CERN Bulletin

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ATLAS: Now under new management

ATLAS members at the 2010 collaboration meeting in Copenhagen. Image: Rune Johansen and Troels Petersen.

On 1 March, the ATLAS Collaboration welcomed a new spokesperson, Dave Charlton (University of Birmingham), and two new deputy spokespersons, Thorsten Wengler (CERN) and Beate Heinemann (University of California, Berkeley and LBNL). The Bulletin takes a look at what's in store for one of the world's largest scientific collaborations.

ATLAS spokesperson Dave Charlton has seen the collaboration through countless milestones: from construction to start-up to the 4 July 2012 announcement, he's been an integral part of the team. Now, after twelve years with the collaboration, Dave is moving into the main office for the next two years.

"2012 was a landmark year for ATLAS," says Dave. "We spent a lot of time in the limelight and, in many ways, all eyes are still on us. But with the shutdown now under way, our focus is shifting." The team will be preparing the experiment for the higher energy run of 2015, while also preparing for detector upgrades later on.

"We have a lot of improvements scheduled for the detector," explains Dave. "One of the most significant tasks will be the installation of a new inner pixel detector layer, 3.3 cm from the beam axis. A new inner pixel layer was foreseen in the original design of the experiment, and will give ATLAS improved flavour-tagging capability."

The collaboration will also be refurbishing a number of detector elements, and installing and commissioning a new inner detector cooling plant. "These major projects, while not headline grabbing, should mean that the experiment operates even more reliably in the future than the high standard set so far," says deputy spokesperson Thorsten Wengler.

(Continued on page 3)

Science for a sustainable future

On 1 March we had a visit from Ban Ki-moon, Secretary-General of the United Nations. This is Mr Ban's second visit to our laboratory, but his first since CERN was granted Observer status at the United Nations General Assembly last December. It therefore gave us our first opportunity to discuss joint initiatives already under way.

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News

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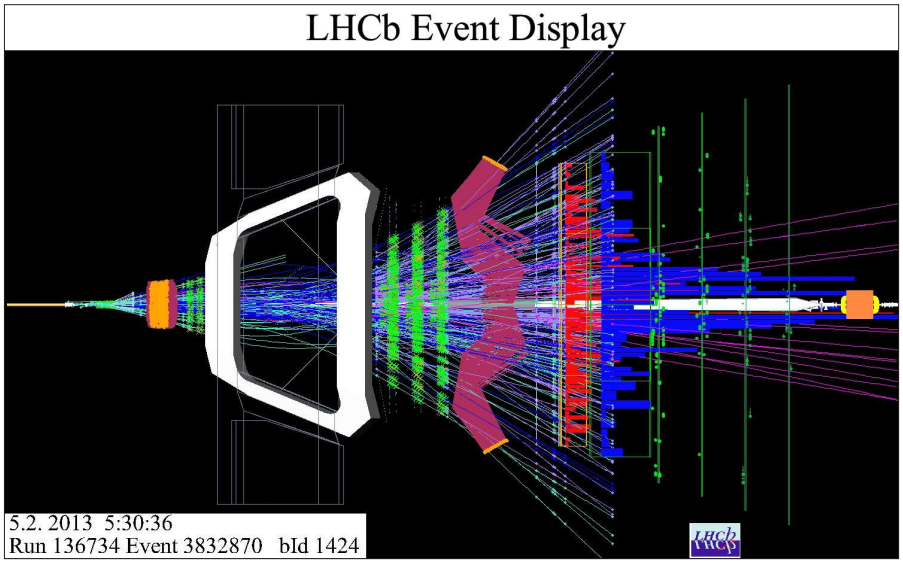
X(3872): an exotic combination of quarks?

According to the Standard Model of particles, quarks are the smallest building blocks of matter. So far, only quark-antiquark pairs (mesons) and quark triplets (baryons) have been observed. However, over the last few decades, some not-yet-understood states have started to appear in the particle zoo. Their nature is still unclear but the LHCb experiment has now made a big step towards understanding one of them: the X(3872).



A proton-lead ion collision, as observed by the LHCb detector during the 2013 data-taking period.

