

## Full steam ahead!

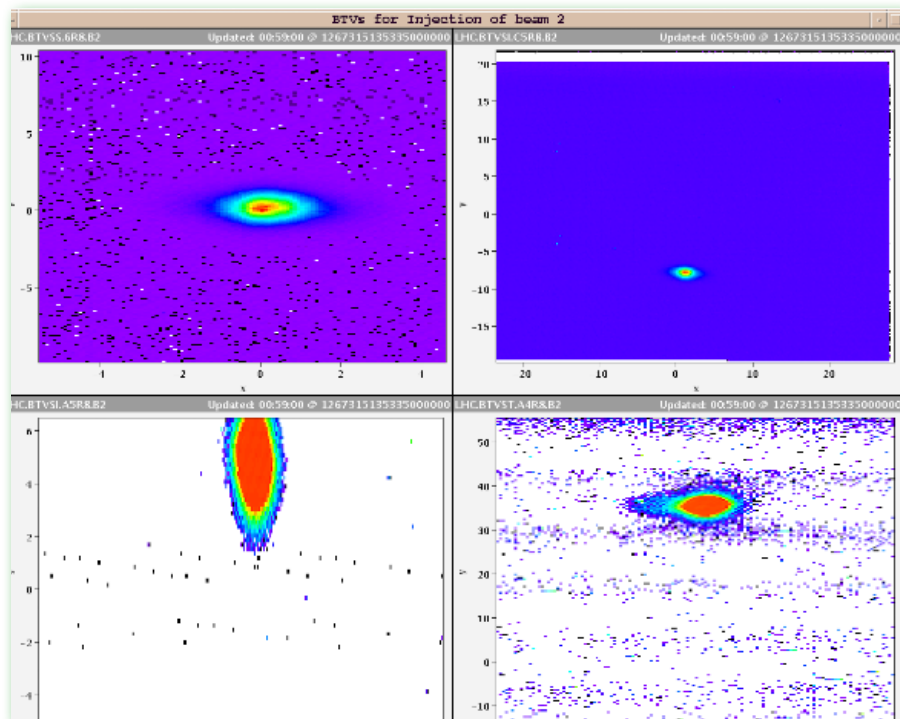


### A word from the DG

#### Celebrating women in physics

**N**ext Monday the 8th of March is International Women's Day. In an ideal world, there would be no need for such an event – equality would be taken as read. But since the world is not there yet, let's take the opportunity to celebrate women in physics, and indeed the full cultural diversity of our field. Perceived as a discipline dominated by men, reality has been diverging from that perception for a long time. Today at CERN, women

(Continued on page 2)



One of the first beam shots in the LHC on Sunday 28th February early morning.

**D**uring the campaign that the LHC teams carried out over the last few weeks to ensure the correct functioning of the LHC magnets at high current, the several thousand channels of the new Quench Protection System were verified and the resistance of the 10,000 splices connecting the magnets was precisely measured, showing no unacceptably anomalous values.

In order to operate the LHC without risk to the magnet system, it must be possible to switch off the magnets and extract the stored energy in about ten seconds at all times. At the same time, efforts have been concentrated on correctly tuning the parameters of the Quench Protection System in

**Following the completion of the campaign to improve the reliability of the cabling for the new Quench Protection System, the main dipoles and quadrupoles of the eight LHC sectors have now been commissioned up to a current of 6 kAmps. In the early hours of Sunday 28 February, the beams were circulating again in the LHC: the longest run in CERN's history has just started!**

order to avoid it triggering the beam dump when not technically necessary.

Having completed the magnet-powering tests at 6 kAmps, the hardware commissioning team has handed the machine over to the operation team. The initial operations have included tests without beams to verify the correct functioning of all the systems (magnets, radiofrequency, collimators, injection and beam abort systems, etc.) in unison.

(Continued on page 2)

#### In this issue

##### News

- Full steam ahead! 1
- A Word from the DG 1
- Users page feedback 2
- We're all behind you, Jean-Yves! 3
- Working in the Finance and Procurement Department 4
- CERN@school 5
- And the winner of the Golden CinéGlobe is... 6
- A trip to Rome—thanks to antimatter 7
- Play Ethnopoly – the game of cultural understanding! 7
- The replanting campaign has begun 7
- Literature in Focus: The LHC bible 8
- Literature in Focus: Gli anelli del sapere = The Rings of Knowledge 8

##### Official news

- Take note** 10
- Academic training** 14
- External meeting** 14
- Seminars** 15

##### 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





## A word from the DG

(Continued from page 1)

### Celebrating women in physics

play key roles in every aspect of the Organization's activities.

On Women's Day, we will be sending a clear message to all young women interested in science and engineering that this is also a field for them. In the CERN Control Centre, half of the Engineers-in-Charge who take responsibility for operating the world's most powerful particle accelerator are women. In the experiments, in all CERN departments and in the management, women are increasingly represented. That's because at CERN, and in particle physics the world over, talent is the only criterion that counts. Gender, race and religion have no part to play in finding the right person for the job.

For next Monday, we are encouraging our staff and users to enable as many women as possible to be on shift in the control rooms of CERN's experiments and accelerators, to staff the IT helpdesk and to guide official visits. The fact that we can do this easily may come as a surprise to those who don't know us better, but it's no surprise to me. Curiosity, the main prerequisite for being a researcher, is a shared characteristic of all mankind and that's reflected in the CERN community. Men and women from all over the world come here to pursue their research, and the diversity they bring is one of our greatest assets.

In celebrating Women's Day, we'll be joined by our colleagues at Fermilab, and at 3:30 in the afternoon, Felicitas Pauss and I are looking forward to talking to Pier Oddone and Young-Kee Kim via videoconference between the CMS centre here at CERN and the remote operations centre at Fermilab. I hope you'll be able to join us at

<http://cern.ch/womensday>

Rolf Heuer

## Full steam ahead!

(Continued from page 1)

By midnight on Saturday 27 February the machine was ready to receive the beams, and injection started. By early the next morning both beams were circulating again in the LHC (see figure). Sunday was then dedicated to the optimization of the beam trajectory and of the other optical parameters, as well as to the control of the beams by the radio-frequency cavities that keep the protons bunched.

