



The LHC and its successors



The ring-ring configuration of the LHeC would need this type of magnets, currently being studied for possible future use.

In one year, the LHC will begin to change. During the first long shutdown, from December 2012 to late 2014, the machine will go through a first phase of major upgrades, with the objective of running at 7 TeV per beam at the beginning of 2015.

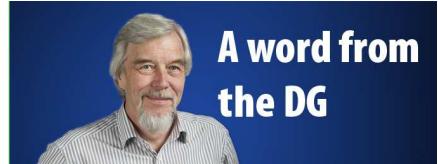
With this long technical stop and the two others that will follow (in 2018 and 2022), a new project will see the light of day. Current plans include the study of something that looks more like a new machine rather than a simple upgrade: the High Luminosity LHC (HL-LHC). Much more powerful than the current machine, the HL-LHC will aim for a very high production rate of events for the ALICE, ATLAS, LHCb and CMS detectors. "On the

Not too long before the first long technical stop of the LHC, engineers and physicists are already working on the next generation of accelerators: HL-LHC and LHeC. The first would push proton-proton collisions to an unprecedented luminosity rate; the second would give a second wind to electron-proton collisions.

machine side, the HL-LHC project has been approved and should be co-funded as a study by the EU," says Oliver Bruning, Leader of the Accelerators and Beam Physics Group (ABP) of BE Department HL-LHC Deputy Project Leader and Accelerator Study Leader of LHeC. "On the experiments' side, teams are now working on the technical design reports. This part has not been approved yet, and the funds are still to be found." If everything goes well, the HL-LHC could be ready to start running in around 2020.

In the meantime, engineers and physicists have begun to work on another project, which could be built in parallel to the HL-LHC. Called LHeC, it will be designed for collisions between electrons and protons. "The LHeC could be implemented in two dif-

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A word from the DG



A growing family

Increasing membership of the CERN family featured strongly at the CERN Council meetings this week, with Serbia's ratification documents being received along with an application for Associate Membership from Ukraine. We also learned that an official application is on its way from Brazil and I can report that discussions are ongoing with several other countries around the world.

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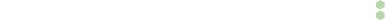
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A word from the DG

(Continued from page 1)

A growing family

Serbia joins Israel as an Associate Member in the pre-stage to Membership, and since Yugoslavia was a founder member of CERN in 1954, it was good to welcome Belgrade back. Looking forward, the Council has agreed to set up fast fact finding missions to other applicant countries, so I think it's fair to say that 2012 will be a year of growth for CERN, fulfilling our mission of science bringing nations together.

In a similar vein, it was a pleasure for me to be able to report to the Council an important development at SESAME, the light source for the Middle East established in Jordan on the CERN model. In a press release we received on 13 March, SESAME announced that Iran, Israel, Jordan and Turkey have each pledged \$5M to the project: an important step towards SESAME becoming an operational laboratory.

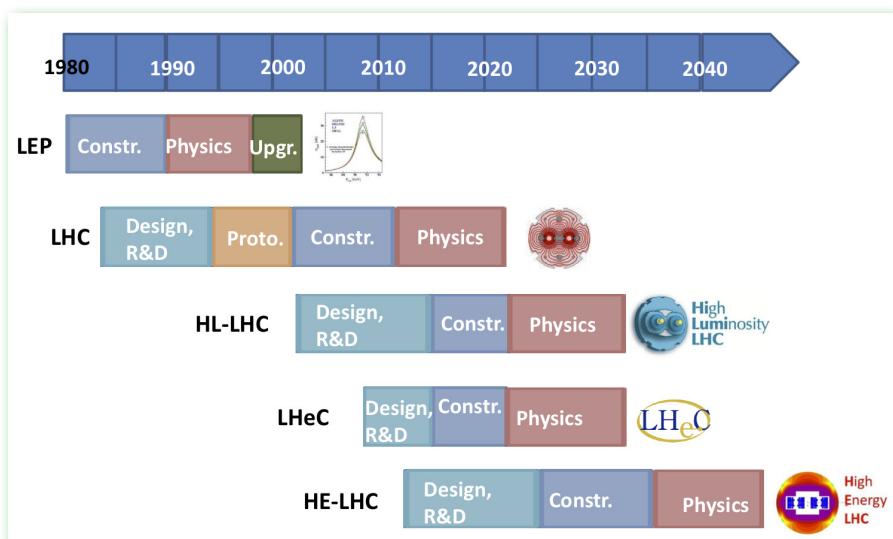
The other major news of the week is, of course, the LHC restart, with the first beams of 2012 circulating just before midnight on Wednesday. We are now set to post a new world record beam energy of 4 TeV over the coming days. Collisions at that energy will begin around the end of the month, setting the LHC experiments on the home straight in the search for a Standard Model Higgs particle, news of which the world is eagerly awaiting.

Finally, I'm honoured to report that the Council decided to extend my term of office as Director General by two years, to the end of 2015. I look forward to serving the CERN community for this period, and to overseeing the LHC's next record energy after the machine's first long shutdown.

Rolf Heuer

The LHC and its successors

(Continued from page 1)



Between now and 2040, CERN should see a whole succession of accelerator projects. The HL-LHC and the LHeC, if the latter is built, will operate in parallel for several years.

ferent ways," explains Frank Zimmermann, member of the BE/ABP Group and Deputy EuCARD Coordinator. "The first one would be to build an electron ring in the LHC tunnel, on the top of the current one - leading to what physicists call a ring-ring machine. The second solution would be to build a separate tunnel of about 9 km that would host two superconducting LINACs in a racetrack Energy Recovery LINAC (ERL) configuration where the two LINACs are connected via return arc. The electron beam would be accelerated in three passages through each LINAC, before electron-proton collisions would occur at the highest energy in the LHC." In both cases, the electron and proton beams would cross at a unique point, where a new experiment would need to be installed.

Obviously, each of these two proposals comes with its own challenges. "With the ring-ring option, the problem is that the existing LHC experiments don't have a hole for the electron beam," emphasizes Oliver. "So, we will have to bypass them by building an extra tunnel 1.3 km long for each experiment to permit the electron beam to follow its route without mishap." Additional tunnel work would be necessary for the beam injection and extraction. "This option would translate into a lot of civil engineering and complicated logistics," Oliver concludes.

On the other hand, the superconducting LINAC presents other difficulties. To reach maximum performance, the power of the beam would be so high that it would become unaffordable in terms of... the electricity bill! That's when Frank suggested using the ERL technique - recuperating the beam after the collision then decelerating it to recuperate its energy. "We can use a superconducting accelerating structure, where the field continuously oscillates between accelerating and decelerating phases. For this idea to work, the cavities need to have a very good quality factor for the fundamental resonance," explains Frank. "Once a 'used' beam has been decelerated, the field resonates until the new beam arrives for acceleration. Energy is transferred continually from decelerating to accelerating bunches passing through the same LINAC. That's very cost-effective."

As incredible as it might seem, physicists and engineers are already looking at after 2035, over 20 years from now, when both the HL-LHC and LHeC will be switched off. Another machine could then take up the baton: the High Energy LHC (HE-LHC), the construction of which could begin in 2025. But that's another story...

Anaïs Schaeffer

LHC Report: Beam on

The magnet powering tests were followed by the machine checkout phase. Here the operations team in collaboration with the equipment groups performs a sequence of tests to ensure the readiness of the LHC for beam. The tests include driving all the LHC systems – beam dump, injection, collimation, RF, power converters, magnet circuits, vacuum, interlocks, controls, timing and synchronization – through the operational cycle. The “checkout phase” is really a massive debugging exercise, which is performed

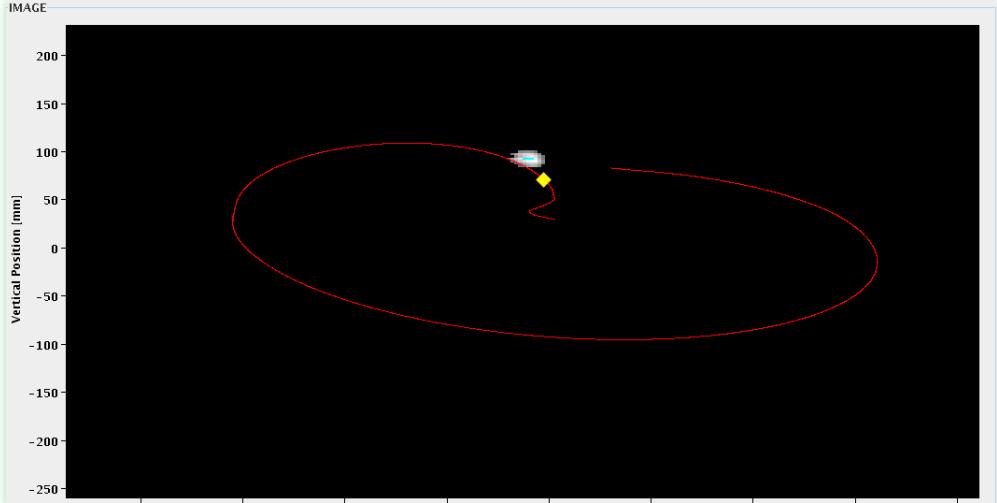
The powering tests described in the last edition of the Bulletin were successfully finished at the end of the first week of March opening the way for 4 TeV operations this year. The beam was back in the machine on Wednesday 14 March. The first collisions at 4 TeV are scheduled for the first week of April.

with the objective of ensuring the proper functioning of the whole machine and the protection systems.

