2019, 16.15h

EPFL Lausanne, Institute of Chemical Sciences and Engineering
Lecture hall BCH2218, Avenue Forel, Lausanne
«Photochemistry of metal hydride complexes inside an NMR spectrometer:
Breaking the speed limits of NMR»

Mon, April 29, 2019, 17.00h

University of Zürich, Department of Chemistry
Lecture Hall Y03-G-95, Winterthurerstrasse 190, Zurich
«Hydrogen bonding and halogen bonding to transition metal complexes»

Tue, April 30, 2019, 17.15h

ETH Zurich, Department of Chemistry and Applied Biosciences
Hönggerberg, HCI J7, Vladimir-Prelog-Weg 10, Zurich
«Photochemistry of metal hydride complexes inside an NMR spectrometer:
Breaking the speed limits of NMR»

Thu, May 2, 2019, 17.30h

University of Basel, Department of Chemistry
Small lecture hall OC, St.-Johanns-Ring 19, Basel
«Hydrogen bonding and halogen bonding to transition metal complexes»

scg.ch/scs-lectureships/

Swiss Chemical Society
Haus der Akademien
Laupenstrasse 7
3008 Bern
www.scg.ch

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Swiss Academy of Sciences
Akademie der Naturwissenschaften
Accademia di scienze naturali
Académie des sciences naturelles



19th International Conference on Crystal Growth and Epitaxy (ICCGE19) and
17th International Summer School on Crystal Growth (ISSCG17)



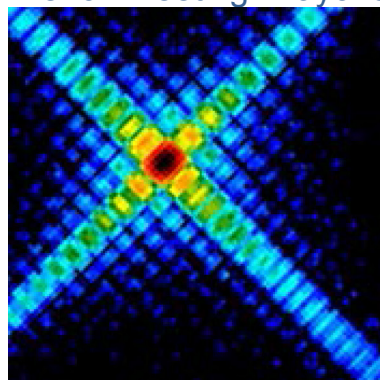
Keystone, Colorado, USA, July 28 – August 2, 2019

The 19th International Conference on Crystal Growth and Epitaxy (ICCGE19) will be held in Keystone, Colorado, USA, from July 28 to August 2, 2019. As a satellite event, the 17th International Summer School on Crystal Growth (ISSCG17) will take place on July 21-26, 2019 in Grady, Colorado, USA.

ICCGE19 will cover all aspects of crystal growth, epitaxy, characterization and applications with parallel general sessions and topical symposia. The latter will include the 4th “2D Electronic Materials Symposium”, the 2nd “Symposium on Epitaxy of Complex Oxides” and the 2nd “Symposium on Ferroelectric Crystals and Textured Ceramics”. The conference programme will cover an exhaustive range of topics, ranging from bulk crystal growth to surfaces, interfaces, epitaxial growth, and thin films, from industrial crystal growth technology to emerging low-dimensional materials, from biomimetic materials to organometallic compounds. Before the conference, the 17th International Summer School on Crystal Growth will bring together PhD students and young scientists to initiate them into the fundamental concepts and mechanisms of crystal growth. Both events are organised by the American Association for Crystal Growth (AACG) and the International Organization for Crystal Growth (IOCG).

The abstract submission has opened December 1st, 2018 and will close February 28th, 2019. More information can be found at <https://www.iccge19.org/>

French meeting "Rayons X et Matière"



XIII^{ème} Colloque Rayons X et Matière

Nancy - Domaine de l'Asnée
19-22 novembre 2019



UNIVERSITÉ
DE LORRAINE



Informations et inscriptions : ouverture prévue 02/2019

Contact technique : secretariat@rayonsxetmatiere.org

Contacts scientifiques : sebastien.pillet@univ-lorraine.fr

Site web : <http://www.rayonsxetmatiere.org/>

Contact exposants : contact-exposant@rayonsxetmatiere.org

philippe.goudeau@cnrs.pprime.fr rene.guinebretiere@unilim.fr

<http://www.rayonsxetmatiere.org/>

ECM-32 Vienna

ECM 32

Universitätsring 1

1010 Wien

T: +43-1-4277-176 77



<https://www.ecm2019.org/home/>

32nd European Crystallographic Meeting

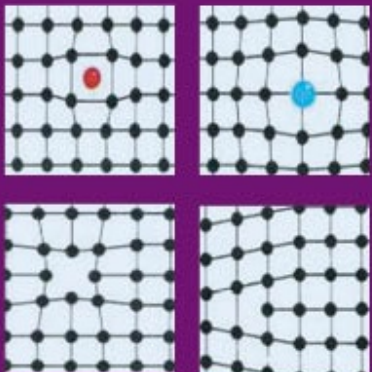
ECM 32 ♦ Vienna Austria ♦ 18. – 23. 08. 2019



