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LHC REPORT: STOAT-ALLY BACK ON TRACK!

Electrical equipment that was damaged by the beech marten has been repaired. The LHC is back on track with ever higher beam intensity.



Technicians at work on the transformer that was damaged by the beech marten. (Image: Stefano Bertolasi/CERN)

Early in the morning of Friday, 29 April, the LHC was running with Stable Beams with 49 bunches per beam. Earlier that week, the scrubbing run had been cut short after a vacuum leak had developed in the SPS beam dump. Following this, the LHC had started its planned intensity ramp-up, albeit with a limited number of bunches per injection from the SPS to avoid overstressing the compromised beam dump.

At 05:32:16 on Friday, the beams were dumped. The logbook entry reads "Foreign object (weasel) found on the 66kV transformer in P8, causing severe electrical disturbance throughout the complex". The weasel, later more accurately identified as a beech marten, had taken out a 66 to 18 kV transformer at Point 8 of the LHC. It had caused a short to ground fault of a single phase on the 18 kV cables terminations on top of the transformer. However, the arc expanded damaging the other 18 kV terminations and 66 kV bushings. The protection system kicked in correctly but the perturbation impacted the 66 kV network and a lot of the CERN site.

Investigations by EN/EL revealed that the transformer – a 1991 model made back in the

USSR – was OK but that there was damage to the 18 kV cables and terminations. The 18 kV cables were repaired over the weekend and on Monday an external company carried out careful checks of the four 66 kV bushings. One of the bushings had slightly damaged porcelain. The positions of two of the bushings were therefore swapped to bring the damaged bushing to the neutral position (which is not stressed dielectrically in normal operation). The whole assembly was then tested without load before switching back to the nominal electrical network configuration in the morning of Thursday, 5 May.

With Point 8 fully back in action, the first step was to carry out some low intensity tests with beam to make sure that all systems were fully functioning and that everything was as it should be from the beam perspective. After flushing out a number of issues, the LHC was back in Stable Beams by the evening of Friday, 6 May and the intensity ramp-up was resumed.

At present, the intensity ramp-up has reached 900 bunches per beam. The peak luminosity is around 3 x 10³³ cm⁻²s⁻¹ and things are looking healthy. 900 bunches have passed machine protection qualification and the next physics fills are planned to be with 1200 bunches. Tuesday and Wednesday of this week are dedicated to luminosity calibration with Van der Meer scans being performed in ALICE, ATLAS, CMS, and LHCb. After a quick test of the special set-up to be used later in the year for the forward experiments, luminosity production will resume.

Stefano Bertolasi and Mike Lamont for the LHC team



A WORD FROM FRÉDÉRICK BORDRY

A GREAT START FOR THE WHOLE CERN ACCELERATOR CHAIN

With physics data-taking under way this week at the LHC, I'd like to take a look at what's been happening at the rest of the CERN accelerator chain.

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LHC Report: stoat-ally back on track!



A WORD FROM FRÉDÉRICK BORDRY

A GREAT START FOR THE WHOLE CERN ACCELERATOR CHAIN

The LHC tends to dominate the news from CERN for all kinds of reasons, beech martens included, but we should not forget that there is a unique chain of accelerators upstream of the LHC, tended to and operated by an incredible group of people. If our whole accelerator chain does not work perfectly, nor can the LHC, and in addition to forming the LHC's injector chain, our upstream accelerators support their own experiments, bringing great diversity to the CERN research programme.

The chain begins with the proton source and Linac2, which have been faithfully delivering beams since 1978. This year, Linac2 accelerated its first beams on 29 February, Beams were then passed on to the PS Booster and the veteran PS, the linchpin of the CERN accelerator complex and in operation since 1959. The final link in the chain before the LHC is the SPS, commissioned in 1976 and back in service with beam this year since 12 March. Each one of these machines is bespoke: its own prototype in many ways, and each is an extremely complex device in its own right. Every restart brings new challenges, and it's a great credit to the teams running the machines that from a user perspective, things usually seem to run like clockwork. In terms of challenges, this year was no exception, with a vacuum leak in the proton source to be located and repaired, POPS (Power system for PS main magnets) working in degraded mode and an SPS extraction magnet needing exchange.

