

## GROUND-BREAKING CEREMONY FOR THE HIGH-LUMINOSITY LHC

A ceremony was held on 15 June to mark the start of civil-engineering work for the High-Luminosity LHC



The civil engineering work for the High-Luminosity LHC gets under way. Here we see the earthmovers at work on the new 80 metre access shaft at Point 5. (Image: Julien Ordan/CERN)

The earthmovers are at work on the ATLAS site in Meyrin and at CMS in Cessy, digging the new shafts for the High-Luminosity LHC (HL-LHC). The start of the work for this new phase of the project was marked by a ceremony held on 15 June, which was attended by VIP guests including the President of the State Council of the Republic and Canton of Geneva, the Prefect of the Rhône-Alpes-Auvergne region, the Mayor of Meyrin, the Deputy Mayor of Cessy and representatives of CERN's Member and Associate Member States.

*"All the chapters of CERN's history have begun with a shovel of earth, and each chapter has begun with the promise of*

*great progress in fundamental knowledge, new technologies that benefit society, and collaboration on a European and now a global scale. This was true of the Large Hadron Collider (LHC) and its experiments and it is true of the project for which we are gathered here today,"* said Fabiola Gianotti, CERN Director-General.

A time capsule was placed at each site as a souvenir of the day, each containing a historical document presented by one of the two Host States as a symbol of cross-border cooperation.

*(Continued on page 2)*

### A WORD FROM THE DIRECTORATE

#### NEWS FROM THE JUNE 2018 CERN COUNCIL

A very busy CERN Council Session took place in June and we would like to inform you about some of the highlights. The Council and its Committees heard reports on the excellent performance of the accelerators and experiments, including a summary of the third Cost and Schedule review of the LHC Injectors Upgrade (LIU) and High-Luminosity LHC (HL-LHC) held in March.

*(Continued on page 2)*

### In this issue

<b>News</b>	<b>1</b>
Ground-breaking ceremony for the High-Luminosity LHC	1
A word from the Directorate	2
LHC Report: Investing in the future	3
Successfully switching careers as a scientist	4
Broadening access to STEM	4
Presidential visits to CERN	5
Computer security: Scaling out intrusion detection	6
Get ready for a new CERN Learning Hub	7
<b>Official communications</b>	<b>7</b>
<b>Announcements</b>	<b>8</b>
<b>Ombud's corner</b>	<b>10</b>



# A WORD FROM THE DIRECTORATE

## NEWS FROM THE JUNE 2018 CERN COUNCIL

Delegates also learned about the latest great physics results and many other activities of the Organization. They expressed their warmest congratulations to all involved for these superb achievements. The week ended with a ceremony to launch the start of civil engineering for HL-LHC.

The Council approved the Medium Term Plan for the period 2019-2023 with strong support. The ongoing update of the European Strategy for Particle Physics was a major item on the agenda. The Council chose the venues and dates for the Open Symposium and the Strategy Drafting Session. The Open Symposium will take place in Granada, Spain, from 13-16 May 2019, and the Strategy Drafting

Session in Bad Honnef, Germany, from 20-24 January 2020.

The Council approved International Collaboration Agreements with the Philippines, the Russian Federation and Thailand. Enlargement was also discussed, with the Council establishing a working group to review certain aspects of the geographical enlargement policy established in 2010.

We informed the Council and its Committees that a donation of 10 MCHF for the Science Gateway project has been pledged recently by a private foundation. This is excellent news, putting the project firmly on track. Fundraising efforts continue.

The Council extended the appointment of Frédéric Bordry as Director for Accelerators and Technology from 18 July 2019 to 31 December 2020.

Last but not least, it gives us pleasure to report that 95% of the annual contributions to CERN's Budget have been received and we expressed sincere thanks to our Member and Associate Member States for their strong and continued support. We would also like to thank all of you for all the hard work and dedication that inspires such confidence in CERN and its missions.