During the ‘checkout phase’, work continued in the LHC tunnel during the day. In particular, the vacuum group was preparing for beam the sectors that were opened during the technical stop. The vacuum group finished their work by Friday 9 March

and the LHC was closed for full-scale tests over the weekend. These included taking beam down the transfer lines that run from the SPS to the LHC. By the evening of Wednesday 14 March the LHC was in good shape and took beam again. Things went pretty smoothly and circulating beams were rapidly re-established. The RF group worked overnight to tune in their system and by the morning both beams were available for optics measurements. The next 3 weeks will be devoted to an intensive (re)-commissioning campaign. First stable beams at 4 TeV should be declared sometime in the first week of April.

Rossano Giachino for the LHC Team



The first beam of 2012 is dumped after making a few rounds in the LHC.

Getting to grips with antihydrogen

Newspapers and magazines around the world described the recent ALPHA announcement as the first step towards explaining why antimatter and matter

did not cancel each other out in the first instances of creation, that is, why our universe of matter exists. Understanding the behaviour of matter and antimatter can help scientists solve this conundrum. With this in mind, the ALPHA collaboration has begun the study of the antihydrogen spectrum.

So far, the Collaboration has been focused on proving that they can alter the antihydrogen they've trapped by using microwave photons to drive a transition between the internal energy levels of the atoms. "A year ago, we couldn't have imagined that we'd be in this position," says ALPHA spokesperson Jeffrey Hangst. "We knew we'd trapped

In June 2011, the ALPHA Collaboration announced that they had successfully managed to trap and hold atoms of antimatter for 1000 seconds. Last week – only 9 months later – they succeeded in changing the internal state of antihydrogen and made the first ever measurement of its spectrum. The Collaboration is now installing an all-new experimental set-up – ALPHA-2 – and shows no signs of slowing down its investigations into the anti-world.

antimatter and we had an idea of how to go about an experiment using it, but we had no idea whether we could actually succeed."

And succeed they did. While the Collaboration's results are still at low precision (with an uncertainty at 3 decimal places), their new experimental set-up, ALPHA-2, could allow them to measure the antihydrogen spectrum to up to 15 decimal places. "In the ALPHA set-up, we used microwaves in order to flip the spin of the positron in the antihydrogen," says Jeffrey. "ALPHA-2, on the other hand, will allow us to induce 2 different types of transition in the antihydrogen: using microwave and laser excitation."

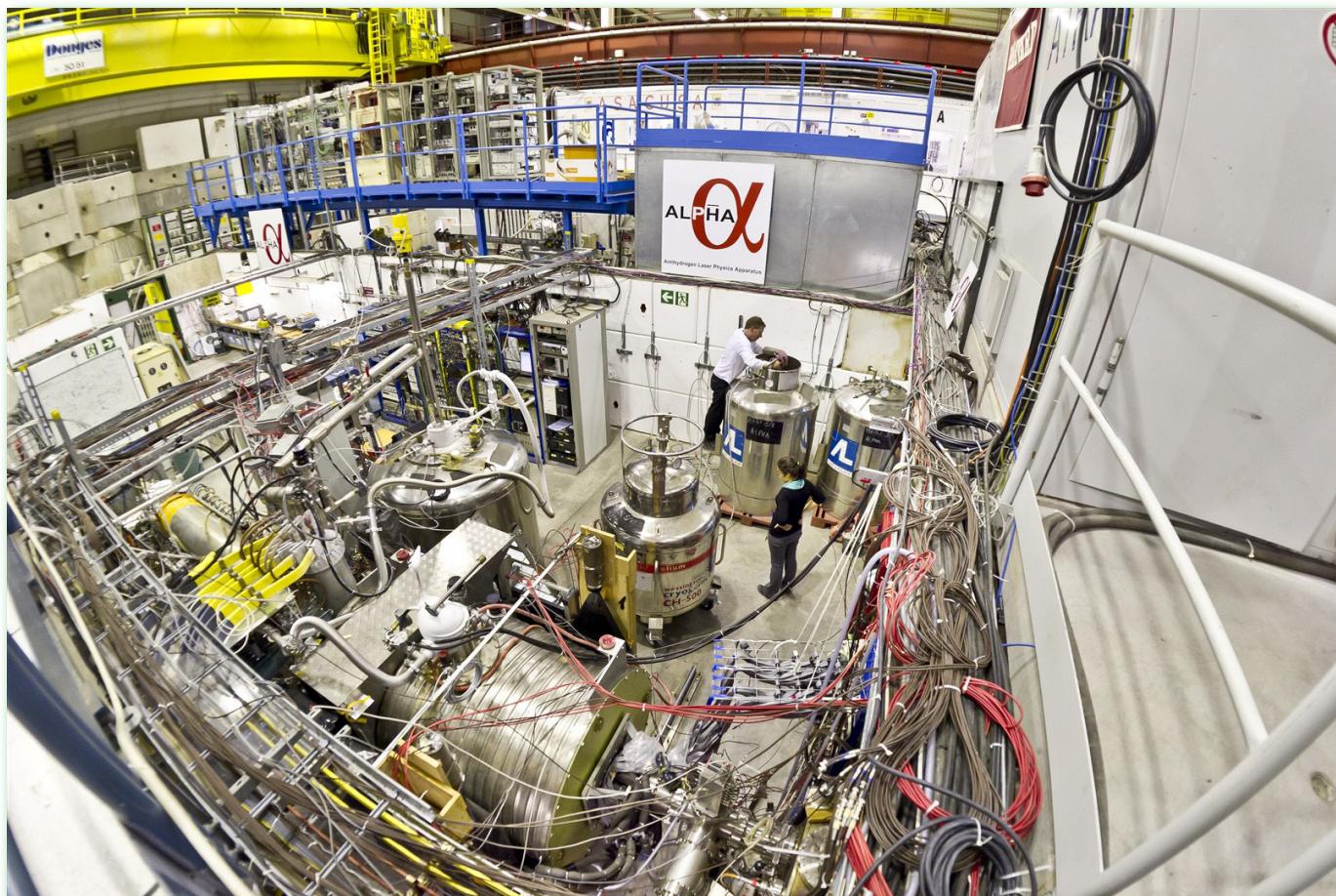
Instead of flipping the spin of the positron, the lasers in the ALPHA-2 set-up will be able to excite the orbit of the positron: taking it from the ground state to the first excited state. These lasers produce the much higher optical frequency required in order to induce this type of atomic transition.

"The question that guides our work is fundamental: does antihydrogen behave the same way as hydrogen?" says Jeffrey. "Perhaps there is no difference between the two, but perhaps there is variance at the 12th decimal place. The new ALPHA-2 set-up will allow us to improve our measurements in order to know for sure."

Katarina Anthony

The video:

<https://cdsweb.cern.ch/record/1429347>



The ALPHA experiment hall.

CERN and ESA's common roots to fly into space

The E S A 's Transfer Vehicle (ATV) number three will fly a document which has a very clear title: "Edoardo Amaldi, an ESA pioneer". Given the fact that Edoardo Amaldi was also one of the founding fathers of CERN and that CERN gave birth to ESO, the idea to mark the event with a common action came quite naturally. The live webcast will take place on 23 March at 3 p.m. with the participation of Ugo Amaldi, CERN physicist and son of Edoardo Amaldi, Arturo Russo, historian and author with John Kriegel of CERN and ESA's History, and Director for Research Sergio Bertolucci. A replay of the early morning launch of ATV 3 from Kourou will be featured.

