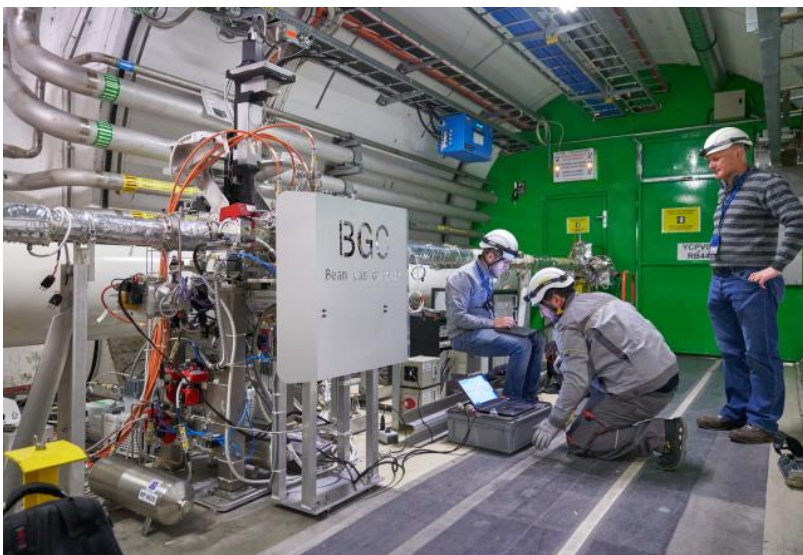


Beam Gas Curtain: a new instrument for LHC Run 3

A High-Luminosity LHC instrument known as the Beam Gas Curtain will be tested and start collecting data during Run 3



The installation of the BGC at LHC Point 4. (Image: CERN)

The Large Hadron Collider will soon be restarted following its year-end technical stop. During this stop, new instruments were installed in the LHC tunnel, including the Beam Gas Curtain (BGC).

After ten years of development, the BGC will start taking data on the LHC's proton beam this year during Run 3. It will provide precise 2D images of the alignment of the proton beams, making data taking more precise. The BGC instrument was designed for the high-luminosity upgrade of the LHC as part of a collaboration between CERN's Beam Instrumentation group, Liverpool University, the Cockcroft Institute and GSI.

Watch an animation of how the BGC works below:
<https://youtu.be/6-ZBxHmxMOY>.

Chetna Krishna

Contents

News

| | |
|--|-----|
| Beam Gas Curtain: a new instrument for LHC Run 3..... | p.1 |
| New LHC experiments enter uncharted territory..... | p.2 |
| Accelerator Report: Preparing for the upcoming LHC restart..... | p.3 |
| New CERN niobium–tin magnet energises the HL-LHC programme..... | p.4 |
| First-stone ceremony of the CERN Library renovation..... | p.5 |
| Beware the deaf threat: noise awareness campaign..... | p.5 |
| Around a hundred budding young programmers took part in the DevoXX4Kids workshops at CERN..... | p.6 |
| CERN openlab holds annual technical workshop and announces new leader..... | p.7 |
| Computer Security: Upcoming password considerations..... | p.8 |

Announcements.....p.9

KT Seminar on 27 March: The Promise of Regenerative Medicine and AI
31 March | Book presentation: "Geometry modelling in High-Energy Physics" by Alexander Sharmazanashvili
2023 European School of High-Energy Physics | 6-19 September 2023
Registration for FCC Week 2023 is open
Restaurant No. 1 reopens following renovation
The 8th IUPAP International Conference on Women in Physics | 10–14 July

Ombud's corner.....p.12

Have we forgotten the Code of Conduct?

New LHC experiments enter uncharted territory

The first observation of collider neutrinos by FASER and SND at the LHC paves the way for exploring new physics scenarios



The FASER (top) and SND@LHC (bottom) detectors. (Image: CERN)

Although neutrinos are produced abundantly in collisions at the Large Hadron Collider (LHC), until now no neutrinos produced in such a way had been detected. Within just nine months of the start of LHC Run 3 and the beginning of its measurement campaign, the FASER collaboration changed this picture by announcing its first observation of collider neutrinos at this year's electroweak session of the Rencontres de Moriond. In particular, FASER observed muon neutrinos and candidate events of electron neutrinos. "Our statistical significance is roughly 16 sigma, far exceeding 5 sigma, the threshold for a discovery in particle physics," explains FASER's co-spokesperson Jamie Boyd.