*(This message was originally sent to CERN personnel on 18 June 2018)*

*The Directorate*

---

## GROUND-BREAKING CEREMONY FOR THE HIGH-LUMINOSITY LHC

The capsule at the site in Cessy contains a document presented by the Geneva authorities, the telegram that was sent in 1952 by the then President of the State Council, Louis Casaï, informing the members of the Geneva government of the decision to establish a European Organization for Nuclear Research in Geneva. In exchange, for the capsule on the Point 1 site in Meyrin, the French authorities presented the entry for "Geneva" in the Encyclopedia of Diderot and d'Alembert, which was written by d'Alembert in 1756 while he was staying at Voltaire's estate in Geneva. In their speeches, the representatives of the Host States and CERN underlined the importance of the High-Luminosity LHC for the Laboratory and the crucial role played by CERN's Member and Host States in bringing it to fruition.

The civil-engineering work centres on Points 1 (ATLAS) and 5 (CMS), where most of the equipment required to increase the luminosity for the two experiments will be installed. At each of the two sites, the un-

derground facilities to be built consist of a shaft around 80 metres deep, a service hall that will house cryogenic and other equipment, a 300 metre long tunnel for electrical equipment (power converters) and four 50 metre service tunnels that will connect the new structures to the accelerator tunnel. These four tunnels will house specific systems, such as radiofrequency equipment and the superconducting and cryogenic lines. Around 100 000 m<sup>3</sup> of earth will be excavated to create the underground structures, which are due to be completed in 2021.

Five buildings representing a total surface area of 2800 m<sup>2</sup> will then be constructed above ground to house the cooling, ventilation and electrical equipment.

In parallel, the teams are working flat out to develop the equipment needed for the new accelerator. The goal is to install the first components, such as the 11-tesla dipole magnets, certain collimators, instrumentation and shielding, during the second

long shutdown in 2019-2020. However, the installation of most of the equipment and the major experiment upgrades are scheduled for the third long shutdown from 2024 to 2026.

*More information on the civil engineering work for the High-Luminosity LHC is available here (<http://voisins.cern/en/hl-lhc-faq>).*

*Further information about the High-Luminosity LHC project can be found here (<https://home.cern/fr/topics/high-luminosity-lhc>) and here (FAQ).*

### **Canadian government announces special contribution to HL-LHC project**

On 25 June, the Canadian Minister of Science announced a contribution of 10 million Canadian dollars from Government of Canada to the HL-LHC project with an additional 2 million dollars in in-kind contributions. Working with the Canadian research community and industry, the

TRIUMF particle accelerator centre will lead the production of five cryogenic modules for the crab cavities.

"Today, I am pleased to announce support for Canada's outstanding researchers, engineers and technicians, whose combined efforts will further our reputation as a global leader in particle physics. Their hard work will take us one step closer to understanding the fundamental nature of matter while delivering new technologies, training and job opportunities for the next generation," said Kirsty Duncan, Minister of Science and Minister of Sport and Persons with Disabilities.

"We are very pleased with Canada's contribution to the HL-LHC project, which is another important milestone in a long-standing, fruitful collaboration with CERN," says Fabiola Gianotti, CERN Director-General. "The technology and expertise of TRIUMF and Canadian industries, working

with the strong particle physics community in the country, will be crucial for the realisation of very ambitious accelerator components for the next major project at CERN."

The HL-LHC project led by CERN is supported by an international collaboration of 29 institutes in 13 countries, including the United States, Japan and Canada.

Read TRIUMF press release (<http://www.triumf.ca/funding-announcements/canada-lead-%E2%80%98coldbox%E2%80%99-technology-for-high-luminosity-lhc-upgrade-10m>).



The French and Swiss authorities and representatives of CERN cover the time capsule placed on the Point 1 site to mark the launch of the civil engineering work for the High-Luminosity LHC. From left to right: Lucio Rossi, High-Luminosity LHC project leader, Sijbrand de Jong, President of the CERN Council, Pierre-Alain Tschudi, Mayor of Meyrin, Pierre Maudet, President of the State Council of the Republic and Canton of Geneva, Fabiola Gianotti, CERN Director-General, Stéphane Bouillon, Prefect of the Auvergne-Rhône-Alpes region, Pascal Larour, Deputy Mayor of Cessy, and Frédéric Bordry, CERN Director for Accelerators and Technology. (Image: Maximilien Brice, Julien Ordan/CERN)

