CERN Bulletin

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MIDSUMMER MYSTERIES: CRIMINAL MASTERMINDS? NOT REALLY…

In the summer, when offices are empty and the library is full of new faces, it may seem like a perfect opportunity to steal IT equipment. However, as we know, stealing never pays and thieves always get caught. Just like the person who stole several bikes parked in front of Reception…

As we have said many times: security affects us all. It would seem that the crafty little devil who stole four computers from the library (three privately owned and one belonging to CERN) in July hadn't read our article. This individual naïvely thought that it would be possible to commit the thefts, sell his ill-gotten gains on the CERN Market and still get away with it.

But he was wrong, as the CERN security service and the IT security service were able to identify the guilty party within just a few days. "The computers had been stolen over a period of four days but it was obvious to us that the same person was responsible," explains Didier Constant, Head of the Security Service. "Thanks to the IT security service, we could see that the stolen computers had been connected to the CERN network after they were taken and that they had been put up for sale on the CERN Market."

The thief's strategic error was blatantly obvious in this case. However, even when the intentions are clear, it is not always so easy to find proof, especially if the thief tries to defend himself with explanations and alibis like a professional criminal. "The Geneva police helped us a lot," says Didier Constant. "The person eventually admitted to three of the four thefts. He had probably sold the fourth computer outside CERN."

Fortunately, the security service is never on holiday: also in July, another person thought he could come to CERN on the tram, help himself to a bike parked near Reception and use it to get away, repeating this process several times. "In total, over three weeks, this person stole about 10 bikes," explains Didier Constant. "In this case we were able to identify the guilty party from our security cameras and the police had a criminal record for him."

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A word from the DG and the President of Council

CELEBRATING THE FIRST OF A KIND

It was on 7 and 8 October 1954 that the first meeting of the CERN Council took place, opened by Frenchman Robert Valeur, retiring Chairman of the interim Council that had overseen the establishment of CERN. On the day we celebrate that first meeting with a special Council Symposium, it's interesting to look back at the meeting's minutes.

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A word from the DG

(Continued from page 1)

CELEBRATING THE FIRST OF A KIND

Penned in the dry official language that is the hallmark of such documents, the momentous nature of what had been achieved nevertheless shines through. "The retiring Chairman stressed the importance of the creation of the Organization which would be the first scientific organization of its kind in the world," Valeur was reported as saying, before going on to introduce such luminaries as Swiss writer and federalist, Denis de Rougemont, and American Nobel Prize winner, Isidor Rabi, both of whom had played instrumental roles in the creation of CERN. CERN pioneer Pierre Auger would only be present the following day, reported Valeur, while Louis de Broglie, whose 1949 submission to the European Cultural Conference started it all, was unable to attend.

In words that set the tone for transatlantic relations in particle physics, Rabi "stressed the great interest of American scientists in the work of the Laboratory and offered, on their behalf, the most cordial and complete cooperation. This, he hoped, would lead to a fair competition between Europe and America for the benefit of science". Opening formalities aside, the meeting very rapidly got down to business, with elections of officials, financial and staffing matters, and detailed discussions about the suitability of the local geology for the construction of the proton synchrotron.

What made the origins of CERN so remarkable, and continues to make CERN remarkable today, is the extraordinary resonance between visionary scientists, diplomats and government representatives, all recognising science as a vehicle for peace. The names cited in the minutes of the first Council meeting include scientists and non-scientists. Today's Council continues in that tradition, being composed of representatives of our Member States' governments and scientific communities. It is this that makes our governance model so robust, our scientific record so proud, and it is what makes that first meeting of the Council so worthy of celebration today as we approach the International Day of Peace this weekend.

Sixty years after CERN's creation, there is still much conflict and intolerance in the world. In such a climate, institutions like CERN, islands of peace and stability, are more necessary than ever. New organisations, such as SESAME, should be encouraged, while those that exist should be nurtured. This is the message that we hope endures from CERN's 60th anniversary year.

Agnieszka Zalewska,
President of CERN Council
Rolf Heuer, CERN Director-General

Stop Press! A new Editor for *Le Temps*… for one day only

On Saturday 27 September, *Le Temps* will take on a decidedly CERNois hue as CERN Director-General Rolf Heuer takes over the editorship of the paper for one day only. It is a long-running tradition of the newspaper to invite well-known people from the local region to shape the paper for a day, and on the weekend before CERN's 60th birthday, the full-time Editor, Pierre Veya, has chosen to give that honour to our Director-General.

Professor Heuer has already started to throw himself into his new role as a journalist, having interviewed the head of the UN Office in Geneva, Michael Møller, and been interviewed himself for the paper he'll be shaping. Next week, the Director-General will take part in two Editorial meetings at *Le Temps's* offices in Geneva, and on Saturday 27th, the paper will be available at CERN at the entrance to Restaurant 1 and through a link to the electronic version that will be e-mailed to the CERN community.