With beams in the Booster and the PS, experimental programmes got under way at ISOLDE, in the East Area, at n TOF, and at the Antiproton Decelerator. ISOLDE's exotic beams are used in experiments ranging from nuclear structure to particle astrophysics. The East Area is home to the CLOUD experiment among others. Experiments at n TOF provide insights into subjects as diverse as the origin of elements in stars and the elimination of nuclear waste, and those at the Antiproton Decelerator probe the mysteries of antimatter. When the SPS started up, a range of North Area experiments covering questions as diverse as nuclear structure, quark-gluon plasma, precision tests of the Standard Model and the origin of ultrahigh-energy cosmic rays got their 2016 campaigns off to a start.

This is my second message to the CERN personnel this year. The first marked the beginning of LHC powering tests back in

March. Much has happened since then, most of it good. With beams back in the LHC at Easter, we found the machine to be as good as we left it. All the myriad parameters that have to be mastered to run a machine as complex as the LHC were reproducible with relative ease. The electron cloud that builds up in the beam pipes, and can have a strong negative influence on the beams has been mastered. Problems encountered along the way, most notably, as far as the outside world is concerned, that caused by a curious beech marten in an electrical substation, have been investigated, understood and put right with little fuss and minimum delay.

Thanks to the competence and dedication of the teams that look after and operate all of CERN's accelerators, I can report that our machines are running extremely well. We can now buckle down to achieving our ambitious goals for 2016, as we plan to deliver around six times more LHC data than in 2015. As we do so, let's remember that the road to new physics is rarely smooth, but the destination always makes the journey worthwhile.

Frédérick Bordry, Director for Accelerators and Technology

FEDERICO ANTINORI ELECTED AS THE **NEW ALICE SPOKESPERSON**

On 8 April 2016 the ALICE Collaboration Board elected Federico Antinori from INFN Padova (Italy) as the new ALICE Spokesperson.



During his three-year mandate, starting in January 2017, he will lead a collaboration of more than 1500 people from 154 physics institutes across the globe.

Antinori has been a member of the collaboration ever since it was created and he has already held many senior leadership positions. Currently he is the experiment's

Physics Coordinator and as such he has the responsibility to overview the whole sector of physics analysis. During his mandate ALICE has produced many of its most prominent results. Before that he was the Coordinator of the Heavy Ion First Physics Task Force, charged with the analysis of the first Pb-Pb data samples. In 2007 and 2008 Federico served as ALICE Deputy Spokesperson. He was also the first ALICE Trigger Coordinator, having a central role in defining the experiment's trigger menus from the first run in 2009 until the end of his mandate in 2011. He also played an important role in the commissioning of the experiment before the start of its operation.

Being entrusted by the Collaboration with its leadership makes Antinori feel honoured. "ALICE is a unique scientific instrument, built with years of dedication and labour of hundreds of colleagues. We have practically only begun to exploit its possibilities. As Spokesperson I can play a key role in making ALICE ever more efficient and successful and this is a truly exciting prospect for me."

Iva Raynova

HOW TO HELP CERN TO RUN MORE SIMULATIONS

With LHC@home you can actively contribute to the computing capacity of the Laboratory!



You may think that CERN's large Data Centre and the Worldwide LHC Computing Grid have enough computing capacity for all the Laboratory's users. However, given the massive amount of data coming from LHC experiments and other sources, additional computing resources are always needed, notably for simulations of physics events, or accelerator and detector upgrades.

This is an area where you can help, by installing BOINC and running simulations from LHC@home on your office PC or laptop. $These\ background\ simulations\ will\ not\ disturb$ your work, as BOINC can be configured to automatically stop computing when your PC is in use.

As mentioned in earlier editions of the Bulletin (see: cern.ch/go/vK6d and cern.ch/ go/7hBm), contributions from LHC@home volunteers have played a major role in LHC beam simulation studies. The computing capacity they made available corresponds to about half the capacity of the CERN batch system! Thanks to this precious contribution, detailed studies of subtle effects related with non-linear beam dynamics have been performed using the SixTrack code. This proved extremely useful not only for the LHC, but also for its upgrade, the HL-LHC.

More recently, thanks to virtualisation, the

use of LHC@home has been expanded to other applications. Full physics simulations are run in a small CernVM virtual machine on all types of volunteer computers. Monte-Carlo simulations for theorists were first included in a project called Test4Theory. Results are submitted to a database called MCPLots, based in the Theory department at CERN. Since 2011, about 2.7 trillion events have been simulated.

Following this success, ATLAS became the first experiment to join, and the number of volunteers engaged in ATLAS physics events simulation has been steadily ramping up for the last 18 months. The production rate is now equivalent to that of a large WLCG Tier 2 site! These events are fully integrated into the experiment data management system and are already being used for the physics analysis of Run 2. Now applications for the other LHC experiments are also being tested under LHC@home.