Corinne Pralavorio

## LHC REPORT: INVESTING IN THE FUTURE

**The latest Machine Development period ended on early Monday morning, 18 June, after six days of intensive studies of the LHC accelerator**

On Tuesday, 12 June at 7.00 a.m., a six-day Machine Development (MD) period started, during which the machine was available for accelerator physicists and the machine equipment groups to study beam behaviour and the operation of the accelerator equipment. With the present peak LHC luminosity being twice the design luminosity, we could say that our mission is accomplished and that we don't need to study the details of LHC beam operation any further. However, following the LHC Injector Upgrade (LIU) programme, after Long Shutdown 2, the beam intensity will be double the present level. After Long Shutdown 3, the HL-LHC project will then allow us to obtain even smaller beam sizes at the collision points. Our knowledge of how to keep these high intensity beams stable in the LHC is not complete and many study programmes are ongoing, in which theories are being compared to reality.

Research to understand the beam instabilities represented a large fraction of the studies over this Machine Development week. In one of the studies beam instabilities were induced by applying excitation noise to the beam. It was observed that in

some cases it took a surprising 10 minutes for the transverse beam size to increase after applying the noise.

Techniques related to new hardware were also tested, like the long-range beam-beam compensation wires embedded in the collimators. Newly installed crystal collimators were also put to the test. The Radio Frequency group assessed the use of lower accelerating voltages than normally used during the beam injection process to reduce the longitudinal oscillations of the beam.

Another focal point was the test of the ATS optics. Beam size variations in the arcs of the accelerator are used to squeeze the beam to a small focus at the centre of the experiments. A variation of these 'Telescopic Optics' was studied, where the beams are not round in the centre of the experiments as is normally the case but have different beam sizes in the horizontal and vertical plane as the collision point by a factor two.

The heat load generated by the beam and transferred to the cryogenic system was

also studied. This heat load will become more significant at the higher beam intensities planned for the future. At present, the heat load in the eight arcs of the LHC can differ by more than a factor of two in identical conditions and so far the reason for this difference is not understood. Tests were carried out to vary the currents of the different corrector magnet circuits in the different arcs, and to apply 'bumps' to the beam in the arcs. At first glance, no large effects were observed, but careful analysis might give a hint of the physics processes behind these differences around the machine.

Overall, it was an intensive week with a strict schedule: 24 hours a day for six days for the different groups to each perform their few hours of research. In total, 15 different studies were performed. An intensive week of investment in the future, increasing our understanding of the LHC and thus improving its future performance. The next Machine Development period, which will last 5 days, is scheduled for the end of July.

Jan Uythoven for the MD team



---

# SUCCESSFULLY SWITCHING CAREERS AS A SCIENTIST

The CERN Alumni network has initiated a series of workshops to help scientists explore new career opportunities



The first workshop of the series “Moving out of academia to...” organised by the CERN Alumni Office dealt with career opportunities in the financial sector (Image: Julien Ordan/CERN)

A job in a research environment is often seen as a natural continuation of one's university studies. However, statistics indicate that only a small percentage of science graduates will actually pursue a career in academia or in a laboratory like CERN. What options do scientists have if they have to leave their comfort zone or their field of primary interest?

With more than 3100 members distributed across the planet and active in a variety of professional fields, the one-year-old CERN Alumni network proves that there are actually plenty of options for scientists, IT specialists and engineers leaving the Organization. To help its members deal with a career transition, the CERN Alumni Office has organised the first in a series of workshops: “Moving out of academia to... the financial sector”. Indeed, the wide field of finance seems to highly value skills in computer modelling, statistical analysis of complex network systems and working with large data sets, as well as the problem-solving, internationally oriented and flexible attitude that most scientists develop throughout their studies and early career at CERN.

The first workshop was a great success, attracting 90 people who gathered at CERN and a few who connected remotely to hear from the six panellists – all CERN Alumni – who shared with the audience the positive

(and less positive) aspects of working in finance as well as the best practices to effectively perform such a transition. The seminar was facilitated by Rami Kamalieddin, CERN physicist and Administrator of the CERN Finance Club.