MIDSUMMER MYSTERIES: CRIMINAL MASTERMINDS? NOT REALLY…

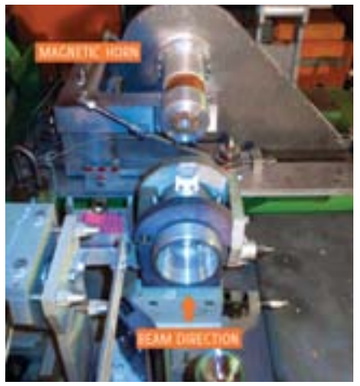
So there you have two very interesting stories. In both cases, it was thanks to tickets created on the CERN Portal that these crimes could be dealt with by experts in the services concerned and by the police. If you see unusual behaviour or if you are the victim of theft, don't hesitate to report it.

Antonella Del Rosso

LS1 REPORT: THANK YOU MAGNETIC HORN!

Experiments at the Antimatter Decelerator (AD) have been receiving beams since the beginning of last week. There is a crucial element at the heart of the chain that prepares the antiproton beam: the so-called magnetic horn, a delicate piece of equipment that had to be refurbished during LS1 and that is now showing just how well it can perform.

Antiprotons for the AD are produced by smashing a beam of protons from the PS onto an iridium target. However, the particles produced by the nuclear interactions are emitted at very wide angles; without a focussing element, all these precious particles would be lost. "A magnetic horn is placed at the exit of the target to focus back a large fraction of the negative particles, including antiprotons, parallel to the beam line and with the right momentum," explains Marco Calviani, physicist in the EN Department and the expert in charge of the AD target area. "Its performance is of vital importance for the AD physics programme because experiments need a good antiproton yield in order to carry out their research programmes on antimatter. Without the horn, the number of antiprotons for the experiments would be reduced by a factor of 50."



View from the top of the target and horn trolley, along the direction of the beam.

At the end of 2013, the magnetic horn that had been in operation for 20 years was inspected and found to be severely damaged by electric arcs. Luckily, it had not yet stopped working and no further damage was done to the surrounding structures. However, given the state of the electrical contacts, the horn current transmission system had to be replaced in order to ensure reliable AD operation after LS1. "The horn assembly is a magnetic system composed of three main parts," describes Calviani. "The first is the horn itself, constituted of two concentric aluminium conductors, in which the internal one has a double parabolic shape. When a 400 kA current pulse flows through the conductors, a 13 Tesla magnetic field is generated in between the conductors. This very high field allows the particles entering the horn inner volume to be focussed. The second part is a six-metre-long aluminium strip line that carries the current from the generators to the horn. The third part is a movable clamping system between the first two, which ensures the electrical continuity of the device."

Given the critical situation, the experts decided to replace all three components. They had only six months to re-assemble and test the over 20-year-old spares. "We found the old spare of the strip line, but it needed a lot of work in order to be made usable," explains Calviani. "At the same time we launched the construction of additional pieces that were created in record time thanks to very good collaboration between the EN, TE and BE Departments and the HSE unit."

The consolidated system was first assembled on the surface, tested at full current in a dedicated test bench far enough from the radioactive environment of the target area and then installed underground in the target area. Now that the beam is back after LS1, the experts can measure the system's performance. The verdict is: no unconformities.

Antonella Del Rosso

Did you know?

The magnetic horn was invented at CERN in the 60s by Simon Van der Meer. The original application of the magnetic horn was for neutrino physics. Since its invention, the magnetic horn has found many applications all around the world, in both neutrino physics and the production of antiprotons.

Meanwhile, elsewhere...

On Friday 12 September, the SPS accelerated its first proton beam of the LHC's second run. Prior to startup, a leak was found in one of the accelerator's main water-cooled cables, which date back to the construction of the machine. Its antiquated design allows water to run through the cable itself, rather than surrounding it. As no backups of such cables were kept, the cable was "cannibalised" and only the leaky section of the cable was removed. A simple non-water-cooled bus bar was put in place in this short section, providing a quick but effective solution to the issue.

Over at the LHC, the first powering tests started in Sector 6-7 on Monday 15 September. Meanwhile, the cool down of the machine continues in five sectors, with Sector 6-7 at the nominal temperature.

This week, LS1 coordination leaders will be heading to the Chamonix workshop to discuss their final plans before the machine restarts in week 11 of 2015. Plans for LS2 will also be on the table, a full four years in advance!

CERN'S CHALLENGE-BASED INNOVATION COURSE WELCOMES NEW STUDENTS

What do you get when you mix students from around the world with detector technologies developed at CERN and ask them to solve societal problems? Welcome to the Challenge-Based Innovation course.

The CBI students at IdeaSquare – a CERN building currently being renovated, which will be inaugurated in December

Students at CERN are no surprise; the Laboratory welcomes hundreds each year. But these 45 students, travelling from Spain, Finland, Norway, Italy and even Australia, are studying design, engineering, business and more. With their mix of backgrounds, they have come to CERN this week to view detector technologies in a very different way.

They are here to follow the Challenge-Based Innovation (CBI) course, a Masters-level student programme developed by CERN in collaboration with a number of universities worldwide. They will be grouped into six teams and shown a range of detector technologies in collaboration with coaches and inspiration partners. In just six months, they will seek to develop prototypes in a number of fields ranging from aiding the blind and the elderly to improving food security (see box).