In the CERN Control Centre, the operators are now working on optimising the beam parameters and improving the beam lifetime. The energy of the proton beams is currently 450 GeV. The first energy ramp-up is expected in the next few days. High-energy collisions are planned for the end of March. CERN Bulletin

## Users page feedback

In October last year the Communication Group proposed an interim redesign of the users' web pages in order to improve the visibility of key news items, events and announcements to the CERN community. This proposed redesign was seen as a small step on the way to much wider reforms of the CERN web landscape proposed in the group's web communication plan.

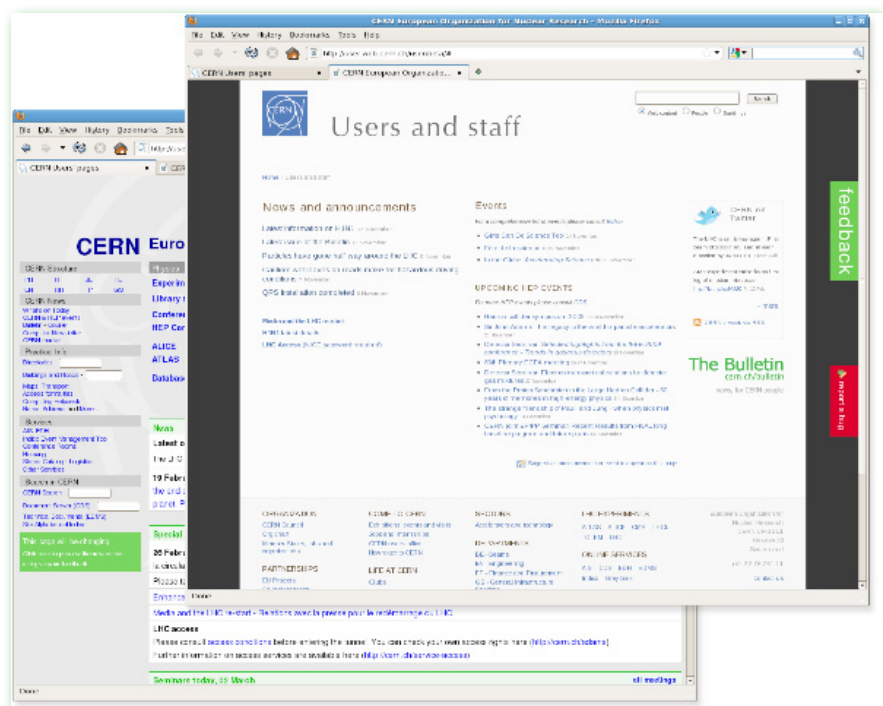
The results are available here. Some of the key points:

- the balance between news / events / announcements and access to links on the users' pages was not right;
- many people asked to see a reversal of the order so that links appeared first, news/events/announcements last;

- many people felt that we should keep the primary function of the users' pages as an index to other CERN websites;
- many people found the sections of the front page to be poorly delineated;
- people do not like scrolling;
- there were performance issues with SLC4 and SLC5;
- the search function needs to be improved.

We will take note of the feedback gathered through this process in the upcoming major redesign of the public and users' websites. Thank you to everyone who replied to the survey.

CERN Communication Group (DG-CO)



The proposed update to the users' page (right), and the current version (left, behind).

# We're all behind you, Jean-Yves !

**J**ean-Yves Le Meur won his place in the 14-strong "Team France" (11 men and 3 women) that will compete at the 2010 Paralympic Winter Games in Vancouver via the qualifying events held in Austria and Italy in 2009. "It was really tough to get selected this time round. You either had to make a top-three finish in a World Cup event or win gold at the European Cup", says Jean-Yves.

Jean-Yves will be competing in four alpine skiing events: the "Super G" (Super Giant Slalom), the Super Combined Slalom, the Giant Slalom and the Slalom. And given his good performances in recent events a medal is not out of the question for CERN's paralympian. "However," Jean-Yves explains, "winning isn't just about being fast. All the athletes are classified according to their disability group and a formula is used to "factor" their times according to their class" (see box).

Jean Yves has always been a great sportsman, right from a young age, but after his accident he thought he would have to cut down on his sport or even give it up altogether. Quite the opposite happened. During re-education in a specialised unit, he was taught to walk again through sport. "I realised that sport was actually helping me to walk and that walking with prosthetic legs was indeed a sport in itself. That's when I became aware that my disability would never be an obstacle to doing sport."

But skiing was not among the many sports

**Jean-Yves Le Meur, developer of the CERN Document Server (CDS) which manages the Organization's electronic archives, is about to take part in his third Paralympic Winter Games in Vancouver. Don't miss him on TV from 15th March onwards !**

he used to practise before his accident, so he had to learn it all from scratch. "What's brilliant about skiing is the feeling of freedom you get. When you're doing your sport, that physical disability you carry around, day-in day-out, just disappears."

Jean-Yves has been training hard for the past six months, preparing himself both physically and mentally for the Vancouver Games. Technology also plays a key role in achieving good results. "High-tech equipment is essential for top-level skiers," he explains. "Team France is among the front-runners, thanks, among other things, to our equipment manufacturer. After analysing the kinematics and shock-absorbing systems of older equipment, I helped elaborate the prototype 'Scarver'" (see photo). The Austrians and the Japanese have very good equipment too, so it would appear that the race for medals has spawned a race for technology.

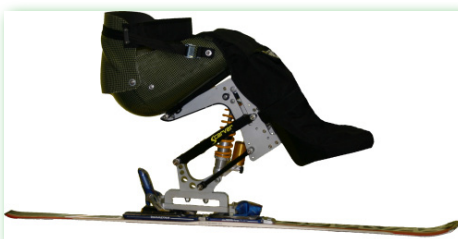


Photo credit: Tessier



Jean-Yves, second from the right, participates in a five-day IT training programme in Rwanda.



## Did you know?

### The Paralympic Winter Games

The Winter Paralympics are the equivalent of the Winter Olympics for athletes from all countries with physical disabilities or sight impairments (amputees, the blind, those suffering from motor or cerebral disorders or who are in wheelchairs, or suffering from any other physical disability).

The Winter Paralympics take place every four years, straight after the Winter Olympics.

The athletes are classified according to their disability group into three categories: "sitting", "standing" and "visually impaired". A formula is used to "factor" athletes' times according to their class.

The participation of "Team France", to which Jean-Yves belongs, is organised by the *Fédération française handisport* under the aegis of the International Paralympic Committee.