The ATV-3 Edoardo Amaldi will take fuel, water, oxygen, air and other cargo units to the International Space Station (ISS). The ATVs are space ferries designed by ESA to supply and refuel the Space Station without the need for any direct human intervention during the flight. The ATV-1, named after Jules Verne, was launched in 2008 and demonstrated that such vessels could indeed accomplish the cargo flight to the ISS safely and reliably. Subsequent ATVs have been named after famous scientists, who, besides Edoardo Amaldi, are: Johannes Kepler, Albert Einstein and Georges Lemaître. The mission of ATV-3 is set to start with lift-off on an Ariane 5 ES launcher. ATV-3 is planned to dock with the International Space Station's

ESA has named a space ferry after Edoardo Amaldi, one of the founding fathers of CERN but also of ESRO, the ancestor of ESA. Although they have developed in different ways, the three large European scientific organisations – CERN, ESO and ESA – have common roots. A webcast on the day of the launch of the spaceship from Kourou (French Guiana) will celebrate this fact with historic recollections and the participation of members of the Amaldi family.

Russian Zvezda module five days after launch (during the night of 28–29 March). The precise time will be known only after launch, which is set for 04:31 GMT on Friday, 23 March.

The proposal to name ATV-3 after Edoardo Amaldi came from the Italian Space Agency (ASI). The famous Italian physicist was a leading figure in the drive to pool European forces together in the name of science. Originally a nuclear physicist, Edoardo Amaldi became interested in space science after participating in the setting-up of CERN. He pushed hard for CERN to be used as a successful model to be followed for the creation of a new international scientific organisation. In a letter sent in 1958 to his friend Gino Crocco, Professor of Jet Propulsion in Princeton, Edoardo Amaldi wrote: "(...) I thought over the possibility of developing an appropriate activity in Europe in the field of rockets and satellites. It is now very much evident that this problem is not at the level of the single states like Italy, but mainly at the continental level. Therefore, if such an endeavour is to be pursued, it must be done on a European scale as already done for the building of the large accelerators for which CERN was cre-



The live webcast at 3 p.m. on 23 March will retrace the vision of Edoardo Amaldi which led to the creation of the European Space Research Organization (ESRO), that later became ESA, through historic documents and the words of the best placed among witnesses: Amaldi's son. For more information see the ESA website:

<http://www.esa.int/SPECIALS/ATV/index.html>

ated."Ten copies of this five-page letter will fly onboard the ATV3 and will be brought back to Earth by a Soyuz launcher.

Antonella Del Rosso

"I like to be useful, it's just the way I am": Interview with Cristoforo Benvenuti

Why are your solar panels particularly suited to use in Geneva?

In Geneva, 50% of the light is diffuse, because of the weather. Normal solar panels just wouldn't produce enough energy. So you need panels like ours, which are the only ones with additional technology: the combination of the vacuum

Cristoforo Benvenuti knows a lot about CERN, having been here since 1966. He also knows an awful lot about vacuum technology and getters, which he developed for ISR, LEP and LHC at CERN and which is an integral part of the revolutionary new solar panels he has invented. Now in industrial production, a first batch of panels will be delivered to Geneva Airport this week (see the CERN Press Release). Cristoforo Benvenuti, now retired from CERN but vice-president of the company producing the panels, SRB Energy, spoke to the Bulletin about solar panels and other energy projects he has up his sleeve.

to improve insulation and the cylindrical mirror to reflect the diffuse light which a standard parabolic mirror cannot collect.

Is there any problem putting solar panels on the roof of the airport?

We anticipated two issues, but neither in fact pose any difficulties. The airport authorities did tests for 6 months to see if pollution from planes would reduce productivity and it doesn't. Also, there used to be concerns about light reflecting off the panels disturbing air traffic, but the geometry of our

mirrors means that all the light they reflect goes to the back of the panel. So no light escapes in any direction.

You have been inventing and developing technology all your life, do you have any other ideas in the pipeline?

Through my work on the solar panels, I have come to realise that vacuum could also be used to save energy. It's more economical to save energy than to produce it.

So if you take one of our solar panels and remove the absorber, you essentially have an extremely well-insulated window. It would require some modification to make a working model, but I know how to do it.

Then think about walls: instead of using 20 cm of thermal insulation material like one does now, vacuum insulation needs only 1cm of space. In places like London, Paris and Tokyo, where the square metre costs a fortune, simply the gain in space has an economic value, and then there are the energy savings. I could produce vacuum insulation for walls tomorrow, but this has a cost.

What is your experience with finding investment to support your projects?

It's very hard to convince somebody to invest money based on an idea alone. You need a demonstrator and a business plan. The problem is that it takes 2-3 years work to develop that, and this work needs to be funded too.

Joannah Caborn Wengler



Cristoforo Benvenuti with one of his solar panels.

Sending servers to Morocco

"Many people don't realise, but the Computer Centre is like a living thing. You don't just install equipment and it runs forever. We're continually replacing machines, broken parts and improving things like the cooling." Wayne Salter, Leader of the IT Computing Facilities Group, watches over the Computer Centre a bit like a nurse monitoring a patient's temperature, especially since new international recommendations for computer centre environmental conditions were released. "A new international standard has increased what is known as the inlet temperature for modern computers to up to 27°C," he explains. "This means we have to cool the air going into the computers less. We're now blowing air into the Computer Centre at 22°C instead of 14°C, so this represents a major saving in terms of energy." Along with other changes made in the cooling systems, most notably making more use of free cooling by outside air, the Computer Centre has been able to reduce its electricity consumption by 4.5 GWh per year.

"And then, about 4 times a year we have a major removal operation," says Wayne. "During 2012 we are anticipating replacing a total of around 1,500 servers. These are

Did you know that computer centres are like people? They breathe air in and out like a person, they have to be kept at the right temperature, and they can even be organ donors. As part of a regular cycle of equipment renewal, the CERN Computer Centre has just donated 161 retired servers to universities in Morocco.

around 4 years old and just slower and less efficient than the new models available on the market today."

While the servers may be being retired from the cutting-edge use needed at CERN, it doesn't mean they are not still perfectly good for less demanding uses elsewhere. On 8 March, 161 servers were loaded onto a lorry bound for Morocco. About half of them will go to build a Tier 2 Grid centre in Rabat, the capital, while the other half will be distributed to the RUPHE network of the four main high-energy physics institutes in the country.

"The servers should allow Moroccan scientists, who are mainly collaborating with the ATLAS experiment, to analyse LHC data at their home institutions," says Rolf Heuer, CERN Director General. The shipment is the realisation of a promise made by CERN back in May 2011 during the "Sharing knowledge across the Mediterranean" conference.

Joannah Caborn Wengler

Computer Centre Facts and Figures:

- 3 machine rooms, with a combined surface of over 2800m²
- 1,100 racks
- 8,000 systems
- 15,000 processors
- 65,000 cores
- more than 60 PB of disk capacity (the equivalent of about 13 million DVD films which would take more than three and a half thousand years to watch)
- more than 75 PB of tape capacity, which is to increase by 25 PB per year with LHC data
- current available capacity for IT equipment: 2.9 MW (to be upgraded to 3.5 MW by October 2012)
- internal LCG network bandwidth: 9.6 Tbps



Prof. Abdeslam Hoummada and CERN DG Rolf Heuer seeing off the servers on the beginning of their journey to Morocco.

Physicists develop more powerful tools to combat cancer

Some of the most futuristic research in medical physics was presented at ICTR-PHE 2012, the five-day conference that brought together physics, biology and medicine. Special emphasis was placed on medical imaging devices, currently used for diagnosis but with the potential to provide crucial real-time monitoring of treatment in the future.

Higher-quality imaging means early detection of disease and therefore better chances of recovery and better outcomes. Today, several medical centres in Europe are equipped with Positron Emission Tomography (PET) or PET-CT scanners and Magnetic Resonance Imaging (MRI) devices. Tomorrow, the winning solution could be a combination of the two. Geneva's University Hospitals (HUG) and the New York Hospital are successfully testing a combination of PET and MRI. The Erasmus Medical Centre in The Netherlands is studying the possibility of combining PET and Single Photon Emission Computed Tomography (SPECT) in the framework of the Applied Molecular Imaging Erasmus MC (AMIE) project.

Physicists are designing the new-generation detectors to be implemented in the imaging devices. They must be highly reliable and extremely accurate and provide a very fast response to allow the medical instruments to provide real-time information. New solid-state detectors could have these features. They are currently under study at CERN and in other physics laboratories. "The Holy Grail

The tools physicists are currently sharing with doctors to defeat cancer are high-tech sensors for early detection and particles for use as sharp projectiles. The latest advances in medical physics and some of the most sophisticated devices for imaging, monitoring and treatment were presented at the ICTR-PHE 2012 conference. They will shape the future of advanced healthcare.

would be a detector with a time resolution of 10 pico-seconds," said Dennis Schaart, a medical doctor from Delft University of Technology. "The materials and the knowledge we have at the moment suggest that this goal could be achieved in a not-too-distant future."