The X(3872) has not yet made headlines, but its existence is an intriguing mystery that scientists have been trying to elucidate over the past ten years since the particle was first observed by the Belle experiment. So far, its inner nature has remained unknown because of theoretical difficulties in cataloguing it as a quark-antiquark state in the so-called "charmonium" spectrum (as charm quarks are involved) and because of the experimental difficulties involved in catching it. Thanks to increased statistics, a sophisticated angular analysis of the 2011 data-set has been performed, and even in the quite crowded environment of the LHC forward region, the LHCb collaboration successfully and unambiguously determined with very high significance (8 sigma) the quantum numbers of the X(3872). "The mass value and the quantum numbers we find cannot be easily explained by a simple combination of a quark and an antiquark," says Pierluigi Campana, LHCb Spokesperson. Indeed, the LHCb result favours a more exotic nature for the X(3872), such as a bound state of several quarks (tetra-quark or D-D* molecule).

The X(3872) is not the only particle whose nature is unclear. Other examples are well known but still under scrutiny. "We will continue to work on these exotic states using the full 2011-12 statistics," concludes Campana. "With this result we have given a further handle to theorists who are working on new models to explain the exotic nature of the X(3872)."

The moment is approaching for this particle to take on a less obscure name.

Antonella Del Rosso

Building 774: foundation stone in place

On Thursday 28 February, a ceremony was held to lay the foundation stone of Building 774; in attendance were Stéphane Donnot, Sub-Prefect of the Ain, Octavio Mestre, the building's architect, and Sigurd Lettow, Director of Administration and Infrastructure.

The time capsule placed in the cornerstone contained documents on the building itself, as well as a daily newspaper and two silver coins from France and Switzerland. The building will be located just opposite the CERN Control Centre (CCC); its construction is to be completed by early 2014. It will accommodate 130 personnel from the Beams Department. For more information, check out the Bulletin article, "**The elegant lines of the new Building 774**".

Corinne Pralavorio

LS1 Report: onwards and upwards

For the first time since 2008, engineers have taken most of the LHC's electromagnetic circuits up to the current needed for magnets to guide beams around the machine at the design energy of 7 TeV. This first phase of intensive tests has been instrumental for the planning of upcoming machine interventions.

Around 1700 magnet circuits are needed to circulate beams in the LHC. Come 2015, each and every one of these circuits will have to be able to accept their 7 TeV equivalent current. For the LHC's 24 main dipole and quadrupole circuits, this will mean the consolidation of all their interconnections. But what about the rest of the LHC's circuits that had been mostly operating at around 60% of the nominal value? How will they handle the ramp-up to design energy? Those questions were asked and answered during the recently completed series of powering tests.

"We looked for any weaknesses in the circuits while they are still at cryogenic temperature," explains Mirko Pojer, Engineer in Charge of the LHC. "In 2008, we noted a few difficulties in individual magnets at 7 TeV. The recent tests allowed us to identify which of these issues should be addressed during the Long Shutdown 1, which could require the entire magnet to be replaced, and where we need to intervene on the splices of the small-current circuits."

The tests also gave the team a chance to identify the limits of all the circuits. "Not every circuit needs to be operated at nominal current in order for the machine to run at 7 TeV," continues Mirko. "We found a few circuits that cannot operate at that level, and now we know how far we can push them without a loss of performance or a current trip."

The powering tests were carried out from the CERN Control Centre (CCC), where operators were able to bring the superconducting circuits up to 7 TeV just as they would during operation. The team began by powering the entire machine, and then went sector by sector once issues were identified. In 10 days, more than a thousand tests were performed on 540 circuits. "We did come across a few surprises," says Mirko. "We were able to resolve all of the smaller issues – for example, a failing power converter – through immediate intervention. We also identified a number of circuits that will require more detailed analysis and possibly an intervention during LS1."

Once the circuits in a sector had been signed off on, the Electrical Quality Assurance team started testing the electrical insulation of each magnet with respect to earth. For these tests, engineers apply a high voltage between the magnet coil and earth to ensure it is perfectly electrically insulated. This second type of electrical test began on Friday 22 February, in parallel with the powering tests, and will take 8-9 days per sector. Once completed, the warming-up of the magnets will begin at long last.

Katarina Anthony

(Continued from page 1)

Science for a sustainable future

Our discussions focused on CERN's contribution to science-related UN activities, and in particular those of the UN's Economic and Social Council, ECOSOC, whose focus for 2013 is on leveraging science, technology, innovation and culture for a sustainable future. CERN will be taking part in ECOSOC meetings in Geneva in July, and we will be contributing on the theme of young women in science to ECOSOC's Youth Forum on 27 March. Mr Ban and I also discussed the role of the Secretary-General's recently established science advisory board.

During his brief visit, Mr Ban became one of our first visitors to see some of the underground areas at CERN during LS1. We also talked about changes since his last visit in 2008. As you can imagine, there was much to discuss. Finally, he visited UNOSAT, the UN's remote sensing programme that delivers satellite-derived analysis data to international humanitarian and development agencies. Hosted at CERN since 2002, UNOSAT is a well-established model of what can be achieved when CERN and the UN work together.

