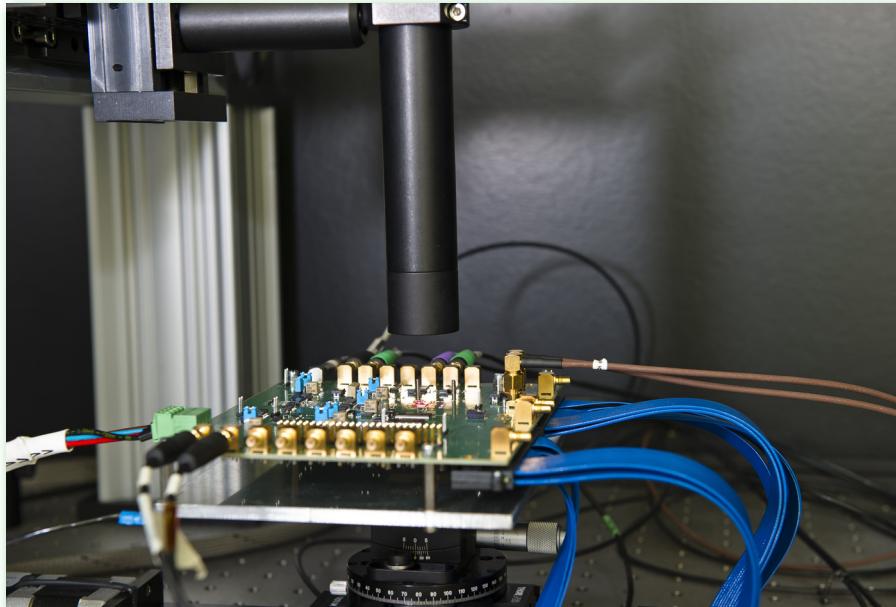


NA62 Gigatracker sets new standards for silicon detectors



The Gigatracker prototype.

A 115 metre long vacuum tank, a brand new set of detectors surrounding it and an extremely rare decay to study: this is the new NA62 detector, foreseen to be installed in the SPS North Area in 2012. "We will study a very rare decay of the K⁺. Such a decay is sensitive to contributions coming from new particles and therefore represents a powerful way of searching for new physics, complementary to the direct approach of the LHC detectors," explains Augusto Ceccucci, NA62 spokesperson.

The particles from the SPS accelerator are sent to the experiment downstream at a

The NA62 experiment should start collecting its first data (technical run) in a little over one year. At the heart of the experiment is the Gigatracker, a newly conceived silicon pixel detector, whose job is to measure the arrival time and the position of the incoming beam particles. The demonstration detector has recently shown a time resolution of 175 picoseconds, an unprecedented record in the field of silicon pixel detectors.

very high rate and are not precisely pulsed; their arrival time in the experiment is therefore unknown. The scope of the Gigatracker is to provide a precise measurement of the arrival time of the particles before they enter the vacuum tank in which they fly and decay. "This information is used to associate the correct incoming kaon to the event observed downstream and to reconstruct its kinematics. We require a time resolution in the Gigatracker of less than 200 picoseconds, about 100 times more precise than the precision of the silicon trackers used

Nos 26 & 27 – 29 June & 6 July 2011



A word from the DG

Neutrinos herald possible new physics in Japan

There's an embarrassment of choice for my message this week. Firstly, it was great to see a press release from the Japanese T2K (Tokai to Kamioka) experiment on 15 June, signalling not only potentially great physics, but also that the Japanese physics community is getting back on its feet after the earthquake and tsunami. Back home, the LHC is running beautifully...

Crossing the inverse femtobarn threshold so early into this years run is wonderful achievement, and augurs well for the summer confer-

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Published by:

The European Organization for Nuclear Research - CERN
1211 Geneva 23, Switzerland - Tel. + 41 22 767 35 86

Printed by: CERN Printshop

© 2010 CERN - ISSN: Printed version: 2077-950X
Electronic version: 2077-9518



NA62 Gigatracker sets new standards for silicon detectors

(Continued from page 1)

by the LHC detectors. The recent tests carried out with the demonstration detector showed that we can reach a time resolution of 175 picoseconds," says Alexander Kluge, coordinator of the CERN activities of the Gigatracker project.

Three of these ultra precise devices will be installed upstream and, in its final configuration, they will be composed of a matrix of 200 columns by 90 rows of pixels. In order to affect the particles' trajectory as little as possible, the material used to build the detector must be very thin. "The sensor will be 200 μm thick and the pixel chip will be 100 μm thick, about 50 μm thinner than the thinnest chips used in the LHC experiments. The Gigatracker will be placed in a vacuum, in order to minimize the interaction of beam particles with air. It will also be operated at a temperature of -20 degree Celsius to reduce radiation-induced performance degradation," explains Alexander Kluge. The collaboration is developing new ways to ensure effective cooling, using light materials to minimize their effect on particle trajectory.

Besides being heavily used in high-energy physics experiments, silicon sensors are also exploited in imaging applications. In particular, the development of the Gigatracker



silicon pixel detector stimulated interest in other fields of science where images with sub-nanosecond time measurement precision are used. Examples include medical imaging for positron emission tomography (PET); biomedical imaging based on the fluorescence lifetime imaging microscopy (FLIM), where fluorescent molecules are excited to produce light and the duration of the excitation – the life time – is measured; 3D time-of-flight imaging techniques used in high-tech cameras, where a light pulse is sent to the object and the reflected light is measured together with the time at which it arrives from the object. The NA62 Gigatracker is yet another example illustrating just how short the distance is between the conceptual developments done for particle physics and their application in fields that influence our everyday life.