For more information on the Paralympics, click on

<http://www.paralympic.org/>

Jean-Yves will be competing in events on 15, 16, 19 and 21 March, so let's all get behind our athlete ! The Paralympic Winter Games will be screened on TV8 Mont Blanc, and streamed on-line at:

[www.paralympicsport.tv](http://www.paralympicsport.tv)

Laëtitia Pedroso



# Working in the Finance and Procurement Department

**S**arah Pamelard has worked at CERN for 23 years (see box). She began her career as an assistant in the electronics design office and has been an administrative assistant in the FP Department's purchasing service for the last year and a half. Her work involves processing all internal purchase orders for amounts not exceeding 10,000 CHF. "For each order we have to find the supplier who will provide the best services. Our search covers suppliers in all the Member States to ensure the best possible balance of financial return among them", explains Sarah.

The skills that the job demands are not confined to the area of finance. Above all, you need to be very well organised. "My colleagues and I each handle around fifteen orders a day", says Sarah. "Orders need to be processed within two days to ensure that the delivery deadlines are met. Even though we are used to the work, it still requires a lot of concentration and good organisation."

Sarah's job involves daily interaction with suppliers and customers. Good negotiation

**The CERN Finance and Procurement (FP) Department handles around 35,000 internal purchase orders every year. A large number of them are processed by administrative assistant Sarah Pamelard and her two colleagues Dominique Trolliet and Laurence Fol. As you will see, this is not just any old desk job.**

skills are needed to obtain the best quality/price/deadline ratio in compliance with CERN's purchasing rules.

"When there are problems with an order, people can get annoyed and it's important to remain positive and calm when talking to them", says Sarah. "Sometimes the problem can be caused by the simple fact that the customer has failed to fully complete the purchase order. We insert the missing information and the problem is solved!"

Sarah's reply to anyone who might conceive the FP Department's personnel as bureaucrats chained to desks piled high with documents: "The Department is a very pleasant place to work as a lot of emphasis is placed on human relations and contacts with the outside".

*Laëticia Pedroso*

## The curriculum vitae of Sarah Pamelard

Sarah attended the Jeanne d'Arc school in Gex and trained as an administrative assistant at the Greta Leman centre in Annemasse. Her first job was in a computer shop in Annemasse, which gave her the opportunity to put her sales and communications training into practice. After that, she spent 19 years as an administrative assistant in the electronics design office of the TS/DEM Group. During that time she acquired the skills that now stand her in good stead for her work as an administrative assistant in the Finance and Procurement Department, where she acts as the point of contact for CERN's sub-contractors, as well as placing orders and following up production schedules, to name just a few of her responsibilities. She has been in her present post in FP for a year and a half.



*Sarah Pamelard in her office.*

# CERN@school

**T**ake a school with the declared aim of 'providing learning experiences which are enjoyable, stimulating and challenging and which encourage critical and innovative thinking'.

Add to that a motivated teacher who wants to put it into practice and you have the perfect seeds for growing a new generation of young researchers.

Becky Parker came to CERN in 2007. She observed how cutting-edge research is done here and decided to export it to her school. However, she didn't just go back to school and make a presentation to her students explaining how CERN works; instead, she took a real detector and started a real research programme with her class.

This is all happening in the UK, not far from Canterbury, the city famous for its cathedral. What these students and their teachers are doing is no less challenging than the construction of a cathedral: they want to change the whole philosophy behind education. Rather than teaching and learning what others have done in the past, they want to MAKE science and directly contribute to real research.

**CERN's educational programmes have inspired large numbers of physics teachers all over Europe to adopt innovative approaches to teaching. Becky Parker, a former participant in the High School Teachers (HST) programme, has set up the CERN@school project, in which students are using Medipix chips to study cosmic rays. They have recently designed and are building Lucid, a detector that will be launched into space in 2011.**

Medipix proved to be a perfect solution for Becky's revolutionary plans: the technology was easily obtainable from CERN, immediately re-usable and relatively simple to handle for the students. "I visited the Medipix laboratory during one of my visits to CERN", recalls Becky. "I immediately started thinking of possible ways of using it in my school. Michael Campbell, who is the spokesperson for the Medipix collaboration, had already thought that the Timepix chips could have a number of uses in school". For Becky's students the Timepix chip became a cosmic-ray detector. "You simply connect it to your computer via a USB box developed at the Institute of Experimental and Applied Physics (IEAP) in Prague, then you install the 'Pixelman' software developed for the Medipix collaboration by the IEAP and you're ready to go!", she explains.

Not surprisingly, the students loved working with current technology from CERN and actively started to network with other

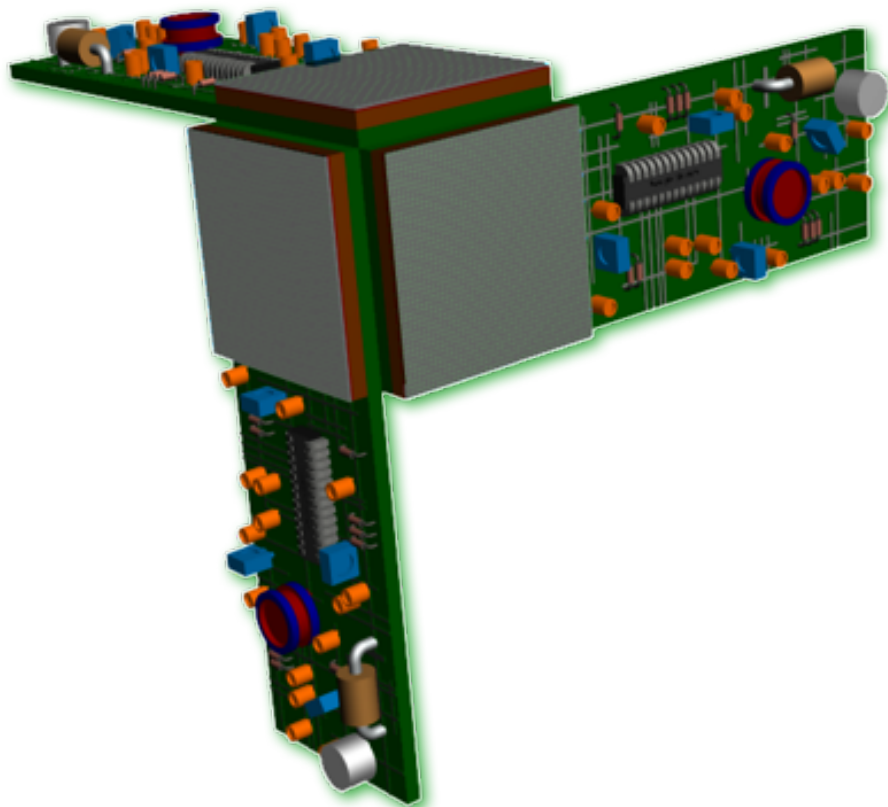
schools in the country. "The philosophy is totally exportable to other schools across the UK and Europe. We hope to involve many other schools in the project. Each school will have its own Timepix detector and will have access to the CERN@school website so that students can discuss results with each other and with their teachers", she says. Thanks to a contribution from the Kent Youth Parliament, another ten schools in Kent have recently been able to acquire the detector chips, the USB box and the laptops needed to participate in the project.