We encourage you to help to produce more results. It is really easy to join! On a standard

CERN NICE PC, you can install BOINC with CMF, and then connect to LHC@home as indicated on the LHC@home web-site (Ihcathome. web.cern.ch/join-us) and in the CMF instructions. If you use a Macintosh or Linux desktop, please refer to the instructions for your platform on the website (Ihcathome.

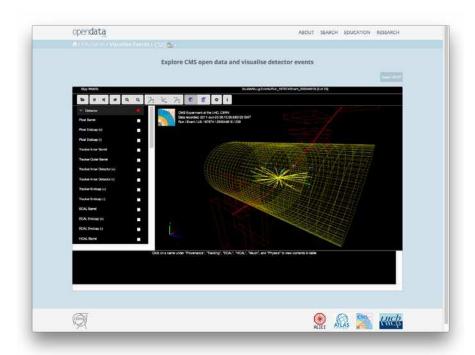
web.cern.ch), which also includes a video tutorial

Help our accelerator and research community and join LHC@home!

The LHC@home team

CMS RELEASES NEW BATCH OF LHC OPEN DATA

CMS makes 300 TB of high-quality data from the LHC available to the public through the CERN Open Data Portal.



 $A\,CMS\,collision\,event\,as\,seen\,in\,the\,built-in\,event\,display\,on\,the\,CERN\,Open\,Data\,Portal\,(Image:\,CERN)$

The CMS collaboration has made 300 TB of high-quality data from the LHC available to the public through the CERN Open Data Portal.

The collision data come in two types: The so-called "primary datasets" are in the same format used by the CMS Collaboration to perform research. The "derived datasets" on the other hand require a lot less computing power and can be readily analysed by university or even high-school students.

Notably, CMS is also providing the simulated data generated with the same software version that should be used to analyse the

primary datasets. Simulations play a crucial role in particle-physics research and CMS is also making available the protocols for generating the simulations that are provided. The data release is accompanied by analysis tools and code examples tailored to the datasets.

These data are being made public in accordance with CMS's commitment to long-term data preservation and as part of the collaboration's open-data policy.

"Members of the CMS Collaboration put in lots of effort and thousands of person-hours each of service work in order to operate the CMS detector and collect these research data for our analysis," explains Kati Lassila-Perini, a CMS physicist who leads these data-preservation efforts. "However, once we've exhausted our exploration of the data, we see no reason not to make them available publicly. The benefits are numerous, from inspiring high-school students to the training of the particle physicists of tomorrow. And personally, as CMS's data-preservation co-ordinator, this is a crucial part of ensuring the long-term availability of our research data."

The scope of open LHC data has already been demonstrated with the previous release of research data. A group of theorists at MIT wanted to study the substructure of jets — showers of hadron clusters recorded in the CMS detector. Since CMS had not performed this particular research, the theorists got in touch with the CMS scientists for advice on how to proceed. This blossomed into a fruitful collaboration between the theorists and CMS revolving around CMS open data.

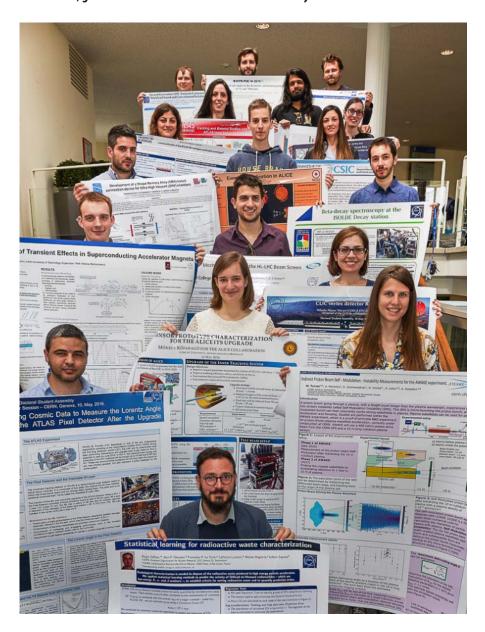
Read more about CMS Open Data on the CERN Open Data Portal: **opendata.cern.ch/about/CMS**.

A longer version of this article was originally published on the CMS website: **cern.ch/go/PFp8**.