Watch the slideshow about the facility at:

<http://cdsweb.cern.ch/record/1361315>

CERN Bulletin



After having hosted NA48, the cavern in the north area of the SPS prepares to accommodate NA62.



Did you know?

The brief history of kaons

Kaons are particles made of quarks, of which one is the strange quark. There are charged (K^+ and K^-) and neutral kaons. The neutral kaons come in two types: a short-lived one (K^0_s) and a long-lived one (K^0_L). The CP (a product of Charge and Parity transformations) symmetry violation was discovered by James Christenson, James Cronin, Val Fitch and René Turlay in 1964 in the decay of neutral kaons. The discovery was awarded the 1980 Nobel Prize in physics.

The study of kaons at CERN is an established tradition: NA62's predecessor is NA48 which is best known for establishing direct CP-violation in the two pion decays of the neutral kaons about a decade ago. A first extension (NA48/1) studied K^0_s rare decays while a second extension (NA48/2) focused on the search for CP-violation and the study of $\pi\pi$ scattering in charged kaon decays.

The new NA62 experiment should start operation in 2012 with a first technical run to measure the performance of the detectors. At full speed, the collaboration plans to study about 10^{13} kaon decays within 100 days of data taking.

LHC Report: the machine - on the level

LHCb is designed to perform different types of physics searches from those at ATLAS and CMS, and is limited to a peak luminosity of about $3 \times 10^{32} \text{ cm}^{-2}\text{s}^{-1}$. If the beams were to be collided head-on in the LHCb detector, this figure would be exceeded. Therefore the beams are initially separated by a few microns in the vertical plane and then, as the beam intensity decays during a fill, this separation is gently reduced to keep the luminosity constant at the acceptable maximum. This technique is known

The LHC has held the number of bunches per beam at 1092 over the last couple of weeks and has been delivering luminosity to the experiments at a healthy rate. The integrated luminosity total has already passed 1 inverse femtobarn (fb^{-1}), which was the overall goal for the year. There was a modest celebration in the CCC to mark the occasion. Modest celebrations are now on hold until the end of this year's run or the delivery of 5 fb^{-1} .

as 'luminosity levelling' and has been used successfully to deliver around 0.36 fb^{-1} to LHCb in 2011, well on the way to their target of 1 fb^{-1} for the year.

As expected, high beam intensities have introduced a number of issues including: UFOs, the effect of radiation on the elec-

tronics installed in the LHC tunnel; and beam-induced heating of some accelerator components. Understanding, and where possible mitigating, these effects is ongoing, hence the more sedate pace in pushing the beam intensity recently. The operations team has successfully pushed up the number of bunches per beam to 1236 and they hope to make the step up to 1380, the final target of 2011, before the start of next machine development (MD) period, on 29 June. The MD sessions will be followed by a 5-day technical stop, which will take us to 8 July when operation for physics will start again.

Mike Lamont for the LHC team



(Continued from page 1)

Neutrinos herald possible new physics in Japan

ences. We've now reached the stage where a single LHC fill is delivering as much data as the entire 2010 run. And finally, when Council met this week, I was pleased to announce that CERN has received formal confirmation from all five applicants for membership, opening the way to CERN welcoming new members soon. A busy two weeks, then, but what I'd like to focus on is the new result from Japan.

Simply stated, the T2K result shows the first indication of the appearance of electron neutrinos in a muon neutrino beam – further evidence that these most elusive of particles can change, chameleon like, into other forms. This so-called neutrino oscillation is nothing new. Its effects

were first observed in the 1970s by a pioneering experiment hosted in the Homestake gold mine in the USA that studied neutrinos coming from the Sun. Neutrino oscillation was then observed directly early this century by experiments in Canada and Japan. Since then, many measurements have been made, including those at the Gran Sasso lab using a neutrino beam from CERN. The Gran Sasso results show indications for the appearance of tau neutrinos in a muon neutrino beam.

So why are the indications from T2K important? Firstly, although almost massless, neutrinos are an incredibly abundant component of our universe. That alone makes their detailed study worthwhile. To fully understand the neutrino family of particles requires

measuring each oscillation pattern in detail, and different facilities in Asia, Europe and North America coordinate their efforts to do so.

What makes the appearance of electron neutrinos in a muon neutrino beam particularly significant, however, is that an accurate knowledge of this particular process is a vital pre-condition to designing experiments to use neutrinos to probe nature's matter-antimatter imbalance. From a physics point of view, it's an intriguing result and I'm looking forward to more to come from T2K once the beam is back and more data can be accumulated. More importantly, however, it's a very welcome sign that Japan is getting back to normal.

Rolf Heuer



HSE Advice

This Service provides dosimeters to every person allowed to work in reglemented areas: the conditions to get a dosimeter at CERN can be found on the Dosimetry Service website.

The Service is located in building 55 it is open daily from 08h30 to 12h00 (closed in the afternoons). Please note that the service is closed during the CERN official holidays.

FACTS:

- 8000 dosimeters are delivered by the service each year
- 4700 dosimeters users this week
- 99% of the annual doses at CERN are smaller than 1 mSv/year
- 3.5 mSv is the natural dose received annually in Switzerland



DID YOU KNOW ?