Rolf Heuer

ATLAS: Now under new management

(Continued from page 1)

"The detector improvements are but one part of the work ahead," adds deputy spokesperson, Beate Heinemann. "We also have an unprecedented amount of data to study. There is a lot of physics to understand, and collaboration members around the world will be very busy with analysis. So far, we've published or submitted almost 240 papers with collision data – including the Higgs paper in July 2012 – and we expect at least 100 more based on the 7 and 8 TeV LHC data."

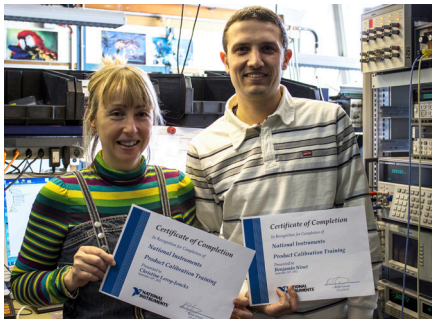
"We will also be improving the way we process and analyse data," says Thorsten. "While our systems have been performing remarkably well, after four years of running we have a good understanding of how we can improve things further."

All in all, it will be a busy two years for the entire collaboration. Dave concludes: "The collaboration continues to rely on the dedication and drive of its members, especially of our younger colleagues, who help make ATLAS such a fantastic place to work."

Katarina Anthony

A new service to ensure that PXI cards perform correctly

The PXI (PCI eXtensions for Instrumentation) card is an electronic module used in association with a PC to improve the performance of measurement and automation systems. At CERN, many systems use PXI cards. With the long shutdown providing ideal timing, a new interdepartmental initiative has created a PXI card calibration service. Don't miss out!



Christine Leroy-Jonckx and Benjamin Ninet (next to the new calibration machine), display their National Instruments diplomas.

PXI cards are used in both laboratories and accelerators, for test beds, data acquisition systems, installation testing, etc. "A survey of CERN PXI equipment users carried out in 2011 showed that there were more than 1500 cards and about 50 different models in use," says Hubert Reymond, responsible for PXI support and promotion at CERN. "As for all electronic systems, the performance of these cards can vary over time. So for some of them, calibration is necessary every two years, in order to ensure that, for example, an old card gives the same result as a new card straight from the factory."

CERN already has a calibration service equipped with high-performance, and therefore very expensive, equipment - particularly for calibrating equipment such as oscilloscopes and signal generators. However, CERN could not ensure the calibration of PXI cards, which requires specialist training and certification provided by National Instruments (the company that developed the PXI specifications in 1997). "A collaboration between BE-CO-HT, which has a calibration service, and EN-ICE-MTA, which offers technical support for PXI products, has recently allowed the establishment of a calibration service for PXI cards on the CERN site," said Hubert Reymond. "Christine Leroy-Jonckx and Benjamin Ninet, members of the new service, now have the necessary certifications and are able to use the same procedures and techniques as the manufacturer. Henceforth, they will be responsible for the calibration of PXI cards at CERN."

Furthermore, in order to meet the manufacturer's compliance requirements, especially in terms of the thermal stability of the premises, part of the calibration laboratory has been renovated. Located in Building 8, the new service is now ready to carry out calibrations of the components of various instruments, particularly over the long shutdown when many installations will be undergoing maintenance.

Do you need PXI cards calibration? Please, send an e-mail to **CERN-PXI-Calibration@cern.ch.**

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Tree felling: a necessary evil

CERN started a campaign of tree felling in 2010 for safety reasons, and it will continue this year in various parts of the Meyrin site. As in previous years, the trees cut down in 2013 will be recycled and some will be replaced.

In association with the Geneva nature and countryside directorate (*Direction générale de la nature et du paysage,* ***DGNP***), CERN commissioned the Geneva school of landscaping, engineering and architecture (*Haute école du paysage, d'ingénierie et d'architecture,* ***HEPIA***) to compile an inventory of the trees on the Meyrin site. In total, 1285 trees (excluding poplars) were recorded. 75.5% of these trees were declared to be in a good state of health (i.e. 971 trees), 21.5% in a moderate state of health (276 trees) and 3% in a poor state of health (38 trees).

As for the poplars, the 236 specimens recorded on the Meyrin site were judged to be too old, too tall, poorly situated or developing a root system harmful for roads and underground networks, so all of them will eventually have to be cut down.