In addition to its observation of neutrinos at a particle collider, FASER presented results on searches for dark photons. With a null result, the collaboration was able to set limits on previously unexplored parameter space and began to exclude regions motivated by dark matter. FASER aims to collect up to ten times more data over the coming years, allowing more searches and neutrino measurements.

FASER is one of two new experiments situated at either side of the ATLAS cavern to detect neutrinos produced in proton collisions in ATLAS. The complementary experiment, SND@LHC, also reported its first results at Moriond, showing eight muon neutrino candidate events. "We are still working on the assessment of the systematic uncertainties to the background. As a very

preliminary result, our observation can be claimed at the level of 5 sigma," adds SND@LHC spokesperson Giovanni De Lellis. The SND@LHC detector was installed in the LHC tunnel just in time for the start of LHC Run 3.

Until now, neutrino experiments have only studied neutrinos coming from space, Earth, nuclear reactors or fixed-target experiments. While astrophysical neutrinos are highly energetic, such as those that can be detected by the IceCube experiment at the South Pole, solar and reactor neutrinos generally have lower energies. Neutrinos at fixed-target experiments, such as those from the CERN North and former West Areas, are in the energy region of up to a few hundred gigaelectronvolts (GeV). FASER and SND@LHC will narrow the gap between fixed-target neutrinos and astrophysical neutrinos, covering a much higher energy range – between a few hundred GeV and several TeV.

One of the unexplored physics topics to which they will contribute is the study of high-energy neutrinos from astrophysical sources. Indeed, the production mechanism of the neutrinos at the LHC, as well as their centre-of-mass energy, is the same as for the very-high-energy neutrinos produced in cosmic-ray collisions with the atmosphere. Those "atmospheric" neutrinos constitute a background for the observation of astrophysical neutrinos: the measurements by FASER and SND@LHC can be used to precisely estimate that background, thus paving the way for the observation of astrophysical neutrinos.

Another application of these searches is measuring the production rate of all three types of neutrinos. The experiments will test the universality of their interaction mechanism by measuring the ratio of different neutrino species produced by the same type of parent particle. This will be an important test of the Standard Model in the neutrino sector.

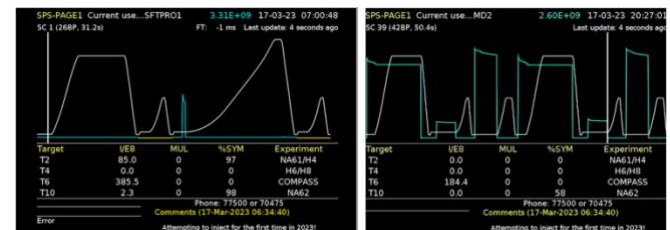
Kristiane Bernhard-Novotny & Chetna Krishna

Accelerator Report: Preparing for the upcoming LHC restart

With the progressive recommissioning of the injectors – including, now, the SPS – the various types of beam are being set up and are gradually reaching the downstream accelerators

Last week, the SPS accelerated its first beam of the year. In the early hours of Friday, 17 March, the PS sent the “LHC individual bunch beam” (LHCindiv) down the TT2/TT10 transfer lines to the SPS door. After clearing some interlocks, the beam was quickly injected into the accelerator. For the SPS operators, the machine physicists and the equipment experts, the meticulous process of adjusting the thousands of machine parameters then began, with countless iterations between observations on the beam and fine-tuning of the parameters. At 8 o’clock in the evening, the day ended with satisfaction after the beam was injected and accelerated on many different cycles. The SPS operations team continued to work over the weekend, making particle orbit measurements around the SPS and determining whether improvements could or needed to be made. This is done through a “beam-based realignment campaign”: the particle orbits in the horizontal and vertical planes are measured for two types of beam, namely the LHCindiv beam and a low intensity beam destined for fixed-target physics in the SPS North Area. This orbit data is carefully analysed and used to calculate whether mechanical displacement of some of the quadrupole magnets could improve the orbit, i.e. whether the excursion of the beam in the vacuum chamber can be reduced so that the particle beam can move more smoothly through the SPS vacuum chambers for the remainder of the year, minimising possible particle losses. This week, beam production will be briefly interrupted so that our colleagues working on transport and geodetic metrology can enter the SPS tunnel to move the