Provided that you read your dosimeter regularly, all your doses can be consulted any time on HRT:

<https://hrt.cern.ch/hrt/DoseRecords>

DON'T FORGET TO READ YOUR DOSIMETER ONCE A MONTH!

CERN has to provide periodically the monthly dose of all its professionally exposed workers to the relevant authorities. It is mandatory to read your dosimeter each month, but it is highly recommended to read it at each entrance in reglemented area.

<http://cern.ch/rp-dosimetry>

Three new projects for the CERN Dosimetry Service

4,700 people at CERN have a dosimeter. Every month, they have to have their dosimeter scanned by one of the 45 readers installed at various strategic locations around the Laboratory. Each

month, the dosimetry team led by Pierre Carbonez exchanges around 450 dosimeters to recalibrate them and prepare them for further use. "These dosimeters are passive detectors which record the doses caused by beta, gamma and neutron radiation," explains Pierre Carbonez. "Using the digital readers installed in 2005, we can regularly check the gamma radiation dose that each worker receives on the site. This way, we can act immediately to ensure the maximum dose is not exceeded."

The annual dose limit for most CERN employees and professional contractors is 6 mSv. However, as soon as the dosimeter shows a value of 2 mSv, the Dosimetry Service alerts the person concerned and their supervisor in order to reduce the time the person spends in controlled areas. "Our aim is for the dose received to be as low as possible. Over the past five years, 99% of personnel who have a dosimeter received less than 1 mSv per year," says Pierre Carbonez.

But settling for a decent score is a good strategy, especially when you're talking about radioprotection. So Pierre Carbonez and his team are working on three inno-

The measures for the protection of personnel against ionising radiation at CERN are very strict. As soon as a new directive is issued by EURATOM, the Laboratory ensures it is adopted quickly. Since every system can be perfected, Pierre Carbonez and the Dosimetry Service team are working on three new projects aimed at improving the safety of workers exposed to ionising radiation in the course of their work on the CERN sites.

vative projects, the first of which relates to training. "Anyone wishing to obtain a dosimeter must follow a theoretical course about radiation protection," explains Pierre Carbonez. "We will modify the content and presentation of the course in order to more effectively inform workers supplied by outside contractors. In general, external contractors may be very familiar with the working environment of nuclear power plants, but are not familiar with the very specific environment of particle accelerators. So, from next year onwards, we will set up a practical class as a complement to the theoretical one."

In addition to passive dosimeters, personnel are required to wear so-called "active" dosimeters in some areas, which continually display the accumulated dose received, for instance, during work on an accelerator. "Currently, personnel wearing this type of dosimeter must register the read-out values in a log book," explains Pierre Carbonez. "This data is then entered manually into the databases by the Radiation Protection service. This process will be improved with the introduction of the digital readout of dosimeters. There will no longer be any delay between dose accumulation and data acquisition, thus improving the safety of personnel and giving us better statistics on dose distribution at CERN."

After one year of use, all dosimeters must be checked. Any dosimeter showing an error higher than 5% is rejected. "We're working on a project for the construction of a new calibration laboratory. The current laboratory operates well but relies on ageing instruments, and in the field of dosimetry it is important to remain at the forefront of



The two types of dosimeters currently in use at CERN.



Did you know?

Understanding our radiation dose limits

In Europe, the maximum admissible dose is defined by the authorities in each country and regulated by EURATOM. Over the past five years at CERN, not a single member of the personnel has exceeded 6 mSv. The legal limits are: 6 mSv for Category B workers, and 20 mSv for Category A workers. The majority of CERN personnel are Category B workers, and only around 100 people are classified in Category A, including the fire-fighters and members of the radiation protection team.

It's useful to recall, by comparison, that the average natural dose of ionising radiation accumulated every year by an individual living in Switzerland is 3.5 mSv. An airline pilot on long-haul flights can easily accumulate an annual dose higher than 3 mSv. Medical scanners emit a single dose close to 10 mSv, while astronauts regularly accumulate doses of up to 50 mSv during missions in space.

technology. The new building will house state-of-the-art equipment which will allow us to perform faster and more precise calibration measurements," Pierre Carbonez concludes. "The Dosimetry Service is accredited by the Swiss authorities. Our aim is for the calibration laboratory to receive the same accreditation."

The three projects have already been launched and the results will start to emerge in the coming months.