Physicists are also designing new solutions to produce isotopes for use as radio-tracers and for treatment. Scientists have observed that different tracers show a different efficiency depending on the specific type of tumour. Future tracers might be able to indicate diseased or abnormal cells with increased precision and, by using the appropriate imaging device, could even provide information about the tumour's specific metabolism. This information would be of great help to doctors, who have to define the most effective treatment. MEDICIS is a CERN project that plans to use the protons sent to the ISOLDE facility for the production of very rarely generated isotopes that could be implemented in this type of application.

Isotopes and alpha particles could also be used as vehicles to bring the killing radiation dose to the cancerous cells. Closely related is the development of new strategies for a better distribution of irradiation, aimed at giving the highest dose to the

most resistant tissues such as the hypoxic ones that characterize late-stage cancers. The conference highlighted the "Dose Painting" and "LET Painting" approaches, which maximize the targeting efficiency and minimize the damage to the surrounding healthy tissues.

The ICTR-PHE conference also featured presentations about the hadron-therapy centres currently in operation in Europe. One of them, the Heidelberg Ion Therapy centre in Germany, is pioneering the use of carbon ions in cancer treatment Europe-wide. Its clinical results will help to define the future treatment protocols for several types of tumours that are not readily treated with existing methods, including proton and traditional radiotherapy.

On the third day of the joint conference, physicists gave the floor to medical doctors. Marco Durante, a physicist from GSI, closed his talk during the summary sessions by saying: "Physics can lead to significant technical improvements in healthcare but biology can lead to breakthroughs". On the last two days, the baton passed on to the life science experts. A second article in the next issue of the Bulletin will feature this part of the conference.

Antonella Del Rosso et Fabio Capello

Here is a video summary of the ICTR-PHE 2012 conference:

<https://cdsweb.cern.ch/video/CERN-MOVIE-2012-026>



Crystals' added value

The keyword is "multidisciplinary approach". Developing new detectors for implementation in high-energy physics experiments but also in medical instrumentation requires a very diverse mixture of skills and competencies. Such a mixture does not necessarily come from a specific university faculty but rather from targeted training opportunities that are designed by several stakeholders, each one contributing with its own specificity.

The PICOSEC (Pico-second Silicon photomultiplier-Electronics- & Crystal research) EU-supported Marie Curie Training Network combines the necessary competence,

We are becoming used to the many applications that physics transfers to society. They span from vacuum techniques to electronics, and, of course, medicine and biophysics. The EU-supported PICOSEC project, of which CERN is the coordinator, goes beyond the simple spin-off technology and opens the doors of state-of-the-art crystal research to 22 researchers for applications that include calorimetry but also the next generation PET scanners.

expertise and infrastructure for top-level training of young researchers. The main goal is to train 18 Early Stage Researchers and four Experienced Researchers in order to develop new detection techniques based on very fast crystal scintillators that find applications also in medical imaging. The project involves seven institutes in academia and research – CERN, Technical University of DELFT, DESY, UHEI Heidelberg, LIP, University of Milano, Technical University

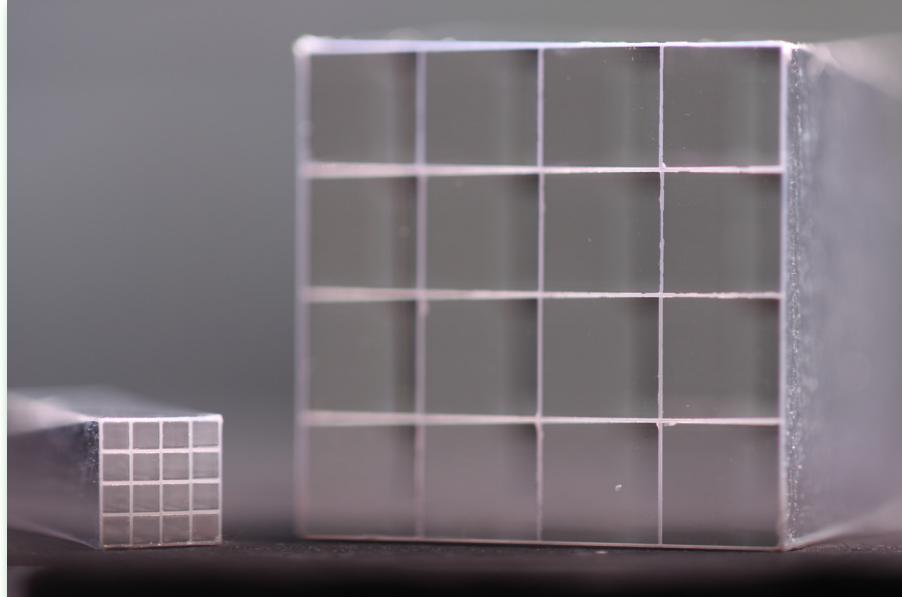
of Munich – and four industrial partners – Kloé Montpellier, Fibercryst Lyon, ST-Microelectronic Catania, SurgicEye Munich. "PICOSEC is an interdisciplinary, multi-national initiative. The participation of both public and private organisations in the common research program maximises the skills exchange and the transfer of knowledge. The direct involvement of private companies ensures a fast transfer of any future spin-off to society," says Etienne Auffray, member of CERN's PH Department and PICOSEC Project Coordinator.

The researchers will be involved in the development of novel high-speed photo-detection instruments for high-energy physics calorimetry at the future generation of colliders with unprecedented beam intensities. They will also participate in projects that aim at implementing the photon time-of-flight technique in the next generation PET scanners. The new technique targets specific cancers, such as that in the pancreas, and makes use of an innovative imaging probe that integrates a miniaturised PET detector head in an ultrasonic endoscope. "The photon time-of-flight technique allows us to better reconstruct the region of interest around the tumour as it effectively reduces background coming from uncorrelated photons. The enhancement in the quality of the medical image brings instant benefits to patients and medical institutions," explains Tom Meyer, member of CERN's PH Department and chair of the Network's Supervisory Board.

The webpage of the project (<http://picosec.web.cern.ch/picosec/vacancies.html>) provides the details of the vacancies that are offered by all participating partners to researchers who wish to get involved in the project. The project has a duration of four years and started in December 2011.

Prototypes of crystal matrices developed for medical imaging projects.

Antonella Del Rosso



Access to life's essentials: office and food

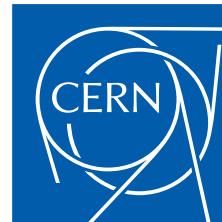
"We were going to replace the RFID (Radio Frequency Identification) chips currently in use because the manufacturer is phasing them out," explains Rui Nunes, responsible for access cards at GS, "so we decided to use the opportunity to add some new functionalities." From 1 April, all new cards that are issued or renewed will have the new DESFire EV1 RFID chip on them, and a machine to charge the cards using banknotes has already been installed between the bank and the kiosk in the main building.

It will be fully functional in May, when the tills in Restaurant 1 will also be equipped with the readers for the new cards. "People who would like to replace their old access card and get one with the new chip can come to the Card Production Service on the ground floor of Building 55," says Rui. For the moment the new system will only be implemented in Restaurant 1, but depending on the success of the scheme, it may well be rolled out to Restaurant 2 and even to vending machines on site.

Have you noticed how the queues seem to be getting longer and longer in Restaurant 1 as more and more scientists are coming to work at CERN? GS (General Services) has the solution: a new chip in CERN access cards will allow you to pay automatically at the restaurant.

Some cards will be getting a second, so-called Smartcard chip, which will contain computer login information. It will allow more secure authentication for people managing critical IT resources by placing the access card in a special reader installed in the computer. "We may extend the use of these chips to other card holders later on," adds Rui.

Along with the new technology, the design of the access cards is being revamped. "We had to make room for the new chip," says Fabienne Marcastel, Graphic Designer within the Communication Group, "and at the same time we can make the



cards comply with CERN's new Graphics Guidelines, which will soon apply to all printed material from CERN. "The Guidelines particularly affect the CERN logo, which should now only appear as shown here. "On the access cards we wanted to keep the photo top right, and the Smartcard chip has to go in the same place as on credit cards, so we found the solution of making the card portrait rather than landscape," explains Juan Sebastian Rickenmann, the graphic designer who has been working on the new cards. "The thin coloured lines indicate the holder's user status, and we are using the Optima font because it is one of the official CERN fonts, as specified in the new Graphics Guidelines," he goes on. "After all, the access card is important – it's the bridge between the person and the organisation," concludes Fabienne.

