

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?

### Christian Rüegg, former SPS board member, appointed new head of PSI

On **27 November 2019**, at the recommendation of the ETH Board, the Federal Council has appointed the former SPS board member Christian Rüegg as the new director of the Paul Scherrer Institute PSI. The 43-year-old will take over from Thierry Strässle, who has headed the institute *ad interim* basis since the beginning of the year. Until the end of **2018** the PSI was headed by Joël Mesot, who was subsequently appointed president of the ETH Zurich. Christian Rüegg is currently head of the Neutrons and Muons Division at the PSI. He will take up his new position on **1 April 2020**. Read more on the Paul Scherrer Institut website [\[here\]](#) or in the Federal Council announcement [\[here\]](#).



The Swiss Physical Society congratulates Christian Rüegg for his new appointment as PSI director and wishes him all the best and good handle in this important task.

*Picture: Christian Rüegg (Photo: Scanderbeg Sauer Photography)*

### Geneva honours its Nobel Prize winners

*Victoria Hall, Geneva - 14 December 2019, 18h*

On the occasion of the **2019** Nobel Prize in Physics Professors Michel Mayor and Didier Queloz, the State Council of the Republic and Canton of Geneva, the Council of the City of Geneva and the University of Geneva are pleased to invite you to the first joint public conference by the two winners. During this event, Mrs Sandrine Salerno, mayor of Geneva, will present the two laureates and the University with the "*Genève reconnaissante*" medal. [\[More\]](#)



### CHEOPS Launch Event

*With livestream and space talks - University of Bern and University of Geneva - 17 December 2019, 9:15*

The Swiss space telescope CHEOPS will begin its journey into space on Tuesday, **17 December 2019** on board a Soyuz rocket from the European Space Agency (ESA) in



Kourou, French Guiana. CHEOPS is a joint mission of ESA and Switzerland, led by the University of Bern, in collaboration with the University of Geneva. More about the event and registration at the University of Bern [here](#), or at the University of Geneva [here](#). Read the Nature News [here](#).



Image: ESA-Manuel Pedoussaut, 2016

## Leonardo en perspective

University of Geneva - 18 December 2019 - 20 February 2020

Considered a universal spirit, Leonardo da Vinci is best known for his painting, his engineering ideas and his interest in the natural sciences. But many other areas have aroused the insatiable curiosity of this genius. On the occasion of the 500th anniversary of Leonardo da Vinci's death, the exhibition of the University of Geneva presents lesser known aspects of his work, such as his contributions to Earth sciences, music and mathematics. [\[More\]](#)

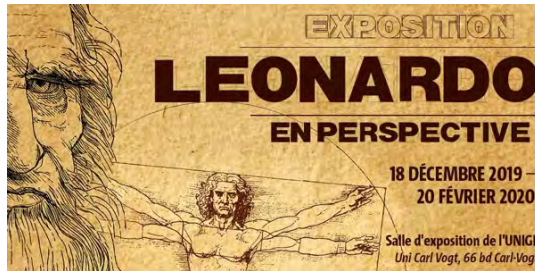


Image: UNIGE

## A balloon flight to commemorate the Albert Gockel's flight of 1909

International hot air balloon festival - Chateau d'Oex - 25 January to 2 February 2020

The Swiss hot air balloon capital, Château-d'Oex in the Vaudois Alps plays host to hundreds of hot air balloons every year in **January** since **1979**.



On **25 January 2020**, a balloon flight is planned to co-memorize Albert Gockel's flight of **1909**, where he measured the ionisation of air up to 4500 m altitude. Even though Albert Gockel did not speak of cosmic rays at the time, and expressed some doubts about the reliability of his instruments, he can still be counted among the discoverers of cosmic rays. [\[More\]](#)

The Château-d'Oex hot air balloon museum is featuring a special exhibition (open until **end of March 2021**), where selected works by physicist and artist Dr. Michael Hoch are shown together with a historical overview of the discovery of cosmic rays, leading up to the foundations of particle physics and modern particle physics experiments - initiated by SPS president Hans Peter Beck. [\[More\]](#)

## Saturday morning physics

Live experiments, hands-on and exciting topics from physics - University of Basel

The "Saturday Morning Physics" are an exciting series of events for physics enthusiasts and accessible for young people from 14 years or more. On two Saturdays, two researchers will present two current topics in physics: "Gravitationswellen aus dem frühen Universum" by Prof. Dr. Stefan Antusch from the University of Basel on **25 January 2020**, and "Wie passt der Energieerhaltungssatz in der Physik zum Energieverbrauch im Alltag?" by Dr. Claus Schmidt, CEO IWB - Industrielle Werke Basel on **1 February 2020**. [\[More\]](#)