Achintya Rao

FOURTH DOCTORAL STUDENT ASSEMBLY

On 10 May, over 130 PhD students and their supervisors, from both CERN and partner universities, gathered for the 4th Doctoral Student Assembly in the Council Chamber.



The assembly was followed by a poster session, at which eighteen doctoral students presented the outcome of their scientific work. The CERN Doctoral Student Programme currently hosts just over 200 students in applied physics, engineering, computing and science communication/education. The programme has been in place since 1985. It enables students to do their research at CERN for a maximum of three years and to work on a PhD thesis, which they defend at their University. The programme is steered by the TSC committee, which holds two selection committees per year, in June and December.

The Doctoral Student Assembly was opened by the Director-General, Fabiola Gianotti, who stressed the importance of the programme in the scientific environment at CERN, emphasising that there is no more rewarding activity than learning, probing into science and sharing knowledge. Students were given the opportunity to ask questions to the DG, to meet their fellow students and to make new friends.

Ingrid Haug

Computer Security

RANSOMWARE - WHEN IT IS TOO LATE...

"Ransomware is a type of malware that restricts access to the infected computer system in some way, and demands that the user pay a ransom to the malware operators to remove the restriction.

Some forms of ransomware systematically encrypt files on the system's hard drive, which become difficult or impossible to decrypt without paying the ransom for the encryption key, while some may simply lock the system and display messages intended to coax the user into paying..." (Source: https://en.wikipedia.org/wiki/Ransomware)

It is not unusual to see devices falling prey to ransomware. PCs and laptops, in particular those running the Windows operating system, can easily be infected with ransomware if the user is inattentive. For example, if they open an attachment to an unsolicited mail (see some hints to detect bad emails on: **cern.ch/go/9JZW**), or click on the link to a malicious website (see our articles on our clicking campaign on: **cern.ch/go/vK6d**).

So what can you do if you have already fallen to ransomware? First of all, turn the infected computer off immediately. Just cut the power. This will stop the malware from attacking more files. Secondly, do not pay. Do not answer. Contact us at **Computer. Security@cern.ch**. We might have some tools to unlock your computer again. It is already too late for your data, but if you have

been careful, you should have a back-up from which we can recover your files. Standard folders on centrally managed Windows PCs are automatically backed up to CERN's DFS file storage. You can also enable DFS back-up for Macs and Linux systems or, alternatively, use AFS or CERNbox. If all is lost, we can still offer you a hot beverage to ease the pain.

And how can you protect yourself? First of all, maintain permanent back-ups of your files (see above). Keep your operating system up-to-date by running automatic Windows updates, Mac software updates or the Linux "yum auto-update". Pass the responsibility to CERN's IT department if you don't want to do this yourself. For Macs and Windows computers, install a decent antivirus software. Remember, CERN provides a free solution for office and home usage. Apply due diligence: stop - think don't click if that email, attachment, link or URL is suspicious, looks weird, or is not really intended for you (see once more our hints to detect bad emails). Finally, refrain from installing software from dubious webpages. "Free" does not always mean free; some "free" software or applications come with integrated ransomware...

Swiss campaign on ransomware

Ransomware is becoming a significant problem for a growing number of individuals, communities, organisations and companies.

As a result, CERN and a number of Swiss partners are currently carrying out an awareness-raising campaign focusing on ransomware:

https://www.stopthinkconnect.org/tips-advice/general-tips-and-advice

The Swiss campaign will be held on 19.05.

For further information, questions or help, check: https://security.web.cern.ch or contact us at Computer.Security@cern.ch.

Do you want to learn more about computer security incidents and issues at CERN? Follow our Monthly Report:

https://security.web.cern.ch/security/ reports/en/monthly_reports.shtml

Stefan Lueders, Computer Security Team

Ombud's Corner

THIRD LETTER FROM OMBUDSLAND - FOCUS ON **FAIRNESS**

Spring is here again, and once again it is time for the annual conference of the International **Ombudsman Association.**

In the two previous "letters from Ombudsland", I first reviewed the Ombud's code of ethics and the four basic principles governing the role, and subsequently I shared a key message related to micro-inequities or "the little acts of disrespect and failures in performance feedback that seem to corrode some professional relationships like bits of sand and ice". This year I would like to report on the perception of fairness and how this notion underlies the success of any interpersonal conflict resolution.

Fairness has been defined as "treating people equally without favouritism or discrimination" and it implies evenhandedness or the quality of making judgments that are free from bias or injustice.

