

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.

WHAT'S UP IN SWITZERLAND?

Les Particules

A movie by Blaise Harrison released on 4 September 2019 in French-speaking Switzerland

Synopsis - Pays de Gex, on the French-Swiss border. Pierre-André (P.A.) and his group of friends are in their last year of high school. One hundred meters beneath their feet, the Large Hadron Collider (LHC), the most powerful particle accelerator in the world, is crashing protons into each other to recreate



the energy conditions of the big bang and detect previously unknown particles. As winter sets in and P.A. sees the world shifting around him, he starts to observe strange phenomena in the environment. The changes are imperceptible at first, but gradually his whole world seems to be on the brink. [\[more\]](#)

Open Science in Switzerland: Opportunities and Challenges

Factsheets from the Swiss Academies of Arts and Sciences

This factsheet contains recommendations to shape Open Access and Open Data so that they foster scientific progress and profit society in Switzerland. [\[more\]](#)



This factsheet has been presented at a panel discussion on **13 September 2019** in the House of Academies, Bern. Panellists: Rafael Ball (ETH Library), Daniel Marty (Swiss Journal of Geosciences), Sabine Süssstrunk (EPF Lausanne) and Franck Vazquez (Multidisciplinary Digital Publishing Institute MDPI). Moderation: Prof. Antonio Loprieno, president of the Swiss Academies of Arts and Sciences. [\[more\]](#)

Image: Swiss Academies of Arts and Sciences. Swiss Academies Factsheet 14 (2).

“La nuit est belle!”: a night without street lighting

On 26 September, switch off your lights and take some time to observe the stars

Take part in Geneva's first ever switch-off of street lighting on **26 September 2019**. The “La nuit est belle” project is aimed at raising awareness about the impact of light pollution



resulting from excessive artificial lighting. No fewer than 109 communes on both sides of the Franco-Swiss border of canton of Geneva and also CERN are contributing to this project. If you happen to be in the Geneva area on this day, switch off your lights and take advantage of the dark and look up at the stars. The astronomical conditions on the night of **26 September** will be ideal (provided the sky is cloud-free) with a new moon, the Milky Way visible from sunset and a chance to see Saturn and Jupiter. [\[more\]](#)



Einstein Lectures 2019 with A.M. Turing Award winner Shafi Goldwasser

Bern, 7-9 October 2019

Mathematician and computer scientist Shafi Goldwasser is a pioneer of modern cryptography. For her groundbreaking works she was awarded the A.M. Turing Award, the "Nobel Prize of Computer Science", in 2012 (together with Silvio Micali). At this year's Einstein Lectures, Professor Shafi



Goldwasser will give three talks on the following topics (in English): *The Cryptographic Lens* (7 October 2019, 19.30); *Pseudo Deterministic Algorithms and Proofs* (8 October 2019, 17.15); *Safe Machine Learning* (9 October 2019, 19.30). These lectures address a broad audience and take place in the Aula of the University of Bern, Hochschulstrasse 4.

[\[more\]](#)

Image: Courtesy of Shafi Goldwasser

CERN Swiss Teacher Programme 2019

The Swiss Teacher Programme 2019 will take place from **11-13 November 2019** at CERN. Lectures, on-site visits, exhibitions, and hands-on workshops will introduce its participants to cutting-edge particle physics. The participants will go back to their schools as ambassadors, who pass on the

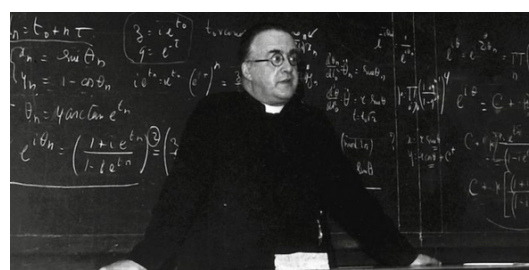


subject to our next generation of physicists, engineers, IT specialists etc. More information is available from CERN [\[here\]](#). Register before **7 October 2019** via the following link [\[here\]](#).

