



Schweizerische Physikalische Gesellschaft

Société Suisse de Physique

Swiss Physical Society

Generalversammlung 2021 - Assemblée Générale 2021

*Dienstag 31. August 2021, 11:30h - Mardi 31 août 2021, 11:30h **

Traktanden

1. Protokoll der Generalversammlung vom 1. Juli 2020
2. Bericht des Präsidenten
3. Projekte
4. Rechnung 2020, Revisorenbericht
5. Wahlen
6. Neues Ehrenmitglied
7. Diverses

Ordre du jour

- Procès-verbal de l'assemblée générale du 1er juillet 2020
- Rapport du président
- Projets
- Bilan 2020, rapport des vérificateurs des comptes
- Elections
- Nouveau membre d'honneur
- Divers



Protocol of the General Assembly 2020

Full text available at the SPG Mitteilungen No 64, p. 7

<https://www.sps.ch/fileadmin/doc/Mitteilungen/Mitteilungen.64.pdf>

Communications de la SSP No. 64

7

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SPG Mitteilungen Nr. 64

Protokoll der Generalversammlung vom 01. Juli 2020 Protocole de l'assemblée générale du 1er juillet 2020

Due to the Corona situation, the SPS Annual Meeting 2020 had to be cancelled. The General Assembly took place as a virtual stand-alone event, followed by the also virtual Award Ceremony. Registration to the General Assembly was restricted to SPS members, whereas the Award Ceremony was open for the broad public. Using Zoom as video conference tool, active participation in the General Assembly was possible to all members who registered in advance. Voting procedures could be implemented using the voting and polling tools offered in Zoom that allowed for a close to normal meeting.

Agenda

1. Approval of the Minutes of the General Assembly held in Zürich on 27 August 2019
2. Brief Report from the President
3. Projects
4. 2019 Finances and Auditors Report
5. Elections
6. Delegates
7. New Honorary Members
8. Varia

The President opens the General Assembly 2020 at 14:00 via Zoom, where he welcomes all connected participants and explains how to raise hands to be given the word and how to cast the ballot in the forthcoming decisions and elections to be taken.

1. Approval of the Minutes of the General Assembly held in Zürich on 27 August 2019

The protocol of the last General Assembly, published in the *SPG Mitteilungen* Nr. 61 on p. 6 is unanimously approved, with one abstention.

2. Brief Report from the President

The President welcomes the 82 new members to the Society, which now counts 1154 members, thereof 17 honorary members and 24 associate members. With 69 members leaving, this marks a slight increase with respect to last year's count. The President states that the Society is healthy, but it can be more effective, create bigger impact and enable a stronger network with increased membership. Especially, BSc and MSc students do not pay membership fee, and doctoral students are exempt in their first year and pay only 50% in their 2nd and 3rd year of membership.

3. Projects

The President then reports on the main goals of the Society and the activities organized and/or supported in 2019. Besides the organization of the main annual event, the Society is organizing smaller, regional seminars and symposia, often together with the help of regionally embedded associations. Examples are the Georges Lemaitre Symposium, the 150 years of the periodic table (both together with SCNAT) or the Jost Bürgi Symposium (together with the Jost Bürgi foundation) and the Jean-Pierre Blaser Memorial Symposium (together with PGZ, ETZH, and PSI). The Röntgen Symposium (together with PGZ and SCNAT) in turn had to be cancelled due to the pandemic and a new date will be found

in the coming year.

Promoting the youth is one of the key activities of the Society, which it does via sponsoring various events targeted to young talents like the *Swiss Physics Olympiad*, the *Swiss Young Physicists' Tournament*, the *International Physicists' Tournament*, etc. Further by supporting the *Swiss Young Physicists Forum*, and not forgetting the very young where the *Physics in Advent* is exemplary for inspiring and raising interest of the next generation.

A new agreement could be made with *Schweizer Jugend forscht* (SfJ), where SPS will award a special prize to the two best SfJ contributions in physics.

This year's young talents day, targeting those young talents who were winners at national or who were excelling in international competitions, could not be held due to the pandemic situation and a solution will be found in the coming year.

The Society is further promoting individual physicists by giving awards to young and gifted minds. Five young physicists are awarded this year with SPS Prizes sponsored by ABB, IBM, Oerlikon Surface Solutions, METAS, and COMSOL, respectively.

Confirmed physicists are awarded with the Charpak-Ritz Prize which is bestowed jointly by the French Physical Society and the Swiss Physical Society. In 2020, the Charpak-Ritz award was given to Prof. Philipp Werner (Uni Fribourg) "for major contributions in condensed matter physics, especially the development of new numerical methods enabling the simulation of out-of-equilibrium dynamics to address light-induced phenomena in highly correlated solids, and his excellent and very fruitful collaboration with the French physics community on the GIV+DMFT method".

The Society is informing its members with three issues of the *SPG Mitteilungen* per year and the meanwhile well-established monthly newsletter.

4. 2019 Finances and Auditors Report

The 2019 annual financial report is presented by the treasurer, Dr. Dirk Hegemann (see page 9 of the *SPG Mitteilungen* Nr. 61). Prof. Dr. Philipp Aebi and Dr. Pierangelo Gröning, the auditors of this report, have approved the numbers and their statement can be found on page 10.

A net loss of 4'472.29 Swiss Francs is accounted for. The treasurer explains that the benefits or losses depend mostly on the success of our annual meetings. The annual meeting 2019 in Zürich was joint with the Austrian Physical Society (ÖPG) and slightly over budget, which explains the reported loss.

The annual financial report is approved unanimously and with no abstentions by the General Assembly, which gives discharge to the Board.

5. Elections

Some members of the board have reached the end of their term and cannot be re-elected according to our statutes. The President thanks warmly: Dr. Bernhard Brunacker (Vice-President), Prof. Laura Heyderman (KOND), Dr. Céline Lichtensteiger (Education and Promotion of Physics), Prof. Giovanni Dietler (Biophysics, Soft Matter, and Medical Physics), for their invaluable support they gave to the society.

The President then introduces the new candidate persons, who have agreed to join the Executive Board, assuming the following positions:

- Vice-President: Prof. Johan Chang
- Condensed Matter Physics (KOND): Dr. Marisa Medarde*
- Atomic Physics and Quantum Optics: Prof. Guillermo Pedro Acuna
- Biophysics, Soft Matter, and Medical Physics: Prof. Christof Ägarter
- Biophysics, Soft Matter, and Medical Physics: Dr. Christof Fattinger*
- Education and Promotion of Physics: Dr. Gernot Scheerer

The President details further that Prof. Johan Chang also accepts becoming president of SPS, when the term of the current president ends in one year's time. Some sections will profit from being headed by two persons, which is of advantage in broadening the scope of expertise and in sharing the load.

In individual votings, all proposed candidates are elected either unanimously with maximally one or two abstentions; or with only one or two votes against, marked with a * in the list here above. All candidates have reached majority with 90% or more.

The following committee members have reached the end of their current term and can be re-elected for a further term according to our statutes, and are re-elected unanimously by the General Assembly:

- Secretary: Prof. Lukas Gallmann (for 2 years)
- Treasurer: Dr. Dirk Hegemann (for 2 years)
- Applied Physics: Prof. Lenny Rivkin (for 2 years)
- Applied Physics: Dr. Laurie Porte (for 2 years)
- Education and Promotion of Physics: Prof. Andreas Müller (for 2 years)
- History and Philosophy of Physics: Prof. Claus Beisbart (for 2 years)
- Condensed Matter Physics (KOND): Prof. Henrik Ronnow (for 2 years)
- Nuclear, Particle, and Astrophysics (TASK): Dr. Andreas Schopper (for 2 years)
- Theoretical Physics: Prof. Philippe Jetzer (for 2 years)

In individual votings, all proposed candidates are re-elected unanimously with maximally one abstention.

Dr. Margherita Boselli will take over the editing of the monthly newsletter and will join the editorial board of SPS: Strictly speaking, this is not an executive board mandate. Nevertheless, the President is asking the General Assembly for endorsing Margherita Boselli for her new task, to give her the support and backing she deserves.

In the following vote, Margherita Boselli is endorsed unanimously without any abstentions.

Prof. Dr. Philipp Aebi and Dr. Pierangelo Gröning are unanimously reappointed in their roles of auditing the SPS finances.

The President thanks the General Assembly and congratulates all candidates who will be new to their respective tasks, or who will continue in their next term. Despite contacting more than 20 individual persons, who all would be excellent choices to take a lead of the Earth, Atmosphere and Environmental Physics section, no candidate

for today's election could be found. This section has been vacant for too long and either a person will be identified in the coming months, or the section will need to be closed at the next General Assembly in 2021. The President stresses that physics is at the fundamental base of all science, it has a special role in bringing a profound understanding of thermal radiation, heat and energy balance into the discussions, which includes state of the art and also new measurement concepts. Therefore, it must be made clear that the physics of the Earth, Atmosphere, and Environment is at the base of climate change, which would allow to complement the on-going discussions at all levels in society.

6. Delegates

The SPS maintains relations with other scientific societies and international organizations. The executive board appoints delegates to these who act as link-persons, assuring for good relations and flow of information. The following persons have been appointed:

- | | |
|--------------------------------------|-------------------------|
| • AHP Editorial board: | Prof. Gian-Michele Graf |
| • AHP Editorial board: | Prof. Thomas Jung |
| • EPJ Scientific Advisory Committee: | Prof. Michel Calame |
| • IUPAP: | Prof. Hans Peter Beck |
| • EPS Council: | Prof. Hans Peter Beck |
| • SATW: | Dr. Kai Hencken |
| • SCNAT: | Dr. Christophe Rossel |

7. New Honorary Members

Two proposals for honorary membership have been received by the President, who discussed these candidates with the Executive Board. In the following individual votes, Prof. Kathrin Altwegg "for her great scientific achievements in the physics of the solar system, in particular comet research, for her exceptional public relations work and for her far-sighted commitment to promote links with small and medium-sized enterprises" and Prof. Ralph Eichler "for his numerous scientific achievements, his outstanding leadership role in major scientific collaborations and as head of PSI and ETH, and for his commitment to supporting young talents, in particular his work for 'Schweizer Jugend forscht'" have been unanimously agreed to be bestowed with honorary membership of the SPS.

The President thanks the General Assembly and congratulates the two now honorary members.

8. Varia

The President states that former SPS President Prof. Minh Quang Tran, who was chairing the SPS Prize Committee wishes to retire from this task. The President is happy to announce that Prof. Thomas Jung will be new chair of the Prize Committee starting in 2021.

The President states that the Swiss Physical Society is a 'learned society' which is open to all physicists. These are professionals, teachers, undergraduate and graduate students, postdocs who are directly active in physics in academia, at research institutes, in industry, at schools, or anyone with a deeper interest in physics.

The President closes the meeting at 15:20 – just in time before the start of the Award Ceremony at 15:30.