Joannah Caborn Wengler

Car sharing à la carte

We would like to draw your attention to a well established, albeit sadly under-used, method of transport: **car sharing**.

To promote car-sharing, the GS Department has stepped in to call on the services of the Swiss firm Green Monkeys (<http://greenmonkeys.com/>) which specialises in this user-friendly and intelligent transport scheme. The company's slogan is: "Car-sharing as you want, when you want and as much as you want".

The principle is very straightforward. To use this car-sharing facility, you simply complete your free online registration with Green Monkeys, providing the following details: your journey, departure time, arrival time and days of the week, and indicating whether you are a passenger or driver or both.

"Until now the major problem has been to find somebody with compatible car-sharing requirements," explains Mélanie Ducret,

Do you want to make your commute to CERN easier, while saving money at the same time? Would you prefer not to spend a quarter of an hour crawling round the CERN car parks looking for a space? If so, read on: this article might well be of great interest to you.



project manager at Green Monkeys. "The problem is that there is no communication between the databases of the large number of car-sharing Web sites. The advantage of Green Monkeys is that it operates locally within specific employment catchment areas. In the local area, in addition to CERN, we are also working with the HUG, the Red Cross and the Cantonal administration, for instance, and they are all using the same database." If they wish, CERN personnel can therefore extend their options to include people from other local organisations and firms, which increases the chance of finding car-sharing partners.

This system also makes life easier on the financial side. Every Green Monkeys user

has an online account. Costs are therefore shared by crediting or debiting your account depending on whether you are a driver or a passenger. Green Monkeys manages all the transactions via Paypal: "There is a fixed price for passengers of 28 Swiss centimes per kilometre," explains Mélanie Ducret. "Out of this amount, Green Monkeys retains a handling fee of 8 centimes and the balance of 20 centimes is paid to the driver."

Another strong point of Green Monkeys is the return journey guarantee. What happens if the driver of your return journey is unexpectedly unable to drive you home? No problem! Green Monkeys undertakes to find a solution, either by identifying another driver, or by covering the cost of public transport or even, if necessary, of a taxi.

You will be able to obtain more information at the Green Monkeys stand at CERN from 11 a.m. to 2 p.m. on **Tuesday, 20 March at the entrance to Restaurant No. 2, from 11 a.m. to 2 p.m. on Wednesday 21 March at the entrance to Restaurant No. 1, and from 11 a.m. to 2 p.m. on Thursday, 22 March at the entrance to Restaurant No. 3.**

Anaïs Schaeffer

Diversity at CERN: is it sometimes a challenge?

The seminar was attended by 32 people, a relatively small number if one considers how many people are

working on the CERN site. Does this mean that diversity is not an issue? I would rather say that, given the international and multi-faceted character of the Laboratory, diversity is taken for granted in many cases but, thanks to the seminar, I also realized that there may be issues hiding behind different types of behaviour. The discussion was very

The first diversity interaction workshop took place on 8 March. Although the choice of date was intended as a tribute to women, the real focus of the event was raising awareness about all types of diversity at CERN.

useful in raising awareness about this fact. As summarised by Anne-Sylvie Catherin, HR Head, "Diversity is certainly one of our strengths but it needs to be continually nurtured".

The workshop started with a short film showing how people can sometimes group

together in sets described as "Xs", thus leaving isolated the "Os", i.e. those who feel different or not part of the group. The members of the audience were asked to identify situations where they had felt like "Xs" and where they had felt like "Os".

While it seemed to be easy for people to identify situations where they had felt like "Os", it was another matter when they were asked to identify situations in which they had felt like "Xs". Clearly, it is not easy to appreciate a problem when it is faced by somebody else, even a close colleague.

The aim of the workshop was to provide a framework for participants to exchange their own experiences of being different and appreciate differing perspectives, explained Sudeshna Datta Cockerill, Diversity Programme Leader. "It is about promoting the added value of diversity while assuring a work environment based on mutual respect and inclusiveness."

If you missed the workshop – don't worry as there will be other occasions to take part during the year. In the meantime, if you have any questions or would like to discuss issues relating to diversity in your workplace, do not hesitate to get in touch with the recently created "Diversity Office" in the HR Department. The new service takes over the reins from the "Equal Opportunities Office". It introduces a broader approach to the topic and promotes diversity as a core value of the Organization.



During the workshop, the participants worked in small groups to discuss diversity.

Antonella Del Rosso

See you at the movies!

Founded by members of CERN's Film-making Club, CinéGlobe began in 2007 as a simple "friends and family" event for club members. "We turned our annual meetings into a screening event, showing off films we'd made over a year," says Neal Hartman, a mechanical engineer who is president of the CERN-based filmmaker's club OYE (Open Your Eyes Films) and is also the artistic director of the CineGlobe festival. "It was extremely popular and great fun, but the next year we just didn't have enough new films to justify a screening. So, Jacques-Hervé Fichet – member of the Visual Media Office within the CERN Communication Group and also a member of the Film-making Club – suggested we have an open call for submissions and hold a mini-festival of our own."

Over the years, this simple "open call" grew into the international film festival that CinéGlobe is today. Although now organised by an association separate to the CERN Film-making Club, the festival maintains firm links with the CERN community. "The association's statutes require that 50% of the CinéGlobe organisers be from CERN, and that a certain number of those be part of the Film-making Club," says Neal. "But actually, many of the non-CERN organisers are ex-CERNois – colleagues who may have left the Organization but are still drawn by the CERN principles that the festival encourages."

While CinéGlobe is, at its core, an opportunity for viewers to discover interesting

The third edition of CinéGlobe, the international film festival founded at and hosted by CERN, will be taking place 27 March to 1 April. Some 55 short films will be shown in the Globe of Science and Innovation, all based around this year's theme: "infinitely interconnected".



films while experiencing new cinematic techniques, the festival is still held in the spirit of CERN: fostering collaboration between talented people without focusing on commercial activities. "CinéGlobe is not just another opportunity for directors to meet distributors," says Neal. "This non-commercial spirit is one of the reasons why the festival has gained such momentum on the international stage."

A professional jury will be picking the principal winners of this year's CinéGlobe festival, but awards will also be given to the audience favourites. You can cast your votes during the festival screenings – taking place 27 March to 1 April during lunch-hours, in the evenings from Tuesday to Friday, and all day at the weekend. "Audience participation is a big part of CinéGlobe," concludes Neal. "If you're looking for a different type of repose during your next lunch break, come down to the Globe and cast your vote!"

CinéGlobe is looking for volunteers!

Are you a cinema-lover interested in participating in the CinéGlobe festival? Would you like to attend some of the festival's invitation-only events? Then consider becoming a CinéGlobe festival volunteer! For more information, get in touch with Dave Underhill at David.Underhill@cern.ch.

For more details about the festival, including a schedule of the film screenings, visit the website:

<http://www.cineglobe.ch/>

Katarina Anthony

A sM*A*S*Hing CERN visit

"I'd been reading about it so much, I just wanted to see it," he said. He does in fact have a connection with one of the LHC experiments. A few years ago, a fan of his from ATLAS asked if he would draw an Einstein cartoon to go on their fundraising T-shirts. Alda said he spent weeks on the caricature, and he joked that, "there would be no ATLAS project without that T-shirt," which was a hit. Indeed, his favourite moment was underground when he was standing on the platform and looking at the giant detector.

Alda helped cover the opening of the LHC in 2008 for the BBC, but this week was his first time visiting the laboratory in person. "It's just a wonderful thing," he said. "It's not only an extraordinary scientific and technological achievement, but also a great human achievement."

While he was filming episodes of *Scientific American Frontiers*, Alda said, he was most struck by how much benefit he got out of talking to scientists in an informal, conversational atmosphere. "Because it was a conversation, the scientist couldn't get into lecture mode," he said. This type of open back-and-forth, telling stories in a way that engages the listener, makes understanding complex ideas possible. "Stories stick with you longer," he said.

Alda wondered why communication wasn't being taught alongside science as a skill which is as important for scientists as

Alan Alda, the actor best known for playing medic Hawkeye Pierce on yesteryear's TV series M*A*S*H, really likes science. Moreover, the Scientific American Frontiers TV program inspired his passion for science communication. Since then, he has become an advocate for increased public literacy in science. He visited CERN and the ATLAS experiment last week.

mathematics or mechanics. "I think it is an essential part of science," he said, "because you can't just do the science and not communicate it to other scientists, to the public, to funders, to students... I've talked to members of Congress who had no idea what the scientists were telling them during hearings... It's horrifying."

Scientists naturally want to teach, Alda said, and the best way to do it is by telling their stories to those who are interested. "It's so exciting to see real curiosity and see it fed," he said. "It's a skill and an art, but scientists are also artists, and they're capable of that part of it, too."