Moreover, Becky's school is setting up the Langton Star Centre, a facility that includes labs and seminar rooms. "We can now invite other schools to come and visit us. The new infrastructure will make it easy for us to train them and introduce them to our scientific projects", Becky comments enthusiastically.

In 2008 the Langton Satellite Team were joint winners of a national competition run by the British National Space Centre. They worked in conjunction with Surrey Satellite Technology Ltd to design a small experiment that would fly on board a small satellite in space. "LUCID (Langton Ultimate Cosmic ray Intensity Detector) will use five Timepix detectors, positioned in a sort of matrix to enable a high angle of resolution for cosmic ray detection, with tracking capabilities", explains Becky. "It will be launched into space in 2011 on board a satellite built by Surrey Satellite Technology Ltd. The data from the satellite will be made available to the schools involved in the project. Together, we will compare the data taken in space with measurements done on Earth".

Thanks to its innovative approach to science teaching, about 1% of students studying for physics and engineering degrees at UK universities come from the Simon Langton Grammar School. Bravo!

*CERN Bulletin*



*The LUCID detector designed by the Langton school.*

# And the winner of the Golden CinéGlobe is...

**T**he second Golden CinéGlobe award ceremony was held in the Globe on the evening of Saturday, 20 February. Now something of a magnet for local fans of short films and science documentaries, the CinéGlobe festival has become one of the most successful events organised by a CERN club. "Organising the festival has been a gratifying experience as many people have taken part in and enjoyed the event", says Quentin King, vice-chairman of the CERN film club, Open Your Eyes Films. "Time was our worst enemy. It took us a year to bring the project to fruition but we could have done with another year to refine some of the details".

The 18 screenings in the Globe and the Forum Meyrin drew a large and attentive audience. "The first festival in 2007 was confined to short films in the general fiction category. This time round, to attract as wide an audience as possible, we added two new categories, science fiction and science documentaries", explains Jacques Hervé Fichet, one of the organisers.

Entry to the screenings was free, which was particularly appreciated by the younger visitors to the Festival. "The younger audience was very interested in the general fiction films, while older visitors were attracted by the science documentaries", says Jacques. "Throughout the week we noted a heightened interest not only among the general public but also among film makers". The screenings were attended by 32 film makers this year, compared to only two for the first Festival.

Organising an international festival of video productions is no mean feat. "We proceeded in two stages", explains Quentin. First, we had to advertise the Festival to make sure we attracted the best short films from all over the world. This involved using specialist sites such as <http://www.shortfilmdepot.com>. Then, all the films were reviewed by the members of the Open Your Eyes Films club and we organised a series of test screenings of the best entries at CERN and in Geneva. Finally, the selection committee met to pick the 78 films that would be featured in the Festival, and the jury and the public chose the winners from among them".

**Three years after the first CinéGlobe festival, the CERN film club has just organised a second international festival of short films and science documentaries, attended by a host of film-makers and film fans alike. Six special prizes were awarded.**



## The winners of the six jury and audience prizes were as follows:

Golden CinéGlobe jury prize for **best general fiction film**:

***Neville in a Blue Dress***

Michael Steel

Bridge and Tunnel Productions

Golden CinéGlobe jury prize for **best science fiction film**:

***World Builder***

Bruce Branit

Branit|VFX

Golden CinéGlobe jury prize for **best science documentary**:

***Dr W: Class of Titans***

Muyi Neira

MAGOPRODUCTIONS

Golden CinéGlobe audience prize for **best general fiction film**:

***Un Dimanche Après Midi***

Rémy Caetano

Golden CinéGlobe audience prize for **best science fiction film**:

***Let There be Sound***

Christian Lachenschmidt, Christian Scheck, Stefan J. Wühr

Tom, Dick & Harry

Golden CinéGlobe audience prize for **best science documentary**:

***NanoCheese***

Irene Suarez-Martinez

*Laëtitia Pedroso*



# A trip to Rome—thanks to antimatter

**S**he is Sarah Manton, and she is from Scotland. In September Sarah will fly to Rome with her husband to retrace the Angels and Demons street itinerary. "We are looking forward to visiting the usual tourist sights, including all the places that feature in Angels and Demons such as the Pantheon," she said in answer to a question from the exhibition organisers.

**The Angels and Demons exhibition created by the PH Department's Education Group came to an end last summer. The exhibition was accompanied by a competition, with a first prize of a flight to Rome. Now we know the winner's name.**

The couple was touring CERN when, intrigued by the Globe and the name of the exhibition, they decided to do a visit and participate in the competition. Five correct answers on antimatter later—and several months on—Sarah got a pleasant surprise: "I

decided to have a go at the quiz and I came home and forgot about it completely. I was amazed and thrilled to receive the e-mail saying that I had won."

The couple is departing soon, and without any trepidation: "Fortunately, after our visit to the exhibition, we know that we will not have to worry about anyone trying to blow up the Vatican with antimatter! Thank you CERN for giving us this tremendous opportunity," concludes the proud winner.

*Alizée Dauvergne*

## Play Ethnopoly – the game of cultural understanding!

**E**thnopoly is a treasure hunt in which players have to accumulate cultural gems rather than physical ones. Small groups of children accompanied by adults will visit homes and organizations that have volunteered to take part. There, they will learn about the culture and history of their neighbours, and their neighbouring institutions. The goal is to improve integration and to encourage tolerance in a community that's home to people from all over the world.

As a strong advocate of the power of science to bring nations together, CERN's place on the board is de rigueur! If you would like

**On 23 April, CERN will occupy a square on the great Ethnopoly board, a game being organized for 10 and 11-year-old children from the schools Meyrin and Cointrin.**

to take part and share your experience with the children of Meyrin and Cointrin, and you can speak a little in French, contact us!

Marie Bugnon: [marie.anne.bugnon@cern.ch](mailto:marie.anne.bugnon@cern.ch).