Report by the President

- **Created in 1908**
 - Collective member of:
 - Swiss Academy of Sciences (SCNAT) part of A+
 - Swiss Academy of Technical Sciences (SATW) part of A+
 - European Physical Society (EPS)
- **1120 members** (+32 new members / -66 members left in 2020)
 - 18 honorary members (+2 / -1 JP Borel passed away in 2020. Obituary in SPG Mitteilungen No 63, p. 6)
 - 25 associate members (+1 companies, university/research institutes, students associations)
- **10 sections**
 - Condensed Matter Physics,
 - Astrophysics, Nuclear and Particles Physics
 - Applied Physics
 - Theoretical physics
 - Atomic Physics and Quantum Optics
 - Physics in Industry
 - Education and Promotion of Physics
 - History and Philosophy of Physics
 - Earth, Atmosphere and Environmental Physics
 - Biophysics, Soft matter and Medical Physics
- **Activities: Annual meeting, workshops, publications, awards, public outreach ...**



Associated members

□ Companies

- ABB Schweiz AG, 5405 Baden
- COMSOL Multiphysics GmbH, 8005 Zürich
- IBM Research GmbH, Forschungslabor, 8803 Rüschlikon
- METAS, 3003 Bern-Wabern
- Oerlikon Surface Solutions AG, LI-9496 Balzers
- World Scientific Publishing Co Pte Ltd., DE-80333 München ✨ (New)

□ Students associations

- AEP - Association des Etudiant(e)s en Physique, Université de Genève, 1211 Genève 4
- Fachschaft Physik und Astronomie, Universität Bern, 3012 Bern
- Fachschaft Physique, Université de Fribourg, 1700 Fribourg
- Fachverein Physik der Universität Zürich (FPU), 8057 Zürich
- Fachgruppe Physik Universität Basel, 4056 Basel
- Les Irrrotationnels, EPFL, 1015 Lausanne
- Verein der Mathematik- und Physikstudierenden an der ETH Zürich (VMP), 8092 Zürich

□ University/research institutes

- Albert-Einstein-Center for Fundamental Physics, Uni Bern, 3012 Bern
- CERN, 1211 Genève 23
- Swiss Plasma Center (SPC), EPFL, 1015 Lausanne
- Département de Physique, Université de Fribourg, 1700 Fribourg
- Departement Physik, Universität Basel, 4056 Basel
- Departement Physik, ETH Zürich, 8093 Zürich
- EMPA, 8600 Dübendorf
- Lab. de Physique des Hautes Energies (LPHE), EPFL, 1015 Lausanne
- Paul Scherrer Institut, 5332 Villigen PSI
- Physik-Institut, Universität Zürich, 8057 Zürich
- Section de Physique, Université de Genève, 1211 Genève 4
- Section de Physique, EPFL, 1015 Lausanne



SPS - Activities

□ Annual meetings

- Covering all Sections of SPS
- Bringing Swiss physicists together — across their disciplinary boundary
- Award prizes
- Bring in industrial contacts
- A platform for young physicists to ‘learn’ how to present a poster and/or a talk in front of a professional audience
- A place where you can tie knots, mingle in, and strengthen your network
- jointly with ÖPG every 2nd year
- When joint, alternating between a Swiss and an Austrian location
 - Every 4th year, therefore, in Austria
 - 3 out of 4 times in a Swiss location.

□ Awarding young and gifted minds

- ABB General Physics prize
- IBM Condensed Matter prize
- OC Oerlikon Applied Physics prize
- METAS Metrology prize
- COMSOL Computational Physics prize

□ Awarding confirmed physicists

- Joint SPS+SFP Charpak-Ritz prize
- SPS Honorary membership

□ Supporting young people formation

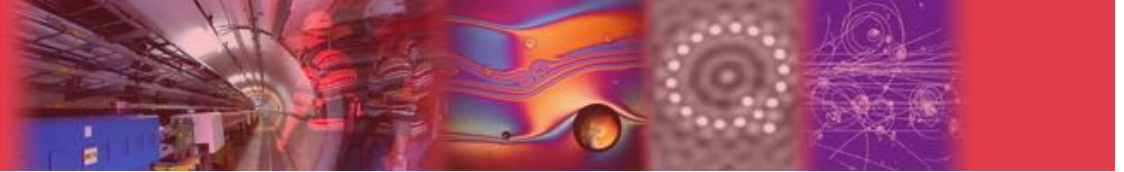
- EPS Young Minds
- Young Physicists’ Forum

Awards

The SPS awards every year at its annual meeting five prizes of 5'000 CHF each for excellent work of young physicists.

The sponsors are ABB Research for “General Physics”, IBM Research for “Condensed Matter Physics”, Oerlikon Surface Solutions AG for “Applied Physics”, METAS for work related to “Metrology”, and COMSOL for “Computational Physics”.





SPS Activities

□ Informing the public

- Publications:
- Mitteilungen der SPG
- Newsletter

□ Support and sponsoring of young talents

- Supporting the Young Physicists Forum (YPF)
- Sponsoring the Swiss Physics Olympiad (SwissPhO)
- Sponsoring of the Swiss Young Physics Tournament (SYPT)
- Sponsoring the International Physics Tournament (ITP)
- Sponsoring Schweizer Jugend forscht (Sjf)
- Supporting the very young with 'Physik im Advent'

□ Events and Symposia

- Joint symposia with SCNAT and/or "Physikalische Gesellschaft Zürich" (PGZ)
- Young Talents Day for winners of Swiss competitions and participants to international competitions



SPS Annual Meeting 2020

- The **SPS Annual meeting 2020** was planned to take place **29 June - 3 July** at **Uni Fribourg**
Due to the pandemic situation, it had to be cancelled.
- The **General Assembly 2020** with all necessary elections and endorsements took place using **Zoom** for registered SPS members.
- The **Award Ceremony 2020**, honouring prize winners and new honorary members, handing out their award diplomas and listening to their brief presentations, took also place via **Zoom**, which was open for all interested persons.
- In **2021**, the annual meeting is a joint one with ÖPG, here in Innsbruck.
- In **2022**, we will meet in **Fribourg, 27 - 30 June**
Mark the date !
- No decision has been taken yet for the annual meeting 2023, which would again be joint with ÖPG
→ we haven't been to Basel since 2010....

SPS Mitteilungen Nr. 61

Jahrestagung der SPG in Fribourg, 29. Juni-03. Juli 2020 Réunion annuelle de la SSP, 29 juin - 3 juillet 2020

Vorwort

Die diesjährige Jahrestagung der SPG, mit Beteiligung von CHIPP, SGN, PGZ und SCNAT, muss leider aufgrund der Corona Situation abgesagt werden.

Nach Prüfung verschiedener Szenarien hat der Vorstand entschieden, am 1. Juli nur ein Notprogramm, bestehend aus Generalversammlung und Preisverleihung, durchzuführen. Diese Veranstaltungen werden auch nur in Form einer Videokonferenz stattfinden.

Der Vorstand war sich auch einig, dass das im Rahmen der Jahrestagung geplante Symposium zum Röntgen-Doppeljubiläum (125 Jahre Röntgenstrahlen und 175. Geburtstag von Wilhelm Conrad Röntgen) in einer Videokonferenz nicht gebührend gefeiert werden kann. Wegen der Bedeutung dieser Erfindung, zum Beispiel in der modernen Medizin, aber auch wegen der Tatsache, dass Röntgen in Zürich diplomiert und 1869 promoviert hatte, soll das Symposium wie geplant, jedoch zu einem späteren Zeitpunkt nachgeholt werden. Wir werden rechtzeitig informieren, sobald der neue Termin bekannt ist.

Zwei andere Jubiläen, ebenfalls mit direktem Bezug zur Schweiz, können wir aber in dieser Ausgabe der Reihe "Meilensteine der Physik" feiern. So begeht die UNESCO am 16. Juni 2020 den 60. Jahrestag der Einführung des Lasers, der unsere heutige Zeit in vielen Bereichen der Wissenschaft und des Alltags nachdrücklich geprägt hat. In Bern erkannte man frühzeitig das Potential der Erfindung und trug mit wichtigen wissenschaftlichen Arbeiten zum heutigen Erfolg massgebend bei. Daran erinnern sich direkt Involvierte in einem Artikel auf Seite 22. Ebenfalls vor 60 Jahren wurde das Protonensynchrotron PS am CERN in Betrieb genommen, das in seiner technischen Komplexität bereits alle Schwierigkeiten der nachfolgenden Ausbaustufen vorwegnahm. Wie all die Herausforderungen damals gemeistert wurden, so dass das PS auch zum Ausgangsinstrument heutiger Grossanlagen wurde, darüber berichten Kollegen aus erster Hand auf Seite 32.

Im Folgenden finden Sie die Informationen für die SPG Mitglieder sowie die Angaben, um an der Generalversammlung teilnehmen zu können.

Trotz der aussergewöhnlichen Umstände hoffen wir auf eine rege Beteiligung an der diesjährigen "geschrumpften" Tagung und freuen uns, Sie im nächsten Jahr gesund und munter wieder an einer vollständigen Konferenz begrüßen zu dürfen.

Avant-propos

La réunion annuelle de la SSP, avec la participation de CHIPP, SSSN, PGZ et SCNAT, doit malheureusement être annulée cette année en raison de la situation sanitaire.

Après avoir examiné différents scénarios, le comité a décidé de ne lancer qu'un seul événement urgent le 1er juillet, consistant en l'Assemblée générale et la cérémonie de remise des prix. Ces événements ne seront organisés que sous forme de visioconférence.

Le comité a également convenu que le symposium pour le double anniversaire Röntgen (125 ans de rayons X et 175ème anniversaire de Wilhelm Conrad Röntgen) planté dans le cadre de la réunion annuelle ne pouvait pas être célébré comme il se doit en visioconférence. En raison de la portée de cette invention, par exemple en médecine moderne, mais aussi parce que Röntgen a obtenu son diplôme à Zurich et y a obtenu le doctorat en 1869, le symposium aura lieu comme prévu, mais à une date ultérieure. Nous vous informons en temps utile, dès que la nouvelle date sera connue.

Il y a deux autres anniversaires, également en relation directe avec la Suisse, que nous présentons dans ce numéro sous la rubrique "Événements clés de la physique". Ainsi l'UNESCO fête le 16 juin 2020 le 60ème anniversaire de l'introduction du laser, qui a marqué notre époque dans de nombreux domaines de la science et de la vie de tous les jours. À Berne, on a reconnu très tôt le potentiel de cette invention et contribué avec d'importants travaux scientifiques à son succès actuel. Des chercheurs directement impliqués s'en souviennent dans un article à la page 22. Il y a également 60 ans que le synchrotron à protons PS a été construit et mis en service au CERN et qui, dans sa complexité technique, a déjà résolu nombre de difficultés des étapes d'expansion suivantes. Un rapport de collègues de première main fait le point à la page 32 et montre comment toutes les difficultés maîtrisées font du PS l'instrument à l'origine des grandes installations actuelles.

Vous trouverez ci-dessous les informations s'adressant aux membres de la SSP et les données pour participer à l'assemblée générale.

Malgré les circonstances exceptionnelles, nous espérons avoir une participation soutenue à cette réunion "rétrécie" et nous nous réjouissons de vous souhaiter la bienvenue en bonne santé l'année prochaine à une conférence complète.



Swiss Physics Olympiad

(SwissPhO, EuPhO, IPhO)

- ❑ The **Swiss Physics Olympiad SwissPhO** is a competition for young people from **Switzerland** and **Liechtenstein** who are interested in more than just secondary school material. The aim of the SwissPhO is to encourage, challenge and fascinate the participants for physics.
- ❑ The SPS sees the Swiss Physics Olympiad as an excellent opportunity to actively support young high school students. The aim is to stimulate the next generation of Swiss scientists. For this purpose, **two SPS prizes are awarded** to the **two best high school students**.
- ❑ Despite the challenges posed by the COVID-19 pandemic, which implied an all-online format for the training of the students and all rounds of the competition itself, a very high number of participants could be maintained for the 2020 and 2021 editions of the SwissPhO.
- ❑ **In 2020, 649 high school students participated** in the **SwissPhO** and in **2021 more than 700**, which proves the sustained success of this initiative.
- ❑ **Out of the finalists, the teams for the European (EuPho) and the International (IPhO) Physics Olympiads were selected** (the 2020 edition of **IPhO** had to be cancelled due the pandemic). Despite the less than ideal conditions for preparing for these international competitions, **the Swiss teams won a total of two bronze medals** and **seven honorable mentions**.
- ❑ For each of the 2020 and 2021 **SwissPhO** editions, two winners of the SPG Young Talent Award were chosen. The prizes, endowed with 500 CHF each, were awarded during the online prize ceremony of **SwissPhO** and presented by a representative of SPS.
- ❑ The **gold medal winners of the SwissPhO**, and the **Swiss teams that participated in IPhO and EuPhO** are invited to the **SPS Young Talent Day**.



Physics Olympiad – SwissPhO

SPG Nachwuchsförderpreis / SSP Prix de la Relève

For the two best performing participants in the Swiss Physics Olympiad



Kylian Gauteron

Lycée-Collège des Creusets (VS)



Valentin Hächler

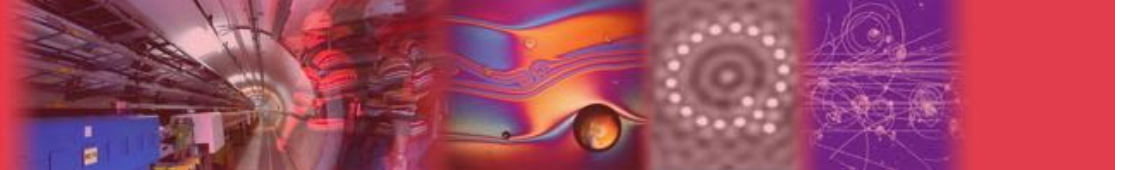
Gymnasium Oberwil (BL)

Congratulations to

Kylian Gauteron and Valentin Hächler

who were awarded the

SPS Young Talents Prize (Prix de la Relève, Nachwuchspreis).



