

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?

### Annual Meeting of the Swiss Physical Society

**29 June - 3 July 2020, Fribourg University**

The next annual meeting will take place from **29 June - 3 July 2020** at the Université de Fribourg (UniFR). Renowned invited speakers will give plenary talks during each of the morning sessions, topical parallel sessions will allow in depth discussions during the afternoons, and a poster exhibition will

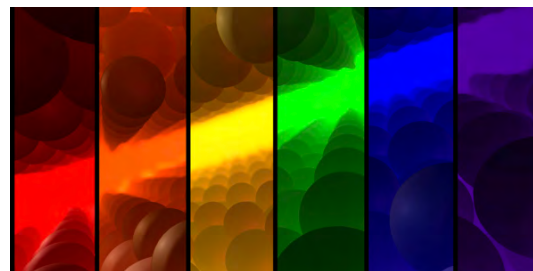


complement the scientific program. The scientific program is further enriched by the direct contributions of the *Swiss Institute for Particle Physics* (CHIPP) and the *Swiss Neutron Science Society* (SGN). Together with the *Physikalische Gesellschaft Zürich* (PGZ) and the *Swiss Academy of Sciences* (SCNAT), the SPS is co-organising a special Röntgen symposium. Thanks to all these collaborations, our annual meeting will offer again an exciting program, covering latest advancements of physics in a wide range of fields at its best. Do not miss the **deadline for abstract submission: 7 March 2020**. [\[More\]](#)

### Creating custom light using 2D materials

*Design of van der Waals interfaces for broad-spectrum optoelectronics*

Finding new semi-conductor materials that emit light is essential for developing a wide range of electronic devices. But making artificial structures that emit light tailored to our specific needs is an even more attractive proposition. However, light emission in a semiconductor only occurs when certain



conditions are met. Today, researchers from the University of Geneva (UNIGE), Switzerland, in collaboration with the University of Manchester, have discovered an entire class of two-dimensional materials that are the thickness of one or a few atoms. When combined together, these atomically thin crystals are capable of forming structures that emit customisable light in the desired colour. This research, published in the journal [Nature Materials](#), marks an important step towards the future industrialisation of two-dimensional materials. [\[More\]](#)

*Image: Artistic view of a junction of different 2D light-emitting materials. © Xavier Ravinet*

## WHAT'S UP IN EUROPE?

## A European Green Deal

*Striving to be the first climate-neutral continent*

Becoming the world's first climate-neutral continent by 2050 is the greatest challenge and opportunity of our times. To achieve this, the European Commission presented the [European Green Deal](#), the most ambitious package of measures that should enable European citizens and businesses to benefit



from sustainable green transition. Measures accompanied with an initial roadmap of key policies range from ambitiously cutting emissions, to investing in cutting-edge research and innovation, to preserving Europe's natural environment. [\[More\]](#)

## ERC Proof of Concept grant

*Switzerland well positioned*

In the 3 call rounds in 2019, the European Research Council (ERC) decided to fund 192 top researchers throughout Europe for the Proof of Concept grant. This top-up funding is awarded to ERC grantees to explore the innovation potential of their scientific discoveries and bring the results of their



frontier research closer to market. With the additional money, researchers can, for example, investigate business opportunities, establish intellectual property rights or conduct technical validation for their frontier research findings. In total, 498 proposals were submitted and 13 researchers based in Switzerland received a grant – congratulations. [\[More\]](#)

## EPS and Open Science: an update

*By C. Rossel and L. van Dyck*

The movement towards an Open Science is well engaged and irreversible. It includes Open Access publishing, Open Data and Open Collaborations with several new orientations, among which citizen science. Indeed, in the digital era, the way research is performed, its output shared and published is

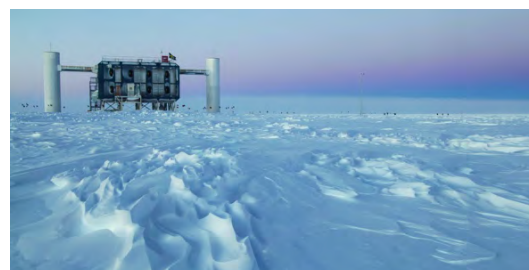


changing significantly, as are the expectations of policy makers and society at large. Read the article by C. Rossel, member of the OSPP and former EPS president, and L. Van Dyck, senior policy advisor, EPS, in the latest issue of the Europhysics News magazine (EPN51-1 p.26). [\[More\]](#)

# JOBS FOR PHYSICISTS

## Doctoral studies and research in Astroparticle Physics, University of Geneva

The IceCube and CTA group of the Department of Particle Physics has an opening for doctoral assistant to pursue doctoral studies and research in Astroparticle Physics. Candidates must have a Master degree in Physics. The student will work on IceCube and on the CTA large size telescope



data analysis. IceCube is a neutrino telescope at the South Pole. The UniGE group is experienced on search for cosmic sources and dark matter sources using likelihood and multivariate/machine learning methods. The first data of the large size telescopes of the CTA experiment at La Palma is coming online now and delivering first high statistic data for its commissioning which already contain TeV gamma-ray source signals at unprecedented statistics. The student will work on the searches for cosmic neutrinos and

gamma-rays from black holes and dark matter searches with a multi-messenger approach. [\[More\]](#)

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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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