Furthermore, if you live in Meyrin and would like to have your very own Ethnopoly square, the game's organizers are looking for Meyrin inhabitants to join in the game. If you're interested, please contact sylvain.gisler@edu.ge.ch or telephone +41 (0) 77 404 10 65.

*Corinne Pralavorio*



## The replanting campaign has begun

**T**he poplars on the border of CERN's Préveessin site were felled, according to plan, on Friday, 26 February. The work was essential as the trees were showing signs of serious ageing problems (broken and dead branches, weakened trunks and root systems, etc.) and needed to be felled to ensure the safety of drivers on the D35. The trees that have been cut will be trans-

formed into renewable energy wood chips and used to heat local schools and crèches. They will be replaced by a hedge of hornbeams, a native fast-growing tree, which will be planted in the spring.

The felling operation was entrusted to the French national forestry authorities, with the support of the Bellegarde-Pays de Gex Agence Routière et Technique. It marks the

start of a vast poplar-felling and replanting campaign, which will be extended to CERN's Meyrin site. The work is part of CERN's general renovation and site planning scheme for the future.

*GS-SEM Group  
General Infrastructure and Services Department*



## Literature in Focus

# The LHC bible

**S**even major articles on the LHC and its detectors, published electronically in a special issue of the Journal of Instrumentation, form the complete scientific documentation on the design and construction of the entire LHC project.

This landmark publication is probably the first time that a major new accelerator project has been documented in such a comprehensive, coherent and up-to-date manner prior to going into operation. The papers should for many years to come serve as key references for the stream of scientific results that will begin to emerge from the LHC after the first collisions this year. It was therefore decided also to produce printed copies of this article collection – the result is a beautiful two volume edition comprising some 1600 pages. Last week the whole lot arrived at CERN and is now ready for distribution. Each of the LHC collaborations has bought a set of copies to be given to their participating institutions and CERN will ensure that the books are included in all relevant libraries around the world. Personal copies can be obtained from the CERN Bookshop, hosted in the Library, for 20 CHF per set.

Concerning the electronic version, although published in a refereed scientific journal, the articles are completely free to download and read online under an Open Access scheme, without requiring a journal subscription (<http://www.iop.org/EJ/journal/-page=extra.lhc/jinst>).

To celebrate the arrival of the hard copies, the Library invites you to a, "Literature in Focus" event, where the editors of the different articles will highlight the significance of these technical publications and the process the collaborations have gone through in setting up the mechanisms for handling the authoring process of papers with such large author lists.

**The CERN Large Hadron Collider: Accelerator and Experiments,  
CERN, 2009**

**Edited by Amos Breskin and Rüdiger Voss**

**CERN Library, Building 52, 1st floor**

**March 11th at 16.00**

**The presentation will be followed by a drink.**

*Tullio Basaglia*

## Literature in Focus

# Gli anelli del sapere = The Rings of Knowledge

**Edited by Federico Brunetti (Politecnico di Milano)**

**Published by Editrice Abitare Segesta**



**A**fascinating photographic survey describes the essential phases of constructing the colossal equipment to build the four main experiments. It is enriched by a sophisticated, experimental graphic design and the stories of the Italian scientists from the INFN (National Institute of Nuclear Physics), who made vital contributions to the project and constructing the LHC. The book is completed by descriptions illustrating the important contribution that Italian companies made to this major project, demonstrating Italy's competitive capacity for excellence in the most important technological undertakings in Europe.

**Tuesday, 9th March, 4.00 p.m.  
In the Pas Perdus area**

**A reception will be sponsored by the Permanent Mission of Italy to the  
International Organizations in Geneva**

*Tullio Basaglia*





## TAXATION IN SWITZERLAND

### Memorandum concerning the 2009 internal taxation certificate and the 2009 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 2009

The annual certificate of internal taxation for 2009, issued by the Finance and Procurement Department, will be available from 1st March 2010. *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. You can also access your annual certificate via <http://hrt.cern.ch> (open "Pay info" in the menu "My e-documents and Self Services").
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 at the following link:

<https://cern.ch/hr-services/services-Ben/tax/attest.asp>.

#### II - 2009 income tax declaration forms issued by the Swiss cantonal tax administrations

The 2009 income tax declaration form must be completed in accordance with the instructions set out below, which are comparable to those for previous years, then signed and returned to the competent tax office.

#### I – General remarks for Swiss and non-Swiss members of the personnel domiciled in Switzerland

- a) Swiss members of the personnel must indicate the amount of salary and emoluments paid by CERN, i.e. the total

amount specified under Section A of the 2009 annual internal taxation certificate, and must attach this certificate to their declaration. They must also indicate the amount of any other income and assets, in accordance with the instructions accompanying the declaration form.

NB. Swiss members of the personnel who have already submitted their declaration but did not attach the above-mentioned certificate to it must send the certificate to their tax office without delay.

- b) Non-Swiss members of the personnel are not required to complete an income tax declaration form except in certain cases, in particular if they own real estate or are in other gainful employment in Switzerland or if their spouse owns real estate, is in gainful employment or has movable assets or related income in Switzerland. However, they must not indicate the salary and emoluments paid by CERN nor attach the annual internal taxation certificate.

In all cases, both Swiss and non-Swiss members of the personnel are advised to state, either in the "Comments" section at the end of the income declaration form or on a separate sheet of paper if the form does not contain such a section, that they are "*membre du personnel du CERN assujetti à l'impôt interne du CERN et donc exonéré d'impôt sur les traitements et émoluments versés par le CERN*" (a member of the CERN personnel subject to internal CERN taxation and therefore exempt from taxation on the salary and emoluments paid by CERN").

#### 2 – Swiss members of the personnel domiciled in France

Swiss members of the personnel domiciled in France will receive the 2009 income declaration form only if they have retained a financial tie with Switzerland (for example, if they own real estate in a Swiss canton). They must complete and return it in accordance with the instructions set out in section 1 a).

If you are sent the form erroneously, you must return it to the competent tax office explaining that you are "*membre du personnel du CERN, assujetti à l'impôt interne du CERN et sans lien de rattachement économique avec la Suisse*".

**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

## SECURITY SCANNING OF WEB SITES AT CERN

As of early 2010, the CERN Computer Security Team will start regular scanning of all Web sites and Web applications at CERN, that are visible on the Internet or on the General Purpose Network (office network). The goal of this scanning is to improve the quality of CERN Web sites. All deficits found will be reported by e-mail to the relevant Web site owners, and must be fixed in a timely manner.