"The aim is to develop human-centred solutions where the needs of the people become the guidelines for designing the various prototypes," explains Tuuli Utriainen, CBI course coordinator at CERN. "After an initial two weeks at CERN, the students will return to their respective countries to continue working on the concepts, before coming back to CERN early next year to present their results."

The course follows on from a pilot CBI course that began in 2013, in which students developed prototypes to aid meeting communications and to improve the learning experiences of autistic children.

"We learnt a lot from the initial pilot course," explains Joona Kurikka, a PhD student from the Aalto University in Finland who is working with Tuuli to coordinate the course. "A new feature that we have implemented for this year is a collaborative teaching platform to allow the participating institutes to exchange not only ideas but also teaching methods."

"The ideas will certainly evolve over time, and the final prototypes could be surprising and different from what we expect when we propose these challenges now," continues Tuuli. "We can't wait to see the results in February 2015!"

Kate Kahle

The challenges

The six student teams will each be given one of the challenges below as a starting point for its six-month project.

- How could blind people benefit from sensor technology?
- How could we enable natural interaction in telepresence solutions?
- How could sensor technology aid facility management or the interaction with spaces?
- How could food security benefit from cryogenics or other technologies such as insulation?
- How could an ageing population benefit from exoskeleton designs?
- How could wearable sensors increase our understanding of human interactions?

The CBI course is one of the activities carried out by the Development and Innovation Unit led by Marzio Nessi and Markus Nordberg in the DG Unit. As CBI forms part of the students' Masters curriculum, the participating universities provide their funding for the students. As the course continues to develop, the organisers are working to build partnerships with additional Member and non-Member State universities.

If you are interested to know more about CBI or would like to participate or comment on the topics, please contact **tuuli.utriainen@cern.ch**.

MAKE A 21ST CENTURY PHONE CALL

Want to avoid roaming charges? Click to call anyone at CERN? How about merging your CERN landline with your existing smartphone? That's all easily done with Lync, CERN's new opt-in service that can take your calls to the next level.

The Lync application on Windows (left) and iPhone (right).

Lync unites CERN's traditional telephone service with the digital sphere. "Lync gives you the gift of mobility, by letting you access your CERN landline on the go," explains Pawel Grzywaczewski, service manager of the Lync system. "Once you've registered your CERN telephone with the service, you can run the Lync application and make calls from a range of supported devices. No matter where you are in the world - be it simply out to lunch or off at an international conference - you can make a CERN call as though you were in the office. All you need is an Internet connection!" Following a recent upgrade, CERN's Lync service now has full mobile phone support for Androids and iPhones.

The fruit of a collaboration between the OIS and CS Groups in the IT Department, CERN's Lync service provides an alternative to traditional landlines. "CERN telephones are not being replaced except when requested," says Francisco Valentin Vinagrero, a CERN telecoms engineer. "These traditional phones are robust and are already part of the CERN infrastructure. But those who choose to 'migrate' to the new Lync system can take full advantage of the many new features." Click-to-call? E-mail? Instant messaging? Manage your call forwarding settings? All are just one button away through your Lync application.*

Migrating is easy: simply make a phone request through EDH. Before it's approved, you'll need to order a Lync IP phone (a landline) or choose to rely on the Lync application. "We recommend the Lync IP phones for reliability," says Valentin. "If you only use the application, you will not be able to make or receive calls unless your device is on. That being said, many tech-savvy people choose to stick with their computer and headset!"
Since its launch earlier this year, Lync has received very positive feedback from its early adopters, who say it provides a new level of convenience for calls. Lync has also become an excellent way for groups to save on costs, by avoiding high roaming fees on CERN mobiles. "Lync is currently racking up almost 35,000 minutes a month on calls," says Grzywaczewski. "There's no telling how much has been saved in that time!"

So take your office phone into the 21st century. Visit the CERN Lync website **information-technology.web.cern.ch/services/Lync-service** to find out more - including how to search the CERN Directory, make video calls, receive e-mail notifications for missed calls and more.

** Available on Windows/Mac computers as well as iPhone, Android and Windows phone.*

Katarina Anthony

BEAM LINE FOR SCHOOLS: BEYOND EXPECTATIONS

Out of 292 proposals for CERN's first ever "Beam line for Schools" contest, two teams of high-school students – Odysseus' Comrades from Varvakios Pilot School in Athens, Greece and Dominicuscollege from Dominicus College in Nijmegen in the Netherlands – were selected to spend 10 days conducting their proposed experiments at the fully equipped T9 beam line on CERN's Meyrin site. Dedicated CERN staff and users from across the departments have put in a huge effort to ensure the success of the project.

Detector physicist Cenk Yidriz (centre, white helmet) explains the setup of the "Beamline for schools" experiment at the T9 beamline.

It's finally beam time. After months of organisation, coding, engineering and even painting the experimental area, the T9 beam line is ready to deliver protons to experiments devised and built by high-school students. "They are here to collect data and experience the life of a scientist. I don't want their time here to feel like a planned VIP visit," said Christoph Rembser, the Beam Line for Schools project coordinator. "We will adapt to changes as they come up just as experimental physicists do on shift and, if there is downtime, the students will have a chance to visit some CERN installations such as CMS and ATLAS."