It was in this context that, in 2010, the GS department began an initial tree-felling campaign. Some trees posed a genuine danger to people and property; others were also cut down to make way for new developments (see box).

In 2013, several dozen trees (87 in total) have already had to be cut down. Over the next few years, other tree-felling campaigns will take place, bringing the total number of trees felled on the Meyrin site to 274.

However, it is important to note that the trees cut down will be replaced as part of an intiative to develop more open spaces at CERN, currently under development in partnership with the DGNP. In addition, the felled trees will be cut into chips, to be used particularly as firewood.

CERN Bulletin

Tree felling campaign: what is at stake?

• **The safety of people and property**: some of the trees felled were too old and too tall; they were not able to withstand the wind and there was a risk of them falling. In addition, several trees had already been uprooted due to two simultaneous factors: waterlogged ground and a shallow spreading root system.

• **Development of space, transport and the environment:** the space freed up by the tree-felling campaign allows for new sustainable transport networks (pedestrian routes, cycle routes, etc.). This network will consist of new green spaces which are specially designed and planned to encourage sustainable transport.

The "What If?" machine

Which models of Beyond Standard Model (BSM) physics do physicists "prefer" and why? How do these opinions change over time, especially in the light of the LHC results? These were the questions asked and answered by philosopher Arianna Borrelli at her recent presentation: "A philosophical experiment: empirical study of knowledge production at the LHC".

Image: Arianna Borrelli's presentation.

Physicist-turned-philosopher Arianna Borrelli set out to examine the interplay of theory and experiment at CERN, and how developments in science influence changes in physicists' opinions. Instead of relying on data taken "after the fact", Arianna made use of the LHC's first run to live-monitor physicists at work at CERN.

She began in 2011, conducting interviews with CERN theorists and experimentalists, both in person and using a targeted online survey. Then, one year later, she did it all again - only this time, it was after the news of the Higgs-like particle discovery. The preliminary results of this research were presented, for the first time, at a CERN colloquium on 14 February. In the audience were the primary source: the CERN physicists involved in both the study and the research that affected the study.

Arianna's in-person interviews were held with well-known experimentalists and theorists, including Fabiola Gianotti, Guido Tonelli, John Ellis and Michelangelo Mangano. Among the experimentalists she spoke to, she found there was a preference to remain "unbiased" toward different physics models, and that they had a strong appreciation for model-independent searches. And while theorists did discuss their preferences for certain models, they seemed to consider them as "exploratory tools rather than serious candidates".

Meanwhile, the online survey looked at the views of the wider high-energy physics community. The first survey had over 1400 respondents, and there were over 900 in the second. While Arianna highlighted that this survey was not "statistically significant" (and that no one quite knew what a "statistically relevant" group of high-energy physicists would look like), the results of the survey did present a "qualitative picture of opinions". Arianna's preliminary conclusions showed that while the discovery of the Higgs-like particle does seem to have eroded the general belief in certain BSM-models, the respondents remained strongly motivated to invest resources in the search for new physics.

Katarina Anthony

ICE-DIP kicks off

Last month, Marie Curie Actions* added a new member to its ranks: ICE-DIP (the Intel-CERN European Doctorate Industrial Program). The programme held its kick-off meeting on 18-19 February in Leixlip near Dublin, Ireland, at Intel's premises.

Building on CERN's long-standing relationship with Intel in the CERN openlab project, ICE-DIP brings together CERN and industrial partners, **Intel** and **Xena Networks**, to train five Early Stage ICT Researchers. These researchers will be funded by the European Commission and granted a CERN Fellow contract while enrolled in the doctoral programmes at partner universities **Dublin City University** and **National University of Ireland Maynooth**. The researchers will go on extended secondments to Intel Labs Europe locations across Europe during their three-year training programme.

The primary focus of the ICE-DIP researchers will be the development of techniques for acquiring and processing data that are relevant for the trigger and data acquisition systems of the LHC experiments. This will require the investigation of many new, untested ideas, such as the use of silicon photonics for network links in harsh operating conditions. Developments made by ICE-DIP researchers will be of great interest for CERN's future computing facility upgrades, other research laboratories and, potentially, many business sectors.

Katarina Anthony

**The Marie Curie Actions* are European Commission funding schemes that support the career development of researchers and promote European research excellence.*

Computer Security
Sécurité informatique

Cyber-Attacks and the Risks for CERN

In the previous *Bulletin*, we discussed the cyber-risks for the accelerator complex. However, looking at the broader picture, the cyber-risks for CERN are much more diverse.