The constructive feedback received from participants will guide the CERN Alumni Office in organising future workshops in the series, which will always involve CERN Alumni as both panellists and members of the audience. The next workshop will take place on 21 September and will focus on “Moving out of physics to data science”.

To watch the recordings of the workshop and see the presentations, visit this Indico page (<https://indico.cern.ch/event/723196/timetable/#20180608.detailed>).

Visit <http://alumni.cern> (<http://alumni.cern/>) for more information and to connect to the CERN Alumni Network.

---

## BROADENING ACCESS TO STEM

A recent workshop looked at how and why CERN has introduced gender-inclusive teaching into its teacher programmes



Francesca Borgonovi, Senior Analyst from OECD, presenting the OECD report “The ABC of Gender Equality in Education” (Image: J. Ordan/CERN)

Back in 2015, CERN's Diversity Office launched an initiative targeting high-school science teachers: a 20-hour group session on the topic of *gender inclusive teaching* was introduced into CERN's yearly International Teacher Programme. Its aim was to raise awareness within the teaching

community and help build competencies to spark the interest of both female and male students.

**“One of the things I will take home is that an environment of collaboration and open discussion, rather than competition, can do wonders and can engage not only more girls, but also my more introverted male students.”** - I. Molefi, Physics Teacher and participant in the 2015 International Teacher programme

Now, the Diversity Office is rolling out a 45-minute interactive module in CERN's National Teacher Programmes, reaching out to more of the teachers visiting CERN.

In this framework, the Diversity Office organised a “Gender Equality in Education” workshop on 5 June, inviting academics and experts in the field. Among the invited speakers were Francesca Borgonovi, Senior Analyst at the Organisation for Economic Cooperation and Development (OECD); Beth Bramley, Gender Balance Manager at the Institute of Physics (IOP); and Isabelle Collet, Associate Researcher at the Institute of Gender Studies at the University of Geneva (UNIGE). On behalf of CERN, Teacher Programmes manager Jeff Wiener and Diversity analyst Ioanna Koutava also presented the Organization's activities.

Borgonovi presented highlights from the 2015 OECD report “The ABC of Gender

Equality in Education”, which looked at data on more than half a million students from the Programme for International Student Assessment (PISA) worldwide study. The report explored the differences in performance and behaviour between female and male students. Trends showed the differences in attitudes and self-belief, as well as the expectations of students and their parents of future careers in Science, Technology, Engineering and Mathematics (STEM).

Bramley showcased initiatives launched by the IOP to improve gender balance in education in the United Kingdom, as well as research findings around stereotypes and educational practices. In particular, the 2017 report on improving gender balance showed that a three-pronged approach produced positive effects: improving girls’

resilience, developing inclusive techniques in physics lessons and training the entire school staff on unconscious biases. For more information on the IOP’s reports, resources and current projects, visit the IOP gender balance webpage.

Collet provided practical advice for teachers on gender inclusive teaching. Her examples included the difference in student behaviour when the same task was described as a “geometric test” or a “drawing game” with boys preferring the former description and girls the latter (there are a large number of papers exploring this topic, including this one). Her tips on how to make the classroom more inclusive included giving all students the opportunity to speak and encouraging cooperative rather than competitive work. For more information, see the list of Collet’s publications.

During the workshop, the Diversity Office invited people working at CERN to volunteer to give the 45-minute “Gender Equality in Education” presentation to teachers visiting CERN. If you are interested, please contact [hr-diversity-info@cern.ch](mailto:hr-diversity-info@cern.ch).

The workshop was attended by 110 participants from around CERN, as well as a group of Finnish teachers that were visiting at the time. The presentations are available to people working at CERN here (<https://indico.cern.ch/event/717831/timetable/#20180605.detailed>).

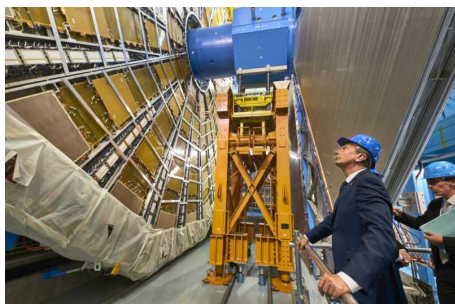
Find out the latest news from the CERN Diversity Office here (<http://diversity.web.cern.ch/news>).