The students' first full day at CERN was devoted to safety awareness and training. The teams learnt to recognise hazard signs and safety protocols at CERN, and members of the HSE Unit, the Cryogenics Group and the Fire Brigade gave presentations about staying safe at CERN.

Now it's over to the beam line. For veteran beams physicist Lau Gatignon, who is instructing the students in basic beam physics, the project is a welcome novelty. "Beams have been keeping me busy at CERN for 35 years, but this is the first time I'll be working on a beam line with a bunch of 16- and 17-year-olds," he says. "The students are very excited; it's great to see!"

The two teams of students come from Greece and the Netherlands. The first one, Odysseus' Comrades, a team of 12, will look at the decay of charged pions to investigate the weak force. "We wanted something simple but understandable that would be connected to the history of CERN," says team member Konstantinos Papathanasiou (17). "We had to learn a lot of new things, but now we understand the necessary physics." The Dutch Dominicuscollege, a team of five, have grown their own crystals to make a calorimeter and test it with the beam at CERN. The team came up with the idea after two students attended a course in crystallography at Radboud University in Nijmegen. "We learnt about X-ray crystallography and crystal structure," says Lisa Biesot (17). "We thought that using crystals for the experiment was a great idea," says Olaf Leenders (17). Their calorimeter will also be used as a component in the pion-decay experiment, making the beam line project a truly international and interdisciplinary experiment, like all typical experiments at CERN.

In order for the two teams to run their research projects, a lot of CERN scientists have worked to prepare the T9 beam line and have offered guidance during the experimental phase at CERN. Detector physicists Cenk Yildiz and Saime Gurbuz are among those scientists: they have spent weeks writing data-acquisition software and have been training the students on site in the specifics of data acquisition and of taking shifts. "We are using terminal commands and the Linux system, for example, which may be unfamiliar to the students," says Gurbuz. "But they are very hard-working! They have studied their lessons; when I ask them questions they answer straight away!"

"The experiments these young students have designed and run are challenging," concludes Rembser. "I will encourage them to write a paper at the end for the real science experience, but we will have to see how it goes!"

Cian O'Luanaigh

DETECTING RADIATION WITH YOUR SMARTPHONE

The winners of the CERN EIROforum Prize in the European Union Competition for Young Scientists 2013 (EUCYS), Michał Gumiela and Rafał Tomasz Kozik from Poland, have just spent an exciting week exploring CERN from 1 to 5 September. The students visited several CERN experiments and facilities and had ample time to interact with scientists on how to improve their invention further.

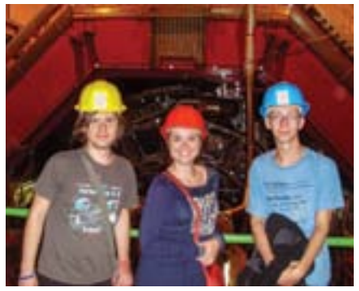
Michał (21) and Rafał (20) both won a young physicist prize in Poland before submitting their work on "Studies of the applicability of CMOS and CCD sensors for detection of ionising radiation" to the EUCYS competition. "It all started with Fukushima," recalls Michał. The high school students met in 2011 at a physics workshop, where they started discussing digital photos taken around the Fukushima nuclear plant after the radiation leak. "We noticed bright spots on the photos and we wanted to understand the cause," adds Rafał.

As it turned out, the research conducted by the young students showed that the cause

was ionising radiation that was present in the area at the time. "The next step was working out how to detect it in a simple way with cheap devices," explains Michał. "We were offered an internship at the Institute of Nuclear Physics in Krakow where we studied the enabling technologies as well as sensors including CMOS and CCD further." These sensors are commonly used in today's widespread digital cameras and smartphones. In the following months, "we worked together to develop methods to use these built-in sensors to enable everyone to detect radiation with their existing gadgets," says Rafał.

The application the Polish students have developed can serve as an alarm against harmful radiation. However, one of the challenges is adapting their method to the variety of sensors used in the different devices. In their project, which the jury awarded a special EIROforum prize, the students have adapted their method to Rafał's mobile phone and two other tablets.

During their visit to CERN, Michał and Rafał enjoyed the hospitality of the CERN European Projects Office. Their week included trips to, amongst others, ALICE, ATLAS, LHCb, AMS, SM18 and LEIR. When asked "What's next?" Rafał smiles and says "I don't know, but something related to control engineering. In SM18, I learnt a lot of interesting things about PLC and SCADA, which I would like to investigate further". Summarising his week at CERN, Michał ends our conversation with this comment: "CERN is an amazing place; it's amazing to see something so big that was created by thousands of people and, remarkably, it works!"



Michał Gumiela (left) and Rafał Tomasz Kozik (right) with their CERN host, Sabrina El Yacoubi (middle) at the ALICE detector.

Agnes Szeberenyi

A FIRST-OF-ITS-KIND VISIT FOR 12 ALGERIAN PROFESSORS AND STUDENTS

The Cirta-Science competition is open to 51 high schools in the Constantine region of Algeria. This year the prize for the winners was a historic visit to see the place where the Higgs boson was discovered and meet scientists working at CERN, some of whom are from Algeria.