CERN Bulletin

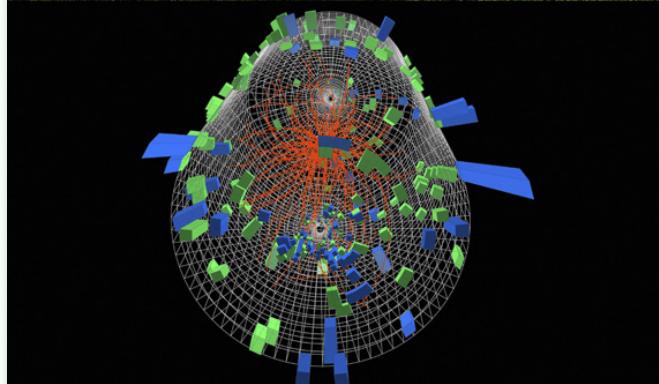
Cows aboveground, protons down below

The cows are grazing quietly, blissfully unaware of the mini-Big

Bang occurring silently 100 metres beneath them. Curious to compare these two worlds - the visible and the invisible, day-to-day life and particle physics - Laurent Mulot, a multi-disciplinary artist whose work delves into some of the planet's more unusual places, has come up with a unique artistic concept. Called Augenblick (German for "instant"), to emphasise that the images relate to the same point in time, his project uses photography, video and sound to superimpose scenes from everyday life and scenes from science. "The idea came to me in June 2008," says Laurent Mulot, "when Jean-Paul Martin, a research scientist at the Institute of Nuclear Physics in Lyon with whom I had worked the previous year for the Lyon Biennale of Modern Art, gave me the opportunity to visit the CMS control room." Starting from a vision of two worlds that, in principle, exist in parallel, Laurent Mulot wanted to see whether these parallel worlds ever intersect. What if there were a crossover between the considerations of local residents and those of the physicists, and vice versa?

The visible. To achieve this, Laurent Mulot took the time to get to know the vast area on the French-Swiss border covered by the LHC and to meet the people who live there: "I worked over two periods, in spring and autumn 2010. As I travelled around I photographed animals, landscapes, architectures and buildings, and interviewed some of the residents: farmers and others too."

The invisible. To get images of the collisions, Laurent Mulot worked closely with physicists from ATLAS, CMS, ALICE and LHCb, with whom he talked with at great length. He explains: "If, for example, I photographed a cow grazing above LHCb at 4.33 p.m. on 23 May 2010, I would give this date and time to the experiment team so that they could give me, if possible, an image of an event that had taken place at that same moment." Although it was not always possible to achieve precise temporal synchronism, that was the goal both the artist and scientists were striving for.



On display at Fort l'Écluse from 19 June to 18 September, the works of Augenblick combine photography, sound and video to create a striking instant parallel between the "real world" and the world of particle physics.

If the project's many diptychs and videos create a fascinating parallel between the visible and the invisible, the music plays just as important a role. "When I looked at the land registry record I noticed that the LHC passed directly underneath the Ferney-Voltaire Music Conservatory!" exclaims Mulot. A coincidence? Perhaps. But mainly a good reason to work with their music teachers and students. The images of the collisions were scanned, converted into sound waves and then transformed into notes. These notes were then turned into a score called "Machine Sound" and "played" by six musicians on 18 June at the opening of the exhibition. Using these various media, Augenblick opens a door between two worlds. An avenue worth exploring.

See the video at:

<http://cdsweb.cern.ch/record/1361322>

Anaïs Schaeffer



Augenblick was created with the support of the Conseil Régional Rhône-Alpes and the Communauté des Communes of the Pays de Gex, and with the assistance of CERN and the ALICE, ATLAS, CMS and LHCb experiments, Lyon INP and CCIN2P3.

The works are currently on show at Fort l'Écluse, Longeray, route de Genève, 01 200 Léaz. For more information visit the Fort l'Écluse site (<http://www.cc-pays-de-gex.fr/fortlecluse-Francais-.html>). The exhibition will be rounded off at 3 p.m. on 18 September with a discussion led by Jean-Paul Martin and Laurent Mulot.

Scientists "in the making" attend conference

"So what do you think was in the box?" The answer was finally revealed to the 650 or so schoolchildren taking part in the "Be a scientist for a day" project. Since the beginning of the year, 29 classes from the Pays de Gex and the Canton of Geneva had been taking part in the project, run jointly by CERN, Geneva University's "PhysiScope" group, the education authorities of the Pays de Gex (*Inspection de l'éducation nationale*) and Geneva (*Service de la coordination pédagogique de l'enseignement primaire*) and Geneva University's Faculty of Science and Education.

The 9 to 12-year-old pupils were invited to apply investigative methods to boxes containing unknown objects. To work out what they contained without opening them, they had to become "real" scientists: coming up with hypotheses; designing and carrying out experiments; and explaining their results and their interpretation. They compared their ideas and how they had

The aim of the "Be a scientist for a day" project, which began in January, was to introduce 9 to 12-year-olds to the methods of experimental science. On Friday 24 June a full-scale conference for the schoolchildren who took part in the project was held at the Globe of Science and Innovation to mark the end of the project.

gone about their investigations through a website. Lastly, the classes visited one of CERN's experimental sites or took part in a PhysiScope event comparing their experimental approach with that of "real" scientists. The schoolchildren had to deal with situations comparable to those faced by scientists looking, for example, for particles that they can't observe directly. At the very end of the project, the children were allowed to open the box (unlike the CERN physicists who are never able to do so!). In addition, each class created a poster presenting one aspect of its approach.

The conference on 24 June brought together the budding scientists, the same way real scientists gather at international symposiums to present their results. Some 130 children from 6 classes travelled to the



"What do CERN researchers do? I know that they are looking for what is inside the box, and that they want to go to Mars."

Valéria, 9 and a half, École de Veyrier

"I've learned some great things. I am going to think about doing research."

Sylvain, 10, École de Veyrier

"In CERN, there are scientist at work, and their box is the entire Universe."

Basma, 10 and a half, École Les Grottes

"I know that at CERN, researchers try to accelerate particles to make collisions to see what is smaller than a particle."

Yacine, 10, École d'Ornex

Globe of Science and Innovation, while the other classes followed the conference via a live webcast. The President of the CERN Council, Michel Spiro, gave a speech to the children.