*Ioanna Koutava and Kate Kahle*

---

## PRESIDENTIAL VISITS TO CERN

**The President of Slovenia and the President of the Swiss Confederation visit CERN on 20 and 21 June, respectively**



*The President of the Republic of Slovenia in front of one of the big muon wheels of the ATLAS detector (Image: Julien Ordan/CERN)*

On 20 June, CERN welcomed Borut Pahor, President of the Republic of Slovenia. The President and his delegation were received at Point 1 of the LHC by CERN’s Director-General, Fabiola Gianotti, the Director for International Relations, Charlotte Warakaulle, the Director for Accelerators and Technology, Frédéric Bordry, the Director for Research and Scientific Computing, Eckhard Elsen, the Director for Finance and Human Resources, Martin Steinacher, the Head of Relations with Associate and non-Member States,

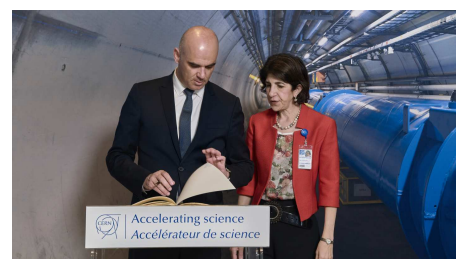
Emmanuel Tsismelis, and the principal adviser for relations with Slovenia, Christoph Schäfer.

After a general introduction to CERN’s activities, Slovenia’s President visited the ATLAS control room and experimental cavern and the LHC tunnel. He was also introduced to members of the Slovenian community at CERN.

The following day, CERN welcomed Alain Berset, President of the Swiss Confederation. The President was received at Point 1 of the LHC by the Director-General, Fabiola Gianotti, and began his visit with a tour of the ATLAS control room accompanied by the Director for Accelerators and Technology, Frédéric Bordry, the Director for Research and Scientific Computing, Eckhard Elsen, the Director for Finance and Human Resources, Martin Steinacher, the Director for International Relations, Charlotte Warakaulle, the Head of Relations with the Member States, Pippa Wells, and the

Head of Relations with the Host States, Friedemann Eder.

He then went on to visit the ATLAS experimental cavern and the LHC tunnel. After a working dinner presided by Fabiola Gianotti, the President also visited the main-magnet assembly hall and then the Globe of Science and Innovation, where he met Swiss scientists and engineers.



*The President of the Swiss Confederation signs CERN’s guestbook in the presence of the Director-General, Fabiola Gianotti (Image: Julien Ordan/CERN)*

*Anaïs Schaeffer*

# COMPUTER SECURITY: SCALING OUT INTRUSION DETECTION

## Automatically and autonomously monitoring digital activities on CERN's network and its firewalls between CERN and the Internet...

Automatically and autonomously monitoring digital activities on CERN's network and its firewalls between CERN and the Internet, activities on CERN's computing clusters and related with CERN's web services is an essential part for guaranteeing the protection of the operation and reputation of the Organization. It allows us to detect — attempted or successful — break-ins (“An attack for more security”) or preventive scans for vulnerabilities of our computing infrastructure (“CERN under friendly poking”), and, of course, the abuse of our computing facilities for malicious deeds (“Virtual Misconduct – Real Consequences”). Therefore, the new CERN Security Operations Center (SOC) was deployed recently to cope with CERN's ever growing networking and computing resources. It shall automatically check for malicious activities, alert in such cases the Computer Security Team and end-users, and provide all necessary information to conduct and conclude incident forensics (of present or past incidents).

At the core of this new SOC lies threat intelligence data, i.e. structured information on various ongoing and past computer security events. This includes “Indicators of Compromise” (IoC), e.g. malicious IP addresses or domains as well as signatures (“file hashes”) of various malware samples. IoC are constructed from the results of investigations of computer security incidents discovered at CERN, but also received from partner organisations. Through participation in vetted trust groups the CERN Computer Security Team is automatically exchanging threat intelligence information with peer organisations. This data exchange is managed by a dedicated open-source tool dubbed “MISP” (“Malware Information Sharing Platform”) and covers not only IoC but also tactics, techniques and procedures used by the

various threat actors or groups of threat actors. Seeing any CERN computing activity linked to such threat intelligence data indicates a problem: CERN computing resources might have been attacked, abused or compromised...