Physics Olympiad – EuPhO



- Left, the Swiss team preparing for **EuPhO 2021** (19-26 June, 2021)
- **46 teams** from the following countries have registered for this year's European Physics Olympiad:
- Austria, Azerbaijan, Belgium, Bolivia, Bosnia and Herzegovina, Brazil, Bulgaria, Colombia, Croatia, Czech Republic, Ecuador, Estonia, Georgia, Germany, Hungary, Iceland, India, Iran, Italy, Kazakhstan, Kosovo, Kyrgyzstan, Latvia, Lithuania, Luxemburg, Macau, Macedonia, Mexico, Moldova, Peru, Poland, Portugal, Romania, Russia, Saudi Arabia, Serbia, Singapore, Slovakia, Slovenia, Sweden, Switzerland, Syria, Tajikistan, Turkey, Ukraine, United Kingdom.

Von links nach rechts: Nicolà Gantenbein (Leader), Fabian Eugster, Andres Neff, Anastasia Sandamirskaya, Thubalenkosi Vuadens und Raphael Burkardt (Alle Bilder: Physik-Olympiade)

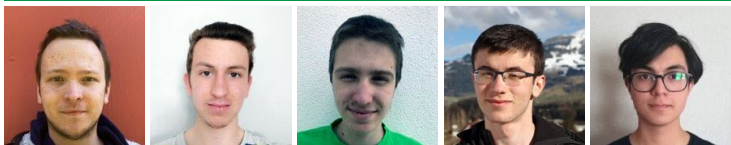
- Anastasia Sandamirskaya, Hull's School (ZH); Andres Neff, Kantonsschule Kollegium Schwyz (SZ); Fabian Eugster, Kantonsschule Trogen (AR); Raphael Burkardt, Kantonsschule Uster (ZH); Thubalenkosi Vuadens, Gymnasium Neufeld (BE)
 - **Anastasia Sandamirskaya** aus Greifensee (ZH) was awarded an **honorary mention** for her performance at **EuPhO**.



Physics Olympiad – IPhO

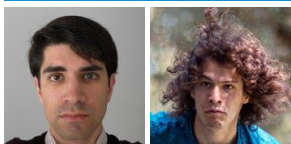
Switzerland IPhO 2021

Students



Kylian Gauteron Valentin Kuno Hächler Oliver Fabian Marti Mathieu Zufferey Raphael Zumbrunn

Leaders

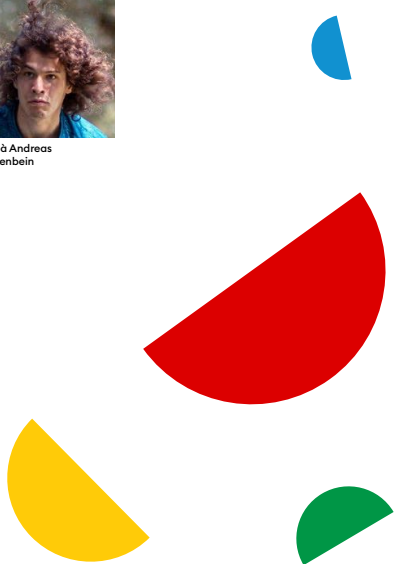


Dr. Lionel Antoine Philippoz Nicolò Andreas Gartenbein

Invigilator



Dr. Markus Siegfried Meier



- Swiss team at **IPhO 2021**, 7th–25th of July in **Vilnius**, the capital of **Lithuania**.
- Participants from more than 90 countries with around 450 students and 300 leaders and observers

- Kylian Gauteron, Lycée-Collège des Creusets (VS);
 Mathieu Zufferey, Lycée-Collège de la Planta (VS);
 Oliver Marti, Gymnasium Münchenstein (BL);
 Raphael Zumbrunn, Gymnasium Thun (BE);
 Valentin Hächler, Gymnasium Oberwil (BL)

- **Raphael Zumbrunn** was awarded a **bronze medal**
- **Kylian Gauteron, Mathieu Zufferey, Valentin Hächler** were awarded a **honorary mention** for their performance at **IPhO**.



International Physics Tournament

The **IPT** is an annual competition in which physics students have **eight months to face a selection of seventeen problems**, prepare their proposed solutions and present them in a competition at the venue of the International Physics Tournament. Swiss physics students who want to take part in the IPT must first enroll themselves in a Swiss selection.

Physics students at universities participate in so called **Physics Fights. Three teams** (each consisting of **two to three students**) compete against each other.

They take turns **presenting** and **defending their solution** to a given problem, **criticizing** the solution of the **opposing** team and **reviewing** the performance of the two preceding teams. The performance of all three teams is assessed by a jury. The teams have to try to convince both their opponents as well as the jury of the quality of their scientific work and results and of the understanding of physics.

The **International Physicists' Tournament 2021** (IPT 2021, <https://2021.iptnet.info/>) took place again **online** from **1st to 4th of July**, involving more than **150 participants** from 12 countries around the world.

The Swiss Selection


<http://switzerland.iptnet.info>

A team of physics bachelor students won the Swiss Selection in a tough competition:

Alexander Jäger, Simon Grünwald, Frederike Brockmeyer, Maximilian Bosch, Christoph Ribbe, Charlotte Franke

They represent Switzerland at the International Final, where they **ranked 6th**.






13th International Physicists' Tournament

 UNIVERSITY OF WARSAW
 ONLINE EDITION 1st – 4th of July 2021

General Rankings

1 st place	Russia	48.40* (161.60)
2 nd place	Brazil	44.20* (143.20)
3 rd place	Ukraine	38.20* (146.49)
4 th place	France	139.45
5 th place	Colombia	138.90
6 th place	Switzerland	134.35
7 th place	United Kingdom	131.08
8 th place	Sweden	129.84
9 th place	Germany	126.93
10 th place	Slovenia	120.30
11 th place	United States	116.55
12 th place	Pakistan	107.45

* - points in Grand Finale




Schweizer Jugend Forscht (SJF)



SCHWEIZER JUGEND FORSCHT
 SCIENCE ET JEUNESSE
 SCIENZA E GIOVENTÙ

Alexis Zuber, 27.10.2001
 Hector Mir, 25.08.2001
 Gymnase du Bugnon, Site
 de Sévelin



Conception d'une réplique d'un accélérateur de particules

Problématique

Le but de notre projet est de reproduire, en simplifiant, le fonctionnement d'un accélérateur de particules tel que celui que nous trouvons au CERN. Dans notre projet, des champs magnétiques créés par des bobines de cuivre substituent les champs électriques utilisés au dans les vrais accélérateurs de particules et des billes ferromagnétiques remplacent les particules.

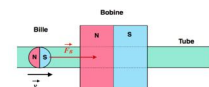


Fig. 1 : Schéma de l'attraction par la polarisation de la bille

Méthode

Dans un premier temps, nous avons fabriqué des bobines de cuivre capable de par leur conception de produire un champ magnétique suffisant pour attirer une bille d'acier. Dans un deuxième temps, afin d'accélérer la bille, nous avons mis en place un moyen de couper le courant lorsque cette dernière se trouve au centre de la bobine.

Résultats

Les multiples essais et les discussions avec des professionnels nous ont permis de trouver la solution la plus adéquate à notre projet. Le point principal de notre projet a été de trouver un système qui nous permettait de relier, dans un circuit unique, un microcontrôleur n'acceptant pas un courant très élevé alors que la bobine a besoin de bien plus haute intensité de courant pour générer un champ magnétique assez puissant. La connexion de deux sous-circuits grâce à un transistor de type MOSFET nous ont permis d'obtenir des résultats satisfaisants. Le résultat final est constitué de trois bobines placées chacune après un capteur optique. Ce capteur envoie un signal au microcontrôleur qui à l'aide d'un « petit » courant permet l'établissement du « grand » courant et donc la création d'un champ magnétique pendant un temps déterminé auparavant. Ci-contre, le montage final de notre projet. Les fils passent sous la planche en bois et rejoignent leur circuit respectif, disposés sur une table à côté (Voir Fig. 4).

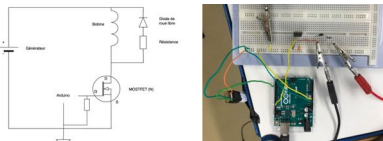


Fig. 2 & 3 : Schéma du circuit électrique & Photo du circuit électrique



Fig. 4 : Montage de notre projet sur une planche en bois

Discussion

Dans l'ensemble, nous sommes satisfaits de nos résultats. Néanmoins, par manque de temps et de moyens, nous n'avons pas atteint tous nos objectifs. Notamment, le fait de pouvoir contrôler la vitesse de notre bille.

Conclusion

Pour conclure, nous dirions que ce fut un projet et une expérience exceptionnelle. Cependant, le projet n'est pas terminé car, à notre avis, le potentiel d'amélioration de ce projet est énorme et nous restons d'autant plus motivés pour continuer.



Physique | Technique

Finalistes: Hector Mir, Alexis Zuber

Expert: Dr. Jorg Wenninger

École: Gymnase du Bugnon, Lausanne

Enseignant: Bernard Furrer

Mention: très bien

Prix spécial Société Suisse de Physique -
Prix des Jeunes de la SSP:



Congratulations to

Hector Mir, Gymnase du Bugnon, Lausanne (VD),
 and
Alexis Zuber, Gymnase du Bugnon, Lausanne (VD)

who are awarded the **2021 SJF+SPS Special Prize.**

Physik im Advent (Promoting the very young)



SPS supports and promotes Physik im Advent in Switzerland

and sponsors prizes for participants from Swiss schools.

All can participate - but only school children can win !

Register in November for PiA2021:

<https://www.physik-im-advent.de>

In 2020: **61,792 registered participants** from **62 countries worldwide**, over **1,195,143 visits** to the website www.physik-im-advent.de, over 1,007,154 clicks on this year's PiA films on YouTube and around 165,749 clicks on Facebook, twitter, Instagram and Telegram.

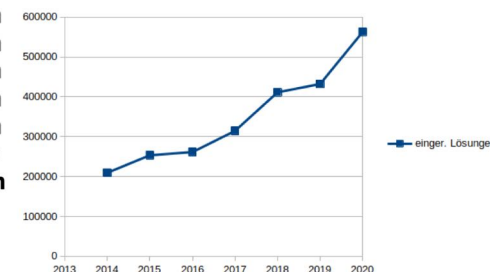
“PiA - Physik im Advent” was again very successful in 2020 and the response was significantly higher than last year.

The **proportion of girls** among all participants is almost **50%**.

With a total of **2,368,046 registered visits**, a new record was set.

Switzerland is with **941 students** the third most participating country after Germany and Austria.

Selbstorganisierte Gruppen:	2016: 138 Gruppen
	2017: 186 Gruppen
	2018: 247 Gruppen
	2019: 172 Gruppen
	2020: 270 Gruppen
Eingereichte Lösungen:	2014: 209.462 Lösungen
	2015: 253.262 Lösungen
	2016: 261.287 Lösungen
	2017: 314.556 Lösungen
	2018: 411.236 Lösungen
	2019: 432.055 Lösungen
	2020: 562.656 Lösungen





Young Talents Day

Nachwuchstag, Journée de la Relève

For the first time in 2019, the SPS invited young participants of international physics tournaments and Olympiads for a day at our Annual Meeting, with the aim of giving them a taste of physics meetings and linking them to laboratory research.



Young talents at the annual meeting 2019 in Zürich



Demonstrations at the physics institute of University of Zürich, followed by intense visits to various laboratories, with lots of questions asked and insights gained.

Nachwuchstag, Journée de la Relève

In 2020, the Young Talents Day had to get cancelled due to the pandemic.



Young Talents Day — 2021

Nachwuchstag, Journée de la Relève

In 2021, the Young Talents Day will invite to generations of young talents.

Those that have won **national competitions** and those who have participated in **international competitions** over the last two years have been contacted and invited to the **2021 Young Talents Day**, which takes place at **ETH Hönggerberg** in the morning, before the **Röntgen Symposium** starts in the afternoon.