The project was hailed as a success by the organisers. "The 'Be a scientist for a day' project requires the children to adopt an original investigative approach; it includes teacher training days, an opportunity for those involved to compare ideas, a digital workspace, creating a poster, and an afternoon conference. It's an innovative project that has comfortably achieved its objectives," says Laurent Dubois, a lecturer in science didactics at Geneva University. "This science awareness project for schools in the area has been carried out in full partnership with the local education authorities, which is extremely satisfying," explains Corinne Pralavorio, who is responsible for CERN's communications with the local community. "There is room to improve certain features, but on the whole it's been a success for all the partners and participants." The project, which forms part of the continuous professional development programme for primary school teachers on both sides of the border, is likely to be repeated next year. It's even starting to arouse interest outside the region and it may possibly be adapted for use elsewhere.

See the video at:

<http://cdsweb.cern.ch/record/1360223>

CERN Bulletin

J-PARC Press Release: Electron neutrino oscillation detected at T2K

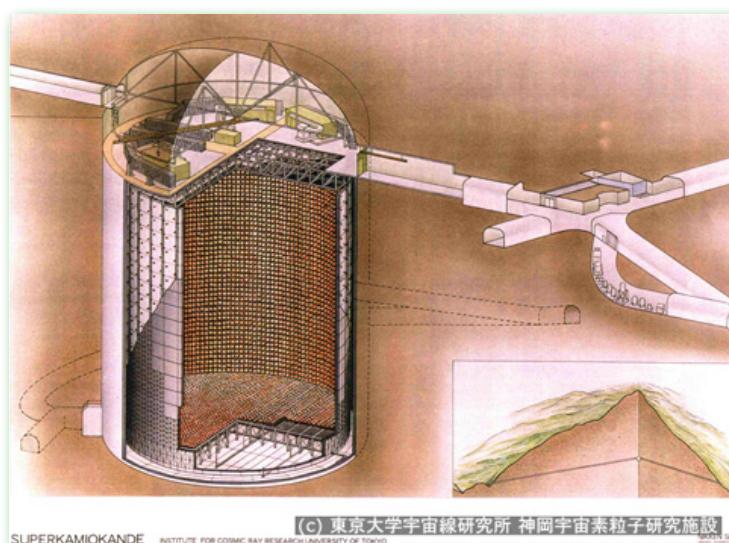
The T2K experiment is searching for the neutrino oscillation phenomena, where particular types of neutrinos transform into other types of neutrinos. These observations help determine neutrino masses, as well as elucidating the uncharted nature of neutrinos, such as the relationship among three neutrino generations (types). T2K aims at the world's best sensitivity by detecting neutrinos with the Super-Kamiokande detector in Kamioka in Gifu Prefecture, Japan, located 295 km away from the Japan Proton Accelerator Research Complex (J-PARC) where the muon neutrinos are produced. In particular, observing oscillations from muon neutrinos into electron neutrinos (electron neutrino appearance) is the primary goal of the T2K experiment. Observing the appearance of electron neutrinos will determine the direction of future neutrino physics research, as well as provide the most promising clue to the mystery of the matter-dominated

universe, and thus researchers around the world pay special attention to, and compete in, such observations. The T2K experiment, claiming the world's best sensitivity, has internationally attracted more than 500 researchers from 12 countries.

When electron neutrinos interact with matter, electrons are produced. However, electrons are also observed with some probability in background events other than the electron neutrino appearance. In the current T2K experiment, 1.5 of such background events were expected to be detected and thereby the probability of the existence of electron neutrino appearance is estimated to be 99.3%, suggesting the appearance of electron neutrinos for the first time.

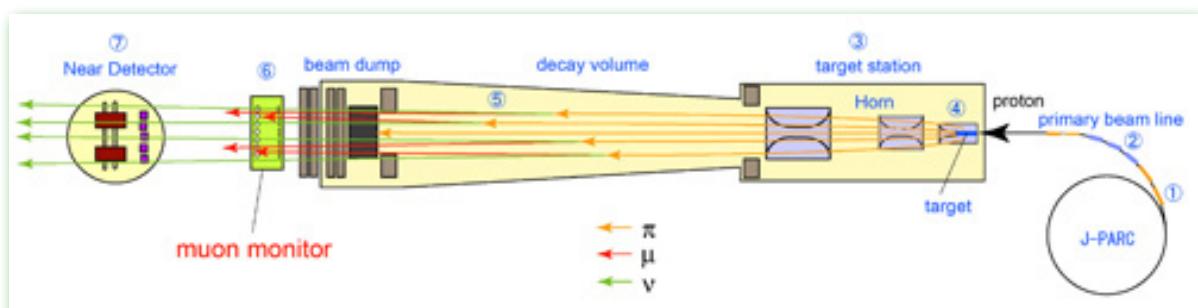
The T2K experiment collected about 2% of the original goal of the total number of events to be collected before the great East Japan earthquake hit on March 11, 2011. After J-PARC resumes producing muon neutrinos, which is planned to happen by the end of 2011, the T2K experiment will continue striving to accumulate the target number of events to confirm electron neutrino appearance, as well as pursue the further understanding of this appearance by combining the neutrino measurements with measurements using anti-neutrinos, which is also the purpose of this experiment. Additionally, the researchers aim to search for CP violation in leptons to explore the origin of matter in the universe by upgrading the accelerators at J-PARC to a much higher intensity and enhancing the performance of the detectors. Electron neutrino appearance is the key to detecting leptonic CP violation, and the current observation result indicates that the T2K experiment has made a significant step towards this future goal.

