

Dear Reader,

You scientists shape this newsletter.

This newsletter is intended for all SPS members, researchers, industries, students, interested specialists and physics friends. Feel free to share this Newsletter within your community. If you would like to share some news with us, please contact [Celine.Lichtensteiger@UniGe.ch](mailto:Celine.Lichtensteiger@UniGe.ch).

## WHAT'S UP IN SWITZERLAND?

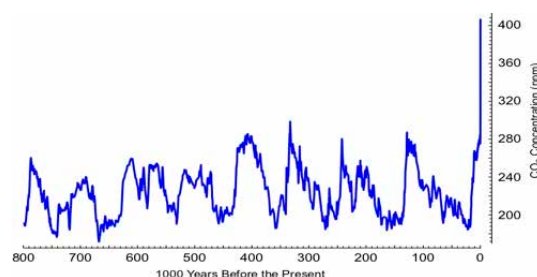
### SPS-Communications

The print-version of Nr. 58 of the SPS-Communications was recently delivered to all SPS-members, including many exciting articles about actual and former activities of our members. The whole paper can be downloaded from the SPS-webpage. [\[more\]](#)



### DPG renews warning of serious consequences of man-made climate change

More than four decades ago, the German Physical Society warned of the dangers of man-made climate change. Coinciding with the Bonn Climate Change Conference in **June 2019**, the DPG now renews its appeal to do everything in its power to reduce the resulting additional greenhouse effect to a tolerable level. This is inline with statements made by SPS '*Global Warming and the Role of Science*'. Indeed, the scientific facts are known since long and prompt action to drastically curb the burning of fossil fuel is required in every country. [\[more: DPG website; SPS-Communcations#56 \(Editorial p.3\)\]](#)



*Picture: Atmospheric CO<sub>2</sub> concentrations of the last 800,000 years re-constructed from measurements of air enclosed in ice cores from Antarctica. Data are from the University of Bern, University of Grenoble and NOAA (Lüthi et al., 2008, Nature 453, 379).*

### Kosmos in der Kammer

#### **An Exhibition of the Central Library Zurich - 23 August-07 December 2019**

There was a large need around 1500 for understanding the world after the new geographical discoveries. Many national governments created so called 'Kunstammern' where cosmographic objects as well as printed texts, images and maps were collected. Among them were globes and



astronomical clocks illustrating the new and revolutionary heliocentric view of the world. The exhibition also pays tribute to Swiss scientists of the 16th century as [Jost Bürgi](#),

Abraham Gessner, [Joachim Vadian](#) and also to the Reformer [Heinrich Bullinger](#) and many more. Their cosmographic work is worth to be reconsidered. [\[more\]](#)

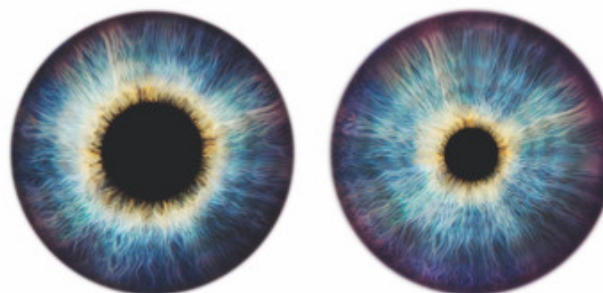
Picture: *Johann Meyer: Astronomia – Die Gestirn Kunst. Neujahrsblatt der Stadtbibliothek Zürich 1707, Radierung, 16.7 x 25.4 cm, auf Blatt 23.5 x 26.7 cm, Zentralbibliothek Zürich, Graphische Sammlung, Signatur AZZ 17 : 66*

## Scientifica 2019: Science Fiction – Science Facts

**Zürcher Wissenschaftstage - 30 August - 1 September 2019, Universität Zürich and ETH Zürich**

Some research questions or research findings still sound like science fiction today, but will soon be commonplace in the future. Scientifica 2019 will focus on such projects, and will also show how in the age of "fake news" and "alternative facts", facts and fictions can be distinguished.