CCMX ADVANCED COURSE

**Advanced X-ray Diffraction
Methods for Coatings:**
Strain, Defects and Deformation
Analysis of Thin Films

Dr. Ruggero Frison, Prof. Alex Dommann, Prof. Antonia Neels



25 – 27 November 2019
Empa, Dübendorf

ccmx.epfl.ch/courses-and-events/x-ray2019

The Zürich School of Crystallography

The Zürich School of Crystallography 2019
Bring Your Own Crystals

University of Zürich
June 16 – 27, 2019

Organized and directed by
Anthony Linden and Hans-Beat Bürgi



<http://www.chem.uzh.ch/linden/zsc/>

Satellite in Neutron Scattering at ECM-32

Satellite in Neutron Scattering, 14.-18.8.2019

European Crystallographic Meeting ECM32, Vienna 18.-23.8.2019

<https://www.ecm2019.org/satellites/neutron-scattering/>

Neutron Scattering is a very powerful method to investigate novel materials. Especially when focusing on magnetic properties or light atoms, neutron scattering is often the first-choice method. As neutron wavelength and neutron energy are simultaneously in the range of interatomic distances and nuclear or magnetic excitations, neutron scattering has proven to be a key technology in materials science.

This workshop is organized jointly by the German Crystallographic Society (DGK), AK7 and the Swiss Society for Crystallography (SGK) with kind support from the ECM organizing committee (Dr. K. Hradil), RWTH Aachen and Paul Scherrer Institute.

We intend in this workshop to teach the basic techniques to the participants. This is essential to allow them to make the best use of these expensive large-scale facilities during their future career.

Workshops in this field are more and more important as small- and medium flux facilities are closing and are lowering or ending their teaching duties. Going to ECM32 is an ideal location as related scientists are gathering at this conference, especially PhD and Postdoc students.

Teaching the use of state-of-the-art data evaluation programs will round up this workshop.

Introduction

Neutron Sources

Neutron Diffraction (Elastic, magnetic)

Inelastic Neutron Scattering

Biocrystallography

Diffuse Scattering

Magnetic Space Groups

Direct Methods

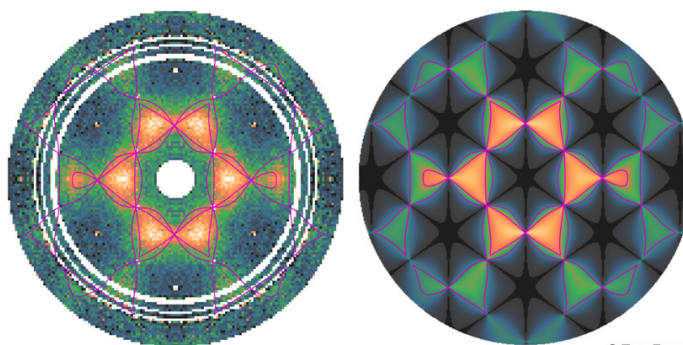
Combined Methods

Neutron Polarimetry

Neutron Imaging

Refinement Techniques

Fullprof Powder Diffraction Refinement



© Tom Fenell

<https://sine2020.eu/>



To.Sca.Lake 3.0
Total Scattering for Nanotechnology on the Como Lake

Villa del Grumello, May 27th-31st
Como, Italy
tsnl2019.lakecomoschool.org

Confirmed Speakers
Simon J.L. Billinge (Columbia)
Maryna Bodnarchuk (EMPA)
Hans Beat Bürgi (Zurich)
Antonio Cervellino (PSI)
Fabio Ferri (Insubria)
Maksym V. Kovalenko (ETH)
Jan Skov Pedersen (Aarhus)
Martin Schmidt (Frankfurt)

School Directors
Norberto Masciocchi
Antonella Guagliardi

Tutorials on DebUsSy and PDFGUI





With great pleasure we announce the To.Sca.Lake 3.0: Total Scattering for Nanotechnology on the Como Lake, to be held at Villa del Grumello in Como (Italy), May 27th-May 31st 2019.

The School is addressed to PhD students and young postdocs and open to scientists in any area related to Nanoscience and Nanotechnology; it is intended to provide lectures, demos and tutorial sessions on innovative methods for nanomaterial characterization, based on Wide and Small Angle X-ray Scattering, Dynamic/Static Light Scattering Techniques, their complementarity and joint use.

Information on the Program, Venue, Registration and availability of Grants for young attendees can be found at tsnl2019.lakecomoschool.org.

The School will be open to 50 qualified students. For Regular Applicants acceptance will be “on a first come – first served” basis; for Applicants requesting a financial support (under 35 years) selection will be upon evaluation.