Fairness is a basic human need where perception is key – it is how we feel we have been treated that matters! How often do we hear that it is not the actual facts that cause distress but rather the way in which they were imparted or implemented that leads to a breakdown of trust or cooperation?

"I understand that he had to make a decision, but why didn't he tell me himself?" "She didn't even check with me before committing us to that deadline..." "They acted on his recommendation without even asking for our point of view..." "It's not fair..."

... are words that are echoed in Ombuds' offices all over the world.

How does the notion of fairness impact conflict resolution? During a keynote panel discussion devoted to this topic, the speakers were unanimous in saying that the perception of fairness was central to all conflicts, and that if this was not acknowledged and taken into account, there could be no real and lasting resolution to the problem. Whereas the experience of fairness may be culture-specific and different groupings may view situations in different ways, there is always a sense of the right to be treated fairly that is shared by all, and when this sense is violated, conflict becomes inevitable.

How do we, as managers and colleagues faced with making decisions about our co-workers, judge whether or not an individual situation is fair? And how do we build an organisational culture and environment that is perceived to be fair?

The panel proposed the following "fairness triangle" as a checking mechanism for evaluating fairness in the work environment:

- · Substance: is the decision based on transparent and factual information?
- Process: have all relevant points of view been taken into account?
- Relationship: are we treating the person(s) concerned with due respect and consideration?

Furthermore, they went on to say, fairness does not always mean that everyone has to be treated the same - it is context driven and each situation needs to be assessed according to the nature of the decision, its impact level and the effect it is likely to have on the individual or the environment. What is always important however, is that there is a perceived consistency to the process involved and that all three aspects of the fairness triangle are seen to be systematically applied in all cases.

Fair treatment does not always imply that we will get the outcome we want from a situation of conflict. Indeed, it may not always be possible to reach an agreement with our counterpart, but if we understand the process by which a decision is taken and we feel that we have been heard and treated with respect, are we not more likely to accept and adhere to the ultimate solution?

All previous Ombud's Corners can be accessed in the Ombud's blog: http://cern.ch/go/p9ZS.

Sudeshna Datta-Cockerill

Official news

ELECTIONS TO THE MUTUAL AID FUND

Every two years, according to Article 6 of the Regulations of the Mutual Aid Fund, the Committee of the Mutual Aid Fund must renew one third of its membership. This year three members are outgoing. Of these three, two will stand again and one will not.

Candidates should be ready to give approximately two hours a month during working time to the Fund whose aim is to assist colleagues in financial difficulties.

We invite applications from CERN Staff who wish to stand for election as a member of the CERN Mutual Aid Fund to send in their application before 17 June 2016, by email to the Fund's President, Connie Potter (connie.potter@cern.ch).

FAMILY BENEFITS — OBLIGATION TO PROVIDE INFORMATION

Pursuant to Article R V 1.38 of the Staff Regulations, members of the personnel are reminded that they are required to inform the Organization in writing, within 30 calendar days, of any change in their family situation (marriage, partnership, birth of a child, etc.) and of the amount of any financial benefit of a similar nature to those stipulated in the Staff Regulations (e.g. family allowance, child allowance, infant allowance, non-resident allowance or international indemnity) to which they or a member of their family may be entitled from a source other than CERN.

The procedures to be followed are available in the admin e-guide:

https://admin-eguide.web.cern.ch/en/procedure/change-family-situation

Members of the personnel are also reminded that any false declaration or failure to make a declaration with a view to deceiving others or achieving a gain resulting in a loss of funds or reputation for CERN constitutes fraud and may lead to disciplinary action in accordance with Article S VI 2.01 of the Staff Rules.

Human Resources department HR-Family.Allowance@cern.ch

RESIDENCE IN SWITZERLAND OF PARTNERS OF MEMBERS OF THE PERSONNEL

1. Definitions

a) CERN Staff Rules and Regulations

Article S IV 1.02 of the Staff Rules stipulates that "The term "marriage" includes registered civil partnerships; the term "spouse" includes registered partners".

b) Swiss Federal Law

Under Swiss federal law, to which the text below essentially refers, the following definitions apply:

- "partners": a couple of the same sex (linked by a registered partnership),
- "common-law spouses": a couple of the opposite sex (unmarried).

Under this law, two people of the same sex ("partners") may officially register their partnership with the competent registry office in order to give it a legal framework (a civil partnership commonly known as the Federal PACS), provided that they are aged 18 or over and are not blood relatives. Such partnerships are recognised by the Federal Department of Foreign Affairs (DFAE), as are partnerships validly registered outside Switzerland, as long as they have the same legal effect as partnerships registered in Switzerland. Legally valid marriages between persons of the same sex that take place outside Switzerland are considered as registered partnerships.