selected magnets, sometimes by only a fraction of a millimetre. Immediately afterwards, the SPS operators will re-inject the beam and quantify and validate the orbit correction. From that moment onwards the fine adjustments to prepare the necessary beams will continue, in order to be ready to inject beams into the LHC next week.



The SPS super cycle. On the left: at 7.00 a.m., the LHCindiv beam has just been injected (but not yet accelerated) and dumped on the internal dump. On the right: the progress made during the day is clearly visible, with various types of beam injected and accelerated. (Image: CERN)

On the LHC side, most of the maintenance activities have been completed, the machine has been closed and the Departmental Safety Officer, with support from the access and safety system team and the OP group, has validated the LHC access and safety system – a necessary condition for switching on the LHC and injecting beams. The hardware commissioning is progressing well and the power converters are being switched on and tested gradually. The objective is to be ready to inject the first beam of 2023 into the LHC next week.

Rende Steerenberg

New CERN niobium–tin magnet energises the HL-LHC programme

A second 7.2-metre-long HL-LHC triplet quadrupole has reached the currents needed for 7 TeV operation, with higher performances

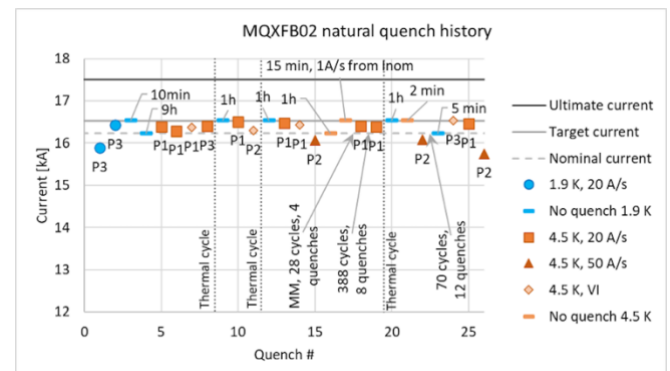
The magnet programme is one of the keystones of the HL-LHC project. At its heart is the development of triplet quadrupole magnets, which will focus the very intense beam around the collision points at ATLAS and CMS. The niobium–tin compound from which the coils are built allows them to reach the 12 T magnetic fields required by the HL-LHC.

Despite the complexity of Nb₃Sn coils and magnet manufacturing, as of early 2023, the technology is being validated for use inside particle accelerators. Twenty 4.2-metre-long magnets (MQXFA) are being produced in the United States – seven of which have successfully passed their individual tests and will be assembled two by two in cold masses as an in-kind contribution to the HL-LHC.

The third prototype of the longer version of the magnet developed at CERN (MQXFBP3, 7.2-m-long) was the first to reach nominal current, plus an operational margin, in a test carried out in late 2022. After this success, the results of the months-long test of its successor, MQXFB02, had teams across the HL-LHC project celebrating: not only does this new magnet also reach nominal current plus operational margin, but it does so with a larger temperature margin. Moreover, it demonstrated resilience in an endurance test to simulate its long-term behaviour in the HL-LHC. A similar test was carried out on a US magnet in 2022.

MQXFB02 is the fruit of the second leg of the “three-leg” strategy that was implemented after performance limitations were observed in the first two MQXFB prototypes. This second leg involved technical improvements in the magnet assembly to eliminate the coil overstress during keying and bladdering operations. Powering for the test started in November 2022 and ended at the beginning of March this year.