Opening of Registrations and Grant application is December 1st, 2018.

Join us at Toscalake 2019!

The School Directors

Antonella Guagliardi (Institute of Crystallography, CNR, and To.Sca.Lab)

Norberto Masciocchi (University of Insubria and To.Sca.Lab)

PSI course for master students 2019 - Introducing photons, neutrons and muons for condensed matter physics and materials science

17-21 June 2019, Paul Scherrer Institut

Abstract

The course runs for one week in June (17th to 21st). It takes place at the campus of the Paul Scherrer Institute. The morning consists of introductory lectures on the use of photons, neutrons and muons for materials characterization. The afternoon consists of work groups with active participation of the students including visiting the experiments at three large scale facilities. The afternoon group work deepens the concepts learned in the morning.

Objective

The aim of the course is that the students acquire a basic understanding on the interaction of photons, neutrons and muons with matter and how one can use these as tools to solve specific problems on condensed matter and materials research. The students will also visit different experiments in the large scale facilities of PSI (Swiss Light Source, Swiss Spallation Neutron Source, Swiss Muon Source).

Content

- Interaction of photons, neutrons and muons with matter
- Production of photons, neutrons and muons
- Experimental setups: optics and detectors
- Crystal symmetry, Bragg's law, reciprocal lattice, structure factors
- Elastic and inelastic scattering with neutrons and photons
- X-ray absorption spectroscopy, x-ray magnetic circular dichroism
- Polarized neutron scattering for the study of magnetic materials
- Imaging techniques using x-rays and neutrons
- Introduction to muon spin rotation
- Applications of muon spin rotation

Further information:

<http://indico.psi.ch/event/PSImasterschool>

Calls for proposals

Beside normal proposals, most facilities allow urgent beam time requests. Please check directly with the facility.

Facility	Deadline(s)	Link
SLS: Swiss Light Source All except PX lines Protein crystallography beamlines (PX)	15.03. and 15.09. 15.04. and 15.10.	www.psi.ch/useroffice/
SINQ: Swiss Spallation Neutron Source All instruments (regular calls)	to be announced (no beam in 2019 due to guide upgrade)	www.psi.ch/useroffice/
SINQ/SLS Joint x+n proposals (MS/HRPT)	28.02./ no call in 2019	www.psi.ch/useroffice/
SpS: Swiss Muon Source DOLLY, GPD, GPS, HAL-9500, LEM , LTF GPD, GPS, LTF, HAL-9500, LEM SwissFEL ARAMIS-Alvra, ARAMIS-Bernina	28.02., second call to be announced 15.03, 15.09	www.psi.ch/useroffice/
ESRF: European Synchrotron long term proposals short term proposals (standard)	15.01.2020 01.03.2020	www.esrf.eu/ UsersAndScience/
ILL: Institut Laue Langevin All instruments	17. 09. 2018	www.ill.eu/
FRM II: Heinz Maier-Leibnitz All instruments Rapid access program	13.09.2018 05.07.2019	www.mlz- garching.de/user-office/ www.mlz- garching.de/user-office/
SNS Spallation Neutron Source Oak Ridge	27.03.2019 (next call deadline tba)	neutrons.ornl.gov

Calendar of forthcoming meetings

(Please mail the missing information on meetings of interest to woerle@inorg.chem.ethz.ch)

Application Deadline

2019

April 25	Bern	Symposium on the occasion of the „Chemical Landmark 2019“	10.04.2019 (on site 25.04.2019)
May 31- June 9	Erice	53 rd course Magnetic Crystallography	30.11.2018
June 16-27	Zurich	Zurich School of Crystallography - Bring Your Own Crystals	15.01.2019
Aug. 18-23	Vienna, Austria	32 th Meeting of the European Crystallographic Association http://ecm32.ecanews.org/	15.06.2019
Sept. 4	EPFL Sion	Annual meeting of the SGK / SSCr https://sgk-sscr2019.epfl.ch/	Abstracts July 31
Nov. 4-8	Various places	Howard Flack Crystallographic lecture series, Matt Rosseinsky	Program to be announced

2020

Aug. 22-29	Prague, CZ	Annual meeting of the IUCr https://www.xray.cz/iucr/	To be announced
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(If you would like to see your logo here, please contact our treasurer, Dr. Enrico Giannini)

Become a member of SGK/SSCr

If you are working in the field of crystallography, you might be interested in becoming a member of our society. For more information as well as online registration, please go to our website (<http://www.sgk-sscr.ch>).

Presently, the yearly membership fee is CHF 40 (CHF 10 for students).



SGK/SSCr is a member of the Swiss Academy of Science.



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Société Suisse de Cristallographie
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