Web site owners may also request one-off scans of their Web site or Web application, by sending an e-mail to Computer.Security@cern.ch.

These Web scans are designed to limit the impact on the scanned Web sites. Nevertheless, in very rare cases, scans may cause undesired side-effects, e.g. generate a big number of log entries or cause particularly badly designed or less robust Web applications to crash. If a Web site is affected by these security scans, it will also be susceptible to any more aggressive scan that can be performed any time by a malicious attacker. Such Web applications should be fixed and also additionally protected (e.g. by restricting their visibility).

Any questions or comments regarding Web scanning should be addressed to Computer.Security@cern.ch.



## Take note

### UPDATED SPAM FILTERS REDUCE AMOUNT OF MESSAGES IN SPAM FOLDER

The flow of spam (unsolicited e-mail) targeting CERN mailboxes is constantly increasing: 96% of the 2 million mails received daily at CERN consist in successfully filtered spam, but spammers are getting smarter and detecting spam is becoming ever more difficult.

In order to address this evolution, a new spam-detection software engine will be progressively deployed in the coming weeks. The aim is to decrease the number of SPAM messages which are delivered to users' Inboxes and to spam folders.

Users can notify the mail service about SPAM messages. To submit a spam message it can be sent as an attachment. For more details please refer to the help pages. Useful links:

To report spam messages please refer to the information on <http://cern.ch/mail/Help/?fdid=31>.

To configure spam filtering for your CERN mailbox, go to <http://cern.ch/mail> and click 'spam fight'.

Thank you for your collaboration.

*CERN Mail Service*

### TO ALL MEMBERS OF THE PERSONNEL

#### Summer work for children of members of the personnel

During the period from 14 June to 17 September 2010 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 coverage 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):

[https://ert.cern.ch/browse\\_www/wd\\_pds?p\\_web\\_page\\_id=6970](https://ert.cern.ch/browse_www/wd_pds?p_web_page_id=6970)

Completed application forms must be returned by 9 April 2010 at the latest. The results of the selection will be available on 21 May 2010.

For further information, please contact:

**Inger.Carriero@cern.ch**

*HR Department - Tel. 71372*

### TECHNICAL PRESENTATION

10 March 2010

DYNEOS

10:00 – 12:00 - Main Building, Room B, 61-1-009

Dyneos AG is active in the fields of photonics, laser and high-precision positioning. Our highly qualified engineer team has more than 30 years of experience in electro-optical solutions sales. The engineers are supported by a technical and administrative team.

We are focused on the Swiss market and represent six suppliers (Coherent, PI Physik Instrumente, SIOS, Nanonics Imaging, APE, Ekspla) in order to give a qualified sales and service support to our customers.

Our products are dedicated to the research field as well as to industry. In addition to standard catalog products, we offer custom designs to fulfill the specific needs of OEM customers or specific applications.

*GS Department*

### PREPARATION FOR RETIREMENT SEMINAR

#### (Health insurance and wealth and succession planning)

During the preparation for retirement seminar in November 2009, the sessions on health insurance in Switzerland and France unfortunately had to be postponed. Participants in the seminar also expressed interest in an information session on "How to manage your wealth and organize your succession". **The sessions on health insurance will be held on 16 March 2010 and those on wealth and succession management on 18 March 2010.**

#### Programme for Tuesday 16 March 2010 (TH Theory Conference Room, Building 4/3-006):

09:00 Health insurance in Switzerland, by Mr Sandro Breitenstein, Service de l'Assurance Maladie du Canton de Genève

10:00 Coffee break

10:20 Health insurance in France, by Mr Dominique Curtiaud, Caisse Primaire d'Assurance Maladie de l'Ain

#### Programme for Thursday 18 March 2010 (TH Theory Conference Room, Building 4/3-006):

09:00 How to manage your wealth and organize your succession in Switzerland, by Mr Jean-Marc Wanner, consultant and lecturer at Geneva University

10:00 Coffee break

10:20 How to manage your wealth and organize your succession in France, by Mr David Garioud and Mr Franck Campagne, consultants on wealth management.

Each speaker will make a general presentation, followed by questions and answers.

The sessions are open to everyone interested in these issues.

*HR Department - Social Affairs - Tel: 74201*



## Take note

### ICSC2010

The 4th edition of the Inverted CERN School of Computing (iCSC, "Where students turn into teachers") will take place next Monday and Tuesday (8th and 9th of March) at CERN, Building 31 - IT Amphitheatre - Third Floor.

Attendance is free and open to everyone. The programme is designed so that you can attend only the lectures that interest you.

Registration is not mandatory, but will allow you to obtain a copy of the full booklet (first registered, first served)

- ▶ UML for developers
- ▶ OO Design patterns / Anti-patterns
- ▶ Make your web application run faster
- ▶ Git: *make more efficient managing your code*
- ▶ Advances in multivariate visualisation
- ▶ SNMP for monitoring devices
- ▶ Logs in software: *How to record the what, the when and the who*
- ▶ Systemtap - *Tapping the Linux Kernel to Find out What Your Machine is Really Doing*

Lecturers  
All former CSC2009 students

David Horat	CERN, Geneva
Tim München	Wuppertal University - Germany
Luis F. Munoz Mejias	CERN, Geneva
Malte Nuhn	Aachen University - Germany
Benjamin Radburn Smith	Rutherford Appleton Laboratory, Didcot - U.K.
David G. Svantesson	CERN, Geneva
Uwe Westerhoff	Institut für Kernphysik, Münster - Germany

### Programme overview:

#### Monday 8 March

10:00 - 10:15

Introduction  
School opening

10:15 - 11:10

Lecture 1  
Introduction to UML for Developers and OO Best Practices  
Tim Muenchen

11:20 - 12:15

Lecture 2  
Design Patterns and Anti-Patterns  
Tim Muenchen

14:00 - 14:55

Lecture 3  
How to make web applications run faster  
David Horat

15:05 - 16:00

Lecture 4  
Distributed version control using Git: Get more efficient managing your code  
David Svantesson

16:30 - 17:25

Lecture 5  
Recent Advances in Multivariate Data Visualisation  
Benjamin Radburn-Smith

#### Tuesday 9 March

09:00 - 09:55

Lecture 6  
SNMP for monitoring and operating devices  
Uwe Westerhoff  
10:30 - 11:25  
Lecture 7  
Logs in software: How to record the what, the when and the who  
Luis Muñoz Mejías