Hence, different Intrusion Detection Systems (IDS) have been deployed at CERN. On the network level, i.e. at CERN's outer perimeter firewall but also at the boundaries between internal networks — so-called “gates” —, one network-based IDS (“Snort”) is simply looking for different patterns of malicious activity in the flow of data. The second, more sophisticated one (“BroIDS”) extracts source and destination IP addresses and port numbers, transferred data volumes as well as some high level application metadata. Similarly, host-based IDSes gather information from CERN's computing clusters in the data centre (e.g. “LXPLUS”, “LXBATCH”), from CERN's Single Sign On portal, from the LDAP and Active Directory services, from the centrally managed web servers, from the Domain Name Server, and from several other sources (see our Privacy Statement for the full list). All this security data is being processed in real time and enriched with missing information such as the host-name linked to an IP address (in those cases where the source of data only contains IP addresses) or adding geographic (“GeoIP”) information. All data gets stored in two different systems (“Elastic Search” and “HDFS”), one allowing the data to be easily queried and visualised via web dashboards, the other one for longer term storage where we keep data for one year maximum.

The SOC automatically compares any security data against known IoC and raises an alert every time such an IoC is being seen. Advanced intrusion detection

methods employ complex rules and correlation among multiple sources of data. Subsequently, raised alerts undergo a further step of aggregation by correlating similar alerts (for example multiple CERN devices being targeted by the same malware) in order to identify common root causes. Incorporating additional context around the detected activity also allows us to easily reject false alerts. Once a security incident is detected and confirmed, incident response kicks in. At CERN, due to its unique academic environment and the associated academic freedom, computer security is highly democratic and all computing users are responsible for it. As such, for most security incidents affected end users will receive an automatic notification informing them of the problem. The CERN Computer Security portal provides additional guidance on how to resolve the different classes of security incidents (with or without the help of the Computer Security Team). When the situation asks for, the CERN Computer Security Team has dedicated tools for the handling of large scale security incidents (i.e. “FIR” and “the Hive”). But, hopefully, thanks to this new SOC, that should be rare: We should be able to follow the upscaling of CERN's data center and the ever increase of traffic towards and from the Internet: Monitoring and intrusion detection for the protection of the operation and reputation of CERN.

*Liviu Valsan & Vincent Brillault for the Computer Security Team*

*Do you want to learn more about computer security incidents and issues at CERN? Follow our Monthly Report. For further information, questions or help, check our website or contact us at [Computer.Security@cern.ch](mailto:Computer.Security@cern.ch).*

# GET READY FOR A NEW CERN LEARNING HUB

CERN's training application is about to get better, with additional functionality and a new user interface. Welcome to the Learning Hub!



Image: CERN

CERN provides a wide range of learning and development opportunities for personnel. These cover everything from the everyday essentials of safety and computer security, through leadership and communication training to the most arcane technical

skills required in a laboratory as large and complex as CERN.

All of CERN's courses are currently accessible through the CERN training catalogue, which provides a seamless booking system and is linked to EDH. Together, the Finance and Administrative Processes department, the Human Resources department and HSE wanted to go further, providing a service that is more than just a registration system. The new Learning Hub will provide for CERN's entire range of courses (including online learning), and signals the end of the use of CTA (CERN Training Catalogue) and SIR (CERN Training Catalogue for online courses). It will include news to inform you of what's new and why, and a range

of other new features designed to improve your experience as a learner.

The first step in rolling out the Learning Hub took place in March this year, with several half-day test workshops with groups of CERN personnel representing all of the Organization's learning and development needs. Their feedback will now be taken into account as the Learning Hub is prepared for launch in September. The first signs are encouraging. "Very straightforward and intuitive," said one of the workshop participants, a newcomer to CERN. "The Learning Hub has a different philosophy to CTA and a modern and attractive interface," added another. So what are these new features? Watch this space and tune in in **September 2018**.

