

## PARTICLES ARE BACK IN THE LHC

The LHC has introduced beam for the first time since the year-end technical stop began in December 2015.



CERN Management and LHC operators applaud as the first beam circulates in the LHC, on Friday 25 March.

On Friday, the LHC opened its doors to allow particles to travel around the ring for the first time since the year-end technical stop (YETS) began in December 2015. At 10:30 a.m., a first bunch was circulating and by midday the beam was circulating in both directions. Progress over the weekend has been good and low intensity beam has already been taken to 6.5 TeV and through the squeeze.

Last week, the LHC underwent the final phase of preparation before beam -known as the machine checkout. During this phase all the systems of the LHC are put through their paces without beam. A key part of the process is driving the magnetic circuits, radiofrequency accelerating cavities, collimators, transverse dampers etc. repeatedly through the nominal LHC cycle.

A full program of beam instrumentation checks took place to make sure that active elements were working and that the complex acquisition chain was functioning properly. Detailed checks were performed on the collimation systems.

The radiofrequency system was re-commissioned. The LHC beam dump system was subject to stringent operational checks. In parallel, a pilot beam extracted from the SPS was sent down the two SPS-LHC transfer lines to the beam dumps just before the start of the LHC proper.

While the machine checkout was ongoing, the experiments had been finishing their own last interventions before the closure of the caverns.

With the beams back in the rings, a phase of recommissioning with beam starts for the LHC. "The LHC team will work with low intensity beam for about 3 to 4 weeks to re-commission all systems and to check out all aspects of beam-based operation to make sure that the LHC is fully safe before 'stable beams' is declared," explains Mike Lamont, head of the accelerators operation team. Stable beams is the signal that the experiments can start taking data.

2015 saw the start of Run 2 for the LHC during which the proton-proton collision energy



## A WORD FROM THE DIRECTOR-GENERAL

### PHYSICS FOR ALL

"Physics for all" ran the cover story on the March issue of *Physics World* magazine, and it's a sentiment that we can surely all put our weight behind. The issue included an article about CERN's LGBT community, and in particular last summer's incidents of defacement of posters they had put up around the site. This story was picked up by *The Sunday Times* newspaper, which is widely read, and other media around the world have followed. So I'd like to set the record straight: there is no place for intolerance at CERN.

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# A WORD FROM THE DIRECTOR-GENERAL

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## PHYSICS FOR ALL

Last summer, when the LGBT posters were defaced, CERN Management unequivocally condemned such acts, and where the perpetrators were identified, disciplinary actions were taken. That position remains unchanged.

We are a diverse organisation, and we celebrate that diversity in all its forms. It is one of our core principles. It permeates our Code of Conduct, and respect for diversity

is set out in laboratory policies. Diversity was among the key ingredients of the recent five-yearly review of the financial and social conditions of the members of the personnel, which resulted in many new actions that aim to make CERN as inclusive as it is possible to be. In short, ensuring that CERN is a model of physics for all.

Celebrating diversity means treating everybody equally, regardless of ethnicity,

religious belief, sexual orientation or gender identity, and giving everybody the same opportunities. CERN brings together people of over 100 nationalities: everyone is welcome here. The principles of respect, openness and peaceful collaboration are part of CERN's DNA and they are embedded in our mission. They are principles we shall continue to nurture and defend.

*Fabiola Gianotti*

# PARTICLES ARE BACK IN THE LHC

(Continued from page 1)

reached 13 TeV. Beam intensity has increased and by the end of the 2015 run 2240 proton bunches per beam were being collided. This year, the aim is to increase the number of bunches even further to the target of 2748. The goal is to reach an integrated luminosity of around 25 inverse femtobarn ( $\text{fb}^{-1}$ ), up from

the  $4 \text{ fb}^{-1}$  it reached by the end of last year. One  $\text{fb}^{-1}$  corresponds to around 80 million million collisions.

*CERN Bulletin*

# WHAT IS IT REALLY LIKE TO WORK IN A DIVERSE ORGANIZATION LIKE CERN?

Genevieve Guinot, head of the diversity office, answers some questions about what it is really like to work in a diverse organization like CERN.

## Why might someone be interested in working in a diverse organisation?

If you're looking to learn from different perspectives and approaches, you could be interested in working in a diverse environment. But, if you are truly convinced the cross-fertilisation of ideas boosts creativity and innovation, you should be interested in working for a diverse organisation like CERN.