The group was composed of two physics professors from Constantine University and ten students from the Algerian Sirius Astronomy Association, including three laureates of the Cirta-Science scientific competition. Abdelhak Djouadi, a theoretical physicist at CERN from Algeria, was invited to announce the winners of this prestigious competition.

The group of visitors had a very tight schedule, including a number of meetings with CERN scientists and visits to the SC, ATLAS and CMS.

Since 2008 Algeria has had an international cooperation agreement with CERN, and in May 2014 a Protocol was signed which will involve the ATLAS and ISOLDE experiments.

Kate Shaw

CAS INTRODUCTION TO ACCELERATOR PHYSICS IN THE CZECH REPUBLIC

The CERN Accelerator School (CAS) and the Czech Technical University in Prague jointly organised the Introduction to Accelerator Physics course in Prague, Czech Republic from 31 August to 12 September 2014.

The course was held in the Hotel Don Giovanni on the outskirts of the city, and was attended by 111 participants of 29 nationalities, from countries as far away as Armenia, Argentina, Canada, Iceland, Thailand and Russia.

The intensive programme comprised 41 lectures, 3 seminars, 4 tutorials and 6 hours of guided and private study. A poster session and a 1-minute/1-slide session were also included in the programme, where the students were able to present their work. Feedback from the students was very positive, praising the expertise of the lecturers, as well as the high standard and quality of their lectures. During the second week, the afternoon lectures were held in the Czech Technical University in Prague.

In addition to the academic programme, the students had the opportunity to visit the medieval site of Kutna Hora and the well-known Velke Popovice Czech brewery. A special dinner was organised on the Vyšehrad steamboat on the River Vltava.

Next year CAS will be organising a specialised course on Accelerators for Medical Applications, which will be held in Brunn am Gebirge, Austria from 26 May to 5 June 2015. The next course on Advanced Accelerator physics will be held in Poland in autumn 2015. Further information on forthcoming CAS courses can be found on the CAS website: **www.cern.ch/schools/CAS**

CERN Accelerator School

PHYSICS TRAINING IN SENEGAL

The third biennial African School of Fundamental Physics and its Applications (ASP) took place in Dakar, Senegal, on 3-23 August. The students participating came from the highest number of African countries to date with nearly half of them women.

The aim of the ASP is to build capacity for harvesting and interpreting the results of current and future physics experiments using particle accelerators and to increase proficiency in related applications, such as medicine and information technology. Organised in a Sub-Saharan African country every two years, it is based on the close relationship between theoretical, experimental and applied physics and computing.

This year, ASP2014 attracted 328 applicants, and due to budgetary and logistical considerations, 69 were selected and 56 ultimately attended. The students selected came from 21 African countries – the highest number so far – in addition to one student from Iran and another from the US. 32% of the students were female, which is a significant increase compared to the previous two schools.

ASP2014 also saw broader sponsorship, with an increasing role played by the United Nations, which funded, via the International Telecommunication Union, scholarships for ten students from the least developed countries, including five female students. The EU-funded Cryogenics, Accelerators and Targets at HIE-ISOLDE (CATHI) Marie Curie Initial Training Network, hosted at CERN, also funded nine scholarships and the participation of two lecturers. The school received financial support from 42 institutions in total, in Africa, Europe, Asia and the US, including the International Centre for Theoretical Physics (ICTP), INFN, CERN and other major particle physics laboratories, as well as governmental institutions in Africa, Europe and the US - all of whom share the goals of the school.

For more about the school, visit **www.africanschoolofphysics.org.**

Christine Sutton

Behind the scenes of GS

DID YOU SAY "GREY"?

Walking around the CERN site, what we tend to notice are the buildings, roads, and car parks. At first glance, any "green" seems to be in the minority. The reality is quite different, as developed land takes up only 40 of the almost 650 hectares made available to the Organization by its Host States.

1,300 trees in CERN's enclosed areas, 250 hectares of cultivated fields and meadows, 140 hectares of woodland, and three wetlands: CERN clearly deserves its "green" certification from the Swiss conservation foundation *Nature et économie* that it has held since 2009. "We maintain every site, but each site is different and has its own conservation criteria," says Mathieu Fontaine, head of Green Spaces in the Civil Engineering and Buildings section of the GS Department.

At CERN, an external company takes care of the day-to-day upkeep, but more complex operations are often necessary. The various projects to fell diseased or damaged trees that have become dangerous for users are a good example. "The tree-felling project, which began in 2010 on the Meyrin site, will be completed in the autumn," explains Fontaine. "The felled trees will then be replaced with new trees."

While certain green spaces require a lot of maintenance, more and more hectares are being left to become meadows. "Meadows are real ecological niches," says Fontaine. "These highly biodiverse places are perfect habitats and breeding grounds for insects, small mammals and amphibians. From this year, some plots on the Prévessin site have been changed from lawns into meadows. At the moment, enclosed meadows cover 40 hectares and 21 of those are home to sheep, which are great at cutting the grass!"

CERN also has three wetlands: one in Cessy at point 5, one at point 6 and

another just after SM18 on *route de l'Europe*. These places are basins of runoff water that are full of life! "Grass snakes, fish, frogs, insects and other creatures can be found there. These eco-systems are rich in plant and animal life," explains Fontaine. "It's a delicate balance, because if we don't maintain a wetland, trees begin to grow there and it gradually disappears."