## Official communications

### ASSISTANCE PROVIDED DURING DUTY TRAVEL

As previously announced, members of the personnel travelling for official purposes benefit from medical and security assistance provided by a specialised travel assistance company, International SOS (Intl.SOS).

Intl.SOS offers medical and security advice and assistance 24/7 worldwide prior to, during and after duty travel.

More details about this assistance and how to access it are available in the Admin e-guide.

Membership cards can be obtained from departmental/group secretariats.

**Please note that a public presentation by experts from Intl.SOS will take**

**place on 17 September 2018 (location TBC) from 10.30 a.m. to 11.30 a.m.**

Members of the personnel wishing to attend this event should register using the following link: <https://indico.cern.ch/event/732157/>

HR department  
[HR.Official.Travel@cern.ch](mailto:HR.Official.Travel@cern.ch)

---

### STAFF RULES AND REGULATIONS - MODIFICATION N°13 TO THE 11TH EDITION

Modifications to the Staff Regulations have been implemented in accordance with the decision taken by the Finance Committee in June 2018 relating to:  
- Age limit (CERN/FC/6235)

These modifications will enter into force on **1 July 2018**.

- Chapter II, Conditions of Employment and Association, Section 5 (Termination of contract) – amendment of page 29

The complete updated electronic version of the Staff Rules and Regulation is accessible via CDS.

HR department



# Announcements

## SCIENCE NIGHT AT THE SCIENCE HISTORY MUSEUM IN GENEVA



On 7 and 8 July 2018, Geneva's Science History Museum is holding its 12th Science Night, on the theme **"Tout un art ?"** This event will allow participants to discover science in a friendly and festive setting.

More information is available at [www.lanuitdelascience.ch](http://www.lanuitdelascience.ch)

CERN will be there, with a stand called **"A world of pARTicles!"** What links a magnet, a battery and the LHC accelerators? Can you identify particles from the tracks they leave in the detectors? Come and meet CERN scientists, who will help you to discover the fundamental principles of physics through fun activities for old and young alike: drawing, workshops, virtual reality helmets, etc.

From age 5 upwards.

## CINEGLOBE IS BACK!



From 29 June to 8 July a host of films and events will energize CERN's Globe of Science and Innovation and the Perle du Lac. With the theme **Intelligent Futures**, CineGlobe examines our legacy and our future, from human intelligence to artificial intelligence.

Visit [cineglobe.ch](http://cineglobe.ch) (<http://cineglobe.ch/>) for the full programme of events.

Open-air screenings, shorts, documentaries and features, workshops, special evenings, mars simulation missions, full-dome 360 VR films, a hackathon, an international congress and more! Including a full lakeside weekend at the Perle du Lac's starry Nuit de la Science.

*The festival is free and open to all, accessible both in English and French.*



# FIRST CHARITABLE CERN TABLE FOOTBALL TOURNAMENT

Since the arrival of CERN Table Football Club in summer 2017, users of Restaurant 1 and 2 have been enjoying the opportunity to play a game of 'babyfoot' whilst steadily sharpening their skills. Now it's time to put these skills to the test as a table football tournament will take place on 11-13<sup>th</sup> July!

What's more, the event will be organised in support of CERN & Society, so not only is it an excuse to take on (and defeat) your colleagues but also in aid of a very good cause. In fact, all the proceeds from this tournament will directly go to the CERN & Society Foundation in support of its Education & Outreach projects, to help

young talent from around the world flourish in science.

The tournament will be open to all at CERN to participate in with an entry fee of 10 CHF. A group stage will be followed by a knockout stage so all participating teams will be guaranteed a minimum number of matches. Each team will consist of 2 players so start scouting for your partner now! A prestigious trophy awaits the winner along with prizes for all those getting to the final rounds! So, **join in** (<https://giving.web.cern.ch/civcrm/contribute/transact?reset=1&id=38>) and make a difference!