This is a shortened version of a longer article from the Symmetry Breaking blog (<http://www.symmetrymagazine.org/breaking/2012/03/09/a-smashing-cern-visit/>).

Amy Elizabeth Dusto



Alan Alda enjoying his visit to the ATLAS cavern.

On location at CERN

In "The Muppet Movie", released in November 2011 in North America and world-wide in January and February this year, Kermit is reuniting his friends who have ended up in some far-flung places since they last worked together 10 years ago. CERN caught the imagination of the film-makers as the perfect place for the Muppet scientists, Dr. Honeydew Bunsen and his hapless assistant Beaker. After a brief scene filmed in front of a backdrop of the ATLAS detector, the rest of the film carries on in true Muppet style back in LA where the gang are trying to rescue the famous Muppet theatre from destruction by property developers.

"Schilf" is the name of both a best-selling book by Juli

CERN continues to be a very popular candidate for film locations at the moment. Not only has it inspired a German author and a film-maker interested in the more exotic interpretations of the science being worked on at the Organization, but even the recent puppet animation film by the legendary Muppets featured some CERN scenes.

Zeh, and a film released in Germany on 8 March which is more closely inspired by the science at CERN. Indeed, one of the

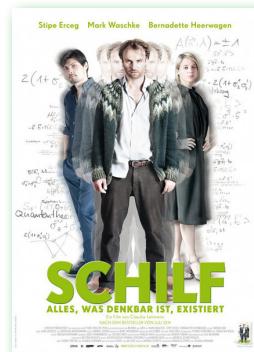


Dr Bunsen Honeydew (far left) and his friends at ATLAS. Beaker, Bunsen's assistant, has just been sucked up the vacuum tube top left... Image courtesy Walt Disney Studios.

main characters, one Prof. Hoyer, works at the Organisation and is visited by a physics professor friend whose belief in a "many worlds theory", based on the idea of parallel universes, seems to be coming true in a very disturbing way. The film crew was on site at CERN for several days, filming day and night to give the movie an authentic CERN look.

So there we have it: further proof of how CERN is catching the popular imagination.

"We get so many TV, film, cinema and documentary requests these days, we can't quite keep up!" says Renilde Vanden Broeck from the CERN Press Office.



Joannah Caborn Wengler

At the service of cutting-edge research

CERN is a world-renowned research facility. ISS, with its 100-strong workforce ensures that the scientists can concentrate 100% on science. Since 1954, scientists from all corners of the globe have been seeking out the origins of the Universe at CERN, the European Laboratory for Particle Physics. CERN has been responsible for ground-breaking discoveries and inventions, such as the Worldwide Web in 1989. The task entrusted to ISS by CERN is as unusual as the laboratory is extraordinary. What started as a simple window-cleaning contract in 1967 has now evolved into a complex logistics operation.

Keeping storage costs low

For the past 25 years, ISS have been organising CERN's stores management. Some 12,000 items, from erasers and office hardware to scientific equipment, are centrally stored and then delivered to anyone who orders them. The reliable operation of the postal service is another facet of the logistics operation. All year round, seven ISS employees ensure that 680,000 letters are delivered to the correct address on the

Many external companies work for CERN, including ISS, a market leader in the area of service provision. In an article, republished in full below, due to appear in the next edition of the ISS Magazine, the company puts CERN in the spotlight. Take a moment to discover how an external company sees CERN.

CERN sites. They also collect the 80,000 letters bound for Switzerland and the 70,000 letters sent to countries in the EU.

Fragile goods are handled with care while the transport of hazardous materials is entrusted to outside firms with specialised vehicles. In such cases, ISS assists with the paperwork and packaging.

Reliability the key to success

Every five years, the contract held by ISS is re-tendered. Thanks to the high quality of our work, ISS have not only secured CERN's continued trust but we have increased the scope of our services to the Organization. We have added quite a number of unusual tasks to our portfolio over the years. For example, ISS are responsible for maintaining the 1,300 oxygen masks which safeguard the lives of those working underground in the event of an emergency. We also demonstrate our ability to take on a diverse range of tasks in the operation of the water-jet

cutting machine, which uses up to 3000 bar pressures to manufacture precision components for scientific experiments. CERN has placed its trust in ISS specialised staff, right from the drawing board all the way to computer-assisted manufacturing.

Around-the-clock presence

ISS also runs the CERN hostels. The three buildings offer a total of 500 beds for scientists and students wishing to stay on the CERN site for periods sometimes a long as two months. The 40-strong ISS team takes care of every aspect of the hostel operations, including customer care, general cleaning, from the façades to the rooms, technical services and price negotiations with outside hotels.

The ISS transport service has been helping customers and staff get from A to B on the 200-hectare CERN site since 2007. Eleven ISS staff are present around-the-clock, planning and executing the transport services on and around the CERN sites. It has been our honour to attend to the transport needs of such high-profile visitors as the German Federal Chancellor Angela Merkel and the former French President Jacques Chirac.



Don't screw up your web

Your responsibility does not stop once you have been granted Internet connectivity. No: It falls to you to ensure that your web server is continually secured.

Only information which is meant to be public should be put online. Proper access protections must be put in place to secure other data, preferably using the CERN Single Sign-On portal and definitely using the HTTPS (secure HTTP) protocol when transmitting sensitive information like passwords. "Securing" also implies that the operating system as well as the content

Publish or perish. Given the large variety of information which needs to be published, you have the freedom at CERN to deploy your own web-server and put your data online on the Internet. Web content management systems like Joomla! or WordPress together with dedicated add-ons and modules make it easy to quickly create a posh look-and-feel. But hold on. With this freedom also comes responsibility!

management system must be updated regularly.

If you are not familiar with configuring web servers or programming web applications, you can take one of our security courses on this topic (<https://security.web.cern.ch/security/training/en/technical.shtml>). Also, we strongly encourage you to follow

our security baselines which give you basic recommendations to secure your web server (<https://security.web.cern.ch/security/rules/en/baselines.shtml>). If you prefer to pass this responsibility on, the IT department offers a variety of different centrally managed web content management systems, e.g. Drupal and Sharepoint, as well as frameworks for deploying web sites in Java, Perl or Python. Choose one of these, and you don't need to worry any more about securing the operating system or updating the web framework - it comes for free! For further information, please check our web site (<https://security.web.cern.ch/security/home/en/index.shtml>) or contact us at Computer.Security@cern.ch.

Computer Security Team



Two new online services available at CERN: thank you for your feedback!

News from the Library

PressDisplay is an online portal where one can browse and read online articles from more than 1,900 newspapers from 95 countries, as soon as they are published (<http://library.pressdisplay.com/pressdisplay/fr>). Le Monde, International Herald Tribune and many more titles are available in their original layout including text and images. Thanks to RSS feeds, users can directly receive news from their favorite newspapers, but articles can also be printed and sent via email. Based on the very positive

The Library has activated two different new online services, as a result of very successful trial periods and thanks to your positive feedback and strong support: PressDisplay and Nucleonica.

feedback we got from the community, the CERN Library has activated a one-year subscription to PressDisplay, and a wealth of information is now available at everyone's fingertips at CERN.

In addition to that, the latest Library news about Nucleonica, the nuclide and isotope database derived from the Karlsruhe Nuclide Chart, generated so much interest among readers that the CERN Library in col-

laboration with DGS-RP has already set up a one-year Premium access for the whole of CERN (<http://nucleonica.com/>). In order to benefit from this new resource, you can register for a basic account (<http://nucleonica.com/register.aspx>) using your CERN email address, and your account will be automatically upgraded to Premium.

If you have any comments or questions - please contact us at library.desk@cern.ch.

CERN Library



Ombuds' Corner Le coin de l'Ombuds

In this series, the Bulletin aims to explain the role of the Ombuds at CERN by presenting practical examples of misunderstandings that could have been resolved by the Ombuds if he had been contacted earlier. Please note that, in all the situations we present, the names are fictitious and used only to improve clarity.

Management or leadership?

Management is quite adequate and most important for projects, budgets, milestones, and scheduling, for instance. However, when we are talking about people, about how to communicate and interact with them, how to motivate them so they are enthusiastic and give their best, and how to drive them to be fully responsible and accountable for their mission, one would then prefer to use the term leadership than management. What is the difference?

In short, leaders lead people, and managers manage tasks. Managers have subordinates, leaders have followers. The biggest difference between managers and leaders is the way they motivate the people who work with them or follow them, and this sets the tone for most other aspects of what they do. Many people, by the way, are both. They have management jobs, but they realize that you cannot buy people's hearts, especially when they need to follow through on a difficult project, and so act as leaders too.