However, Swiss federal law does not provide a specific legal framework for partnerships between persons of the opposite sex (common-law spouses) and does not recognise such partnerships registered outside Switzerland.

N.B.: Geneva cantonal law provides for a form of partnership (a civil partnership commonly known as the Geneva PACS) open to same-sex and opposite-sex couples alike; while it is not recognised by the DFAE, it is recognised by CERN within the meaning of Article S IV 1.02 of the Staff Rules and Regulations.

2. Opposite-sex (common-law) partnerships

The partner of a member of the personnel will be issued with a DFAE legitimation card of the

same type as the one issued to the member of the personnel, provided that:

- the couple is living together in Switzerland, and
- the couple has entered into a civil partnership recognised by CERN within the meaning of Article S IV 1.02 of the Staff Rules and Regulations.

If the partnership is not recognised by CERN, the Swiss authorities will, on an exceptional basis, issue an "H"-type DFAE legitimation card, which does not confer any privileges or immunities* on the partner (common-law spouse), provided that the couple:

- is living together in Switzerland, and
- has had one or more children together or is able to supply proof of a stable, longstanding relationship (e.g. a notarial deed or an official contract).

The Swiss authorities also issue legitimation cards to the partner's children if they are unmarried and under 25 years of age; in the case of minors (children under 18 years of age), the partner must have legal custody, or, where applicable, must provide written authorisation from the other parent.

The application must be made in the form of a detailed letter submitted by the Organization (Relations with the Host States Service) describing the specific circumstances. Persons who require a visa to reside in Switzerland must obtain a favourable response from the authorities regarding the issue of a legitimation card before applying for their visa and coming to Switzerland.

3. Same-sex partnerships

a) Members of the personnel who have officially registered their partnership

The partner will be issued with a DFAE legitimation card of the same type as the one issued to the member of the personnel, provided that:

- the couple is living together in Switzerland, and
- the partnership is recognised by CERN within the meaning of Article S IV 1.02 of the Staff Rules and Regulations, and
- the partnership is recognised by the DFAE (see paragraph 1.b above).

The Swiss authorities also issue legitimation cards to the partner's children if they are

unmarried and under 25 years of age; in the case of minors (children under 18 years of age), the partner must have legal custody, or, where applicable, must provide written authorisation from the other parent.

b) Other cases

The Swiss authorities will, on an exceptional basis, issue an «H»-type DFAE legitimation card, which does not confer any privileges or immunities on the partner*, provided that the couple:

- is living together in Switzerland, and
- is able to supply proof of a stable, longstanding relationship (e.g. a notarial deed or an official contract).

The Swiss authorities also issue legitimation cards to the partner's children if they are unmarried and under 25 years of age; in the case of minors (children under 18 years of age), the partner must have legal custody, or, where applicable, must provide written authorisation from the other parent.

The application must be made in the form of a detailed letter submitted by the Organization (Relations with the Host States Service) describing the specific circumstances. Persons who require a visa to reside in Switzerland must obtain a favourable response from the authorities regarding the issue of a legitimation card before applying for their visa and coming to Switzerland.

*N.B.: Holders of an "H"-type legitimation card are subject to ordinary Swiss law, in particular to legislation concerning social security and tax.

> Human Resources department Cards Office Tel.: 79494 cards.service@cern.ch

Relations with the Host States Service Tel · 72848

relations.secretariat@cern.ch www.cern.ch/relations/

LEAVE FOR ILLNESS/ACCIDENT OR IN THE EVENT OF ILLNESS OF A **CLOSE RELATIVE - NEW MEDICAL CERTIFICATE TEMPLATES**

Medical certificate templates are now available in the Admin e-quide (follow the "Forms and templates" link):

- Medical certificate for illness/accident
- Medical certificate for a medical examination or treatment
- Medical certificate in the event of illness of a close relative

These templates are provided for the convenience of members of the personnel and their use is recommended but not compulsory. Other forms of medical certificates issued by a medical doctor may also be submitted, provided they contain the same items of information as those given in the templates.

More information on the applicable rules and on the way leave is managed at CERN can be found in the Admin e-guide web pages: cern. ch/go/VGD9.