Working in a diverse environment is enriching and rewarding, and requires an openness to other cultures, a welcome approach to hearing viewpoints different to one's own.

## What is CERN trying to do to address the gender imbalance in particle physics?

One of our key priorities is to achieve an optimal gender balance in our workforce. Particle physics and accelerator-related technologies remain male-dominated fields and CERN's ambition is to attract more women. Having said that, CERN can claim a number of female role models, in all professional families and at all stages of their career, who show that it's possible to make a scientific or technical career at CERN, starting with our new Director-General, Fabiola Gianotti.

We may lack as yet the critical mass to have a visible effect, in particular in senior staff positions, but things are changing. We are seeing more and more women holding key leadership positions for example, Edda

Gschwendtner, leader of the AWAKE project, or Maite Barroso Lopez, who has recently taken up the position of Deputy Head of the IT Department.

## Why did CERN set up the Diversity office?

Diversity – bringing together people from different countries and cultures to work on a common goal – has been an integral part of CERN's mission since its foundation. CERN is becoming an increasingly global laboratory. We know that greater awareness and understanding of difference is needed, and that requires constant vigilance and commitment. That is one reason, amongst others, why the Organization set up an office specialising in Diversity issues back in 2012.

## We often hear that International Organisations are diverse. But how is this reflected at CERN?

As a culturally diverse organisation, the first evidence you would see of diversity at CERN is the mix of nationalities – on a normal day there are more than 10,000 people on-site from over one hundred different countries. But this isn't the only facet of diversity that you would see first off: you might also notice that CERN has a multi-generational working environment. Indeed, in addition to its staff members spanning all ages, CERN welcomes on-site students at every stage of their studies (undergrads, graduates and postgrads) and some retirees are still coming to CERN to share their passion after ending their career.

## How does CERN make sure that the wide range of people in its community are supported and feel equal?

CERN's first equal opportunity statement was published in 1996 and, as an employer, tolerates no form of discrimination between members of its personnel, in particular with regard to nationality, gender, age, profession and individual differences such as belief, opinion, sexual orientation or disability. In recent years, CERN has implemented a diversity policy, which extends beyond legal compliance and is intended to enable each of us, irrespective of our individual differences, to contribute to our full potential. When we talk about diversity, we mean the wide range of differences, visible and invisible, which exist amongst all peoples. And by working on diversity we mean all sorts of actions from monitoring our organisational practices and processes, and organising activities designed to raise awareness, through to constantly updating our support structures.

A very good example to illustrate the latter is CERN's recent upgrade of its family and work-life balance policies. If you want to learn more, consult the following webpage: <http://diversity.web.cern.ch/diversity-measures-5-yearly-review>.

You can read the full interview here: <https://jobs.web.cern.ch/cern-jobs-insight>

The Recruitment Unit

## - Upcoming events -

- "Curie\_Meitner\_Lamarr\_indivisible" a theatre play celebrating the achievements of three exceptional women in the field of science and technology. Entrance is free but seats are limited. Registration opening soon! **Thursday 28 April at 6:30 p.m. in the Globe.**
- "A singularly unfeminine profession" – a book presentation by Mary K Gaillard followed by a discussion with Valerie

Gibson (LHCb, Head of the HEP Group in Cambridge, UK). **Thursday 19 May at 4 p.m., in the CERN Library (52-1-052).** Coffee will be served as from 3:30 p.m. Paper copy available at the CERN library to borrow and ebook freely available to anyone with a CERN account on the publisher's web site (World Scientific).

**CERN is also hosting three events in the coming months to celebrate what it means to be a woman in particle physics.**  
These are:

- "Support to early careers in science at CERN. Understanding expectations" – a talk presenting the results of a research study carried out at CERN by three social scientists and takes a gender perspective.  
**Friday 8 April from 10:30 to 12:00 a.m. in the Council Chamber (503-1-001).**

# A NEW TRANSPORT HUB

CERN's new Mobility Centre, allowing you to switch easily from one mode of transport to another, has just been officially opened.



Inauguration of the CERN Mobility Centre by Martin Steinacher, Director for Finance and Human Resources, and Lluis Miralles, Head of the SMB department.