Attacks can not only harm the operation of accelerators or experiments, but also impact negatively on the operation of the Organization as a whole and/or its reputation. This would not only hamper and impede our work while making us looking plain stupid, but might also make funding agencies reconsider whether their money is well invested in CERN… Examples? Sure, let's be imaginative!

What would be the consequences, if:

- a laptop holding sensitive CERN documents is lost or stolen, and ends up on eBay?
- your password is compromised and your mail account misused to send nasty messages to thousands of external mail addresses?
- an attacker manages to add photos of naked women/men onto a prominent CERN website, and boasts about this on Twitter?
- confidential documents like job application forms or password lists accidentally become public?
- a member of the personnel downloads copyrighted material and CERN is subsequently sued by the rights holder?
- an attacker infiltrates our central computing clusters or the LHC Computing Grid, and subsequently attacks - say - the Vatican's website?
- a large fraction of Windows PCs and laptops connected to the office network is infected by a brand-new breed of virus?

And what is the probability of any of the above happening? It's certainly not zero! Therefore, help the Organization to keep the risks of cyber attacks to a minimum! Recall that you are, in the first instance, responsible for the computer security of the laptops, smart phones and PCs you use, the accounts and passwords you own, the files and documents you hold, the programs and applications you have installed or, especially, those you have written, and the computer services and systems you manage. The Computer Security Team is ready to help you assume this responsibility by providing training and awareness, consulting and audits. Alternatively, you can delegate that responsibility to the IT department, which manages a multitude of secured computing services.

For further information, please **check our website** or contact us at **Computer.Security@cern.ch**.

Computer Security Team

Library
Bibliothèque

Knovel trial is approaching!

News from the Library

A trial of Knovel, a web-based application integrating technical information with analytical and search tools, will start on 5 April. Knovel is both a platform for e-books and a powerful search engine, allowing users to search the full text, and to extract and exploit numerical data available inside the e-books. It covers several subject areas of Engineering and Materials Science.

Go to "**our**" Knovel trial page to learn how Knovel can support your needs, and to then use the product. Upon entering, please register as a trial participant. After registering you will receive an e-mail to activate your new profile.

To help you get started, two webinar sessions will provide tips on how to navigate and search Knovel, a demonstration of the interactive tools that help you use and apply data, and a quick "how-to" on saving and organising useful information with MyKnovel. The sessions will take place on:

Thursday, March 7th at 11:00 AM CET Register **here**
Tuesday, March 12th at 1:00 PM CET Register **here**

Please feel free to pass this on to colleagues of you who may be interested.

Your feedback is welcome : **library.desk@cern.ch**

CERN Library

Official news

Change of offices for HR Department - disrupted service during the last week of February 2013

HR Department would like to inform that, due to office renovation work, a number of HR Services currently located on the ground, first and second floors of Building 5 will move to temporary offices as from late February.

The removals will take place from Friday 22 until Tuesday 26 February 2013 inclusive and during this period, telephone and e-mail contact may be disrupted.

The following services will be relocated to:

Building 510 – ground floor (until mid-June)

- Head of Department and Deputy
- Office of the Head of HR Department
- Group Leaders and Partners
- Diversity Office
- HR Legal Section

Building 652 – Prefab/Algeco (until September)

- HR Advisors and assistants
- Staff Recruitment Service
- Fellows & Apprentices Service
- Students & Associates Service

Temporary office numbers will be available in the CERN phonebook. Any emergencies during the removals may be addressed to **Lynda.Leroux@cern.ch**

Thank you in advance for your understanding.

HR Head Office

Adjustment of the Internal Tax Scale

In application of Article R V 2.03 of the Staff Regulations, the internal tax scale has been adjusted with effect on 1 January 2012.

The new scale may be **consulted** via the CERN Admin e-guide.

The notification of internal annual tax certificate for the financial year 2012 takes into account this adjustment.

HR Department (Tel. 73907)

Taxation in Switzerland

Memorandum concerning the 2012 internal taxation certificate and the 2012 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 2012

The annual certificate of internal taxation for 2012, issued by the Finance, Procurement and Knowledge Transfer Department, will be available on 25 February 2013. It is intended exclusively for the tax authorities.

- 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.
- 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 at the following link: **https://cern.ch/admin-eguide/Impots/proc_impot_attestation_interne.asp.**

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

II - 2012 income tax declaration forms issued by the Swiss cantonal tax administrations

The 2012 income tax declaration form must be completed in accordance with the indications 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.