> Human Resources department HR.leave@cern.ch

Take note

SPEED LIMIT ON THE ROUTE DE L'EUROPE

Construction work to create a cycle path is under way on the Route de l'Europe, between CERN's Meyrin and Prévessin sites. The new cycle path is expected to be ready for use in August.

On the part of the road under construction, only one lane is open and **the speed limit is 30 km/h.** Unfortunately, drivers frequently exceed this limit. Those who drive too fast put their own lives at risk as well as those of the people working on the site.

Please respect the speed limit.

In addition, access to the Route de l'Europe from the SM18, SM19 and BA1 areas and from the tunnel may be in the part of the road where only one lane is open. In this case, please join the road only when the traffic lights allow travel in the relevant direction.

BIKE TO WORK: ON YER BIKE!

How to combine a gesture for the environment with an action for your health? By getting on your bike and, even better, by participating in the "Bike to Work" initiative.

This year CERN takes part again in the Swiss national campaign "Bike to Work", which is expected to attract more than 50,000 participants. In teams of four, colleagues will encourage each other to cycle to work throughout the month of June. Last year CERN was the organization in French-speaking Switzerland with the most participants; 126 teams pedaled some 97,462 kilometers. And several of the nice prizes were given to CERN participants. Let's aim to keep our position at the top of the leaderboard in 2016!

Participating is easy! Simply get together with three of your colleagues and register your "Bike to Work" team online before 31 May on cern.ch/go/9ZsC. There are no fees for registering teams, there is no minimum distance and parts of the journey can be done using public transport. There is even an opening for non-cyclists: one member per team can be a pedestrian or a skateboarder or use any other means of transport that does not depend on an engine. If you need help forming your team, add your name to this Doodle (cern.ch/go/vWN6) and you will be teamed up with three other colleagues.

A description of the event and CERN's own "Bike to CERN through the whole year" challenge can be found on the website "Bike to work - Bike to CERN".

Before getting in the saddle, please remind yourself of the safety rules for bicycling and follow the online course for Road Traffic - Bike Riding! Enjoy your commute!

Jens Vigen, "Bike2Work" coordinator for CERN

LARGE HADRON COLLIDER PHYSICS (LHCP2017) CONFERENCE | 15-20 MAY 2017 | SHANGHAI

The fifth Annual Large Hadron Collider Physics will be held in Shanghai and hosted by Shanghai Jiao Tong University in the period of May 15-20, 2017.

The main goal of the conference is to provide intense and lively discussions between experimenters and theorists in such research areas as the Standard Model Physics and Beyond, the Higgs Boson, Supersymmetry, Heavy Quark Physics and Heavy Ion Physics as well as to share a recent progress in the high luminosity upgrades and future colliders developments.

The LHCP2017 website: http://lhcp2017.physics.sjtu.edu.cn/

Event date: 15 - 20 May 2017

Location: Shanghai, China

"INNOVATION ON BIG DATA FOR HEALTHY LIVING" | SUMMER SCHOOL | 27 JUNE - 6 JULY 2016

IBD4Health explores advanced topics related to big data computing and analytics for health and wellbeing, with a focus on innovation and entrepreneurial awareness.



Innovation on big data for healthy living A bioHC Summer School 27 June - 6 July 2016 European Scientific Institute, Archamps, Haute-Savoie

Through an interactive case study on obesity, participants will be invited to discover diverse data sources and on-going efforts to develop

new tools for large-scale data processing, thus providing a path for in-depth analysis of different causal and contributory factors as a means to supporting the development of optimized interventions and public health approaches to tackle obesity.

Participants will also be introduced to Creative Thinking and applied Design Thinking with the opportunity to present (pitch) their ideas in front of a panel of business experts.

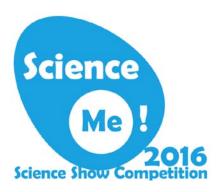
School faculty include academic and industrial experts from France, the Netherlands, Slovenia, Spain, Sweden and Switzerland.

For more information:

www.biohealth-computing.eu/innovationon-big-data-for-healthy-living/

SCIENCE ME! 09-10 JULY GENEVA

The 11th Nuit de la Science will happen on July 9 and 10 on the theme "The Rules of the Game" in the gorgeous park of the Perledu-Lac showcasing the Museum of Science History, organizer of this event that attracts 30-35,000 visitors on each edition.



On this occasion, the Chimiscope and the Museum of Science History invite the public to take part to Science Me!, the first European science show competition.