CERN's new Mobility Centre, on the car park next to the Globe of Science and Innovation was officially opened on Tuesday, 22 March. The centre brings together all of CERN's transport options in a single location. "Our aim is to create an intermodal hub where CERN users and personnel can switch from

one mode of transport to another, and from CERN transport to public transport," explains Lluis Miralles, head of the Site Management and Buildings (SMB) department.

The Mobility Centre incorporates the CERN bike and car rental services, the self-service

car- and bike-sharing schemes, and SIXT car rental facilities (for long-distance journeys). It is located right next to the tram stop and the CERN shuttle bus stop.

"We have diversified our transport offer in the past few years in order to facilitate the journeys of users and personnel, and these services are going from strength to strength," adds Miralles.

Another piece of good news on the mobility front: the cycle path along the Route de l'Europe, connecting CERN's Meyrin and Prévessin sites, is under construction and is expected to be completed by the end of the year.

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*For practical information about the Mobility Centre, see: <http://cern.ch/go/hR9m> or visit the CERN mobility website: <http://smb-dep.web.cern.ch/en/Mobility>.*

Corinne Pralavorio

# VISIT OF THE PRESIDENT OF THE SWISS CONFEDERATION

On 24 March, CERN welcomed Johann Schneider-Ammann, President of the Swiss Confederation.



President Johann Schneider-Ammann arrived to CERN in the morning, where he was

welcomed by CERN Director-General Fabiola Gianotti. During the visit, the President was

accompanied by Erik Reumann, spokesperson of the Federal Department of Economic Affairs, Education and Research, Alexandre Fasel, Ambassador and Permanent Representative of Switzerland to the United Nations Office and other international organisations in Geneva, and Patrick Pardo, counsellor at the permanent Mission of Switzerland to the United Nations Office and other international organizations in Geneva.

In the Main Building he exchanged a few words with Frédéric Bordry, Director for Accelerators and Technology, Martin Steinacher, Director for Finance and Human Resources, and Friedemann Eder, Head of CERN Host States relations service. President Johann Schneider-Ammann also signed the guestbook of the Organization.

Anais Schaeffer

# GEORGE MIKENBERG HONOURED BY THE SHARING KNOWLEDGE FOUNDATION

The Sharing Knowledge Foundation Prize was presented to the ATLAS physicist at a ceremony on 18 March.



ATLAS physicist George Mikenberg receives the Sharing Knowledge Foundation Prize. From left to right: Peter Jenni, former ATLAS Spokesperson, Rolf Heuer, former CERN Director-General, Frédéric Bordry, CERN Director for Accelerators and Technology, George Mikenberg, Patrick Fassnacht, CERN International Relations sector, Eliane Jacot-Des-Combes Mikenberg, Herwig Schopper, former CERN Director-General, Constantin Lanaras, treasurer of the Sharing Knowledge Foundation, Robert Klapisch, President of the Sharing Knowledge Foundation, Federico Saldana, logistical support, Catherine Cesarsky, Vice-President of the CERN Council, Eliezer Rabinovici, Vice-President of the CERN Council and of SESAME. (Image: Sophia Bennett/CERN)

The Sharing Knowledge Foundation awarded its 2016 prize to George Mikenberg, a member of the LHC's ATLAS experiment who has been

well-known in the particle physics world for many years. He received the prize in a ceremony held at CERN on 18 March.

The Sharing Knowledge Foundation, led by former CERN Director of Research Robert Klapisch, recently created the prize as a way of honouring individuals working to improve dialogue between scientists from around the Mediterranean region or to establish networks leading to concrete projects focusing on sustainable development or reducing inequalities between nations.

Mikenberg has participated in prestigious experiments at Fermilab, DESY and CERN, where he has spent many years working on the ATLAS muon spectrometer. However, it was his contribution to the dissemination of knowledge, his almost daily involvement in the training of young researchers from all backgrounds and his constant efforts to help people, institutes and countries join ambitious fundamental research and technological development programmes to which the Foundation wished to draw attention.

The Foundation was particularly keen to recognise Mikenberg's role in Israel's accession to CERN Membership status and his support for physicists from countries such as Morocco, Chile and Argentina. It also praised the support he provides to students keen to be part of the CERN adventure, especially Palestinian students hoping to promote a science culture in their homeland.

CERN Bulletin

## NEW ARRIVALS

On Tuesday 22 March 2016, recently-recruited staff members and fellows participated in a session in the framework of the Induction Programme.