The quadrupole magnet reached nominal current, plus a 300 A operational margin (16.53 kA), with two quenches at 1.9 K in the first powering cycle. At 4.5 K, it quenched at nominal current plus 200 A, thus proving a temperature margin of ~2.7 K. This performance limitation is similar to that observed in the first three prototypes, but at a higher current level. The magnet’s resilience was assessed through three warm-up and cool-down cycles, which all reached nominal current at 1.9 K without quenches. Over more than three months of testing, a total of 500 powering cycles and 48 high current quenches, both provoked and spontaneous, were performed – none of them caused performance degradation. This combination of performance and resilience is the base of the acceptance criteria for operation in the HL-LHC.



Given these good results, the magnet will be recovered from its cold mass and, in April 2023, a new cold mass will be manufactured, including, this time, a nested corrector from the CIEMAT collaboration. The cold mass will then be tested again, in its final configuration, in SM18 in 2024.

First-stone ceremony of the CERN Library renovation



Mar Capeans and Joachim Mnich holding the library time capsule. (Image: CERN)

On Monday, 6 March 2023, the Scientific Information Service (RCS-SIS) and the Site and Civil Engineering department (SCE) celebrated the first-stone ceremony of the CERN Library renovation. Members of the Scientific Information Policy Board, the library renovation project team and current and former SIS colleagues joined the ceremony at the construction site. Speeches by Mar Capeans, Head of the SCE department, and Joachim Mnich, Director for Research and Computing (RCS), emphasised the importance of

the library as a physical space in today's world, and the value of collaboration across CERN departments. This was followed by a moving speech by Christiane Standley, who shared memories of her life-long career as a CERN librarian and reminded guests of the importance of peace in Europe.

A time capsule was inserted into the new wall replacing the previous entrance. This capsule contains photos of the library over the years, personal messages from a range of library users and librarians, as well as the key holder used to open the old library desk. The time capsule is now sealed inside the wall for future generations to discover.

The CERN Library team looks forward to serving the CERN community in the renovated premises in autumn 2023. In the meantime, you can find the temporary library in 3/1-015 or send your requests by e-mail to library.desk@cern.ch.

See more photos of the event on: <https://cds.cern.ch/record/2851660>.

CERN Library

Beware the deaf threat: noise awareness campaign

What do traffic, data centres, cooling towers, construction work, electric transformers and LHC compressors have in common? They all make for a noisy working environment

Noise in the workplace is an occupational hazard that, besides affecting your hearing, can also cause fatigue, stress, sleeping difficulties and cardiovascular disorders and diminish the quality of your work. Certain noise levels can affect concentration, hinder verbal exchange or prevent workers from perceiving warning signs. We all differ in our sensitivity to noise levels: one person can feel auditory discomfort at a noise level that might not disturb others.

Being frequently exposed to loud noise puts us at risk of irreversible hearing loss. In most cases,

victims of hearing loss suffer damage during their youth but only feel the consequences on a daily basis much later, when age-related deafness may compound it. By the age of 60, it can be so pronounced that subjects may no longer be able to follow a conversation. Although hearing aids provide valuable support, they can never replace the human ear.

CERN has defined rules that limit the risk of exposure to noise at work, such as the General Safety Instruction on the Protection of Workers against Noise. The corresponding exposure and

action limits and the associated actions defined in CERN's Safety Guideline on Noise are primarily designed to prevent the risk of hearing loss. Hearing is considered to be at risk from a level of 80 decibels during an eight-hour working day. If the instantaneous level is extremely high (over 135 decibels), any exposure, even of very short duration, is dangerous.

Anyone likely to be exposed to noise in their workplace should, together with their supervisor, check the risk exposure level. When all means of collective protection against noise have been exhausted, personal protective equipment (PPE) should be used. For PPE to be effective, it needs to sufficiently attenuate the noise to which one is exposed, be as comfortable as possible and be worn before entering and at all times during work in the noisy area. PPE should be removed only after leaving the area. The range of hearing-related PPE available in the CERN stores catalogue has been selected based on the advice of the CERN

Medical Service and the acoustics specialist in the HSE unit.

The HSE unit has also established a map of qualitative noise risk levels in CERN buildings. The map is available on the GIS Portal*.

Noise is all around us and, to raise awareness about its impact and how to mitigate it, the Medical Service and the HSE acoustics expert are launching an **information campaign. This will take place from 11 a.m. to 2 p.m. on 28 and 30 March and 4 April, at Restaurant 1, Building 774 and Restaurant 2, respectively.** Come along to find out more!