HR Department
Contact: 73903

Annual adjustments to 2013 financial benefits

In accordance with recommendations made by the Finance Committee and decisions taken by Council in December 2012, no adjustments have been made to basic salaries and stipends, subsistence allowances or family benefits as at 1 January 2013.

HR Department

To all members of the personnel: Summer work for children of members of the personnel

During the period from 17 June to 13 September 2013 inclusive, a limited number of jobs for summer work at CERN (normally unskilled work of a routine nature) will be 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 coverage for both illness and accident. The duration of all contracts will be 4 weeks and the allowance will be CHF 1500.- for the whole period.

Candidates should apply via HR Department's electronic recruitment system: **https://ert.cern.ch**

Completed application forms must be returned by 12 April 2013 at the latest. The results of the selection will be available by the end of May 2013.

For further information, please contact:
Virginie.Galvin@cern.ch - Tel. 72855
(Geraldine.Ballet@cern.ch - Tel. 74151)

HR Department

Take note

Canon multifunction copier machines – now with onsite support!

Following a retendering process in 2012, the IT Department is pleased to announce that leased multifunction copier machines are now covered by onsite support, provided by Canon technicians via the CERN Service Desk support system.

You can now contact the Service Desk regarding any problems or requests for toner: tel. 77777 & **Service-Desk@cern.ch.** Please remember to quote the machine printer name and/or serial number (marked on the side of the machine).

The following submission forms are available online:

- **Report a failure with a printer or copier**
- **Request for network printer or copier installation or move**
- **Request toner/ink for my printer or copier**

The website below details the range of models available, all of which include print, photocopy and scan-to-mail functions as standard.

These multifunction copier machines are leased subject to a monthly charge (minimum of 48 months) plus a "per click" charge to cover consumables (except staples), leaving you nothing else to pay for apart from paper!

For new requests, please refer to the list of responsible persons in each Department.

IT Department

CERN openlab Summer Student Programme

CERN openlab is currently taking applications for its summer student programme. The closing date for applications is 31 March 2013.

The openlab summer student programme is open for applications from bachelor, master and PhD students in computer science and physics. Successful applicants will spend 9 weeks at CERN, during the period from June to September 2013, working with some of the latest hardware and software technologies.

The programme is more than just a summer at CERN: it can lead to follow-on projects at the home institute and may even inspire students to become entrepreneurs in cutting-edge computing technologies. A series of lectures will be given by experts in various domains of CERN-related high-throughput computing. Study tours of external companies and universities as well as of CERN facilities are also part of the programme.

IMPORTANT: Fluke is recalling Digital Clamp Meters

Fluke is voluntarily recalling certain 373, 374, 375 and 376 Digital Clamp Meters. If you own one of these clamp meters, please stop using it and send it back to Fluke for repair even if you have not experienced problems.

Description of the problem : The printed circuit assembly may not be properly fastened to the test lead input jack. This may result in inaccurate voltage readings, including a low or no voltage reading on a circuit energised with a hazardous voltage, presenting a shock, electrocution or thermal burn hazard.

Move! Eat better: news

Are you curious to know whether you're doing enough daily exercise…? Test yourself with a pedometer!

Through the **Move! Eat better** campaign, launched in May 2012, the CERN medical service is aiming to improve the health of members of the personnel by encouraging them to prioritise physical activity in conjunction with a balanced diet. Various successful activities have already taken place: relay race/Nordic walk, Bike2work, Zumba and fitness workshops, two conferences ("Physical activity for health" and "Good nutrition every day"), events in the restaurants, as well as posters and a website.

Although everyone has got the message from our various communications that physical activity is good for your health, there is still a relevant question being asked: "What is the minimum amount of exercise recommended?" 10,000 steps per day is the ideal figure, which has been demonstrated as beneficial by scientific studies on this subject. So that you can see how many steps you are doing yourself, the medical service invites you to rent a pedometer, available from the infirmary.

The Medical Service can provide you with a pedometer. Call us on 73802 or send us an e-mail to reserve a pedometer: **infirmary.service@cern.ch**

CERN lends a hand to Collège de Prévessin

In 1973, the French government, in collaboration with CERN, created the Lycée International in Ferney-Voltaire: a public high school that would take in the children of international staff. Linguistic and cultural enrichment was one of the objectives behind the school, bringing French children together with children of other mother tongues in the same classroom.

The Lycée has various international sections, known as national programmes, offering education in a number of languages. The Collège and Lycée received official international status in 1978, and since then the French Ministry of Education has assumed responsiblity for the school. To complement Collège and Lycée education, on Tuesday afternoons since 1975 pupils in Pays-de-Gex primary schools have been exempt from class so that they can follow education in their mother tongue (Dutch, English, German, Italian, Spanish or Swedish) at the Collège/Lycée.