HR Department

## PLAYING HARDBALL? UNFORTUNATELY IT'S NECESSARY...

**Time and time again, we see PCs and laptops being infected at CERN. While a local anti-virus software solution should provide you with basic protection, no anti-virus software will ever be able to detect all threats in a timely manner, nor will it be able to clean up an infection completely. If the anti-virus software doesn't manage to quarantine the infection immediately, reinstall your infected PC or laptop as soon as possible and change all your passwords afterwards to be on the safe side!**

There are a multitude of ways in which your PC can become infected: lack of vigilance when browsing the web (remember: "Stop – Think – Don't Click") and consequently arriving at a malicious website; installing software and plugins from dubious locations with unknown side-effects; infected USB sticks making their way into your PC/laptop; opening e-mail attachments with dodgy content... Once you have fallen into such a trap, the infection will nest itself deeply in your Windows/Mac/Linux operating system. It will try to remain silent. It will start to do its thing: stealing data, sniffing passwords, capturing your network traffic, taking snapshots of your desktop, encrypting your hard disk (and subsequently blackmailing you), attacking others, providing a platform for hosting pornographic images or illegal content... and so on.

Anti-virus software is supposed to provide you with a first line of defence. By analysing activity on your computer, it should be able to quarantine malicious actions before they are executed. It should keep malicious behaviour at bay. But not all malicious actions and

behaviour are known before they hit: anti-virus software must be provided with up-to-date signatures to spot them. This update process takes time; your computer might be infected before the anti-virus software has a chance to step in. Therefore, we continue to rely on your personal vigilance and common sense. Beware!

Once your computer is infected and the anti-virus cannot quarantine and contain the infection, all is lost! This is the moment when the infection is deeply hidden and nested in your operating system. Game over for your computer and your passwords. This is also the moment when you should strongly consider reinstalling your computer from scratch. If we detect your computer being infected via our detection mechanisms, we will definitely ask for reinstallation and take your computer off the CERN network until it's done. Also, we strongly recommend that you change all your locally stored passwords and any password typed recently on that computer. The infection might have sniffed it out. Similarly, credit cards whose numbers were entered on

that computer should be closely monitored. Maybe the infection also took your credit card information? Another good argument to be paranoid (if your money matters to you). Thus, hardball in the event of an infection is – unfortunately – necessary...

Just one more point: the CERN anti-virus software is available for free for your Mac or Windows computer if you work at or for CERN. If you want to top up your protection, we recommend you buy "Malwarebytes" and/or "Spybot Search & Destroy". Finally, we have drafted a dedicated "Security Baseline for Hardening PCs and Laptops", which can also be applied to your private and home computers.

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*For further information, questions or help, check: <https://security.web.cern.ch> or contact us at [Computer.Security@cern.ch](mailto:Computer.Security@cern.ch).*

*Do you want to learn more about computer security incidents and issues at CERN? Follow our Monthly Report:  
[https://security.web.cern.ch/security-reports/en/monthly\\_reports.shtml](https://security.web.cern.ch/security-reports/en/monthly_reports.shtml)*

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*Stefan Lueders, Computer Security Team*

## PROCEDURE FOR OBTAINING VISAS FOR SWITZERLAND AND FRANCE - SIGNATURE RIGHTS

**In accordance with the Status Agreements with CERN, Switzerland and France facilitate the entry of members of the Organization's personnel on to their territories. Where relevant, detailed procedures for obtaining visas apply.**

Within the framework of those procedures, only the following individuals are authorised to initiate the *Note verbale* procedure as well as to sign the Official Invitation Letters and the *Conventions d'accueil*.

1. Kirsti ASPOLA (EP – CMO)
2. Maite BARROSO LOPEZ (IT – DI)
3. Catherine BRANDT (DG – DI)
4. Michelle CONNOR (TH – GS)
5. Gaëlle DUPERRIER (EP – AGS)
6. Patrick FASSNACHT (EP – ADO)
7. Fernando FERNANDEZ SAVORGANO (HR – TA)
8. Nathalie GRÜB (EP – AGS)
9. Laurie HEMERY (BE – ASR)
10. Cécile NOELS (ATS – DO)
11. Tania PARDO (EP – AGS)
12. Maria QUINTAS (HR – TA)
13. Kate RICHARDSON (EP – AGS)
14. Jeanne ROSTANT (TH – GS)
15. Marina SAVINO (EP – AGS)
16. Ulla TIHINEN (EP – AGS)
17. Emmanuel TSESMELIS (IR – REL)
18. Rüdiger VOSS (IR – SPE)

The French and Swiss Authorities will reject any request signed by a person who is not on this list.