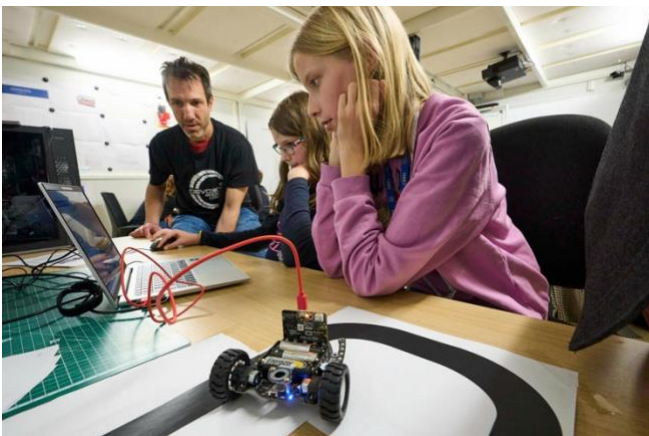
For more information and resources concerning noise in the workplace, please visit the HSE webpage: <https://hse.cern/safety-risks/noise>.

**To access the noise map: click on the "Data" tab > "Thematic Map" > "Safety Management" > "Noise Risk".*

HSE unit

Around a hundred budding young programmers took part in the DevoXX4Kids workshops at CERN

Young people aged from 4 to 15 spent a day getting to grips with new technologies in a fun and intuitive way during the DevoXX4Kids workshops, held at CERN



Children take part in a DevoXX4Kids workshop at CERN. (Image: CERN)

On Saturday, 11 March 2023, CERN hosted DevoXX4Kids – a day of workshops dedicated to programming, robotics and electronics. Around a hundred children aged between 4 and 15 took part in the event.

In the morning session, at the Globe of Science and Innovation, the Minis (aged 4–6) discovered the basics of screen-free programming, thanks to the Cubetto robot and the board game Robot Turtles. In the afternoon session, the Kids (aged 7–10) were introduced to coding using CodeCombat and made their own video games using the Kids-lab.io platform.

The Teens (aged 11–15) spent the day at IdeaSquare, where they learned about the electronics of the Internet of Things, robotics using the Poppy Ergo Jr, Thymio and Bitbot:XL robots, and HyperText Markup Language (HTML).

The DevoXX4Kids initiative was launched in 2012 with the aim of providing, developing and bringing together tools and running workshops to familiarise children and teenagers with programming and IT systems in a fun way. Some 450 events have been held so far worldwide,

reaching more than 8000 children. This was the third event to be held at CERN, the two previous ones having taken place in 2017 and 2020.

All the photos from the event can be found here: <https://cds.cern.ch/record/2852187?ln=en>.

CERN openlab holds annual technical workshop and announces new leader

At last week's CERN openlab technical workshop, Maria Girone was officially announced as the new head of this pioneering public-private partnership. The CERN IT department's new roadmap for innovation was also presented



145 people – including representatives of the member companies – joined the 2023 CERN openlab technical workshop. (Image: CERN)

Last week, CERN openlab held its annual technical workshop at CERN. CERN openlab is a unique public-private partnership between CERN and leading tech companies, which works to drive innovation in the computing technologies needed by CERN's research community.

The ambitious upgrade programme for the Large Hadron Collider (LHC) poses significant computing challenges. When the High-Luminosity LHC (HL-LHC) comes online in 2029, around ten times the computing capacity of today will be required. Simply spending more money to buy more equipment isn't an option; instead, IT experts across CERN are finding ways to work smarter.

CERN openlab is central to this work. Today, 30 R&D projects are carried out through this collaboration, addressing challenges related to the next generation of supercomputers, known as "exascale"; artificial intelligence (AI); and quantum computing. CERN openlab also runs projects

aimed at sharing knowledge and expertise with research communities beyond particle physics. All these projects were presented at the two-day technical workshop, which was held in the CERN Council Chamber.