T2K Press Office



The Super-Kamiokande detector, in Japan. © 2011, High Energy Accelerator Research Organization, KEK.

T2K is a CERN recognized experiment (RE13). The CERN contributions to T2K include: the gifted UA1/NOMAD magnet and magnetic measurements; the construction, test and calibration of detectors for the ND280 near detectors; and the precise measurements of particle production by 30 GeV protons on carbon and on the T2K replica target, by the NA61/SHINE experiment.



The Japan Proton Accelerator Research Complex (J-PARC). © 2011, High Energy Accelerator Research Organization, KEK.

General Charles F. Bolden, Jr. and Professor Claude Nicollier reunite during visit to CERN

Bolden and Nicollier were separately invited to CERN for different reasons, and were delightfully surprised when they met at the entrance of the main building.

Bolden and Nicollier served together in the Space Shuttle Program and were trained by NASA during the 1980's where they became close friends. On 24 April, 1990, Bolden piloted the Space Shuttle Discovery into orbit with the Hubble telescope in the payload bay. Though Nicollier did not accompany Bolden during the Hubble launch, he did return to the telescope 3 years later on board the Space Shuttle Endeavour, the first maintenance mission during which erroneous optical components were replaced in orbit. Nicollier proceeded to return once more to the Hubble over the course of his four missions into space.

Thursday 22 June, CERN saw an unlikely and much savoured meeting between two old colleagues and friends: General Charles F. Bolden, Jr. and Professor Claude Nicollier.



Bolden was appointed as the Administrator of NASA in 2009, 5 years after his final space flight, and continues to hold this title. Nicollier now teaches at the École Polytechnique Fédéral de Lausanne, and is still very much involved in the world of aviation. He is the leader of Flight Test Operations for the Solar Impulse, a revolutionary solar airplane that is poised to fly around the world in 2014, powered exclusively by solar energy.

Read more about Claude Nicollier's visit to CERN and the Solar Impulse project in the next issue of the Bulletin, available online on 8 July.

Jordan Juras



What is a good Toothbrush, erm, Password?

A good password is:

- private: used and known by one person only;
- secret: it does not appear in clear text in any file or program or on a piece of paper pinned to the monitor;
- easily remembered: so there is no need to write it down;
- at least 8 characters long with a mixture of at least 3 of the following: upper case letters, lower case letters, digits and symbols;
- not to be found in a dictionary of any major language nor guessable by any program in a reasonable time.

Here are some hints to help you choose good passwords:

- Choose a line or two from a song or poem, and use the first letter of each word. For example, "In Xanadu did Kubla Kahn a stately pleasure dome decree" becomes "IXdKKaspdd";

- Alternate between one consonant and one or two vowels with mixed upper/lower case. This provides nonsense words that are usually pronounceable, and thus easily remembered. For example: "Weze-Xupe" or "DediNida3";
- Choose two short words (or a big one that you split) and connect them together with one or more punctuation characters between them. For example: "dogs+F18" or "comP!!UTer".

If you have to deal with multiple passwords, one for CERN, for Facebook, for eBay or Amazon, please do NOT reuse the same password for all sites. Instead, use different passwords for different purposes. To remember those easily, you might take your favourite music CD and apply the aforementioned rules to its songs. Alternatively, you might use one of these password management tools: <http://keepass.info>, <http://passwordsafe.sourceforge.net> (note

that usage is on your own risk. Neither the Security Team nor the IT department support those tools).

For more on passwords, including a video explaining how good passwords can be chosen, please check the Computer Security team recommandations:

<https://cern.ch/security/recommendations/en/passwords.shtml>.

If you think your password may have been exposed or stolen, then change it at:
<https://cern.ch/account>
and inform
Computer.Security@cern.ch.

Of course, if you have any questions, suggestions or comments, please contact the Computer Security team or visit us.

Computer Security Team



News from the Library

The video was produced some months ago in collaboration with HR and the CERN audiovisuals team. Over the course of 5 minutes, it presents the Library services and all related practical information.

It is available on CDS in English, together with a french subtitled version.

News from the Library: Ready? Action!

Who says that libraries are boring, dusty places where nothing happens? Surely not CERN users! Indeed, CERN Library staff have starred in a lively video clip, alongside some famous guest celebrities.

This video is intended to be shown to newcomers at CERN during the induction day, but you are all invited to watch it.

CERN Library video clip:

<http://cdsweb.cern.ch/record/1270161?ln=en>

Subtitled version:

<http://cdsweb.cern.ch/record/1359625?ln=en>

Please send comments and feedback to:

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.

Code of Conduct and e-mails

Luke* holds a key position in the coordination of a large project. He is also a recognized expert in modeling complicated structures. Because of his expertise in the field, he receives a considerable number of e-mails every day which he has trouble responding to in addition to his responsibilities of management and development. Constantly interrupted, he tends to answer his emails quickly, sometimes even in an instinctive way, which leads to somewhat laconic messages.