125th Anniversary of Georges Lemaître

Symposium on 21 November 2019 - Bern

Georges Edouard Lemaître (1894-1966) was a Belgian physicist, astronomer, and Roman Catholic priest. He proposed an expanding universe and is the central founding father of the Big Bang model of the Universe. The SPS and SCNAT celebrate his anniversary with a common symposium on **21 November 2019** at the University of Bern.



The time schedule can be found [here](#). Further announcement also on the SCNAT website [here](#).

11th Swiss Forum for Natural Sciences and Geography Education

Call for papers (deadline 29 September 2019)

The 11th Swiss Forum for Natural Sciences and Geography Education will take place on **23-24 January 2020** at the University of Geneva. The forum proposes to offer an up-to-date and stimulated picture of education in

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Swiss Science Education Association

science and geography in Switzerland and neighboring countries. You are welcome to contribute on your research, development and innovation in your respective fields. Submit your proposal for paper or poster by **29 September 2019** by e-mail at info@dinat.ch. More informations and registration forms can be found [here](#).



Scientists have isolated cyclocarbons for the first time, and aim to use these molecules to build new materials

Researchers from [IBM Zurich](#) and the [University of Oxford](#) have produced a stable version of a carbon allotrope that has long been discussed and theorized, but which remained elusive until now. It's called a cyclocarbon. The carbon atoms in cyclocarbons have just two neighbors, and, when linked together, take the shape of a ring. This could lead to the creation of entirely new types of materials. Read the report by Dexter Johnson in IEEE Spectrum [here](#).

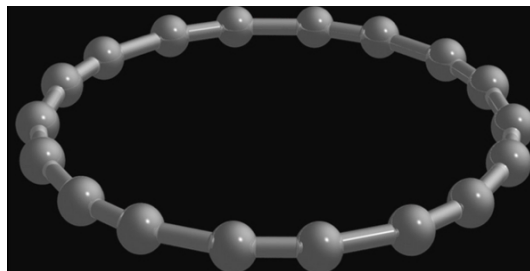


Image: IBM Research In a cyclocarbon molecule, each carbon atom has two neighboring atoms. Together, they form a ring of 18 carbon atoms.

WHAT'S UP IN EUROPE?

Open letter to the European Commission

Education, Research, Innovation and Youth

Concerned European scientists ask in an open letter to Jean-Claude Juncker, the actual president of the European Commission and to Ursula von der Leyen, the elected president, that the EU commission **revises the title** for future commissioner Gabriel from actual "**Innovation and Youth**" to "**Education, Research, Innovation and Youth**" in order to better reflect Europe's dedication to all of these four crucial areas. This news item addresses all interested scientists, members or not of the SPS, who have EU citizenship, have an EU or ERC grant, or are considering applying or participating in an EU or ERC grant. The open letter can be signed by individuals before **8 October 2019**. Check for more information under the following link [here](#).

To the President of the European Parliament
David Maria Sassoli

To the current and future
Presidents of the European Commission
Dr. h.c. mult. Jean-Claude Juncker and
Dr. med. Ursula von der Leyen

Europe, September 17th 2019
**New EU Commission and Research & Education
in Europe**

WHAT'S UP IN THE WORLD?

International Handbook on Responsible Innovation. A Global Resource

Events on the occasion of the book launch

On the occasion of the book launch of the *International Handbook on Responsible Innovation. A global Resource*, a series of international events is taking place to discuss the challenges ahead of us for the further development and implementation of responsible innovation (**12 September 2019**



- Leiden; **19 September 2019** - London; **3 October 2019** - Brussels; **27 November 2019** - Manchester; additional events to take place in Milan and Washington DC). Participation to these events are free but because of limited available seating, prior registration is necessary (email: rene.vonschomberg@hotmail.com). [\[more\]](#)

Image: International Handbook on Responsible Innovation. A Global Resource. Edited by René von Schomberg and Jonathan Hankins. Available on Google Play [\[here\]](#).

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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