The young talents will be able to **visit the physics laboratories at ETH Hönggerberg**, will be able to **socialise** and **network** in a joint lunch with physicists from ETH.

In the afternoon, they are also **invited to listen to life, work, and impact of Röntgen**, and where X-rays play fundamental roles in many fields, from basic research, to applied physics and in a plethora of modern applications, covering all fields of modern life.

For sure, this will be a day they will remember for many years to come.

Thanks to the support from **SCNAT**, we can invite and cover transport and catering of those young talents.

Wilhelm Conrad Röntgen Symposium

On **Saturday 18 September 2021**, a public symposium is dedicated to the physicist *Wilhelm Conrad Röntgen* (1845 - 1923). In 2020 his 175th birthday and the 125th anniversary of his discovery of X-rays should have been celebrated, but the occasion had to be shifted to 2021 due to the pandemic. The symposium will take place at the ETH Zürich / Hönggerberg. Several talks will highlight Röntgen's biography, as well as the current state of research and applications, in which X-rays play a fundamental role.

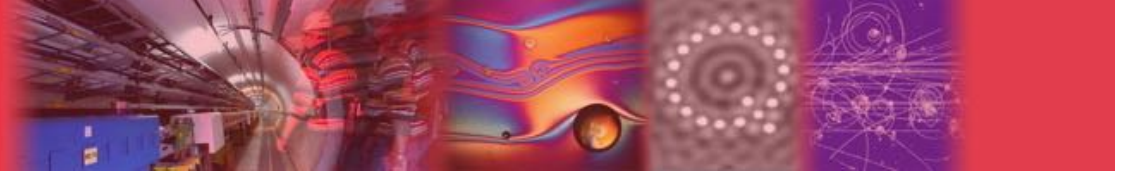


The public is cordially invited to attend the symposium lectures that will be given in English; admission is free and registration is not required.

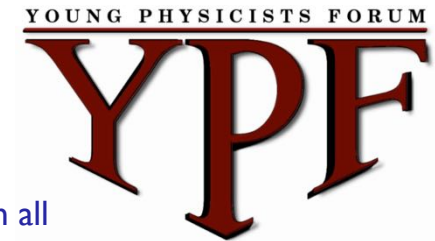
The Young Talents Day and the Wilhelm Conrad Röntgen Symposium is jointly organized by the Swiss Physical Society **SPS**, the Physikalische Gesellschaft Zürich **PGZ**, and the Swiss Academy of Sciences **SCNAT**.

Since the combination of history and modern research is particularly attractive to young people, the organizing societies plan a special program in the morning before the Röntgen Symposium, where selected students, namely winners of the SwissPhO and similar competitions, can visit physics laboratories on Hönggerberg and get first-hand information about current research activities.

Young Talents Day		
10:00 - 12:00	Visit of labs of the physics institutes at ETH Hönggerberg	
12:00 - 13:15	Joint lunch at ETH Hönggerberg	
Symposium Program		
13:15 - 14:00	Ralph Claessen, Universität Würzburg	Röntgen's discovery: from serendipity to scientific revolution
14:00 - 14:45	Marco Stampanoni, ETH Zürich	125 years of X-ray imaging and still eager to push further
14:45 - 15:15	Coffee Break	
15:15 - 15:45	Clemens Schulze-Briese, Dectris Ltd. Baden	X-rays in industry and society, what we do today and what can be done tomorrow
15:45 - 16:15	Davide Bleiner, EMPA	Progress in small scale X-ray lasers
16:15 - 16:45	Stéphane Paltani, Université de Genève	The revolution of X-ray astronomy
16:45 - 17:45	Apéro	



Young Physicists Forum



<https://www.young-physicists.ch>

The Young Physicist Forum (YPF) is a commission of the Swiss Physical Society. With YPF, physics students from all Swiss universities have a platform of communication, networking, sharing ideas, and foster scientific exchanges.

YPF organises a yearly event with an interesting and contemporary topic as the focus.

The YPF was officially established in 2012; among its founding members we had representative from all Swiss physics student associations: VMP (ETHZ), FPU (UZH), Les Irrrotationnels (EPFL), FG 14 (Uni Basel), FPA (Uni Bern), Fachschaft Physique (Uni Fribourg) and AEP (Uni Genève).

The **2021 Young Physicists Forum** was an online Forum for the second time during the week-end of the 24th and 25th April 2021.

The topic was **Exoplanetology**: their formation, their atmospheres and much more related to Astrophysics.

Between 20 and 35 participants joined each of the eight high-class lectures. The number of participants was good for an online Forum compared to previous in-person events where we were able to welcome 40 participants.

YPF notes that it is a real proof of interest and motivation that students want to follow Zoom lectures in their free time on a Saturday and Sunday, **while they have their entire studies in an online format for more than a year yet.**

Dr. Andrea Fortier (Uni Bern) presenting latest results and discoveries with CHEOPS.

This last year was not easy to study but the demand to learn more about science is still here!



Symposia together with regional societies

Wilhelm Conrad Röntgen Symposium

This public symposium is dedicated to the physicist Wilhelm Conrad Röntgen (1845 - 1923) and his vibrant legacy today.

Röntgen studied mechanical engineering at the ETH Zürich and obtained his PhD in physics in 1869 from the University of Zürich.

In **2020** his **175th birthday** and the **125th anniversary of his discovery of X-rays** should have been celebrated, but the event had to be shifted to **2021** due to the pandemic.

The event is organized jointly with PGZ, the Physikalische Gesellschaft Zürich, and SCNAT.

Saturday 18. September 2021, at 13:15 in room HPV G4
[ETH Hönggerberg](https://www.ethz.ch/en/locations/rohnggerberg.html), Robert-Gnehm-Weg 15, 8093 Zürich



This public symposium is dedicated to the physicist Wilhelm Conrad Röntgen (1845 - 1923) and his vibrant legacy today. Röntgen studied mechanical engineering at the ETH Zürich and obtained his PhD in physics in 1869 from the University of Zürich. In 2020 his 175th birthday and the 125th anniversary of his discovery of X-rays should have been celebrated, but the event had to be shifted to 2021 due to the pandemic.

- 13:15 - 14:00 **Ralph Claessen**, Universität Würzburg
Röntgen's discovery: from serendipity to scientific revolution
- 14:00 - 14:45 **Marco Stambanoni**, ETH Zürich and Paul Scherrer Institut
125 years of X-ray imaging and still eager to push further
- 14:45 - 15:15 *Coffee Break*
- 15:15 - 15:45 **Clemens Schulze-Briese**, Dectris Ltd. Baden
X-rays in industry and society, what we do today and what can be done tomorrow
- 15:45 - 16:15 **Davide Bleiner**, Empa & University of Zürich
Progress in small scale X-ray lasers
- 16:15 - 16:45 **Stéphane Paltani**, Université de Genève
The revolution of X-ray astronomy
- 16:45 - 17:45 *Apéro*

Free entrance, no registration needed *

Further information:

www.sps.ch, www.pgz.ch, www.scnat.ch

* If a registration should be required due to COVID regulations, information will be available in due time on the web.



Publications

SPS Communications

<S|P|S> swiss physical society
 Nr. 64, Mai 2021

SPG Mitteilungen Communications de la SSP



Squeezing-out room temperature superconductivity between two diamond crystals. More on current superconductivity research on p. 17. Credit: J. Jaisi-Farid, University of Innsbruck



TEM image of optical antennas based on two colloidal gold nanorods self-assembled with the help of a DNA "origami" structure (not resolvable due to lack of contrast). This antenna can tune the emission of single molecules such as fluorophores placed at specific positions within the DNA origami structure. More on p. 19.



Wilhelm Conrad Röntgen Symposium
 Saturday, 18 September 2021, 13:15 - 17:45,
 ETH Zürich, Robert-Gruber-Weg 15, 8093 Zürich (Hönggerberg),
 Room HPV G3

Editorial on p. 3: Crisis and Science - Statements of philosopher Karl R. Popper (1902-1994). The program of our Röntgen symposium and the abstracts of the talks can be found on p. 54.

Joint Annual Meeting of ÖPG and SPS
 30 August - 3 September 2021, Universität Innsbruck

Don't miss the abstract submission deadline on 31 May !
 More information on page 4.

<S|P|S> swiss physical society
 Newsletter, 29 July

Dear Hans Peter Beck,

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

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

Kind regards,
 Margherita Boselli

WHAT'S UP IN SWITZERLAND?

Wilhelm Conrad Röntgen Symposium

The **Wilhelm Conrad Röntgen Symposium**, initially scheduled for 2020 to celebrate the 175th birthday of the physicist **Wilhelm Conrad Röntgen** (1845 - 1923) and the 125th anniversary of his discovery of X-Rays, will take place on **Saturday September 18 2021, at the ETH Zurich (Hönggerberg)**. The event is open to the public, the admission is free, and a live video stream of the symposium will be available. During the afternoon, five speakers will report on Röntgen's biography, with a focus on the period that Röntgen spent in Zurich both at ETH and at the University, and on the link between his work and the current research in the field of X-ray imaging, new coherent light sources, and the revolution of X-ray astronomy. The symposium is jointly organized by Society, the Zürich Physical Society, **PGZ**, and the Swiss Academy of Sciences, **SCN**.




The same day will also see the **Young Talents Day**, an event dedicated to the Swiss high-school students who obtained remarkable results in national and international physics competition. Before the Symposium, the young students will have the opportunity to visit the physics laboratories on Hönggerberg and get first-hand information about current research activities.

More information are available on our [website](#).

New Call for BRIDGE - Proof of Concept

The new call for **BRIDGE Proof of Concept** projects is open until **6 September 2021**. Young researchers who want to apply their research results and realize an innovative product need to submit their



SPS monthly Newsletter

<S|P|S> swiss physical society
 Newsletter, 28 May

Beck,

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

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

WHAT'S UP IN SWITZERLAND?


Communications Nr. 64

SPS Communications, the journal of our society, has been distributed. Among the interesting articles present on the current issue, it is worth mentioning the overview about the current state of the research in the field of quantum entanglement; the second part of a very complete article about the origin of the periodic table and an interesting interview with Daniel Borel, Co-Founder of the Swiss National Science Foundation S.A. The pdf version of this issue will be available on the SPS website from mid June.

As an opportunity to remind you that the **Joint Annual Meeting of the ÖPG and SPS** will take place from August 30 until September 3 2021 at the University of Innsbruck, the **deadline for the abstract submission is May 31**.

Exoplanetology

At the end of April, during the **Young Physicists Forum**, a series of lectures about exoplanets were given by researchers and students from various institutions. The event was held online on April 24 and 25, and it consisted of eight very exciting presentations. During the forum, the participants learnt about many aspects of the study of exoplanets, some of the talks focused on the experimental methods used to detect exoplanets, while others focused on the theoretical models of planets populations and even on the habitability of the universe. The lecturers were professors, senior researchers and PhD students from the Universities of Bern, Geneva, Zurich and ETHZ.



<S|P|S> swiss physical society
 Newsletter, 29 April

Beck,

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

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

WHAT'S UP IN SWITZERLAND?


Journal of the Swiss and Austrian Physical Societies

The **Journal of the Swiss and Austrian Physical Societies** is a new publication that will take place in Austria in the week **30 August - 3 September 2021** at the "TU Technik" of the University of Innsbruck, and the plan is to publish it online (in presence). The scientific program is enriched by the participation of the **Swiss Institute for Particle Physics (CHIPP)** and the **SFB** at the University of Innsbruck. The journal will cover all these collaborations, the joint Annual Meeting will be held in Innsbruck, covering latest advancements of physics in a wide range of fields.

Submit your contributions and to register to the event, the important information is available on the **website**.

Abstract submission deadline, 31 May 2021
Registration deadline, 10 August 2021

As we have all went through, we are looking forward to meeting you



Download for free at <http://sps.ch>

Register for free at <https://newsletter.sps.ch/lists/>



Publications



No. 1, July 2021

SPS Focus

A special publication of the Swiss Physical Society

Nuclear Energy Generation

Progress in Fission, Breeding, and Fusion Technology



SPS Focus

SPS Focus is a new publication series of the Swiss Physical Society where a **single topic is presented** and placed **in focus for a broader audience**, hence its name.

