

## Dear SPS Members and subscribers to the SPS Newsletter,

At the end of the year, some reflections of the past year and wishes and hopes for the year to come, have become a tradition, which is taken on also with this Newsletter. We can look back in the year for events where science in general, and physics in particular, have been in the spotlight. The March of Science comes to my mind in particular, where indeed



science, the scientific method, reasoning and scrutinizing is at stake, even in modern societies. Let me counterweight this with the building of collaborations across nations and ethnicities, for a free exchange of ideas, for taking decisions based on facts, which is the condition for the advancement of science, for the establishment of peace between nations and thus for prosperity of the generations to come. Physics did some pioneering steps in establishing global collaborations leading to results that are unfathomable by single players. Not only CERN is playing a traditional role here, others are following, as can be seen with the gravitational wave experiments LIGO and VIRGO, that lead to the 2017 Nobelprize. Other large-scale collaborating efforts are active and we can count of new results, maybe even as early as 2018.

I wish you in the name of the SPS Board to you and your loved ones happy holidays, and a healthy, peaceful and successful New Year 2018.

Hans Peter Beck, President

## WHAT'S UP IN SWITZERLAND?

### Thierry Courvoisier's book launch - 9 January 2018, Bern

In his new book "[Keine Gesellschaft ohne Wissenschaft!](#)", [Thierry Courvoisier](#) shows the important role that science plays in society and in shaping our environment, and discusses the resulting responsibility of scientists for the development of the world. As part of an analysis of the relationship between science and politics, this book provides clues as to how scientists can (and indeed must) contribute with their findings to the political demission-making process. The [Swiss Academies of Arts and Sciences](#) will hold a book launch at the [Haus der Akademien](#) in Bern. To participate, please register [here](#) no later than **3 January 2018**.

[\[more\]](#)



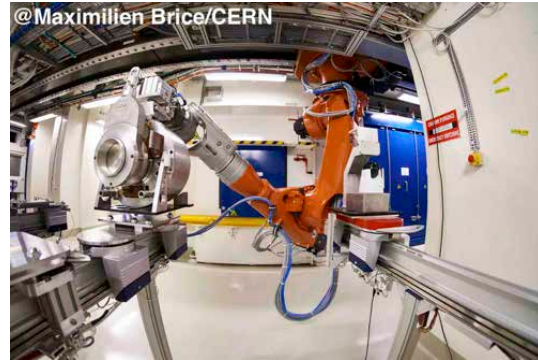
### Job offer - Faculty position in the history of science and technology, EPFL

The College of Humanities at the Ecole polytechnique fédérale de Lausanne EPFL invites applications for a junior faculty position. They seek individuals who will develop and drive an interdisciplinary research program at the intersection of the humanities and engineering and who are dedicated to teaching at the undergraduate and graduate levels. Formal evaluation of candidates will begin on **9 March 2018**. [more: [SPS](#), [EPFL](#)]



## Nuclear Physics - New CERN facility can help medical research into cancer

Today, the new [CERN-MEDICIS](#) facility has produced radioisotopes for medical research for the first time. MEDICIS (Medical Isotopes Collected from ISOLDE) aims to provide a wide range of radioisotopes, some of which can be produced only at CERN thanks to the unique [ISOLDE](#) facility. These radioisotopes are destined primarily for hospitals and research centres in Switzerland and across Europe. Great strides have been made recently in the use of radioisotopes for diagnosis and treatment, and MEDICIS will enable researchers to devise and test unconventional radioisotopes with a view to developing new approaches to fight cancer. [\[more\]](#)



## Condensed Matter Physics - Observation of Caroli-de Gennes-Matricon vortex states

A combination of scanning tunneling spectroscopy and numerical simulations uncovers the elusive vortex-core states in a cuprate high-temperature superconductor. The failure to observe these states until now has given support to the idea that low-energy



excitations in the cuprates would not be consistent with the Bardeen-Cooper-Schrieffer theory. The study reveals that the excitations out of the superconducting condensate are consistent with the theory, but that other excitations exist due to electrons that do not enter the condensate. Read more: [article](#), [viewpoint](#), [Science News](#), [Spektrum](#), [DQMP](#).