CERN's land and woodland are also an added bonus for its neighbouring communes. "In fact, the Green Spaces Service was recently invited to consider the feasibility of installing beehives on the Prévessin site by the beekeeping association *Les Ruchers Ecoles du Pays de Gex*," explains Frédéric Magnin, Head of Civil Engineering and Buildings section. "We certainly aren't lacking in space. The ideal solution would be for nature lovers and bee enthusiasts to set up a club."

If you are tempted by the idea, don't hesitate to contact Mathieu Fontaine **(mathieu.fontaine@cern.ch).**

The wetland located near CERN's SM18.

Antonella Del Rosso

Computer Security

ENTER THE CLOUD, PAY WITH YOUR PASSWORD

CERN is regularly the target of so-called "phishing" attacks, where troublemakers with bad intentions send fake emails to CERN people to try to lure them into disclosing their CERN passwords (or other passwords). Fortunately, few people nowadays fall into such traps. Simply remember to treat your password like your toothbrush: don't share it and change it regularly (see our Bulletin article "What is a good toothbrush, erm, password?").

But do you know about "conpherencing" (yes, with "ph" in the middle!)? "Conpherencing", a term coined by us, is like phishing, but instead of a fake login page, it uses a full-blown conference website resembling that of a popular mainstream conference. Similar to the webpages described in our "Jekyll or Hyde? Better browse securely" article, this evil twin includes a scientific programme, details of a committee, sponsors and abstract submission dates.

For example, the ICNFP2014 conference appeared to exist in duplicate: the real webpage of the conference, which will take place in Crete, is on CERN's Indico site, while its evil twin said that it would be in Istanbul. A closer look revealed that (at least) one sponsor was not aware that they had been named as a supporter of that event and refused to be involved once they found out, and some of the "committee members" listed don't appear in the phonebooks of the universities with which they were supposedly affiliated. This twin webpage even copied the conference summary text! The same web server also had fake pages for many other conferences: ICN2014 (on nanotechnology), ICECE2014 (electrical and computer engineering), ICC2014 (chemistry), ICM2014/ICSMS2014 (maths), ICP2014 (physics), …

Thus, as with all your activities on the Web, please be vigilant: stop and think before you click! Too often, a website's real purpose is not what you think it is…

Share your ideas! Check out our website for further information, answers to your questions and help, or e-mail **Computer.Security@cern.ch**

If you want to learn more about computer security incidents and issues at CERN, just follow our Monthly Report: **https://cern.ch/security/reports/fr/monthly_reports.shtml**

Computer Security Team

Ombud's Corner

I LOVE YOU… BUT I DO NOT

Unwanted declarations of love in the workplace may cause embarrassment among colleagues. If the situation is not quickly clarified, it might even cause a serious disturbance in the working relationship and have a long-lasting negative impact on the people involved.

Like many workplaces, CERN is often the place where one finds one's life partner. However, not all budding relationships have a happy ending and, when this is not the case, many problems arise and the situation may deteriorate very quickly.

John finds Mary very attractive. He often pays her compliments on her looks, or her way of dressing. Initially, Mary is pleased and accepts the compliments. However, the number of compliments keeps growing, John seems to be following her everywhere and there seems to be an underlying purpose to his attentions. Mary starts to feel uncomfortable.

Ideally, at this point Mary should tell John that all this attention is making her feel uncomfortable and that this behaviour has to stop. Unfortunately, when things like this happen among colleagues who work together on common projects and perhaps even need to see each other on a regular basis, it is not always easy to broach this subject and one is easily tempted to postpone the difficult discussion in the hope that the situation will eventually resolve itself.

Mary is embarrassed; she wonders if she is over-reacting to John's various remarks or misinterpreting his behaviour. She is unsure of how to handle the situation and hesitates to say what she thinks for fear that it will affect their on-going working relationship. She says nothing and inevitably… John continues with this behaviour.

The best thing to do when embarrassed about dealing with such unwanted attention is to seek help in learning to say "stop" in an inoffensive but clear and unambiguous manner.

In such a situation, it is absolutely critical to make sure that John understands that his declarations are unwelcome, regardless of any possibly positive intention on his behalf. He may react by saying that he was simply being gallant or that he had no idea that his compliments could have a negative impact. Whatever his reaction, the all-important message has been conveyed, that such behaviour is unacceptable and that any further action along these lines will not be tolerated. Of course, the same applies if John is the object of Mary's affections and finds himself the focus of unwelcome attention.

The key message here is that we understand that it is the impact of our actions that counts – even when these actions are motivated by positive emotions. Any actions that cause discomfort or embarrassment on the receiving end must be stopped.

Persistent behaviour along these lines can undermine another person's self-respect and have serious implications for a working relationship. If not stopped, such a situation can rapidly deteriorate into harassment.

Social conventions and on-going relationships often make it difficult for individuals to take a stand against such behaviour, and this difficulty is further compounded in the case of a hierarchical relationship. However, they should be assured that such situations are clearly proscribed by the CERN Code of Conduct and will not be tolerated in a work context. Anyone facing this type of difficulty should not hesitate to contact the Ombud for support, either in dealing directly with the situation at hand or in seeking advice about possible further action from the dedicated services of the Organization.