[\[more\]](#)



Picture: Universität Zürich / ETH Zürich

## Quantum Computing and the Fundamental Limits of Computation

**Paul Bernays Lectures 2-3 September 2019, ETH Zurich**

The Paul Bernays Lectures are an annual honorary lecture series about the philosophy of the exact sciences. This lecture series is established in honour of the eminent logician, mathematician and philosopher of logic and mathematics [Paul Bernays](#) who was engaged in teaching and research at the ETH from **1933 to 1959**.



This year's lectures will be held by Prof. [Scott Aaronson](#), University of Texas at Austin (USA), on "*The Church-Turing Thesis and Physics*", "*The Limits of Efficient Computation*", and "*The Quest for Quantum Computational Supremacy*". All lectures are self-contained, with the first lecture aimed at a general audience and the two others addressing the scientific community. [\[more\]](#)

## Roadshow ETH

**InnoSuisse - Swiss Innovation Agency**

Are you keen to implement an innovation project or launch your company and looking for support? InnoSuisse can help you. To showcase its latest offers, the Swiss Innovation Agency will be at the ETH Zurich on **4 September 2019** for a roadshow.



One of the discussion topics will be support for innovation projects carried out jointly by research partners and SMEs. The programme will also include an overview of the funding opportunities for start-ups. The event will finish with a standing lunch, giving interested parties the chance to put their questions to InnoSuisse managers in a convivial setting. [\[more\]](#)

## CERN Open Days

**CERN invites the public to explore the future -14-15 September 2019, Geneva**

On **14 and 15 September 2019**, CERN will open its scientific facilities to the public from 9 a.m. to 6 p.m. Under the banner "*Explore the future with us*", everyone is invited to come along to the Open Days to live the



CERN experience and meet the men and women working on the technologies and discoveries of today and tomorrow. The list of activities is available on the [Open Days website](#).



## EPS Hands-on Event for Science, Technology and Interfaces

**4-6 October 2019 at CERN's Idea Square**

Physics and engineering students need various skills, which - classically - are difficult to obtain during studies. Experiments necessitate many hard skills, such as physical understanding of the process, but also a bundle of other skills like know-how in instrumentation, hardware and software and strong team-work capabilities. In a physics laboratory an ever-changing neuralgic problem is interfacing of the experiment with the human who analyses, interprets and exploits the data.



At the 1st EPS Technology and Innovation Group (TIG) Event for Science, Technology and Interfaces, young physicists and engineers are invited to learn new hands-on skills in hardware, software and related interfaces at CERN's Idea Square.

Limited participation. Apply before **4 September 2019**. [\[more\]](#)

## WHAT'S UP IN EUROPE?

### Towards an update of the European Particle Physics Strategy

The European Strategy for Particle Physics is the cornerstone of Europe's decision-making process for the long-term future of the field. Mandated by the CERN Council, an update of the Strategy is currently under way. A major step in this process was the Open Symposium, attended by some 600 physicists, held in Granada, Spain from **13-16 May 2019**. Although the LHC will collide protons and ions up to the late **2030s**, it is already now essential to look beyond. A major contender is the Future Circular Collider (FCC-hh), built from 16 T magnets, in the same 100 km tunnel attached to the present CERN complex as the FCC-ee. After the FCC-ee, this could provide exploratory p-p collisions at 100 TeV collision energy, a comprehensive programme, spreading the cost and operation over decades. Muon colliders or plasma-wakefield accelerators may eventually take us further. [\[more: EPS website; CERN website\]](#)



### Public online consultation on the strategic direction of *Horizon Europe*

On **27 June 2019** the European Commission has opened a public online consultation on the future orientations of *Horizon Europe*, the next Framework Programme for Research and Innovation. The responses to the consultation will feed into Horizon Europe' Strategic Plan, which the European Commission wants to further co-design with stakeholders and citizens at the R&I days in Brussels on **24-26 September 2019**. The deadline for responding to the online consultation is **8 September 2019**.



For the Swiss research community, it is important that as many individuals as possible respond to the online consultation. Input from the research world on the Strategic Plan is key to steer *Horizon Europe* in the direction that is most interesting and relevant for researchers and society in general. Link to the online consultation: [here](#). More information on the R&I days, including the possibility to sign up for the waiting list: [here](#).