CERN Table Football Tournament

11 to 13 July

Restaurant 1

To participate to the tournament, **subscribe here**. (<https://giving.web.cern.ch/civcrm/contribute/transact?reset=1&id=38>)

Follow CTFC on social media for more info: CERN\_TFC Facebook, @CERN\_TFC Twitter

## 4 AUGUST: HARDRONIC FESTIVAL – SAVE THE DATE!



Les Horribles Cernettes at the 2017 edition of the Hardronic festival (Image: CERN)

The annual party for CERN people – the Hardronic festival – is happening on 4 August this year, in the usual spot by the Restaurant 3 terrace in Prévessin. Attractions include 14 CERN Music Club bands, which will be entertaining the crowd with short, intense, 30-minute sets, plus great food and drink and, of course, the bouncy castle. More details are coming soon but for now – save the date!

## 26 JUNE: WATCH THE LIVE WEBCAST OF HUBERT REEVES' CONFERENCE



**The Physics of Antimatter, a conference by Hubert Reeves**  
Tuesday 26 June 2018 - 7.30 p.m.

Conference in French with simultaneous interpretation into English.

The conference is already fully booked but you can follow it live through the webcast here: <https://webcast.web.cern.ch/event/i729611>

Antimatter experiments are at the cutting edge of science. They are, however, very difficult to realise. Hubert Reeves will discuss antimatter physics and how experiments in this field help to probe the fundamental laws of nature.

Event organised as part of the week-long international AVA School on Low Energy Antimatter Physics at CERN.

---

# TRAM 18 REPLACED BY SHUTTLES BETWEEN BLANDONNET AND CERN

Due to works, from 17 June 2018 and for about 10 weeks, trams from Geneva centre will stop at Blandonnet. Travellers are requested to leave the tram

at Blandonnet and take shuttle 18 which will drive them to CERN (terminus).

*More information on Geneva Public Transports website (in French).*

Usual travel times from Geneva centre will be affected.

## Ombud's corner

### ABRASIVE MANAGERS: INEVITABILITY OR OPPORTUNITY?

*"The best times are when Bjorn\* is absent."* Only then do we get a break from having to walk on eggshells all the time.

Bjorn is what we call an abrasive manager. Whenever his predecessor Isabella\* thought that her team wasn't at the top of its game, she analysed the situation, tried to identify the causes of the problem and discussed her ideas with the team members so that they could find solutions together. But Bjorn makes threats, shouts, humiliates, mocks, makes a fuss over nothing and throws his weight around.

To try to resolve this situation, first we need to look at the origin of the problem. Bjorn is afraid that his team's under-performance will be blamed on his own incompetence. He feels threatened and scared that he will lose the respect of his colleagues and hierarchy, and adopts a defensive attitude. Why can't he react like Isabella used to? It's very simple: no-one has ever shown him that there's another way. Perhaps he came up against an abrasive manager himself at the start of his career. Perhaps he grew up in an environment where his feel-

ings were ignored. He follows the same blueprint, because he isn't familiar with a more constructive alternative. He's therefore spent years managing objectives, not people... and especially not their feelings!

Do you think that Bjorn is doing this intentionally, with the aim of hurting his team? Nothing could be further from the truth. It's more likely that he doesn't see the damage he's causing: shattered confidence, fear, inhibition, lack of initiative, or even members of his team moving to other teams.

How should we deal with an abrasive manager? Don't try and fight him with the facts; he'll waste no time in denying or underplaying them: *"Don't worry about it, my team know what I'm like. They know it's my way of getting things done. By tomorrow they'll have forgotten all about it!"* We need to start by confronting him with his team's feelings and emphasising that they are real: *"Bjorn, maybe you didn't mean to threaten the members of your team, but the fact is they perceived your words as a threat and they are paralysed by fear."* Next, we must make him aware of the ad-

vantages of changing his behaviour: *"The fear that you instil in your team is hindering its performance. If you can identify the source, you can eliminate it and improve the team's work."* Unfortunately, if no one manages to get him to change his ways, other measures will have to be taken because this style of management simply isn't tolerated at CERN these days.

Out of fear, victims or witnesses of an abrasive manager rarely speak up. If you find yourself in this situation, ask for help. Remember that, as the Ombud, I can, under certain conditions, take actions that could bring about a solution that is satisfactory for all concerned.

Pierre Gildemyn

*\*Names have been changed*

*If you'd like to comment on any of my articles or suggest a topic that I could write about, please don't hesitate to e-mail me at [Ombuds@cern.ch](mailto:Ombuds@cern.ch).*