Sudeshna Datta-Cockerill

HERVÉ GENOUD (1982-2014)

We deeply regret to announce the death of Hervé Genoud on 22 September 2014.

Hervé Genoud, who was born on 6 April 1982, worked in the BE Department and had been at CERN since 1 September 2003.

The Director-General has sent a message of condolence to his family on behalf of the CERN personnel.

Social Affairs
Human Resources Department

ADMINISTRATIVE CIRCULAR NO. 11 (REV. 3) - CATEGORIES OF MEMBERS OF THE PERSONNEL

Administrative Circular No. 11 (Rev. 3) entitled "Categories of members of the personnel", approved by the Director-General following discussion at the Standing Concertation Committee meeting of 3 July 2014 and entering into force on 1 September 2014, is available on the intranet site of the Human Resources Department:

This circular is applicable to all members of the personnel.

It cancels and replaces Administrative Circular No. 11 (Rev. 2) entitled "Categories of members of the personnel" of January 2013.

The circular was revised in order to include a minor adjustment of the determination of required period of break in the payment of subsistence allowance to certain categories of associated members of the personnel (taking account of possible technical means of control). Furthermore, the possibility of traineeships of long duration was restricted to cases in which the traineeship is awarded pursuant to an agreement between CERN and a funding agency on a national or international level.

Department Head Office
HR Department

OPERATIONAL CIRCULAR NO.2 (REV. 2) - CONDITIONS OF ACCESS TO THE FENCED PARTS OF THE CERN SITE

Operational Circular No. 2 (Rev. 2) entitled "Conditions of access to the fenced parts of the CERN site" and its "implementation measures", approved by the Director-General following discussion at the Standing Concertation Committee meeting on 20 May 2014 and entering into force on 1 September 2014, are available on the intranet site of the Human Resources Department.

This circular is applicable to members of the personnel and other persons concerned.

It cancels and replaces Operational Circular No. 2 (Rev. 1) entitled "Conditions of access to the fenced parts of the CERN site", of April 1998.
In particular, the revised circular provides for the possibility of mandating a person responsible for the proper implementation of the circular, specifies the rules relating to vehicles allowed on the site and the respective responsibilities of their owners, and relaxes certain administrative formalities in case of loss, theft or disappearance of cards.

Department Head Office
HR Department

IT'S EASY TO LEARN GOOD POSTURE AND CORRECT MOVEMENTS AT WORK

Excessive and repetitive effort and incorrect movements pose a real health hazard, but we can all significantly improve our working conditions with a few simple actions that are easy to learn and put into practice.

The Safety Training Service offers a training course on this subject delivered by a certified external specialist or expert.

The one-day course, "Working Conditions – Manual Handling", is open to anyone whose role requires them to manually lift heavy loads, whether regularly or occasionally. It contains some theory but is mainly practical and will teach you to identify hazardous situations and optimise your effort.

The scheduled sessions are in French but English sessions can also be arranged on request.

The course description and registration form can be found in the training catalogue on the Safety Training Service's website.

Don't hesitate to contact us if you have any questions concerning:

- Safety training: **safety-training@cern.ch**
- Safety and working conditions: **hse.secretariat@cern.ch**
- Medical aspects and occupational health: **medical.service@cern.ch**

TECHNICAL TRAINING: MAKE THE MOST OF OFFICE, SHAREPOINT AND LYNC 2013

The IT Department, in cooperation with the Technical Training team, would like to invite you to IT Technical Training Tutorials 2014: **Make the most of Office, Sharepoint and Lync 2013.**

In this lecture series, we will present:

- Microsoft Office 2013
- Microsoft Lync 2013 (Including IP telephony)
- Microsoft SharePoint 2013

Sessions in French: 7 October, 9 a.m. - 12 p.m.
Sessions in English: 13 October, 9 a.m. - 12 p.m.

This training is free of charge, but please create your training request via EDH at: **https://edh.cern.ch/Document/Personnel/TRN/new?course=146OEL01**.

Objectives of the training:

- General overview of the Microsoft Office 2013, Lync and Sharepoint 2013.
- Changes in comparison to the 2010 release of the software
- Discussion of new ways to communicate in the work environment, including audio calls, instant messaging, social newsfeeds and online editing of documents.

The exact schedule for both series is available at: **http://cern.ch/go/IT3T.**

Take note

60TH ANNIVERSARY CELEBRATIONS: EVENTS IN THE COMING 10 DAYS

This is an eventful week. Read this summary and don't miss these unique events!

Thursday 25 and Friday 26 September: *Researchers' Night - POPscience.* To make the Researchers' Night even more POPular, CERN will meet its public outside the Laboratory: at FNAC Rive, the Salle Centrale Madeleine (free entrance, reservation possible), and the Théâtre du Bordeau in Saint-Genis-Pouilly. A unique mix of arts, poetry, theatre, music, science and encounters.

Friday 26 September: *From Physics to daily life colloquium* in the Main Auditorium will feature talks by several scientists and experts of the technologies that have changed our life. The webcast in English and French will be available from 9 a.m.