The series will be **published irregularly** and is aiming at topics that can **provoke broad interest**.

This **first volume** of the SPS Focus series describes the **generation of energy by methods of nuclear technology** that are probably not familiar to everyone.

Switzerland and many other western countries have decided to **abandon nuclear energy** or will do so in the near future.

Other countries, in turn, are **investing in new concepts** with focus on safety, efficiency and economy.

We feel it is necessary to **observe** and **understand** how energy production based on **nuclear technologies is evolving** in many countries.

Download for free at <https://www.sps.ch/artikel/sps-focus>



Publications

Feedback received and next steps



The **SPS Focus-I** was sent to our **1200 SPS members** and to **about 350 international decision makers and institutions.**

General reactions are very positive so far.

Example: **Professor Iris Zschokke**, former SPS President

*... mit grossem Interesse und Begeisterung lese ich die Beiträge im Focus!
Hochaktuell, sehr informativ, eine fantastische Arbeit der Autoren!
Auch die Idee von SPS Focus ist faszinierend,*

However, based on feedback we've received especially from politicians, indicate the language issues some non-physicists have to grasp the information given.

The three introducing chapters (**Motivation, Executive Summary and Introduction**) are now also available in **German** and **French**, in addition to **English**.

Direct contacts confirmed that the idea of the report is highly appreciated and that the message to understand why countries consider nuclear technology in context with renewable concepts is relevant.

Our next activities are:

- Extend the existing introductory chapters in E/D/F to a layman version of the report, including pictures for a better acceptance in the public
- Intensify contacts to responding
 - Institutes like ITER (invitation by DG...) and Industry
 - Institutions and Media, also outside of Switzerland



NEW HONORARY MEMBERS

See also SPG Mitteilungen No 64, p. 12

<https://www.sps.ch/fileadmin/doc/Mitteilungen/Mitteilungen.64.pdf>

Neues Ehrenmitglied - Nouveau membre d'honneur

Der Vorstand hat dieses Jahr einen Vorschlag für ein neues Ehrenmitglied erhalten. Die Ernennung findet im Rahmen der Generalversammlung am 31. August 2021 statt.

Le comité a reçu une proposition pour un nouveau membre d'honneur cette année. La nomination aura lieu le 31 août 2021 lors de l'Assemblée Générale.

Honorary member

PROF. DR. BERND KRUSCHE, UNIVERSITÄT BASEL
PROF. EM. DR. MARTIN C.E. HUBER, ETH ZÜRICH
PROF. EM. DR. NORBERT STRAUMANN, UNIVERSITÄT ZÜRICH

Basel, Küssnacht und Oberrohrdorf,
 20 April 2021
 4056 Basel, Klingelbergstrasse 82
 e-mail: bernd.krusche@unibas.ch

Prof. Dr. Hans Peter Beck
President of the Swiss Physical Society

Nomination of Prof. em. Dr. Karl-Friedrich Thielemann for honorary SPG membership

Dear Hans Peter, dear Colleagues

We take great pleasure in nominating Prof. em. Dr. Karl-Friedrich Thielemann for honorary membership of the Swiss Physical Society to acknowledge his extensive scientific *œuvre* in astrophysics and nuclear physics, as well as his service in many scientific advisory bodies, among them the Research Council of the Swiss National Science Foundation (SNF).

After initial schooling and a Matura at the Martin-Butzer Gymnasium in Dierdorf (Germany), Friedel Thielemann – as he is known among his colleagues – studied at the Technische Hochschule (now the Technical University) in Darmstadt and got his Diploma in Physics in 1976 and a PhD in 1980. He then pursued an extended international career with stations at the Enrico Fermi Institute in Chicago, the California Institute of Technology, the Max-Planck-Institute for Nuclear Physics in Heidelberg, the MPI for Astrophysics in Garching near Munich, the University of Illinois at Urbana-Champaign, and the Department of Astronomy at Harvard University. In 1994 he settled as Professor of Theoretical Physics at Basel University. After his retirement in Basel, he remains an active scientist as permanent guest in the Theory Group at the GSI Helmholtz Center for Heavy Ion Research near Darmstadt.

His research centres around the question of 'how the Universe has been made'. He approached this question by doing much basic work on how the chemical elements we find in today's Universe have been produced in all kinds of stellar and other environments. This required a deep understanding both of galactic evolution and of the nuclear physics governing the reactions contributing to thermonuclear element production.

The database REACLIB, maintained by the Joint Institute for Nuclear Astrophysics – nowadays the basis for nucleosynthesis applications – largely benefits from his work on thermonuclear reaction rates that he pursued for decades with several of his students. Friedel was and is also very active in the community addressing the theoretical and experimental issues of nuclei far from stability, which are very important to understand element production rates via the fast neutron capture reaction (*r*-process). At many international laboratories experimental programs are now underway to investigate such nuclei with radioactive beams.

Prof. Thielemann also studied in detail the properties of various astrophysical objects – supernovae, white dwarfs, and neutron stars, for example – where such reactions occur. This required input from many different fields, such as gravitational aspects, hydrodynamics

of matter, reaction rates for neutrinos etc. which he all combined in his research. The scope of his work thus ranges from the fundamentals of nuclear and particle physics over the properties of all kinds of stellar objects, and results in a broad view of galactic evolution.

In all these fields his publications are benchmark papers with several hundreds of citations; as examples we mention his work with Nomoto and Yokoi on White Dwarfs and his work with Rauscher on Astrophysical Reaction Rates from statistical models. His most recent review paper about the origin of the heaviest elements from neutron *r*-process reactions will certainly have significant impact on the field. Contrary to what most people were thinking, there is now new evidence that not supernovae, but more likely other environments like, for example, neutron-star mergers are prime sources for the heavy elements, such as gold.

The supreme quality of Karl-Friedrich Thielemann's scientific work is reflected by the prestigious prizes that have been awarded to him. Before his PhD already he was awarded the Otto Hahn Medal for Junior Scientists by the Max Plank Society and – to mention just a few of the most prestigious later ones – he received the Hans A. Bethe Prize of the American Physical Society (2008), the Lise Meitner Prize of the European Physical Society (2012), and very recently (2020) the Karl Schwarzschild Medal of the 'Astronomische Gesellschaft'.

He has inspired generations of young scientists with his ideas and by offering an excellent environment in his research group. Many of his former students and post-docs are now themselves very successful and productive researchers and carry on his work at different Universities and research laboratories. He also conveyed his enthusiasm for physics and astrophysics in his lecture courses and – well beyond the University – to an even larger audience through his fascinating talks in the Basel 'Saturday-Morning' Physics programme.

Last but not least, Friedel participated in different bodies to promote Nuclear Physics and Astrophysics, both in Switzerland and worldwide. At Basel University he served as Department Chairman, Member of the Regenz and Vice Dean of the Science Faculty. He was member of the SNF Research Council, President of the Platform MAP of the Swiss Academy of Science, Associate Editor for *Nuclear Physics A* and *Reviews of Modern Physics*. He also served on the Board of Directors of the Centre for Theoretical Studies in Nuclear Physics and Related Areas (ECT) in Trento and contributed to many advisory committees of international laboratories.

In view of his outstanding scientific accomplishments and grateful for his many voluntary supporting activities, we propose Prof. Karl-Friedrich Thielemann

for his comprehensive œuvre elucidating the origin of the elements, which is based on studies of nuclear reaction rates and a deep understanding of the evolution of various astrophysical objects, such as, for example, supernovae, white dwarfs, and neutron stars, and for his indefatigable support of young researchers and his colleagues, as well as for his extensive work in scientific advisory bodies

for honorary membership of the Swiss Physical Society.


With best regards



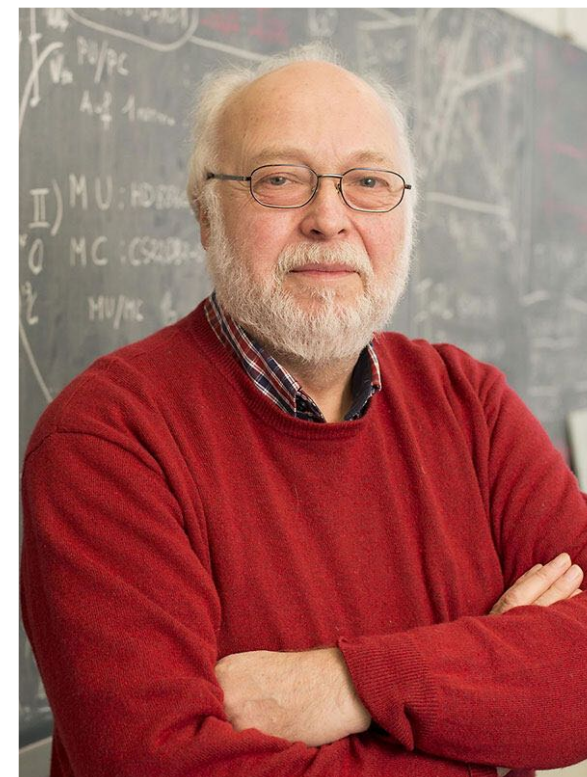
Bernd Krusche



Martin Huber



Norbert Straumann



Friedrich-Karl Wilhelm Thielemann

Art. 5

Sur la présentation de trois membres de la Société au moins, le titre de membre honoraire peut être décerné par l'assemblée générale, soit à des chercheurs qui se sont distingués dans le domaine de la physique pure ou appliquée, soit à des personnes ayant rendu d'excellents services à la Société. Les membres honoraires ne payent pas de cotisation.

Ehrenmitgliedschaft

Für sein umfassendes Werk zum Ursprung der Elemente, basierend auf Studien von nuklearen Reaktionsraten und einem tiefen Verständnis der Entwicklung verschiedener astrophysikalischer Objekte, wie z.B. Supernovae, weiße Zwerge und Neutronensterne, und für seine unermüdliche Unterstützung von jungen Forschern und Kollegen, ebenso wie für seinen Einsatz in wissenschaftlichen Beiräten, wird

Friedrich-Karl Thielemann

zum Ehrenmitglied der
Schweizerischen Physikalischen Gesellschaft ernannt.

SPG Generalversammlung, Innsbruck, 31. August 2021

Der Präsident

Hans Peter Beck



Financial Report and Audit 2020

See also SPG Mitteilungen No 64, p. 10

<https://www.sps.ch/fileadmin/doc/Mitteilungen/Mitteilungen.64.pdf>

Jahresrechnung – Bilan annuel – Annual financial statement 2020

as of December 31, 2020

presented by Dr. Dirk Hegemann, Empa
Treasurer of SPS



Jahresrechnung – Bilan annuel – Annual financial statement 2020

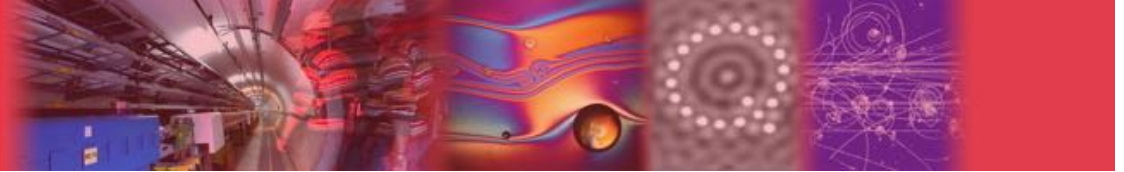
Bilanz per 31.12.2020		
	Aktiven	Passiven
Umlaufvermögen (current assets)		
Postscheckkonto	120597,88	
Bank - UBS 230-627945.M1U	20888,57	
Debitoren - Mitglieder	3330,00	
Debitoren - SCNAT/SATW u.a.m.	32189,63	
Transitorische Aktiven	1603,55	
Anlagevermögen (fixed assets)		
Beteiligung EP Letters	15840,00	
Mobilien	1,00	
Fremdkapital (dept capital)		
Mobilier		1,00
Mitglieder Lebenszeit		72883,25
Transitorische Passiven		4426,67
Eigenkapital (equity capital)		
Vefügbares Vermögen		104460,02
Total Aktiven/Passiven	194450,63	181770,94
Gewinn		12679,69
Summe	194450,63	194450,63
Verfügbares Vermögen per 31.12.20 nach Gewinnzuweisung		117139,71

(in CHF)

(gain in 2020)

(available assets)