Since then, the Collège/Lycée International has continued to grow and is now reaching the limits of its capacity. Although a new Collège/Lycée will open in St. Genis in 2016, the Collège/Lycée International cannot currently host all pupils taking their Tuesday afternoon mother-tongue classes. For example, the German section has been split into two classes since 2010, posing problems for pupil transport as well as for efficient teaching.

On the initiative of Mrs. Conreaux, head teacher at the Collège de Prévessin, and thanks to the support of CERN, the German section was able to refurbish two unused language laboratories at the Collège so that all 106 pupils of the German section could be accommodated in a single location that allows for future growth!

Thank you CERN.

APEG, Association pour la promotion de l'enseignement germanophone au Pays de Gex

Seminars

THURSDAY 7 MARCH

ISOLDE SEMINAR

14:30 High precision mass measurements and in trap-decay spectroscopy of rare isotopes at TITAN / TRIUMF

STEPHAN ETTENAUER (HARVARD UNIVERSITY (US))

CERN (26-1-022)

CERN COLLOQUIUM

16:30 Sesame: A visit to a parallel universe

ELIEZER RABINOVICI (RACAH INSTITUTE OF PHYSICS, HEBREW UNIVERSITY, JERUSALEM, ISRAEL)

CERN (503-1-001 - COUNCIL CHAMBER)

MONDAY 11 MARCH

TH JOURNAL CLUB ON STRING THEORY

14:00 Quantum arithmetic chaos and the scrambling bound on AdS_2

EMMANUEL FLORATOS

CERN (4-2-011 - TH COMMON ROOM)

TUESDAY 12 MARCH

INDUCTION SESSIONS

08:30 INDUCTION PROGRAMME - 2nd Part

CECILE GRANIER (CERN)

CERN (80-1-001 - GLOBE 1ST FLOOR)

TH STRING THEORY SEMINAR

14:00 TBA

PIETRO ANTONIO GRASSI

CERN (4-3-006 - TH CONFERENCE ROOM)

TH STRING THEORY SEMINAR

14:00 TBA

CLAUDE DUHR (ETH ZURICH)

CERN (4-3-006 - TH CONFERENCE ROOM)

Safety Training Course

Safety Training - places available in Marsh 2013

Conduite de plates-formes élévatrices mobiles de personnel (PEMP)
(cherry-picker driving)
18-MAR-13 to 19-MAR-13, 8.30 – 17.30,
in French with handouts in English

First-Aiders – Basic course
14-MAR-13, 8.15 – 17.30, in French
21-MAR-13, 8.15 – 17.30, in English
28-MAR-13, 8.15 – 17.30, in French

Habilitation électrique personnel électricien basse et haute tension
(habilitation électrique for electricians
in low and high voltage)
11-MAR-13 to 22-MAR-13 (total hours : 32),
9.00 – 17.30, in English

Habilitation électrique personnel non électricien (electrical habilitation for non electricians)
27-MAR-13 to 28-MAR-13, 9.00 – 17.30, in French

Habilitation électrique personnel réalisant des essais en laboratoire ou en plate-forme d'essai
11-MAR-13 to 14-MAR-13, 9.00 – 17.30, in French

Pontier-élingueur (Crane driving)
25-MAR-13 to 26-MAR-13, 8.30 – 17.30, in French with handouts in English

Radiological Protection - Controlled Radiation Area - Course A for CERN employees and CERN associates
08-MAR-13, 8h30 – 17h00, in French
12-MAR-13, 8h30 – 17h00, in French
18-MAR-13, 8h30 – 17h00, in English
19-MAR-13, 8h30 – 17h00, in French
25-MAR-13, 8h30 – 17h00, in English
26-MAR-13, 8h30 – 17h00, in French

Refresher course Self-Rescue Mask training
04-MAR-13, 8.30 – 10.00, in French
04-MAR-13, 10.30 – 12.00, in French
11-MAR-13, 8.30 – 10.00, in French
11-MAR-13, 10.30 – 12.00, in French
18-MAR-13, 8.30 – 10.00, in French
18-MAR-13, 10.30 – 12.00, in English
25-MAR-13, 8.30 – 10.00, in French
25-MAR-13, 10.30 – 12.00, in English

Recyclage - Habilitation électrique personnel électricien basse tension
(refresher course electrical habilitation for electricians in low voltage)
25-MAR-13 au 26-MAR-13, 9h00 – 17h30, in French