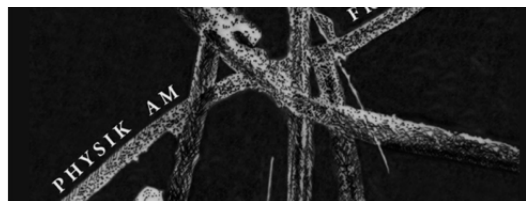
## Physik am Freitag

More events for physics enthusiast - University of Bern

"Physik am Freitag" is another exciting series of events for physics enthusiast and



accessible for young people from 14 years or more at the University of Bern. On five Friday afternoon, researchers from the University of Bern are presenting current topics in physics, covering the Nobel Prize 2019, space and planetary research, environmental physics, and the role of precision. [\[More\]](#)



## Basel Quantum Metrology and Sensing Conference

*University of Basel - 12-14 February 2020*

This conference will highlight the state of the art and most recent advances in quantum sensing and quantum metrology with atomic and solid-state spin systems. It will gather key global players in these fields and focus on both fundamental research and engineering relevant to these highly active fields of



quantum technology development. It will feature invited talks given by world-leading experts as well as contributed talks and posters selected from the submitted abstracts, all in a single, thematically focused session. The abstract submission deadline is **16 December 2019**. [\[More\]](#)

*Image: UNIBAS*

## Georges Lemaître Symposium

*Special highlight in the SPS Mitteilungen Nr. 60*

The next issue of the *SPS Mitteilungen* will appear in **Januar 2020** and includes a report about the successful Georges Lemaître Symposium organised at **21 November 2019** in Bern by the Swiss Physical Society in collaboration with the *Plattform MAP* of SCNAT. More than 70 listeners followed with



fascination the four presentations about Lemaître's life and work. The report in Nr. 60 is followed by an article of Prof. Norbert Straumann on 'Lemaître's inhomogeneous cosmological model of 1933'. The slides of the four presentations can already be downloaded from our web-site [\[here\]](#).

## WHAT'S UP IN EUROPE?

### CERN Council appoints Fabiola Gianotti for second term

At its 195th Session in **November 2019**, the CERN Council elected Fabiola Gianotti, as the Organization's next Director-General, for her second term of office. The appointment will be formalised at the **December 2019** Session of the Council, and Gianotti's new five-year term of office will begin on **1 January 2021**. This is



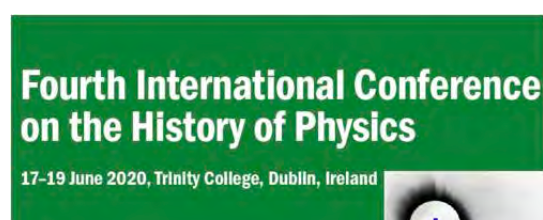
the first time in CERN's history that a Director-General has been appointed for a full second term. [\[More\]](#)

*Picture: President of the CERN Council, Ursula Bassler and Director-General of CERN, Fabiola Gianotti (Image: CERN)*

### Fourth international conference on the history of physics

*Trinity College Dublin - 17-19 June 2020*

This conference will mark the fourth in an international series of conferences on the history of physics that aims to bring together physicists, historians of science and physics teachers. As **2019** marked the centenary of



two major landmarks in modern physics - the discovery of the bending of light in a gravitational field and the naming of the proton – a major theme of the conference will be ‘*On the Road to Modern Physics*’. However, papers on all aspects of the history of physics will be considered for inclusion. The deadline for abstract submission is **15 December 2019**. [\[More\]](#)

## Emergent electronic states confined at interfaces

*Summer school - Les Houches, France - 6-24 July 2020*

Transition metal oxide surfaces and interfaces, twisted bilayer graphene and dichalcogenide bilayers host emergent electronic states arising from an interplay of crystal structure, kinetics, Coulomb interactions, orbital specialization and spin-orbit contributions. These confined systems

can be driven across insulator to metal or to superconductor transitions, and in some cases large magneto-resistive or spin fluctuation regimes. Topological properties are also expected for several materials. The scope of the school is to present the theoretical approaches and experimental tools allowing us to capture the physics at play for these emergent states. Spintronics and oxide electronics applications will also be discussed. Deadline to apply: **2 March 2020**. [\[More\]](#)



## WHAT'S UP IN THE WORLD?

### International Day of Light 2020

UNESCO celebrates every year on **16 May** the International Day of Light (IDL). It is a global initiative that provides an annual focal point for the continued appreciation of light and the role it plays in science, culture and art, education, and sustainable development, as well as in fields as diverse as medicine,

communications, and energy. The date commemorates the first laser by Theodore Maiman at Bell Labs in **1960** and therefore the 60th anniversary of this major event will be celebrated by IDL2020. UNESCO encourages every one, every institution, to seize this opportunity, be it by organising a lecture or an open day to visit your lab, your company, your gallery, your school, your museum etc. You could then run your event using the IDL label free of charge and upload a short description to the IDL events calendar. [\[More\]](#)



International  
Day of Light

16 May

*Image: UNESCO*

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.

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