During his first year of activity in 2010 - 2011, as underlined in the first Annual Report, the Ombuds noticed that about half of the issues reported to him had to do with supervisors and supervisees, such as: evaluative relationships, career progression and development, and the atmosphere within groups leading to difficult peer relationships.

Let's take an example. Jeff*, a CERN Group Leader was confronted with some difficulties in communicating with his team, and decided to change his strict management style to include more qualities oriented towards leadership, by encouraging feedback from his supervisees on his performance as a leader. This opening created a very positive dynamic in the group where everyone felt that his or her opinion had a recognized value. People felt more empowered in the group's activities, so motivation, close support, understanding and a sense of community were positively reinforced. Jeff then noticed that his management was much smoother and better accepted by the group members than in the past, resulting in improved effectiveness.

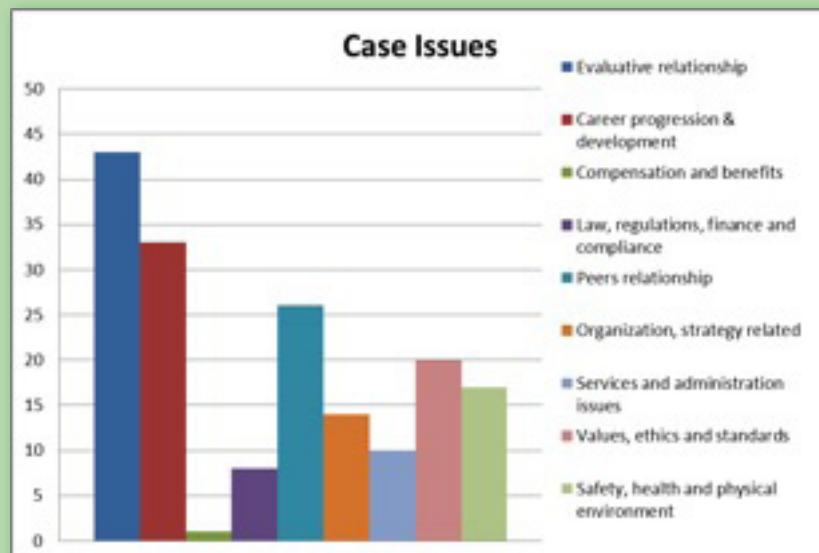
Conclusion

All CERN's great results and achievements testify to the excellence of its management at all levels. Leadership however could still be improved if everyone fostered the values in the CERN Code of Conduct: integrity, commitment, professionalism, creativity and diversity. Discussions within the framework of the new Competence Skills model can give everyone the chance to provide feedback and help managers to become respected leaders as well.

Contact the Ombuds early!

<http://cern.ch/ombuds>

Vincent Vuillemin



* Names and story are purely fictitious.



Official news

STAFF RULES AND REGULATIONS – MODIFICATIONS NOS. 6 AND 7 TO THE 11th EDITION

Please note that, following decisions taken at the June and December 2011 Finance Committee and Council meetings, the following pages of the Staff Rules and Regulations have been modified with effect from 1 July 2011 and 1 January 2012.

- Chapter I, General Provisions, Section 1 (Staff Rules and Regulations): amendment of page 1 – with effect from 1 January 2012.
- Chapter II, Conditions of Employment and Association, Section 5 (Termination of Contract): amendment of pages 28 and 29 – with effect from 1 July 2011.
- Chapter II, Conditions of Employment and Association, Section 5 (Termination of Contract): amendment of page 29 – with effect from 1 January 2012.
- Annex A 1 (Periodic reviews of the financial and social conditions of members of the personnel): amendment of pages 62 and 63 – with effect from 1 January 2012.
- Annex R A 2 (Financial Awards): amendment of page 67 – with effect from 1 January 2012.
- Annex R A 5 (Monthly basic salaries of staff members): amendment of page 71 – with effect from 1 January 2012.
- Annex R A 11 (Indemnities or grants payable to staff members on termination of contract): amendment of pages 77 and 78 – with effect from 1 January 2012.

The complete Staff Rules and Regulations are available on the HR Department intranet site: Staff Rules and Regulations.

Paper copies of modification Nos. 6 and 7 are also available from the HR-DI Secretariat upon request (tel. 78003).

HR Department

Members of the personnel shall be deemed to have taken note of the news under this heading. Reproduction of all or part of this information by persons or institutions external to the Organization requires the prior approval of the CERN Management.

TAXATION IN SWITZERLAND

Memorandum concerning the 2011 internal taxation certificate and the 2011 income tax declaration forms issued by the Swiss cantonal tax administrations.

You are reminded that the Organization levies an internal tax on the financial and family benefits it pays to the members of the personnel (see Chapter V, Section 2 of the Staff Rules and Regulations) and that the members of the personnel are exempt from federal, cantonal and communal taxation on salaries and emoluments paid by CERN.

I - Annual internal taxation certificate for 2011

The annual certificate of internal taxation for 2011, issued by the Finance, Procurement and Knowledge Transfer Department, is available as of 1 March 2012. It is intended exclusively **for the tax authorities**.

1. If you are currently a member of the CERN personnel you will receive an e-mail containing a link to your annual certificate, which you can print out if necessary.
2. If you are no longer a member of the CERN personnel or are unable to access your annual certificate as indicated above, you will find information explaining how to obtain one under the following link: https://cern.ch/admin-eguide/Impots/proc_impot_attestation_interne.asp.

In case of any difficulty in obtaining your annual certificate, send an e-mail explaining the problem to helpdesk@cern.ch.

II - 2011 income tax declaration forms issued by the Swiss cantonal tax administrations

The 2011 income tax declaration form must be completed in accordance with the instructions available at the following address:

https://cern.ch/admin-eguide/Impots/proc_impot_decl-ch.asp

If you have any specific questions, please contact your tax office directly.

This information does not concern CERN pensioners, as they are no longer members of the CERN personnel and are therefore subject to the standard national legal provisions relating to taxation.



Take note

SUMMER WORK FOR CHILDREN OF MEMBERS OF THE PERSONNEL

During the period from 18 June to 14 September 2012 inclusive, there will be a limited number of jobs for summer work at CERN (normally unskilled work of a routine nature), which will be made available to children of members of the personnel i.e. anyone holding an employment or association contract with the Organization.

Candidates must be aged between 18 and 24 inclusive on the first day of the contract, and must have insurance cover for both illness and accident. The duration of all contracts will be 4 weeks and the allowance will be CHF 1717.- for this period. Candidates should apply via the HR Department's electronic recruitment system (e-RT) at:

https://ert.cern.ch/browse_www/wd_portal.show_job?p_web_site_id=1&p_web_page_id=10220

Completed application forms must be returned **by 10 April 2012 at the latest**. The results of the selection will be available by the end of May 2012.

For further information, please contact: Virginie.Galvin@cern.ch

*HR Department
Tel. 72855*

*HR Department
Contact: 73903*



Take note

Industrial Exhibition
Administration Building
Bldg 61 – 1st Floor

Tuesday 27 March: 9 a.m. – 5h30 p.m.
Wednesday 28 March: 9 a.m. – 2 p.m.

LIST OF PARTICIPATING COMPANIES:

1. ALSYOM – GROUPE ALCEN
2. ARC INFORMATIQUE – PC VUE SOLUTIONS
3. BODYCOTE
4. CANBERRA FRANCE
5. CHAUVIN-ARNOUX
6. ELDIM
7. ELETTA FRANCE
8. EURIDIS (GROUP EFINOR)
9. FARNELL FRANCE
10. FLEXIBLE SOLUTIONS GROUP FRANCE
11. GERAC
12. GLENAIR FRANCE
13. INITIAL
14. JST TRANSFORMATEURS
15. MATRA ELECTRONIQUE
16. NUCLEOPOLIS
17. OREKA GROUP
18. PHOTONIS
19. PREMIUM ANALYSES
20. RS COMPONENTS
21. SEMA INDUSTRIES – GROUP EFINOR
22. SOMINEX
23. SYMETRIE
24. TECHNETICS GROUP FRANCE
25. THALES ELECTRON DEVICES
26. ULTRAFLUX
27. L'UNION DES FORGERONS
28. VELAN

FRANCE AT CERN – INDUSTRIAL EXHIBITION

About thirty French companies are presenting their latest technological advances during the industrial exhibition "France at CERN", featuring products and technologies specifically related to CERN activities.