We would like to remind you that in accordance with the memorandum of 7

December 2000 issued by the Director of the Administration, (ref. DG/DA/00-119), "the Organization shall not request any legitimisation document (or residence permit) or visa from the Host States for persons registered as EXTERNAL" (people who do not hold a contract of employment, association or apprenticeship with CERN).

We would also like to remind you that those coming to CERN should find out in good time about the conditions of entry to Switzerland and France applying to them and ensure that they obtain the requisite visas, where applicable, in the country in which they are habitually resident.

Useful information can be obtained from the Swiss and French diplomatic representations abroad, as well as from the following Web pages:

- <https://www.sem.admin.ch/sem/en/home/themen/einreise.html> (Swiss State Secretariat for Migration);
- <http://www.diplomatie.gouv.fr/en/coming-to-france/> (French Ministry of Foreign Affairs and International Development).

The Authorities of the Host States have informed the Organization on a number of occasions that they insist upon scrupulous compliance with visa legislation.

*Relations with the Host States Service*  
<http://www.cern.ch/relations/relations.secretariat@cern.ch>  
Tel.: 72848

## TRAVEL TO TROPICAL AREAS: ZIKA VIRUS DISEASE

**Transmitted by the bite of a certain species of mosquitoes (Aedes), the Zika virus is spreading quickly in tropical areas of Central America, the Caribbean and South America.**

Although no specific treatment nor vaccine is currently available, the most effective preventive measures are those focused on avoiding mosquito bites.

There are no travel restrictions in place at present. However it is recommended that pregnant women defer travel plans to countries affected by the Zika virus.

For further information on symptoms and prevention measures, please see on the Zika virus link: <https://medical-service.web.cern.ch/news> or contact the Medical Service at: [Medical.Service@cern.ch](mailto:Medical.Service@cern.ch).

CERN Medical Service

## CERN INTERNAL COMMUNICATION IS EVOLVING

**CERN news will now be regularly updated on the CERN People page (see here: <http://home.cern/cern-people>).**

Dear readers,

All over the world, communication is becoming increasingly instantaneous, with news published in real time on websites

and social networks. In order to keep pace with these changes, CERN's internal communication is evolving too. From now on, you will be informed of what's happening at CERN more often via the "CERN people" page, which will frequently be updated with news. The *Bulletin* is following this trend too: twice a month, we will compile the most important articles published on the CERN site, with a brand-new layout. You will receive an e-mail every two weeks as soon as this new form of the *Bulletin* is available.

If you have interesting news or stories to share, tell us about them through the form at: <http://communications.web.cern.ch/got-story-cern-website>.

You can also hear news from CERN in real time on social networks. Follow CERN's accounts on Twitter, Facebook, Google+, YouTube and Instagram.