Under a large circus tent, teams of young scientists from all origins and practicing all sciences will compete under the form of 10-minute shows, in French or in English. At the end of each show, the audience will also be able to interact and converse with the participating teams.

The success of the demonstrations will be measured by applausemeter, while a jury of neutral and independent scientists will evaluate the quality of the shows on the basis of sound criteria (pedagogical and didactic aspects of the explanations, artistic and poetic dimensions of the presentations, fulfilment of safety regulations, interactivity with the

public, simplicity vs. complexity of presented themes, scientific novelty). The three best shows of the weekend will be awarded after the competition.

Science Me! is financially supported by Agora, the instrument of the Swiss National Science Foundation aimed at widespreading the knowledges and the dialogues between the scientists and the public.

To register a team go to: http://cern.ch/ go/8BfX.

Contact us to inquire about the competition: ScienceMe@unige.ch.

CERN OPENLAB 'OPEN DAY' **MARKS 15 YEARS OF FRUITFUL** COLLABORATION

CERN openlab is organising an 'open day' event on 8-9 June 2016. The event will provide an opportunity to learn about CERN openlab's work: collaborating with leading ICT companies and research institutes to accelerate the development of cutting-edge

solutions for the worldwide LHC community, as well as for wider scientific research.

The event will take place at CERN in the main auditorium, as well as in the upstairs mezzanine area of the main building. It will feature both talks and posters on the achievements of diverse CERN openlab projects over the last year. There will also be hands-on technology demonstrations from companies working with CERN openlab, so that you too can discover the latest ICT innovations.

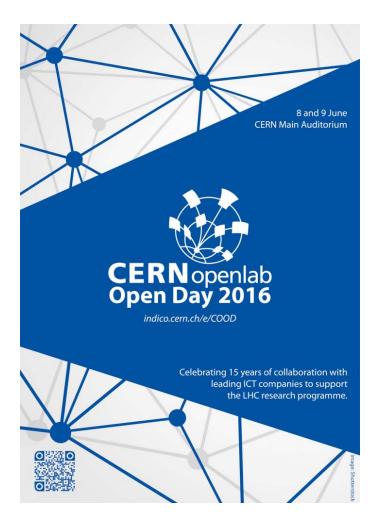
The event marks 15 years since CERN openlab was established. "Since 2001, this unique public-private partnership has worked to ensure that members of CERN's scientific community have access to the very latest ICT solutions to help them push back the frontiers of physics," says Alberto Di Meglio, head of CERN openlab. "We're proud to continue supporting the LHC research programme in this manner and we're very excited to show you the ground-breaking work we've been doing together with our collaborators during our current phase."

Huawei, Intel, Oracle and Siemens are all partner companies in the current phase of CERN openlab. Brocade, Cisco, IDT, Rackspace and Seagate are contributors, while Yandex and Comtrade are associate members. The European Bioinformatics Institute (EMBL-EBI), the GSI Helmholtz Centre for Heavy Ion Research, Innopolis University, Kazan Federal University, and Newcastle University are all research members.

If you're interested in finding out more about how research and industry can work together in close partnership to drive innovation in support of the scientific community, then this event is for you.

For further details — including registration information — please visit the Indico page: cern.ch/go/9JZW.

Andrew Purcell



2nd Developers@CERN Forum

Python at CERN

IT Amphitheatre 30-31 May



Are you a Python guru, or would you like to learn?

Propose a talk or workshop at http://cern.ch/dev-forum



Seminars

TUESDAY MAY 24, 2016

20:30 GLOBE - Public Events Bientôt une sculpture sur la Lune... Globe of Science and Innovation - 1st Floor

WEDNESDAY MAY 25, 2016

16:30 CERN Colloquium Massive Black Holes and Galaxies **Main Auditorium**

THURSDAY MAY 26, 2016

- 08:00 Academic Training Lecture For Postgraduate Students Science, Innovation & Transfer Technology -SITT 2016 1-1-025
- 08:00 Science, Technology and Industry Seminar CERN, Nat. Tech. Univ. of Athens, Eastern Macedonia and Thrace Inst. of Technology, MSc TIE 4-S-030

MONDAY MAY 30, 2016

14:00 **Workshop** Experimental Particle and Astroparticle Seminar Zurich **42-R-407**

TUESDAY MAY 31, 2016

- 11:00 LHC Seminar CMS seminar TH Conference Room
- 12:00 CERN Accelerator School Free Electron Lasers and Energy Recovery Linacs (FELs and ERLs)