The event was attended by 145 people (in person and online), including representatives of member companies Intel, Oracle, Siemens, Micron, Google, IBM, Roche and Comtrade. As well as discussing ongoing projects, the workshop provided an excellent opportunity for considering emerging challenges and identifying opportunities for mutually beneficial collaboration.

At the event, Maria Girone was announced as the new head of CERN openlab. Girone, who has served as CERN openlab's Chief Technology Officer since 2016, recently received a prestigious Italian award and founded the Swiss chapter of the Women in High-Performance Computing advocacy group.

Alberto Di Meglio, who has served as the head of CERN openlab since 2013, is now responsible for running CERN IT's new Innovation section. This section, created as part of the CERN IT department's new strategy, includes CERN openlab, the CERN Quantum Technology Initiative, and IT-related projects funded by the European Commission.

At the workshop, Di Meglio presented the CERN IT department's new Innovation Roadmap, which will be published in June. This roadmap addresses five main objectives:

1. Introduce heterogeneous computing infrastructures and software-engineering services/tools;

2. Scale up data management, data storage and databases towards the requirements of the HL-LHC;
3. Support the introduction of AI technologies in the community;
4. Keep the CERN IT department at the forefront of R&D;
5. Enable open science and boost CERN's positive impact on society.

"CERN openlab has played an important role in making sure CERN's computing infrastructure is ready to meet the challenges of LHC Run 3," says Di Meglio. "This roadmap will set out how the CERN IT department will help drive the innovation needed to meet the massive computing challenges posed by the HL-LHC."

"I would like to thank Alberto for his excellent stewardship of CERN openlab over the past decade," says Enrica Porcari, head of the CERN IT department. "During his time, the collaboration has roughly trebled in size, with CERN openlab also growing to include collaborations involving other research organisations. There has also been significant growth in the popular CERN openlab Summer Student programme."

"I am looking forward to establishing new collaborations and exploring new, emerging technologies through CERN openlab," says Girone. "This workshop, the first we have held in person at CERN since the start of the COVID-19 pandemic, was an excellent way to get this work started."

Andrew Purcell

Computer Security: Upcoming password considerations

Protecting your password is of the utmost importance, as that password grants or denies access to your computing account and, with it, access to your private life, your work and all the data you value most. While the CERN Computer Security team does its best to identify exposed and disclosed passwords and to figure out anomalies in your login patterns, the time has come to improve even further.

Today, your CERN password is the only protection against unauthorised attackers seeking to access CERN's plethora of web services. If your password was lost, exposed or stolen by such a malicious evil, there would be severe consequences for the operation of CERN's accelerators, experiments and IT infrastructures. It's therefore vital that your password itself be as protected as possible. The deployment of so-called two-factor authentication provides, for example, silver-bullet protection for your CERN account. But two-factor authentication might not be enough.

Therefore, **on the first day of next month**, the Computer Security group and the identity management team are planning to:

- Enforce password resets for passwords that are also used by someone else at

CERN, and we'll let you know who that was so you can check for other areas of interest ("This password is already used by user stefan24. Please try a different one.");

- Provide more password creativity assistance by employing Microsoft's MathGPT tool to distinguish between weak (" $n \rightarrow p + e^- + \nu$ ") and strong (" $\Delta^0 \rightarrow p + \pi^-$ ") passwords;
- Require that passwords are typed using the "Courier New" or "Comic Sans MS" fonts only. That will it make harder for phishers to replay your password;
- Enforce two-factor authentication for anyone who fell for the annual clicking campaigns in 2020, 2021 or 2022. Discussions are ongoing at the management level as to whether those people should even be denied access to all CERN computing resources forever;
- Introduce an additional two-factor authentication method requiring simultaneous login to Google Workspace as well as Microsoft's Azure AD within a time window of one minute (the latter value is still subject to fine-tuning);

- Investigate together with the HSE unit and, in particular, the Medical Service the feasibility of deploying three-factor authentication throughout CERN. Besides the usual factors “something you know” (i.e. passwords) and “something you have” (a hardware token like your smartphone), both of which are already used today, the third factor would be “something you are” and would be based on probing your DNA/blood sample;
- Create a dedicated “CQCB” API for high-frequency and, thus, resource-consuming remote access requests, which led in the past to denial of service and service blockage;
- Add the new “ZoomID” authentication feature to the CERN Single Sign-On portal.