Dr. Dirk Hegemann



Erfolgsrechnung – Compte de résultat – Income statement 2020

Erfolgsrechnung per 31.12.2020			
	Aufwand	Ertrag	
Gesellschaftsaufwand		Ertrag	
EPS - Membership	11798,79	Mitgliederbeiträge	94014,85
SCNAT - Membership	7735,00	Inserate / Flyerbeilagen SPG Mitteilungen	5170,00
SATW - Mitgliederbeitrag	1750,00		
		SCNAT Verpflichtungskredite	
SCNAT Verpflichtungskredite		SPG Jahrestagung (SCNAT)	15000,00
SPG Jahrestagung	11626,60	Schweizer Physik Olympiade	3000,00
Schweizer Physik Olympiade	4000,00	Übrige Tagungen SPG / SCNAT	1700,00
Übrige Tagungen SPG / SCNAT	133,00	Delegierte EPS, NuPECC, IUPAP	2500,00
SPG Young Physicist's Forum	2000,00	SPG Young Physicist's Forum	3500,00
International Physics Tournament	116,08	Lehrerfortbildungsevent	10000,00
SPG Bulletin / Tagungsband (SCNAT)	3000,00	International Physics Tournament	4000,00
Periodika (SPG Mitteilungen, Druckkosten)	25479,96	SPG Bulletin / Tagungsband (SCNAT)	5000,00
Internationale Zusammenarbeit	314,00	Periodika (SPG Mitteilungen, Druckkosten)	5000,00
Schweizer Jugend forscht (SJF) Physikarbeiten	2000,00	Internationale Zusammenarbeit	2000,00
Swiss Young Phys. Tournament	5000,00	Schweizer Jugend forscht (SJF) Physikarbeiten	2000,00
		Reisekosten Nachwuchs	2000,00
Betriebsaufwand		SCNAT Swiss Young Phys. Tournament	5000,00
Löhne	21092,62		
Sozialleistungen, berufliche Vorsorge, Versicherung	13748,54		
Porti/Telefonspesen/WWW- und PC-Spesen	654,74		
Versand (Porti Massensendungen)	5800,95		
Unkosten	273,15		
Büromaterial	610,31		
Bankspesen	181,10		
Debitorenverluste Mitglieder	1380,00		
Debitorenverlust SCNAT / SATW u.a.m.	28510,32		
Total Aufwand / Ertrag	147205,16		159884,85
Gewinn	12679,69		
Summe	159884,85		159884,85

(in CHF)

Early Loss/Win (CHF)

2012:	+27'276
2013:	-1'735
2014:	+31'562
2015:	+4'486
2016:	-5'246
2017:	-3'326
2018:	+18'308
2019:	-4'472
2020:	+12'679

2019: loss of 4'472.29

→ cost overrun for annual meeting (-10'000 CHF)

2020 gain of 12'679.69

→ assets not spent due to the pandemic

Dr. Dirk Hegemann



Revisorenbericht zur Jahresrechnung 2020

Rapport des réviseurs – Auditor's report

Die Jahresrechnung 2020 der SPG wurde von den unterzeichneten Revisoren geprüft und mit den Belegen in Übereinstimmung befunden.

Die Revisoren empfehlen der Generalversammlung der SPG, die Jahresrechnung zu genehmigen und den Kassier mit bestem Dank für die gute Rechnungsführung zu entlasten.

Die Revisoren der SPG:

Prof. Dr. Philipp Aebi

Dr. Pierangelo Gröning

Dübendorf, 05.04.2021

(The financial statement 2020 was proved and agreed by the auditors who recommend to discharge the treasurer.)

Dr. Dirk Hegemann



Auditors for 2021

Prof. Philipp Aebi retired from Uni Fribourg and therefore this, after more than 20 years of service, was the final audit with Philipp.

Thank you Philipp for your long-lasting commitment and service to the Society !

Prof. Claude Monney, successor of Philipp as new professor in condensed matter physics at Uni Fribourg, accepted to be also 'his successor' in SPS and be available as auditor for the upcoming financial reports.



Prof. em. Philipp Aebi
Uni Fribourg

Dr. Pierangelo Gröning (Empa) is auditing SPS financial reports since many years and agreed to continue.



Prof. Claude Monney
Uni Fribourg



Dr. Pierangelo Gröning
Empa



ELECTIONS



SPS Board Members

3. Vorstand

Art. 6

Der Vorstand besteht aus einem Präsidenten, einem Vizepräsidenten, einem Sekretär, einem Kassier, den Vertretern der Fachgruppen sowie den Kommissionspräsidenten. Der Vorstand führt das administrative Sekretariat. Der Sekretär kann zugleich das Amt des Kassiers einnehmen.

Die Mitglieder des Vorstandes werden von der Generalversammlung für die Dauer von zwei Jahren gewählt. Die einmalige Wiederwahl des Präsidenten für die Dauer von 2 Jahren ist möglich. Die übrigen Vorstandsmitglieder können höchstens zweimal für jeweils weitere 2 Jahre wiedergewählt werden.

Art. 7

Der Vorstand kann in Sachfragen externe Delegierte beziehen.

3. Le comité

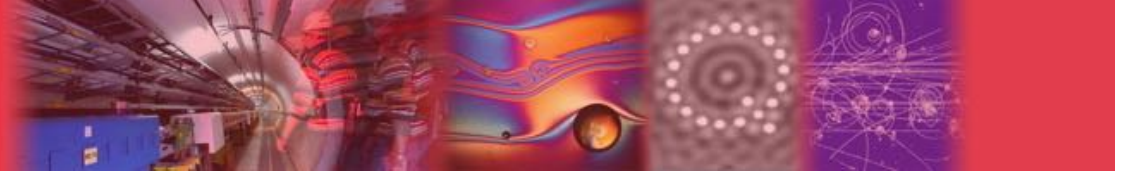
Art. 6

Le comité se compose d'un président, d'un vice-président, d'un secrétaire, d'un trésorier, des représentants des groupements spécialisés et des présidents des commissions. Le comité s'occupe du secrétariat administratif. Le secrétaire peut également remplir la fonction de trésorier.

Les membres du comité sont élus par l'assemblée générale pour une durée de deux ans. Le président est rééligible seulement une fois pour deux années de plus. Les autres membres du comité peuvent se faire réélire au plus deux fois pour deux ans chaque fois.

Art. 7

Le comité peut, pour des questions particulières, mandater des personnes extérieures.



SPS Board — 2020



Präsident
Prof. Dr. Hans Peter Beck

Vize-Präsident
Prof. Dr. Johan Chang

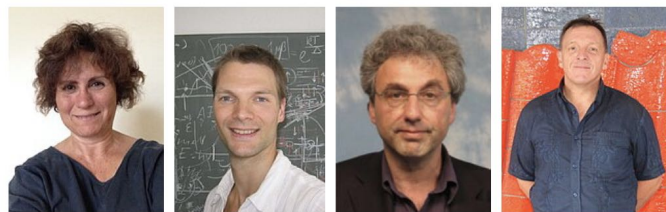
Sekretär
Prof. Dr. Lukas Gallmann

Kassier
Dr. Dirk Hegemann

Thanks to an excellent team !

Without, it would not be possible for SPS to execute its mission and service to physics in Switzerland and also abroad !

Vorsitzende der Sektionen



Kondensierte Materie
Dr. Maria Luisa Medarde Barragan

Kondensierte Materie
Prof. Henrik Rønnow

Angewandte Physik
Prof. Leonid Rivkin

Angewandte Physik
Dr. Laurie Porte

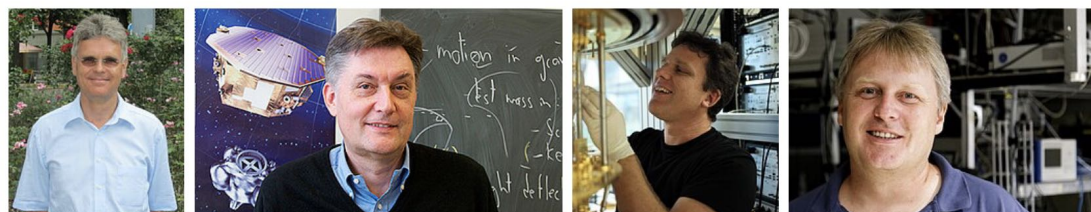


Atomphysik und Quantenoptik
Prof. Philipp Treutlein

Atomphysik und Quantenoptik
Prof. Guillermo Pedro Acuna

Physikusbildung und -förderung
Prof. Andreas Müller

Physikusbildung und -förderung
Dr. Gernot Scheerer



Kern-, Teilchen- und Astrophysik
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Dr. Andreas Fuhrer

Physik in der Industrie
Dr. Thilo Stöferle

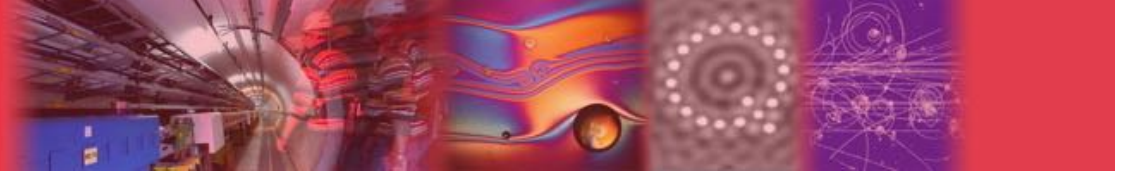


Geschichte und Philosophie der Physik
Prof. Claus Beisbart

Physik der Erde, Atmosphäre und Umwelt
 Vakant

Biophysik, Weiche Materie und Medizinische Physik
Prof. Christof Aegerter

Biophysik, Weiche Materie und Medizinische Physik
Dr. Christof Fattinger



SPS Board — end of term

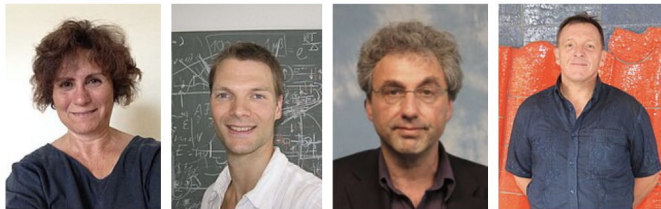
Some members of the board have reached the end of their respective term and **are available for one more term.**

Thank you **Andreas** and **Thilo** for all your work done and also for being available for another term.



Präsident
Prof. Dr. Hans Peter Beck
Vize-Präsident
Prof. Dr. Johan Chang
Sekretär
Prof. Dr. Lukas Gallmann
Kassier
Dr. Dirk Hegemann

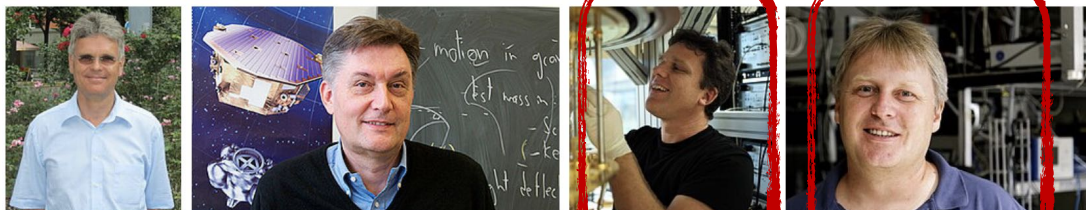
Vorsitzende der Sektionen



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Kondensierte Materie
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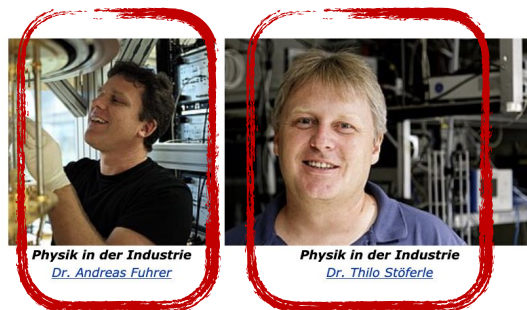
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Physik in der Industrie
Dr. Andreas Fuhrer
Physik in der Industrie
Dr. Thilo Stöferle