Individual B2B meetings can be organized with the sales and technical representatives of participating firms and will take place at either the companies' exhibition stands or in conference rooms in the Main Building. Individuals wishing to make contact with one or more companies must use the contact details available from each secretariat of department or by using the following link:

http://gs-dep.web.cern.ch/gs-dep/groups/sem/ls/Industrial_Exhibitions.htm.

B2B meetings will be coordinated by UBIFRANCE.

You will also find the list of exhibiting and participating companies online at:
www.la-france-au-cern.com/cms/fr/liste-des-exposants

This event is sponsored by the French subsidiary of RS Components, the most important distributor of electronic, electro-mechanical and industrial components, delivering to 1.5 million customers worldwide. Established in 27 countries and with 17 warehouses, RS Components distributes 500 000 products, from semiconductor to optoelectronic, through electric tools, personal protective equipment or safety and hygiene products. RS Components' portfolio of products and services covers your product's entire life cycle, from R&D and pre-manufacturing to maintenance and repair.

The exhibition "*La France au CERN*" (France at CERN) is organised by UBIFRANCE, the French Agency for International Business Development, responsible for promoting French technologies and know-how abroad.

EXHIBITION ORGANISER :

Mission économique - UBIFRANCE en Suisse

Pfingstweidstrasse 60, CH-8005 ZURICH

Contact : François Bouillon et Brice Robin

Tel. : +41(0)44 279 15 55/56

Email : francois.bouillon@ubifrance.fr / brice.robin@ubifrance.fr

Information:

Claudia Bruggmann Furlan

CERN GS-IS-LS General Services Dept

claudia.bruggmann.furlan@cern.ch

Phone : +41 22 767 3312



GLOBAL INET 2012: MEETING AT THE CROSSROADS: IMAGINING THE FUTURE INTERNET

Global INET 2012 will take place at the CICG on April 22-24 to discuss the topics and challenges that will shape the future of the Internet. This is an excellent opportunity to meet with, network and learn from top Internet technologists, policymakers, business executives and other individuals from around the globe.

The conference boasts a programme of over 50 speakers and panelists, all offering their insights into topics such as internet governance, law, ecosystems, intellectual property, social networking and the link between the internet and economic transformation.

Panelists include Slim Amamou, Lynn St Amour, Vint Cerf, Lesley Cowley, Steve Crocker, Dr. Leonard Kleinrock, and co-founder of the Campus Party Paco Ragaiges, as well as the CERN Director General, Dr. Rolf Heuer.

As there are too many panelists to mention them all, please visit our website:

http://www.internetsociety.org/events/inet-conferences/global-inet-2012?utm_source=CERN&utm_medium=email&utm_campaign=Global%2BINET

Don't delay and register today for Global INET 2012!

Geneva university
Département de physique

24, quai Ernest-Ansermet
CH-1211 Genève 4

Tél: (022) 379 62 73
Fax: (022) 379 69 92

Monday 19 March 2012

COLLOQUE DE PHYSIQUE

17 h - École de Physique, Auditoire Stueckelberg

Observation of electron-antineutrino disappearance at Daya Bay

Professor Yifang Wang

Institute of High Energy Physics of the Chinese Academy of Sciences Beijing

The Daya Bay Reactor Neutrino Experiment, a multinational collaboration operating in the south of China, today reported the first results of its search for the last, most elusive piece of a long-standing puzzle : how is it that neutrinos can appear to vanish as they travel? The surprising answer opens a gateway to a new understanding of fundamental physics and may eventually solve the riddle of why there is far more ordinary matter than antimatter in the Universe today.

Une verrée en compagnie du conférencier sera offerte après le colloque.

Prof. Markus Büttiker



E-GROUPS TRAINING

There will be an e-groups training course on 16 March 2012 which will cover the main e-groups functionalities i.e.: creating and managing e-groups, difference between static and dynamic e-groups, configuring posting restrictions and archives, examples of where e-groups can be used in daily work.

Even if you have already worked with e-groups, this may be a good opportunity to learn about the best practices and security related recommendations when using e-groups.

You can find more details as well as enrolment form for the training (it's free) here.

The number of places is limited, so enrolling early is recommended.

Technical Training
Tel. 72844



Safety Training Course



"USE OF FIRE EXTINGUISHERS": A NEW COURSE WITH A NEW SIMULATOR

A new training course, "Handling of fire extinguishers", is available since the beginning of March 2012.

The training course is given by members of CERN's Fire Brigade (GS-FB) and is intended for all members of personnel of CERN.

Upon successful completion of the training course, you will be able to do the following:

- recognise a potentially combustible item and the various fire classes;
- choose the appropriate extinguisher for a given fire class;
- handle a fire extinguisher properly and efficiently;
- apply CERN's safety instructions.

An important part of the training are the different firefighting exercises conducted using a new simulator, which makes it possible to simulate real conditions such as the following:

- a fire in the office;
- a fire in an electrical cabinet;
- a fire involving chemicals.

Don't wait: sign up for the training course directly through the CERN Training Catalogue:

Course code 077YY00 – Use of fire extinguisher – live exercises

The dates of forthcoming sessions are posted in the CERN Training Catalogue.

The course will be offered in French and English.

For more information, contact the Safety Training team (HSE Unit) directly by sending an e-mail message to safety.training@cern.ch.





Seminars

TUESDAY 20 MARCH

INDUCTION SESSIONS

8:30 - Council Chamber, Bldg. 503-1-001

Induction Programme - 2nd Part

TH STRING THEORY SEMINAR

14:00 - TH Auditorium, Bldg. 4

TBA

I. GARCIA-ETXEBARRIA / CERN TH

EP SEMINAR

15:00 - Main Auditorium, Bldg. 500

Observation of the electron anti-neutrino disappearance at Daya Bay

YIFANG WANG / INSTITUTE OF HIGH ENERGY PHYSICS (IHEP), CHINESE ACADEMY OF SCIENCES

WEDNESDAY 21 MARCH

LHCC MEETINGS

9:00 - Main Auditorium, Bldg. 500

109th LHCC Meeting Open and Closed Sessions

TH COSMO COFFEE

11:00 - TH Auditorium, Bldg. 4

Heavy particle effective theories: formalism and application to dark matter direct detection

R. HILL / UNIVERSITY OF CHICAGO

TH THEORETICAL SEMINAR

14:00 - TH Auditorium, Bldg. 4

Gravity as a double copy of gauge theory and implications for UV properties

ZVI BERN / UNIV. OF CALIFORNIA LOS ANGELES (US)

THURSDAY 22 MARCH

TECHNICAL SEMINAR

9:00 - Kjell Johnsen Auditorium, Bldg. 30-7-018

10^e Forum Utilisateurs CATIA au CERN

J.-P. CORSO / CERN-EN-MEF-INT

COLLIDER CROSS TALK

11:00 - BE Auditorium Meyrin, Bldg. 6-2-024

Measuring the top mass at CMS in the lepton + jets final state

J. E. PALENCE CORTEZON / CERN

CERN COLLOQUIUM

16:30 - Main Auditorium, Bldg. 500

Overview of Theoretical and Experi- mental Progress in Low Energy Nuclear Reactions (LENR)

F. CELANI, Y. SRIVASTAVA

FRIDAY 23 MARCH

PARTICLE AND ASTRO-PARTICLE PHYSICS

SEMINARS

14:00 - TH Auditorium, Bldg. 4

Neutrino oscillation phenomenol- ogy

E. FERNANDEZ / CERN-TH

SPECIAL EVENT

14:45 - Bldg. 510-R-036 - Audiovisual Studio

Launch ATV3 tribute Eduardo Amaldi

MONDAY 26 MARCH

LPCC WORKSHOP

14:00 - 18:30 - Main Auditorium, Bldg. 500

Implications of LHC results for TeV- scale physics

TUESDAY 27 MARCH

LPCC WORKSHOP

9:00 - 18:30 - Main Auditorium, Bldg. 500

Implications of LHC results for TeV- scale physics

TH STRING THEORY SEMINAR

14:00 - TH Auditorium, Bldg. 4

TBA

F. DENEF / LEUVEN

WEDNESDAY 28 MARCH

LPCC WORKSHOP

9:00 - 18:30 - TH Auditorium, Bldg. 4

Implications of LHC results for TeV- scale physics

LPCC WORKSHOP

14:00 - TH Auditorium, Bldg. 4

Implications of LHC results for TeV- scale physics

V. SANZ / YORK UNIVERSITY

THURSDAY 29 MARCH

LPCC WORKSHOP

9:00 - 18:30 - TH Auditorium, Bldg. 4

Implications of LHC results for TeV- scale physics

FRIDAY 30 MARCH

LPCC WORKSHOP

9:00 - 17:30 - TH Auditorium, Bldg. 4

Implications of LHC results for TeV- scale physics