11:35 - 12:30

Lecture 8  
Systemtap - Tapping the Linux Kernel to Find out What Your Machine is Really Doing  
Malte Nuhn

Details of the programme

[https://csc.web.cern.ch/csc/2010/iCSC2010/Programme/Programme\\_overview.htm](https://csc.web.cern.ch/csc/2010/iCSC2010/Programme/Programme_overview.htm)

and schedule

[http://csc.web.cern.ch/CSC/2010/This\\_year\\_school/Schedule/Schedule\\_2010.htm](http://csc.web.cern.ch/CSC/2010/This_year_school/Schedule/Schedule_2010.htm)

### A few questions answered at iCSC2010:

- Universal Modelling Language: what is it?
- Design Pattern: reusable snippets and non-reusable libraries! What does it mean?
- Anti-patterns: the opposite of design patterns! What does it mean?
- How to make your web application run 50% faster.
- What is Git? What difference with CVS and SVN?
- Local vs. centralized vs. distributed code version control: Advantages and Drawbacks.
- Can I manage my source code without network access (like in a plane)?
- Can we visualise data in more than 2D or 3D?
- Data visualisation and data mining: Can they be tied in?
- Do you know how to monitor dozens of devices with SNMP?
- Logs in software: Willing to see real-world examples of good and bad practices?
- Linux Kernel: Can Systemtap help me find out what my machine is doing?

François Flückiger  
Director, CERN School of Computing





## Take note

### ACCU MEETING

**DRAFT Agenda  
for the meeting to be held  
on Wednesday 10 March 2010  
At 9-15 a.m. in Room 60-6-002**

1. Chairperson's remarks
2. Adoption of the agenda
3. Minutes of the previous meeting
4. Matters arising
5. News from the CERN Management
6. Report on services from GS Department
7. An update on Safety at CERN
8. Reports from ACCU representatives on other committees
9. Users' Office news
10. Any Other Business
11. Agenda for the next meeting

Anyone wishing to raise any points under item 10 is invited to send them to the Chairman in writing or by e-mail to

**Christopher.Onions@cern.ch**

*Chris Onions (Secretary)*

ACCU is the forum for discussion between the CERN Management and the representatives of CERN Users to review the practical means taken by CERN for the work of Users of the Laboratory. The User Representatives on ACCU are (CERN internal telephone numbers in brackets):

Austria	G. Walzel (76592)	Norway	J. Nystrand (73601)
Belgium	C. Vander Velde (Chairperson) (71539)	Poland	M. Witek (78967)
Bulgaria		Portugal	P. Bordalo (74704)
Czech Republic	S. Nemecek (71144)	Slovak Republic	A. Dubnickova (71127)
Denmark	J.B. Hansen (75941)	Spain	I. Riu (76063)
Finland	K. Lassila-Perini (79354)	Sweden	K. Jon-And (71126)
France	N. Besson (75650)	Switzerland	M. Weber (71271)
	A. Rozanov (71145)	United Kingdom	M. Campanelli (72340)
Germany	H. Lacker (78736)		S. McMahon (77598)
	O. Biebel (72974)	Non-Member States	D. Acosta (71566)
Greece	G. Tsipolitis (71162)		E. Etzion (71153)
Hungary	F. Siklér (76544)		C. Jiang (71972)
Italy	G. Passaleva (75864)		N. Zimine (75830)
	N. Pastrone (78729)	CERN	E. Auffray (75844)
Netherlands	G. Bobbink (71157)		F. Teubert (73040)

The CERN Management is represented by S. Bertolucci (Director for Research and Computing), S. Lettow (Director for Administration and General Infrastructure) and J. Salicio Diez/PH with C. Onions/PH as Secretary. Human Resources Department is represented by J. Purvis, the General Infrastructure Services Department by M. Tiirakari and the CERN Staff Association by M. Goossens. Other members of the CERN Staff attend as necessary for specific agenda items. Anyone interested in further information about ACCU is welcome to contact the appropriate representative, or the Chairperson or Secretary (75039 or Christopher.Onions@cern.ch).

**<http://cern.ch/ph-dep-ACCU/>**



Save lives  
Give your blood

***On Thursday 18 March 2010  
From 9.00 to 17.00***

## **BLOOD DONATION**

**CERN  
RESTAURANT 2**

Organized by the Cantonal Hospital of Geneva

**Number of donations during the last blood donations:**

- 137 donors in July 2009**
- 126 donors in November 2009**

**Let's do better in 2010 !!!**

**Give 30 minutes of your time  
to save lives...**





## Academic training

### CERN ACADEMIC TRAINING PROGRAMME 2010

#### LECTURE SERIES

9, 10 11 & 12 March 2010

11:00-12:00 - Main Auditorium, Bldg. 500

#### **The Dark Side of the Universe: Dark Matter and Dark Energy**

by Prof. Michael Turner

#### **Tuesday 9 June 2009**

Lecture 1 : State of Cosmology Today

#### **Wednesday 10 June 2009**

Lecture 2: Particle Dark Matter

#### **Thursday 11 June 2009**

Lecture 3:

Cosmic Acceleration and Dark Energy

#### **Friday 12 June 2009**

Lecture 4:

Future Direction and Challenges

*Organiser: Maureen Prola-Tessaur/PH-EDU*



## External meeting

### GENEVA UNIVERSITY

École de physique - Département de  
physique nucléaire et corpusculaire

24, quai Ernest-Ansermet

1211 GENÈVE 4

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

92

#### **Lundi 8 mars 2010**

PHYSICS COLLOQUIUM

at 17:00 – Stückelberg Auditorium

#### **Gravitational lensing: an astrophysical tool**

Prof. Georges Meylan

Ecole Polytechnique fédérale de  
Lausanne (EPFL) - Observatoire de  
Sauverny

The total solar eclipse of 1919 unveiled the gravitational lens nature of our Sun. The next example of another gravitational lens was discovered in 1979. Originally considered as a mere curiosity, gravitational lensing has matured, during the last two decades, into a genuine astrophysical tool, used in a large variety of problems, from planet search to the quest for the most distant galaxies.

We shall present cosmological results obtained at EPFL about (i) strong lensing and time delays, related to the measurements of the Hubble constant ; (ii) micro lensing and the measurement of the size of the accretion disk of a quasar, and (iii) the first case of a quasar playing the role of gravitational lens.