Monday 29 September: *Official ceremony to celebrate CERN's 60th Anniversary:* the ceremony is by invitation only, the live webcast is available at **http://www.cern.ch/** webcast. Live transmission will be available in the IT auditorium (31-3-004), the Council Chamber (503-1-001), the Main Auditorium on the Meyrin site (500-1-001) and the Main Auditorium on the Prévessin site (864 – 1-D02) from 1.30 p.m. onwards.

Tuesday 30 September: *Concert to celebrate CERN's 60th anniversary* - The CERN Choir hits the high notes: tickets (from 13 CHF to 60 CHF) are on sale at various outlets in Geneva. They will also available at the venue, one hour before the concert, and online.

WOMEN'S RUGBY TOURNAMENT | 27 SEPTEMBER

For the third consecutive year, the women's rugby club of CERN Meyrin St Genis, The Wildcats, are organising a women's 7's rugby tournament. With the support of the Office Municipal des Sports of St Genis-Pouilly and various other sponsors, we will be welcoming 10 teams ready to fight it out for victory!

Bring your family and friends for a great day of rugby! Come and discover the values of team spirit in rugby and support your local team (RC CMSG). An initiation for kids between 4 and 10 years old will be organised by school rugby trainers.

There will also be a live music concert. Food and drink will be available all day.

Concert schedule
6 p.m.: Bad spirits out of the boot
7 p.m.: SoundHazard
8 p.m.: Miss Proper & the Moving Targets
9 p.m.: Fuzzy Dunlop

More information on: **http://www.facebook.com/events/509236532536269/**

EXHIBITION | CERN MICRO CLUB | 1-30 SEPTEMBER

The CERN Micro Club (CMC) is organising an exhibition looking back on the origins of the personal computer, also known as the micro-computer, to mark the 60th anniversary of CERN and the club's own 30th anniversary.

CERN, Building 567,
R-021 and R-029
01.09.2014 - 30.09.2014
from 4.00 to 6.00 p.m.

The exhibition will be held in the club's premises (Building 567, rooms R-0121 and R-029) and will be open Mondays to Thursdays from 1 to 30 September 2014.

Come and admire, touch and use makes and models that disappeared from the market many years ago, such as Atari, Commodore, Olivetti, DEC, IBM and Apple II and III, all in good working order and installed with applications and games from the period.

Club members will be on hand to tell you about these early computers, which had memories of just of a few kilobytes, whereas those of modern computers can reach several gigabytes or even terabytes.

CERN ROAD RACE | 1 OCTOBER

The 2014 edition of the annual CERN Road Race will be held on Wednesday 1 October at 18:15.

The 5.5 km race takes place over 3 laps of a 1.8 km circuit in the West Area of the Meyrin site, and is open to everyone working at CERN and their families. There are runners of all speeds, with times ranging from under 17 to over 34 minutes, and the race is run on a handicap basis, by staggering the starting times so that (in theory) all runners finish together.

Children (< 15 years) have their own race over 1 lap of 1.8 km. As usual, there will be a "best family" challenge (judged on best parent + best child).

Trophies are awarded in the usual men's, women's and veterans' categories, and there is a challenge for the best age/performance. Every adult will receive a souvenir prize, financed by a registration fee of 10 CHF. Children enter for free and each child will receive a medal.

More information, and the online entry form, can be found at: **http://espace.cern.ch/running-club**

Seminars

THURSDAY SEPTEMBER 25, 2014

11:00 **Collider Cross Talk WW Scattering with ATLAS and CMS TH** common room
16:30 **CERN Colloquium Towards a Sustainable Nuclear Energy System** Main Auditorium

FRIDAY SEPTEMBER 26, 2014

11:00 **Detector Seminar Ultra Fast Silicon Detectors** Salle Anderson

SUNDAY SEPTEMBER 28, 2014

20:00 **LA^{3}NET Schools Advanced School on Laser Applications at Accelerators**

MONDAY SEPTEMBER 29, 2014

13:30 **Globe Official ceremony to celebrate CERN's 60th Anniversary - Cérémonie officielle pour célébrer les 60 ans du CERN** 80-1-001

TUESDAY SEPTEMBER 30, 2014

11:30 **TH Cosmo Coffee Is B-Mode Polarization the Holy Grail of Inflation? TH** common room
14:00 **TH String Theory Seminar TBA TH** Conference Room

WEDNESDAY OCTOBER 01, 2014

14:00 **TH Theoretical Seminar Recent Progress in Large-Scale Structure TH** Conference Room

THURSDAY OCTOBER 02, 2014

14:00 **TH BSM Forum Natural Alignment in the Two Higgs Doublet Model TH** common room

FRIDAY OCTOBER 03, 2014

11:00 **Detector Seminar Upgrade of the ALICE Inner Tracking System** Salle Anderson
11:00 **Computing Seminar Particle Transport Simulation on Heterogeneous Hardware IT** Amphitheatre
14:00 **Computing Seminar Physics Simulations of fluids - a brief overview of Phoenix FD IT** Amphitheatre
14:30 **Computing Seminar Architecture of a highly modular lighting simulation system IT** Amphitheatre