*The Editorial Content Development team*

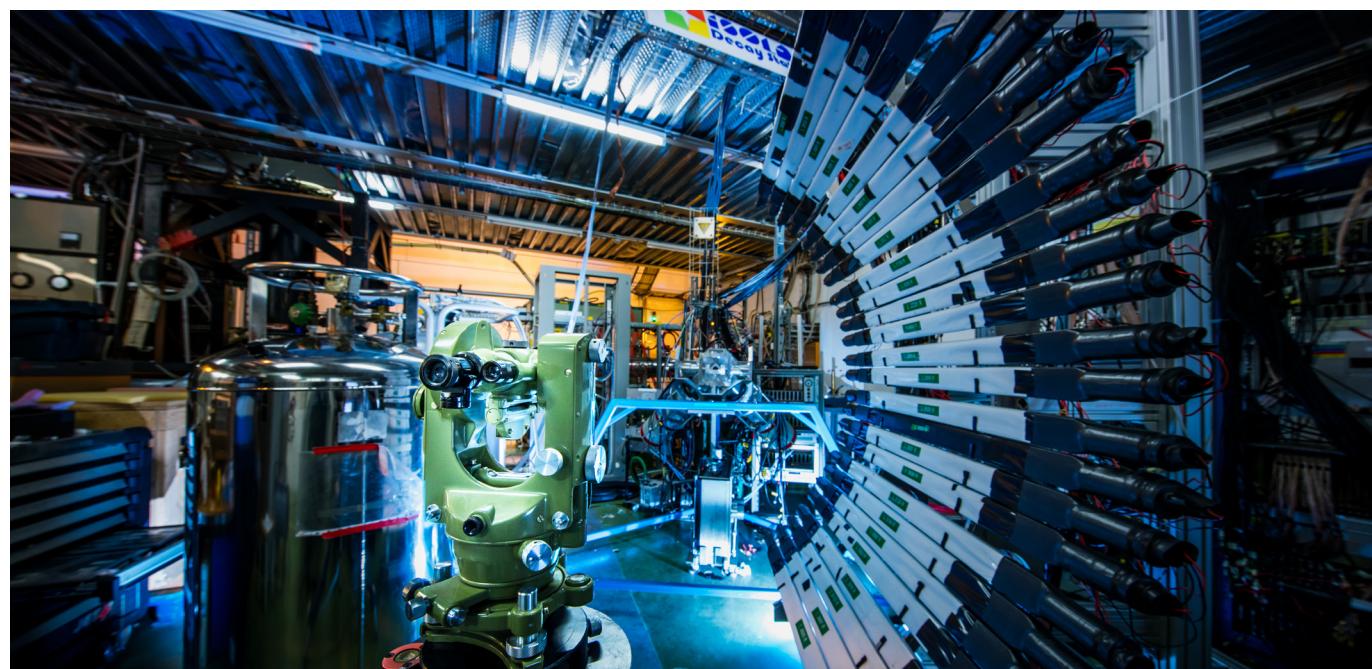
## EXHIBITION OF THE WINNING PICTURES FROM CERN PHOTOWALK 2015 | 4 - 14 APRIL | "PAS PERDUS" AREA

**Twenty photos entered into the "CERN Photowalk 2015: Behind the scenes at the Laboratory" competition will be on display in the "Pas Perdus" area (Buildings 500 and 61) from 4 to 14 April.**

In September 2015, 19 photographers from all over the world visited CERN, cameras at the ready, to find out what goes on behind

the scenes at the Laboratory. They had the opportunity to take photographs of daily life on the CERN site and of facilities including the Linac 4 linear accelerator, the main workshop and ISOLDE. A jury selected the best photos taken at CERN and the top three were entered into the world's biggest physics photography competition, the Global Physics Photowalk, in which eight laboratories participated.

The winners of the Global Physics Photowalk can be seen here: <http://cern.ch/go/zD7L>.



*The ISOLDE installation as seen by Andrew Hara, one of the photographers who took part in the CERN Photowalk 2015 competition.*

# BLOOD DONATION

**Wednesday 6 April 2016**

from 9.00 to 17.00 - CERN, Restaurant n°2 (Build. 504)

After the donation: snack offered by NOVAE and the HUG

[www.dondusang.ch](http://www.dondusang.ch)

GIVE BLOOD - ONE DAY YOUR LIFE MIGHT DEPEND ON IT



## Seminars

### MONDAY, 4 APRIL 2016

- 14:00 **Workshop** Experimental Particle and Astroparticle Seminar Zurich  
42-R-407
- 14:00 **CERN Computing Colloquium** The Principals and Practice of Distributed High Throughput Computing  
**IT Amphitheatre**

### TUESDAY, 5 APRIL 2016

- 11:00 **EP Seminar** Recent results on dark matter searches with Fermi  
**Main Auditorium**
- 11:00 **EP Seminar** Searches for Dark Matter with the Fermi Large Area Telescope  
**Filtration Plant**

### WEDNESDAY, 6 APRIL 2016

- 14:30 **ISOLDE Seminar** TBA: PIENU **ISOLDE visitor's room**

### MONDAY, 11 APRIL 2016

- 11:00 **Academic Training Lecture Regular Programme** Advances in Astroparticle Physics (1/5) **TH Conference Room**
- 14:00 **Workshop** Experimental Particle and Astroparticle Seminar Zurich  
42-R-407

### TUESDAY, 12 APRIL 2016

- 11:00 **Academic Training Lecture Regular Programme** Advances in Astroparticle Physics (2/5) **TH Conference Room**
- 11:00 **EP Seminar** HEP technologies to address medical imaging challenges  
**Main Auditorium**