## 9th Call for the 2020 European Young Researchers' Award is now open

### *EuroScience - Your Voice on Research in Europe*

The European Young Researchers' Award (EYRA), granted by EuroScience since 2010, aims to inspire early stage researchers in all research areas to incorporate a European dimension and perspective into their research. Two awards are granted every two years to: a) a PhD candidate and b) a postdoctoral fellow. The prize-giving ceremony for the two awards is held at the biennial EuroScience flagship event, [EuroScience Open Forum \(ESOF\)](#). The Award consists of a certificate, waiving the participation fee to ESOF, a grant to cover travel and accommodation for the stay in the ESOF city and one year free [EuroScience membership](#). The next EuroScience Open Forum will be held in Trieste, Italy from **5 to 9 July 2020**. [\[more\]](#)



## WHAT'S UP IN THE WORLD?

### International Physics Olympiads

#### *Swiss students win bronze medals and honorary mention*

The International Physics Olympiads were held from **7 to 15 July 2019** in Tel Aviv. Five Swiss high school students were participating: [Cédric Solenthaler](#) (Burggraben Cantonal School - SG); [Fabian Graf](#) (St. Antonius Gymnasium - AI); [Hiro Farré](#) (The Rosey Institute in Rolle - VD); [Jonas Hofmann](#) (Cantonal School of Uster - ZH); [Nicolas Schmid](#) (Cantonal High School Porrentruy - JU). Cédric Solenthaler and Hiro Farré won the bronze and Jonas Hofmann received an honorary mention. [\[more\]](#)



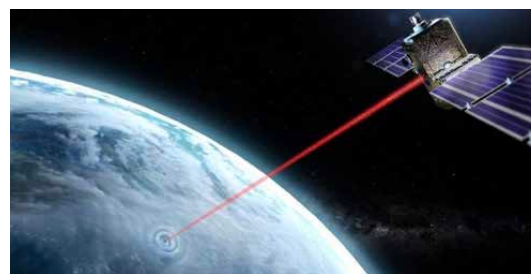
Picture: Hiro Farré, Jonas Hofmann, Nicolas Schmid, Fabian Graf, Cédric Solenthaler.  
Credit: Thank Phong Lê, Olympiades Suisse de Physique

## JOB FOR PHYSICISTS

### Quantum sensing based on non-classical properties of light

#### *PhD student position - University of Geneva*

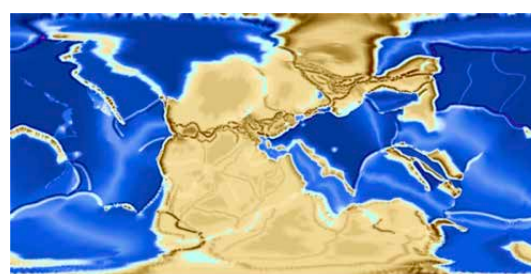
The Department of Applied Physics of the University of Geneva opens a PhD student position. The successful candidate will investigate quantum sensing based on non-classical properties of light such as entangled photon pairs, to overcome classical detection limits. The project requires a broad intellectual curiosity, a solid background in physics and/or chemical physics, as well as experimental skills. [\[more\]](#)



### Paleoclimate reconstruction

#### *PhD position available at the University of Geneva*

The successful candidate will set-up and improve the MITgcm climate model and evaluate its ability to simulate the Triassic-Permian climate change. The project requires candidates with an aptitude for quickly learning new skills, interest in interdisciplinarity, and experience in numerical computing and in ocean, atmosphere or climate models. Please send a CV, 3 referees, and a statement about motivation and career planning in one pdf file to [Dr. Maura Brunetti](#). [\[more\]](#)



---

The Swiss Physical Society (SPS) unites persons interested in physics from university, schools, research, development and industry. The SPS promotes the scientific exchange of ideas in Switzerland and with its international environment.

[Unsubscribe](#) | [Manage profile](#) | [About](#)

[Subscribe as new user](#)

---

© Swiss Physical Society, Klingelbergstr. 82, CH-4056 Basel, [info@sps.ch](mailto:info@sps.ch), [www.sps.ch](http://www.sps.ch)