One day he receives an e-mail from Dave* challenging some of the decisions taken by the project's management. Luke agrees with Dave's remarks, which seem justified given his own expertise of the subject. He then expresses his own criticism towards the responsible persons of the project, going so far as to say in disrespectful terms that the project management would be better off not mixing themselves with such delicate technical

questions given their incompetence in the domain. He automatically hits "Send", believing the sent message to be confidential between himself and Dave, a long time colleague. Luke immediately notices that, in his haste, he instead sent the email response to all the recipients of the original message... including the project managers themselves!

The fallout is immediate; replies flood his mailbox, all addressed to the original recipients. The 'machine' has come to life and Luke is terrified by his careless actions. How is he going to extinguish this fire? His words were not in agreement with the Code of Conduct and moreover, everyone was aware of it in the project.

After a call for help to the Ombuds, Luke began the painful search for the suitable words to excuse the language he used in the email. In the end, he sent a conscientious apology to his colleagues, but alas, the harm had already been done.

Conclusion

Using the "Reply all" option is an action that merits close attention, since this kind of trouble may some day arise. Candid discussions should always be conducted in person before resorting to e-mails, which leave tracks and are not favorable to any positive or interactive conflict resolution. A large part of misunderstandings are due to misinterpreted emails. While emails clearly have an important use, they simply cannot replace direct human relationships, which encourage harmony within the Organization. Think before clicking "Send" or "Return"!

Contact the Ombuds early!

<http://cern.ch/ombuds>

Vincent Vuillemin

* Names and story are purely fictitious.

New arrivals

On Thursday 9 June 2011 recently-recruited staff members and fellows have been welcomed at the second part of the Induction Programme.

HR Department



Tribute to Daniel Simon

Daniel Simon, PS Division Leader from 1994 to 1999, died on 2 June, 2011, at the age of 74, in Nancy. CERN owes him for a great number of contributions to the experimental areas around the PS and the existence of the Antiproton Decelerator (AD).

Daniel came to CERN in 1962 from the University of Nancy. He first worked in the Nuclear Physics Apparatus (NPA) Division on the electrostatic separators for the secondary beams at the PS, a subject he also chose for his thesis. Then, as a member of the PS-Division, he designed a variety of beam lines, including those providing protons and antiprotons to ICE, the decisive experiment for CERN to launch the antiproton project, based on stochastic cooling. His contributions to the initial layout and further evolution of the experimental areas of LEAR were essential for the success of the LEAR programme. He subsequently drove the decision and worked on the conversion of LEAR into LEIR for the provision of lead ions to the LHC.



He was one of the leaders of the relocation of ISOLDE to the PS-Booster, which saved this marvelous and now flourishing facility from closure when the 600 MeV Synchrocyclotron was shut down. Undeniably his most commendable achievement was the Antiproton Decelerator (AD), today one of CERN's cherished facilities, despite its modest size and

beam energy. It was he who, in close contact with the physics community, pushed for this project, as he could not accept the demise of low-energy antiproton physics at CERN when LEAR was to be closed and SUPERLEAR not approved. A difficult task at a time when LEP was operating at full-steam and financing for the LHC was not yet assured.

Although a member of an accelerator division, he had a particular affection for experimental particle physics. With a clear view of what CERN ought to do and the conviction that a wide basis was indispensable, he fought valiantly and successfully for the small experiments around the PS complex and kept in close contact with their users, whom he helped wherever he could. His friends and colleagues remember him as an enthusiastic physicist, a thorough and able manager, and a loyal friend.

His colleagues and friends



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.



ELECTIONS TO THE SENIOR STAFF ADVISORY COMMITTEE ("THE NINE") 2011

The electronic voting for new members of the nine closed on 6 June 2011. A total of 191 votes were registered, of which 190 were valid, from a total of 445 Senior Staff members eligible to vote. This participation of 43% is very similar to the 44% in 2010, compared to 57% in 2009, 53% in 2008, 63% in 2007, 64% in 2006 and 66% in 2005.

Electoral group 1

Candidate	Votes	
Marcello Mannelli (PH)	105	Elected

Electoral group 2

Candidate	Votes	
Marco Cattaneo (PH)	67	
Jean-Philippe Tock (TE)	96	Elected
Pavol Vojtyla (DGS)	17	

Congratulations to Marcello Mannelli and Jean-Philippe Tock who will start their three year term of office in September 2011, replacing Doris Forkel-Wirth and Pippa Wells.

The next spokesperson of the nine will be Jose Miguel Jimenez (TE).

Thanks to all the candidates for standing, and to Reinoud Martens the Polling Officer.

The Nine (2010-2011):

Sudeshna Datta Cockerill (HR), Michael Doser (PH), Doris Forkel-Wirth (DG), Jean-Jacques Gras (BE), Erk Jensen (BE), Jose Miguel Jimenez (TE), James Purvis (HR), Sylvain Weisz (DG) and Pippa Wells (PH, spokesperson).

PH Department

FRENCH COURSES FOR BEGINNERS

We are now offering a French course for beginners. If you are interested in following this course, please enrol through the following link:

https://cta.cern.ch/cta2/f?p=110:9:4314988246421131:::X_STATUS,XS.Course_Name,XS_Programme,XS_SubCategory,X_Course_ID,XS_Language,XS_Session:D%2C1%2C4251%2CB%2C

or contact:

Kerstin Fuhrmeister, tel. 70896.

SUMMER ORAL EXPRESSION ENGLISH COURSE

An English Oral Expression course will take place between 15 August and 30 September 2011.

Schedule: to be determined (2 sessions of 2 hours per week).