## WHAT'S UP IN EUROPE?

### GENERA Network meeting - 22-23 January 2018, London

[GENERA](#) is a European Project to foster institutional and cultural change through Gender Equity Plans targeted for Physics. The project is developed by 13 major physics research European organisations (universities



Gender Equality Network in the European Research Area

and funding agencies including also the [University of Geneva](#)), 3 associate and 13 observer institutions, including also [ESO](#) and [CERN](#). In its third year, after having developed its major target lines (data monitoring and evaluate relevant actions), GENERA is moving to the implementation phase. A toolkit containing more than 100 actions have been created to support institutions. The joint work of Gender experts and Physicists is the key of this project. Institutions and their implementation managers, coordinators of equity offices, and interested actors for the change are invited to the first network meeting on **22-23 January 2018** in London. Information and agenda are available [here](#).

### The photo competition “EPS – 50 years and counting”

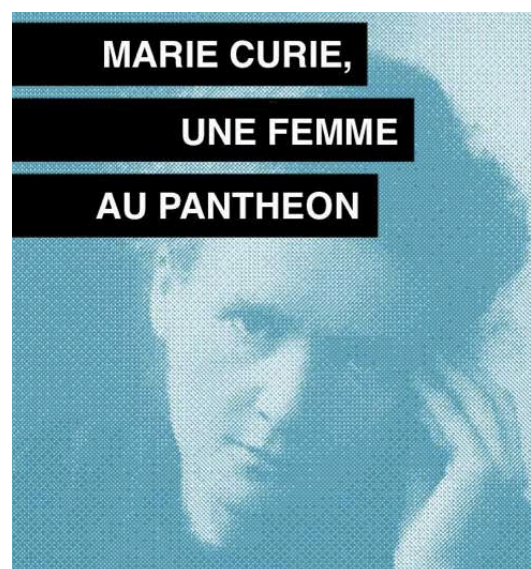
The European Physical Society ([EPS](#)) was founded on **26 September 1968**, in Geneva. The aim was and still is to unite physicists throughout Europe and those from neighbouring countries, to address problems involving the physics community that needed to be handled on a supra-national basis. The formation of the EPS evidenced the will of the physicists to collaborate in strengthening the European cultural unity. This *ideal* of collaboration evolved from a *utopia* to a *reality*.



A photo contest invites for submitting photos that graphically represent the life and work of contemporary researchers. The submission deadline is **31 January 2018**. [\[more\]](#)

### Exhibition - Marie Curie, a woman in the Panthéon

In 1995, Marie Curie became the first woman to enter the Panthéon for her own merits. Recognized as one of the greatest scientists of her time, now one of the most famous scientist in the world, she leaves behind her a precious scientific and moral legacy. For her 150th anniversary, visit the exhibition "*Marie Curie, a woman in the Pantheon*" in Paris **8 November 2017 - 4 Mars 2018**, presented in partnership with the [Musée Curie](#). Discover her scientific works and her private life behind the scenes. [\[more\]](#)



### Astronomy - 'First Light' of ESPRESSO

The Echelle SPectrograph for Rocky Exoplanets and Stable Spectroscopic Observations ([ESPRESSO](#)) has successfully made its first on-sky observations on **27 November 2017**. Installed on [ESO's](#) Very Large Telescope ([VLT](#)) in Chile, ESPRESSO will search for exoplanets and characterise their atmospheres by observing tiny spectroscopic signatures. ESPRESSO will also probe possible variability of fundamental physical constants at cosmological timescales. [\[more\]](#)



## WHAT'S UP IN THE WORLD?

### Young Physicist - IUPAP C11 Young Scientist Prize Nominations

The Commission on Particles and Fields ([C11](#)) of the International



Union of Pure and Applied Physics ([IUPAP](#)) solicits nominations of outstanding young experimental or theoretical particle physicists for the two 2018 Young Scientists Prizes. The prizes, each consisting of an IUPAP medal and a cash (€1000) award, will be presented at the 39th International Conference on High Energy Physics ([ICHEP](#)), Seoul, Korea on **4-11 July 2018**. Candidates for the prize should have a maximum of 8 years of research experience (excluding career interruptions) following the PhD. Details of the procedure can be found [here](#). All material should be submitted before **1 February 2018**.

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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