We shall conclude with Euclid, a project of ESA satellite aiming at investigating dark matter and dark energy through their impact on gravitational lensing

A drink with the speaker will be offered after the colloquium.

*Organizer: Prof. Markus Büttiker*

#### **Wednesday 10 March 2010**

PARTICLE PHYSICS SEMINAR

at 17.00 hrs – Stückelberg Auditorium

#### **The COMPASS Experiment at CERN: achievements and outlook**

Prof. Franco Bradamante

University and INFN Trieste

The COMPASS Collaboration has set up a modern spectrometer at CERN to investigate two complementary aspects of hadron physics, the spin structure of the nucleons and the light quark spectrum of hadrons. The experiment is taking data since 2002.

The spin structure of the nucleon has witnessed a real renaissance in the past 20 years, and COMPASS has measured both longitudinal and transverse spin effects using polarized proton and deuteron targets and a 160 GeV muon beam. Important contributions have been given to the assessment of the quark and gluon contribution to the nucleon spin, and establishing new properties of the parton distribution functions and of the fragmentation functions related to the transverse spin. Using hadron beams, of  $\sim 200$  GeV, in 2008 and 2009 data have been taken on a liquid hydrogen target in search of glueballs and other exotic hadronic states. An overview of the main accomplishments of the experiment will be given, as well as a mention of the future plans which are presently being formulated.

*Information : <http://dpnc.unige.ch/seminaire/annonce.html>*

*Organizer : J.-S. Graulich*





# Seminars

## MONDAY 8 MARCH

### TH JOURNAL CLUB ON STRING THEORY

14:00 - Bldg. 1-1-025

### Supersymmetry, Localization and Quantum Entropy Function

I. MANDAL / HARISH-CHANDRA RESEARCH INSTITUTE

## TUESDAY 9 MARCH

### ACADEMIC TRAINING LECTURE

#### REGULAR PROGRAMME

11:00 - Main Auditorium, Bldg. 500

### The Dark Side of the Universe: Dark Matter and Dark Energy (1/4)

M. TURNER

### TH STRING THEORY SEMINAR

14:00 - TH Auditorium, Bldg. 4

### Exact semiclassical strings and QCD-like properties in AdS/CFT

V. FORINI / MPI POSTDAM

## WEDNESDAY 10 MARCH

### ACADEMIC TRAINING LECTURE

#### REGULAR PROGRAMME

11:00 - Main Auditorium, Bldg. 500

### The Dark Side of the Universe: Dark Matter and Dark Energy (2/4)

M. TURNER

### TH THEORETICAL SEMINAR

14:00 - TH Auditorium, Bldg. 4

### Primordial gravitational waves from topological and non-topological defects produced after inflation and their signature in the CMB polarization anisotropies

J. GARCIA-BELLIDO / CSIC-UAM (MADRID) AND UNIGE

## THURSDAY 11 MARCH

### ACADEMIC TRAINING LECTURE

#### REGULAR PROGRAMME

11:00 - Main Auditorium, Bldg. 500

### The Dark Side of the Universe: Dark Matter and Dark Energy (3/4)

M. TURNER

## THURSDAY 11 MARCH

### TH EXCEPTIONAL SEMINAR

14:00 - TH Auditorium, Bldg. 4

### Precision flavour physics from semileptonic B decays: status and challenges

N. URALTSEV / SIEGEN UNIVERSITY AND PNPI, GATCHINA

### A&T SEMINAR

14:00 - Kjell Johnsen Auditorium, Bldg. 30-7-018

### Techniques of mechanical measurements for CERN applications and environment - M. GUINCHARD / EN-MME

## FRIDAY 12 MARCH

### ACADEMIC TRAINING LECTURE

#### REGULAR PROGRAMME

11:00 - Main Auditorium, Bldg. 500

### The Dark Side of the Universe: Dark Matter and Dark Energy (4/4)

M. TURNER

### DETECTOR SEMINAR

11:00 - Bldg. 40-S2-D01

### Highlights from the 12th Vienna Conference on Instrumentation

M. FIORINI / CERN

### PARTICLE AND ASTRO-PARTICLE PHYSICS SEMINARS

14:00 - TH Auditorium, Bldg. 4

### Cosmic-ray signatures of dark matter decay

A. IBARRA / TECHNICAL UNIVERSITY MUNICH

## MONDAY 15 MARCH

### COMPUTING SEMINAR

14:00 - IT Auditorium, Bldg. 31 3-004

### OpenCL, Design Patterns and Software for heterogeneous many core platforms

### TH JOURNAL CLUB ON STRING THEORY

14:00 - Bldg. 1-1-025

**TBA** - G. VILLADORO / CERN

### ISOLDE SEMINAR

14:00 - Bldg. 304-1-001

### First direct Penning trap mass measurements on nobelium and lawrencium - M. DWORSCHAK / GSI

## TUESDAY 16 MARCH

### HR SEMINAR

09:00 - TH Auditorium, Bldg. 4

### Préparation à la retraite - extra session 2010 - Preparing for retirement

### TH STRING THEORY SEMINAR

14:00 - TH Auditorium, Bldg. 4

### TBA

T. TAYLOR / NORTHEASTERN U. & LMU-MUNCHEN

## WEDNESDAY 17 MARCH

### TH COSMO COFFEE

11:00 - Bldg. 1-1-025

**TBA** - R. MAHBUBANI / CERN

### TH THEORETICAL SEMINAR

14:00 - TH Auditorium, Bldg. 4

**TBA [Numerical GR]**

E. GOURGOULHON / LUTH, MEUDON

## THURSDAY 18 MARCH

### A&T SEMINAR

14:00 - Kjell Johnsen Auditorium, Bldg. 30-7-018

### Impedance Model of the CERN SPS and Aspects of LHC Single-Bunch Stability

B. SALVANT / EPFL LAUSANNE

### CERN COLLOQUIUM

16:30 - Main Auditorium, Bldg. 500

### Quantum states of neutrons in the gravitational and centrifugal potentials in a new GRANIT spectrometer

V. NESVIZHEVSKY

## FRIDAY 19 MARCH

### PARTICLE AND ASTRO-PARTICLE PHYSICS SEMINARS

14:00 - TH Auditorium, Bldg. 4

**TBA** - R. FREZZOTTI

## MONDAY 22 MARCH

### JOINT EP/PP SEMINAR

16:30 - MAIN AUDITORIUM, BLDG. 500

### Charged-particle multiplicity at LHC energies

J. FIETE GROSSE-OETRINGHAUS / CERN