Recyclage - Habilitation électrique personnel non électricien (refresher course electrical habilitation for non electricians)
04-MAR-13, 9.00 – 17.30, in French
05-MAR-13, 9.00 – 17.30, in French
14-MAR-13, 9.00 – 17.30, in French
15-MAR-13, 9.00 – 17.30, in French

Risks associated with operations in confined spaces
19-MAR-13, 9.00 – 17.30, in French

Safety in cryogenics – level 1
12-MA R-13, 9.00 – 12.00, in French
26-MAR-13, 9.00 – 12.00, in English

Self-Rescue Mask training
05-MAR-13, 8.30 – 10.00, in French
05-MAR-13, 10.30 – 12.00, in French
07-MAR-13, 8.30 – 10.00, in English
07-MAR-13, 10.30 – 12.00, in English
12-MAR-13, 8.30 – 10.00, in French
12-MAR-13, 10.30 – 12.00, in French
14-MAR-13, 8.30 – 10.00, in English
19-MAR-13, 8.30 – 10.00, in French
19-MAR-13, 10.30 – 12.00, in French
21-MAR-13, 8.30 – 10.00, in English
21-MAR-13, 10.30 – 12.00, in English
26-MAR-13, 8.30 – 10.00, in French
28-MAR-13, 8.30 – 10.00, in English
28-MAR-13, 10.30 – 12.00, in English

Working at heights - Using a harness to prevent falling from a height
14-MAR-13, 9.00 – 17.30, in French
21-MAR-13, 9.00 – 17.30, in English

Management & Communication training

Management and communication courses – places available

There are places available in some management and communication courses taking place in the period March to June 2013.

For advice, you can contact Erwin Mosselmans (tel. 74125, **erwin.mosselmans@cern.ch**)
or Nathalie Dumeaux (tel. 78144, **nathalie.dumeaux@cern.ch**)

Course in English (or bilingual)	**Dates**	**Duration**	**Language**	**Availability**
Managing time	22 March, 26 April, 28 May	3 days	English	8 places
Managing stress	29 and 30 May	2 days	English	4 places
Communicating to Convince	28 and 29 May	2 days	French	8 places
Handling difficult conversations (Adapted from Dealing with Conflict)	7, 14 June and 13 September	3 days	English	3 places
Negotiating effectively	13 and 14 March	2 days	English	3 places
Personal Awareness & Impact	4 to 6 June	3 days	English	8 places
Voice and Nonverbal Behaviour in Speech Communication	17 and 18 June	1 day 4 hours	English	9 places
Communicating Effectively - Residential course	4 to 6 June	3 days	Bilingual	8 places
Introduction to Leadership	10 to 12 April	3 days	English	4 places
Managing Teams	18 to 20 June	3 days	English	5 places
Quality Management	08 to 9 July	2 days	English	8 places

Cours en français	**Session**	**Durée**	**Langue**	**Disponibilité**
Animer ou participer à une réunion de travail	18 au 20 mars	3 jours	français	6 places
Les enjeux de la voix et du comportement non verbal dans la communication orale	21 au 22 mai	1 jour 4 h.	français	7 places
Savoir gérer les discussions difficiles	15 et 22 mai et 26 juin	3 jours	français	9 places
Techniques d'exposé et de présentation	29 et 30 avril et 12 juin	3 jours	français	6 places
Gestion du stress	5 et 6 juin	2 jours	français	4 places

New course "Selecting the best person for CERN"

The success of every team and organisation depends on its people: selecting the "right" people for CERN is therefore a crucial step in the recruitment process. The interview and selection process is costly both in terms of time and resources, particularly if the wrong decision is reached. It is therefore critical that the "right" candidate is appointed the first time.

This new training course will provide new and experienced members of selection boards for Limited Duration or Indefinite Contracts with the skills and techniques essential to conducting a successful interview and selection process according to best practices. For this course, an original approach of blended learning has been adopted. It includes individual pre-course work (webinar, online quiz, video interview); a 1-day training session with plenty of opportunities to practise, including running a full panel interview; finally, it provides an opportunity to devise your own individual action and development plan at the end of the training day, on which CERN's recruiters can give you further advice during subsequent selection boards.

A first course is planned for 22 March, and more courses will be organised throughout the year.

Are you interested in taking part and finding out more?

Then please contact:

- your **Human Resources Advisor**,
- the **Recruitment Unit** of the Talent Acquisition Group in HR,

and **sign up** after talking to your supervisor.

Erwin Mosselmans, HR-LD, 74125
Nathalie Dumeaux, HR-LD, 78144