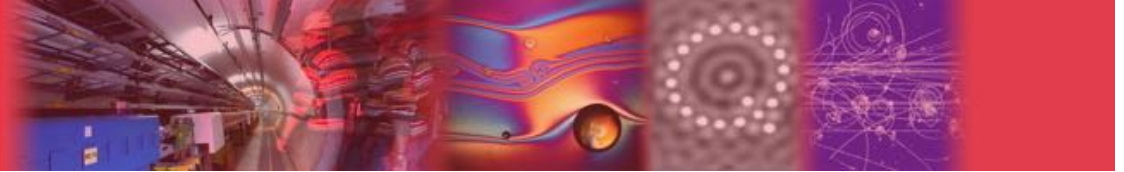


Re-election GA 2021 – GA 2023



Physik in der Industrie
[Dr. Andreas Fuhrer](#)

Physik in der Industrie
[Dr. Thilo Stöferle](#)



SPS Board — end of term

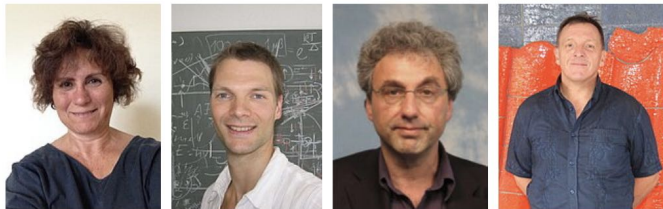


Präsident
 Prof. Dr. Hans Peter Beck
Vize-Präsident
 Prof. Dr. Johan Chang
Sekretär
 Prof. Dr. Lukas Gallmann
Kassier
 Dr. Dirk Hegemann

Some members of the board have reached the end of their respective final term and, according to our statutes, **cannot be re-elected.**

Thank you **Philipp** for all your work done for **APQO** and the **Society !!**

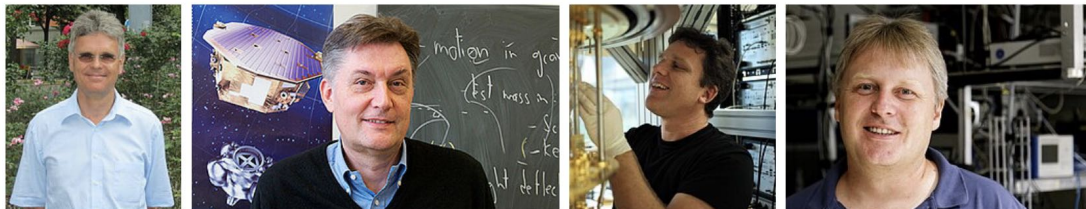
Vorsitzende der Sektionen



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 Dr. Maria Luisa Medarde Barragan
Kondensierte Materie
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SPS Board — mutations

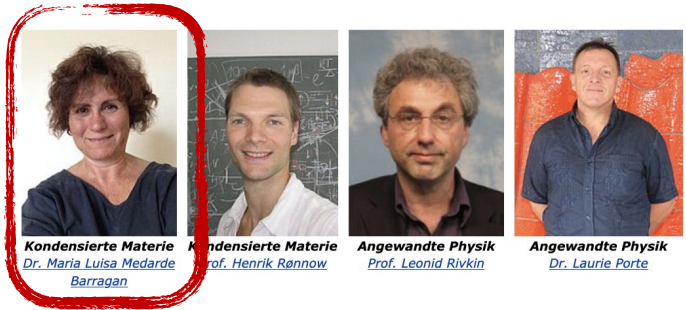


Präsident Prof. Dr. Hans Peter Beck
Vize-Präsident Prof. Dr. Johan Chang
Sekretär Prof. Dr. Lukas Gallmann
Kassier Dr. Dirk Hegemann

Marisa was elected at the general assembly 2020, as new head of **KOND** as co-chair together with **Henrik**.

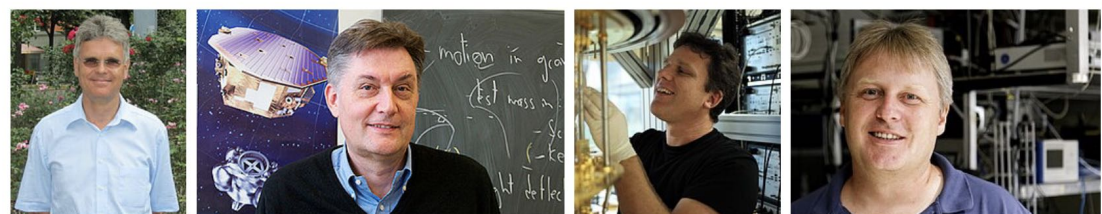
Marisa, however, informed that she wishes to step down from this task for health reasons, and wishes to be replaced.

Vorsitzende der Sektionen



Kondensierte Materie Dr. Maria Luisa Medarde Barragan
Kondensierte Materie Prof. Henrik Rønnow
Angewandte Physik Prof. Leonid Rivkin
Angewandte Physik Dr. Laurie Porte

Thank you **Marisa** for your short time in the Board, and wishing you in the name of the entire Swiss Physical Society all the best for good recovery.



Kern-, Teilchen- und Astrophysik Dr. Andreas Schopper
Theoretische Physik Prof. Philippe Jetzer
Physik in der Industrie Dr. Andreas Fuhrer
Physik in der Industrie Dr. Thilo Stöferle



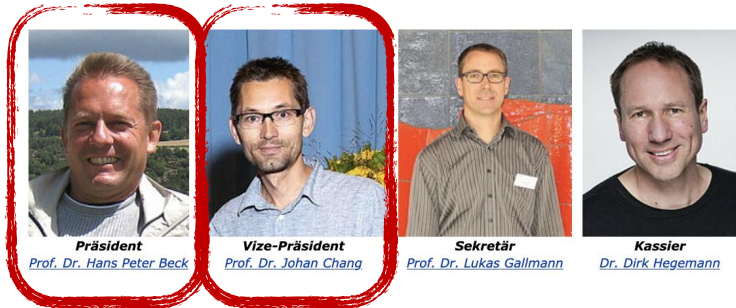
Atomphysik und Quantenoptik Prof. Philipp Tretlein
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Biophysik, Weiche Materie und Medizinische Physik Dr. Christof Fattinger



SPS Presidency — end of term



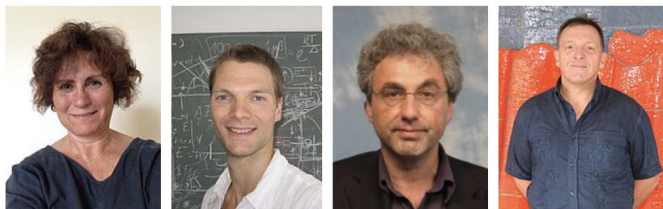
Präsident
 Prof. Dr. Hans Peter Beck

Vize-Präsident
 Prof. Dr. Johan Chang

Sekretär
 Prof. Dr. Lukas Gallmann

Kassier
 Dr. Dirk Hegemann

Vorsitzende der Sektionen

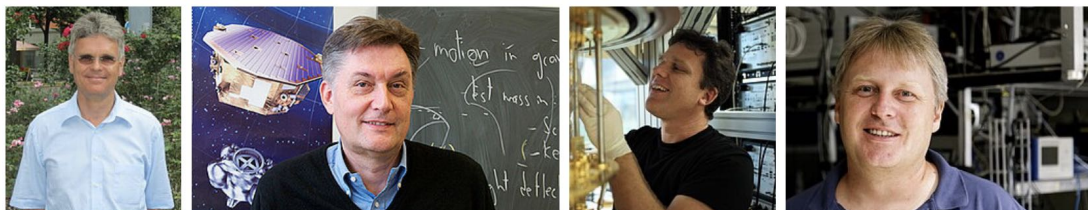


Kondensierte Materie
 Dr. Maria Luisa Medarde Barragan

Kondensierte Materie
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Angewandte Physik
 Prof. Leonid Rivkin

Angewandte Physik
 Dr. Laurie Porte



Kern-, Teilchen- und Astrophysik
 Dr. Andreas Schopper

Theoretische Physik
 Prof. Philippe Jetzer

Physik in der Industrie
 Dr. Andreas Fuhrer

Physik in der Industrie
 Dr. Thilo Stöferle

The **president** has reached the end of his 2nd mandate and, according to our statutes, **cannot be re-elected**.

Johan has been elected **vice-president** in the general assembly 2020 and is standing to be elected as new president.

Hans Peter is standing for election as **vice-president** for a one-year term.



Atomphysik und Quantenoptik
 Prof. Philipp Treutlein

Atomphysik und Quantenoptik
 Prof. Guillermo Pedro Acuna

Physikausbildung und -förderung
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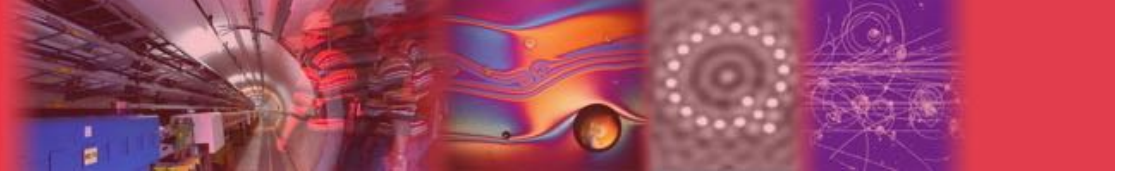


SPS Presidency – Elections



Prof. Johan Chang, condensed matter physicist, Uni Zürich
President (GA 2021 – GA 2023)

Prof. Hans Peter Beck, particle physicists, Uni Bern, titular prof. at Uni
Fribourg, and at CERN
Vice president (GA 2021 – GA 2022)



NEW MEMBERS TO THE BOARD

Need to be elected by the General Assembly



Condensed Matter

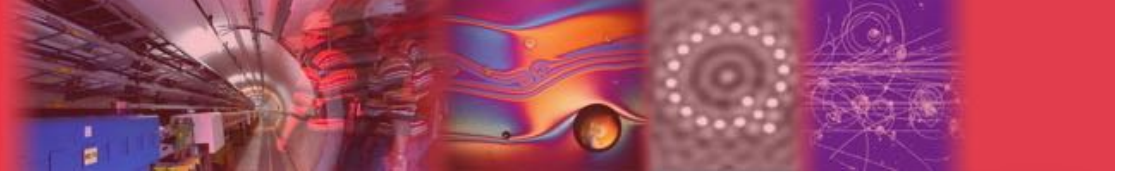
Co-Chair together with Henrik Rønnow (succeeding Marisa Medarde)

Prof. Ilaria Zardo

Head of the nanophononics group at University of Basel

CV: Ilaria Zardo received her diploma in Physics from the Università degli Studi di Roma "Sapienza" in 2007. In 2010, she received her Ph.D. in Physics from the Technische Universität München and Università di Roma "Sapienza" with summa cum laude. From 2010 to 2011, she was a postdoc in the group of Gerhard Abstreiter at Technische Universität München and from 2012 to 2015 in the group of Erik Bakkers at the Technical University of Eindhoven. In 2014, she successfully applied with the project "NEW: Nanostructures for Energetic Wisdom" for the Innovational Research Incentives Scheme Veni, which is a prestigious Talent Scheme of the Netherlands Organisation for Scientific Research (NWO), meant for talented, creative researchers who are starting their own line of research. She received in 2015 the Hertha-Sponer Prize, awarded to a female scientist for outstanding scientific work in the field of physics. She was appointed as a tenure track assistant professor at the Department of Physics at the University of Basel in 2015 and became a tenured Associate Professor in 2020. In 2017, she has received the prestigious Starting Grant of the European Research Council (ERC).





Atomic Physics and Quantum Optics

Co-Chair together with Guillermo Acuna (succeeding Philipp Treutlein)

Prof. Dr. Jean-Philippe Brantut

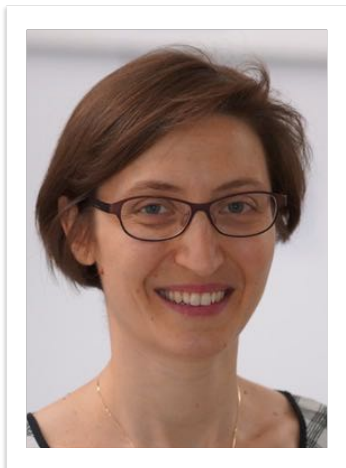
Head of the laboratory for quantum gases at EPFL

CV: Jean-Philippe Brantut is assistant professor of Physics at EPFL. He did his PhD at the Institut d'Optique in Palaiseau, under the direction of Philippe Bouyer, in the group of Alain Aspect. He then worked at ETH Zürich first as Post-doc from 2010 to 2013, then as Ambizione fellow in the group of Tilman Esslinger, before moving to EPFL in September 2016 as the Fondation Sandoz chair in physics of quantum gases. His research is focused quantum gases, in particular the integration of interacting, ultra-cold atoms in mesoscopic or quantum-optical devices and structures. At EPFL, his group uses cavity quantum-electrodynamics techniques to explore the physics of strongly correlated matter.