Please note that this course is for learners who have a good knowledge of English (CERN level 7 upwards).

If you are interested in following this course, please enrol through the following link

https://cta.cern.ch/cta2/f?p=110:9:1576796470009589:::X_Status,Xs.Course_Name,Xs_Programme,Xs_SubCategory,X_Course_Id,Xs_Language,Xs_Session:D,,1,,4368,B,

Or contact:

Kerstin FUHRMEISTER (70896)

Tessa OSBORNE (72957)



Seminars

TUESDAY 28 JUNE

SPSC MEETING

09:00 - Council Chamber, Bldg. 503

102nd Meeting of the SPSC

C. VALLEE / CPPM MARSEILLE

CERN JOINT EP/PP & EP/PP/LPCC SEMINAR

11:00 - TH Auditorium, Bldg. 4

Observation of exclusive two-photon production and other exclusive states in CDF

M. ALBROW / FERMILAB NATIONAL ACCELERATOR LAB.
(FERMILAB)

TH STRING THEORY SEMINAR

14:00 - TH Auditorium, Bldg. 4

Tensor Gauge Bosons and Extension of the Poincare Group

G. SAVVIDY / DEMOKRITOS NATIONAL RESEARCH CENTER

WEDNESDAY 29 JUNE

TH THEORETICAL SEMINAR

14:00 - TH Auditorium, Bldg. 4

Zero-point quantum fluctuations in cosmology

M. MAGGIORE / UNIGE

THURSDAY 30 JUNE

COLLIDER CROSS TALK

11:00 - TH Auditorium, Bldg. 4

Single top cross-sections at the LHC

A. ORSO, M. IORIO / INFN, SEZIONE DI NAPOLI-UNIVERSITA & INFN, NAPOLI

TH BSM FORUM

14:00 - TH Auditorium, Bldg. 4

TBA

D. CURTIN / CORNELL

FRIDAY 1 JULY

PARTICLE AND ASTRO-PARTICLE PHYSICS SEMINARS

8:00 - TH Auditorium, Bldg. 4

TBA

A. KAGAN / CINCINNATI

INDUCTION SESSIONS

08:30 - Globe 1st Floor

INDUCTION PROGRAMME - 1st Part

N. DUMEAUX, S. LYNNE HOBSON, E. MACARA,
D. SERAFINI / CERN

TH INFORMAL LATTICE MEETING

11:00 - TH Auditorium, Bldg. 4

TBA

S. SCHAEFER / CERN

TUESDAY 5 JULY

CERN JOINT EP/PP & EP/PP/LPCC SEMINAR

11:00 - Council Chamber, Bldg. 503

Physics with Photons in ATLAS

L. CARMINATI / SEZIONE DI MILANO (INFN)-UNIVERSITA
E INFN

WEDNESDAY 6 JULY

INTCMEETING

14:00 - Council Chamber, Bldg. 503

40th Meeting of the INTC

SUMMER STUDENT LECTURE PROGRAMME

Main Auditorium, Bldg. 500

09:15 - Welcome Presentation/ Computer Security/ Workshops Presentation

A. HOECKER/CHAIRMAN SSLP, S. LUEDERS / CERN

10:15 - Introduction to CERN

R. HEUER / CERN DIRECTOR-GENERAL

11:15 - Statistics (Experimental Physics) (1/4)

G. COWAN / ROYAL HOLLOWAY COLLEGE U. OF LONDON

12:00 - The CERN Library: An Accelerator of Science

A. GENTIL-BECCHI, T. BASAGLIA / CERN

17:00 - Welcome Drink

THURSDAY 7 JULY

SUMMER STUDENT LECTURE PROGRAMME

Main Auditorium, Bldg. 500

09:15 - Concepts in Particle Physics (Theoretical Particle Physics) (1/5)

J.-P. DERENDINGER / A. EINSTEIN INST. F. FUND. PHYS.,
ITP U. OF BERN, SWITZERLAND

10:15 - Concepts in Particle Physics (Theoretical Particle Physics) (2/5)

J.-P. DERENDINGER / A. EINSTEIN INST. F. FUND. PHYS.,
ITP U. OF BERN, SWITZERLAND

11:15 - Statistics (Experimental Physics) (2/4)

G. COWAN / ROYAL HOLLOWAY COLLEGE U. OF LONDON

12:00 - Discussion Session

J.-P. DERENDINGER, G. COWAN

FRIDAY 8 JULY

TRAINING AND DEVELOPMENT

09:00 - Bldg 593

Post Induction day training on popular IT and GS services

SUMMER STUDENT LECTURE PROGRAMME

Main Auditorium, Bldg. 500

09:15 - Concepts in Particle Physics (Theoretical Particle Physics) (3/5)

J.-P. DERENDINGER / A. EINSTEIN INST. F. FUND. PHYS.,
ITP U. OF BERN, SWITZERLAND

10:15 - Statistics (Experimental Physics) (3/4)

G. COWAN / ROYAL HOLLOWAY COLLEGE U. OF LONDON

11:15 - Statistics (Experimental Physics) (4/4)

G. COWAN / ROYAL HOLLOWAY COLLEGE U. OF LONDON

12:00 - Discussion Session

J.-P. DERENDINGER, G. COWAN

DETECTOR SEMINAR

11:00 - CERN

Summary and highlights from the “TIPP 2011” Conference

H. JANSEN / CERN