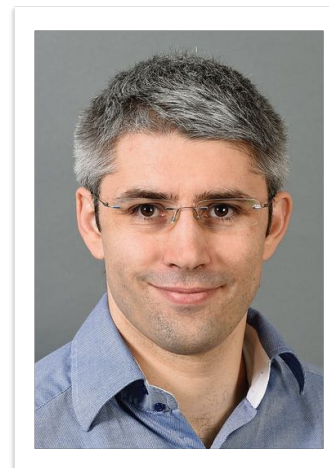




Election



Ilaria Zardo
(KOND)



Jean-Philippe Brantut
(APQO)



Physics of the Earth, Atmosphere, and Environment

Intense efforts and contacting ~20 potential candidates, this section is difficult to fill.

Experts in the field at ETHZ, EPFL, University of Bern,... have been contacted, but are reluctant to commit themselves.

The main reason is that these people are engaging already in many associations, expert bodies, discussion groups, other more interdisciplinary learned societies, e.g. **ProClim**, etc. It's, as you can imagine, a hot field facing many ideologically driven discourses.

As **physics is at the fundamental base of all science**, it has a special role in bringing a profound understanding of thermal radiation, heat and energy balance into the discussions, which includes state of the art and also new measurement concepts.

I.e. the physics of the Earth, Atmosphere, and Environment must make very clear the physics of the climate change.



Physics of the Earth, Atmosphere, and Environment

- Despite the difficulties met in filling this position, the SPS Board feels that in times of climate change becoming more and more manifest, the physics of the Earth, Atmosphere, and Environment cannot be left out.
- The new president will take it on his mandate in finding a good candidate to head this section, keeping up the awareness of the underlying physics that drives and manifests when deep understanding of complex processes is sought.
- The vacancy will stay open and potential candidates are proposed to be nominated, where we specifically also want to motivate self-nominations.
- A new decision and/or election will be made in the next general assembly 2022.



DELEGATES



Statuten der SPG

Statuts de la SSP

4. Beziehungen zu anderen wissenschaftlichen Gesellschaften und internationalen Organisationen

Art. 11

Die SPG ist eine Mitgliedorganisation der „Akademie der Naturwissenschaften Schweiz“ (SCNAT) und anerkennt deren Statuten als für sich verbindlich.

Art. 12

Der Vorstand der SPG ernennt ihren Abgeordneten und dessen Stellvertreter in die Delegiertenversammlung der SCNAT.

Art. 13

Die SPG ist eine Mitgliedsgesellschaft der „Schweizerischen Akademie der Technischen Wissenschaften“ (SATW) und anerkennt deren Statuten als für sich verbindlich. Die SPG wird durch einen Abgeordneten in der Mitgliederversammlung der SATW vertreten.

Art. 14

Die SPG ist „Ordinary Member“ der „European Physical Society“ (EPS).

Art. 15

Der Vorstand der SPG nimmt den Auftrag als Nationales Komitee der „International Union of Pure and Applied Physics“ (IUPAP) ein. Der Präsident der SPG ernennt einen oder gegebenenfalls mehrere Abgeordnete, welche die Verbindung mit der IUPAP unterhalten. Sind die Abgeordneten nicht Mitglied des Vorstandes der SPG, werden sie dennoch eingeladen, an dessen Sitzungen teilzunehmen.

Art. 16

In Zusammenarbeit mit dem „Institut Henri Poincaré“ (IHP) wird eine Zeitschrift mit dem Titel „Annales Henri Poincaré“ (AHP) herausgegeben. Sie dient der Veröffentlichung von Arbeiten der mathematischen und theoretischen Physik. Die Beteiligung basiert auf der „Helvetica Physica Acta“, welche der SPG gehörte.

Art. 17

Die Zusammenarbeit zwischen der SPG und dem IHP bezüglich der AHP ist in den „Statutes of AHP“, welche auf Anfrage hin eingesehen werden können, geregelt. Ein separates „Journal Publishing Agreement“ regelt die Zusammenarbeit mit einem Verlag.

Art. 18

Der Vorstand der SPG ernennt einen AHP Delegierten, welcher die Rolle der SPG im Aufsichtsorgan zwischen SPG, IHP und dem Verlag vertritt.

4. Les relations avec d'autres sociétés scientifiques et des organisations internationales

Art. 11

La SSP est affiliée à l' «Académie suisse des Sciences Naturelles» (SCNAT) et adhère à ses statuts.

Art. 12

Le comité de la SSP désigne un délégué et un suppléant à l'assemblée des délégués de la SCNAT.

Art. 13

La SSP est affiliée à l' «Académie Suisse des Sciences Techniques» (SATW), et adhère à ses statuts. La SSP est représentée par un délégué lors de l'assemblée de la SATW.

Art. 14

La SSP est „Ordinary Member“ de la „European Physical Society“ (EPS).

Art. 15

Le comité de la SSP prend le rôle du comité national de l' „International Union of Pure and Applied Physics“ (IUPAP). Le président de la SSP nomme un ou plusieurs délégués qui restent en relation avec l'IUPAP. Si les délégués ne sont pas membres du comité de la SSP, ils seront également invités aux séances.

Art. 16

Un journal, portant le titre „Annales Henri Poincaré“ (AHP), est publié en collaboration avec l'Institut Henri Poincaré (IHP). Ce journal permet la publication de travaux dans les domaines de la physique mathématique et théorique. La participation de la SSP est basée sur „Helvetica Physica Acta“, journal qui appartenait à la SSP.

Art. 17

La collaboration entre la SSP et l'IHP concernant AHP est réglée par les statuts des AHP, qui peuvent être consultés sur demande. Un „Journal Publishing Agreement“ séparé régit la collaboration avec la maison d'édition des AHP.

Art. 18

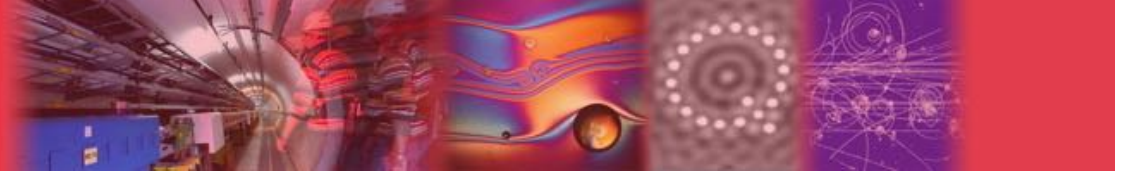
Le comité de la SSP nomme un délégué AHP qui représente la SSP dans les différents organes du journal et de la maison d'édition.

Delegierte		
G. M. Graf (AHP)	X (4)	
T. Jung (AHP)	X (4)	
H. P. Beck (IUPAP)	X (3, 4)	
H. P. Beck (EPS)	X (1, 4)	
K. Hencken (SATW)	X (2)	
C. Rossel (SCNAT)	X (4)	
M. Calame (EPJ)	X (5)	

- (1): Traditionsgemäß ist der Präsident gleichzeitig EPS-Delegierter, keine Regel in den Statuten.
- (2): Es gibt keine Regel in den Statuten betreffend "Wahl" oder "Ernennung" des SATW-Delegierten.
- (3): Traditionsgemäß ist der Alt-Präsident gleichzeitig IUPAP-Delegierter. (Statuten: "Der Präsident ernennt...".)
- (4): Keine Wahl an der GV nötig (Statuten: "Der Vorstand ernennt...".)
- (5): Keine Wahl an der GV nötig (keine Erwähnung in den Statuten)



VARIA



SPS — Prize committee

	SPS Prize committee			
Chair	Prof. Thomas Jung	PSI	thomas.jung@psi.ch	Micro- and Nanotechnology
	Prof. Katrin Altwegg	U Bern	altwegg@space.unibe.ch	Planetary Science
nur 2021	Dr. Thomas Christen	Hitachi ABB Power Grids	thomas.christen1@hitachi-powergrids.com	Theory and engineering of power electronics
	Dr. Eduardo Cuervo Reyes	ABB	eduardo.cuervoreyes@ch.abb.com	Modeling of Li-ion battery ageing
	Dr. Sven Friedel	Comsol	Sven.Friedel@comsol.com	Computational Physics
	Prof. Dr. Aude Gehrmann-De Ridder	ETHZ	gehra@itp.phys.ethz.ch	Theory - particles
	Dr. Hugo Lehmann	METAS	hugo.Lehmann@metas.ch	Metrology
	Prof. Claude Monney	U Fribourg	claudio.monney@unifr.ch	Solid state - strongly correlated materials
	Dr. Fabrizio Nichele	IBM	fni@zurich.ibm.com	Topological excitations in superconductor/semiconductor devices
	Dr. Helmut Rudigier	Oerlikon - Executive Committee	helmut.rudigier@oerlikon.com	Solid state
	Prof. Adrian Signer	PSI	adrian.signer@psi.ch	Theory

+ one member from the Board as link person → vice president



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Group B: Institutes, Universities	1500.- *
Group C: Students Associations	0.- *

* = minimum amount, donations are appreciated

Lifetime membership (once): 1600.-

Special fees:

PhD Students	
1 st year of membership:	free
2 nd and 3 rd year of membership:	40.-
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IDP Sciences, Uni Fribourg



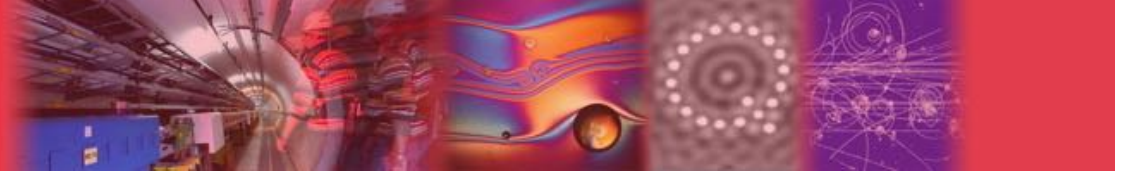
Contact

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SPS — Mission

- The Swiss Physical Society is a ‘learned society’ with the goals and interests to
 - Link and interlink physicists in Switzerland and beyond
 - physicists are
 - professionals, teachers, undergrad and grad students, postdocs who are directly active in physics
 - ▷ academia, research institutes, industry, schools
 - or who are simply interested in physics
 - ▷ curiosity driven and all ages
 - Be a voice and a contact for physicists in Switzerland and beyond



END OF THE GENERAL ASSEMBLY

Thank you !!



Instructions using zoom

□ **Raising hand**

- You need to raise your hand for speaking
- Click on 'Participants' in your zoom window
- A pop-up window opens, where you can see all participants
- At the bottom of this participants window, you can click on the 'raise hand' icon
- The chairperson will unmute your microphone and you will be able to speak

□ **Chat window**

- You can always write to everybody in the chat window
- Click on 'Chat' in your zoom window
- A pop-up window opens, where you can see the messages that were exchanged in the chat (if any)
- Type your text

□ **Polling**

- All polling will go electronically
- The chairperson will launch the poll on a specific topic upon which a pop-up window appears
- Click on one of the answers given in this pop-up window
- The chairperson will see immediately the total counts for each option given and will report



President

succeeding Hans Peter Beck

Prof. Dr. Johan Chang

Head of Laboratory for Quantum Matter Research at Uni Zürich

CV: I am working in the field of experimental condensed matter physics and since 2015 professor at the university of Zurich. Originally from Denmark, I did my PhD (2005-2008) at the Paul Scherrer Institute under supervision of Joel Mesot. My postdoc period gave me the opportunity to work with Prof. Louis Taillefer (Sherbrooke - Canada) and Prof. Henrik Rønnow (EPFL). My current group consists of about 12 people (postdocs, PhD student, and technicians) working on strongly correlated electron physics and superconductivity.