“ZoomID” allows you to log in using your facial characteristics (like Face ID on Apple devices). The registration portal will open soon.

Once again, protecting your password is paramount to protect your work at CERN, CERN’s accelerators, experiments and IT infrastructure, and the Organization’s data against any malicious evil. Given the difficulties and resistance we faced when deploying two-factor authentication to certain “critical” communities at CERN, we believe these new measures will further improve the ease and fun of signing into CERN while delivering the best possible level of account protection.

The Computer Security team

Announcements

KT Seminar on 27 March: The Promise of Regenerative Medicine and AI

Find out more about regenerative medicine and AI at the upcoming Knowledge Transfer seminar. Today, treatments based on laboratory-cultured cells are curing cancer patients. Besides cancer, cell-based therapies have the potential to heal and rejuvenate patients suffering from diseases like Parkinson’s, Alzheimer’s, diabetes and heart disease. In parallel, the technology behind artificial neural networks has made strides in the past years. Jointly, these seemingly unrelated technologies could transform healthcare as we

know it. Digital technologies in AI, developed at CERN for high-energy physics, might be promising for this field.

During this seminar, Peter Egelberg, Founder and CEO of Phase Holographic Imaging (PHI), will present the work carried out by PHI in the development of time-lapse cytometry instrumentation and software.

You are warmly invited to join this discussion in-person or on zoom.

More info: <https://indico.cern.ch/e/regenmed>.

31 March | Book presentation: "Geometry modelling in High-Energy Physics" by Alexander Sharmazanashvili

31 March 2023, 4 p.m. - 5 p.m.

CERN, Room C (61/1-009)

and via videoconference

Abstract

Accurate measurements are essential for scientific research, as they form the basis for scientific theories and conclusions. However, scientific measurements are subject to various sources of error, including systematic errors. Experimental systematic errors arise due to non-perfections in the detailed understanding of how the instrument responds to the signals it is supposed to measure and to the precise knowledge of where every single active sensor is located in space and also what material constraints exist between the signal source and the sensors. Geometry modelling provides exactly this knowledge, it makes the measured data at every one of the often many sensors in a given instrument to become meaningful data that can be analysed.

Sharmazanashvili's book gives a detailed overview of the complexity inherent to geometric modelling, where the novelty he is introducing is

to derive all geometry models consistently from a central reference geometry model, which requires a strictly hierarchical approach for handling all geometry data. Sharmazanashvili presents the usefulness of a hierarchical reference geometry model, on which application specific simplified geometry models are derived. Thereby, consistency between different simplified models is guaranteed and costs can be saved as different simplified geometry models do not need to be developed individually and independently, but simply follow from a reference prescription.

The author, Alexander Sharmazanashvili, is an expert in computer aided design and engineering. He spent many years at CERN working for the ATLAS experiment. The physical copies of the book are produced by Cezanne Printing House, Tbilisi, Georgia.

The book presentation will be followed by a drink reception.

*More information on Indico :
<https://indico.cern.ch/event/1267406/>.*

2023 European School of High-Energy Physics | 6-19 September 2023

The 2023 European School of High-Energy Physics (ESHEP2023) will take place in Denmark, from 6 to 19 September 2023.

The school is targeted particularly at students in experimental HEP who are in the final years of work towards their PhDs, although candidates at an earlier or later stage in their studies may be considered.

The deadline for applications is 21 April 2023. Sponsorship may be available for a few students from developing countries.

*Further details are available on Indico:
<https://indico.cern.ch/e/eshep2023>.*

Registration for FCC Week 2023 is open

The next edition of the Future Circular Collider (FCC) conference will take place at the **Millennium Conference Centre in London, United Kingdom from Monday, 5 June to Friday, 9 June 2023**. The conference is being organised with the support of the UK Research and Innovation Science and Technologies Facilities Council (STFC) and the EU-funded Horizon 2020 FCCIS project.

FCC Week 2023 will bring together the worldwide community working towards a world-leading high-energy physics infrastructure for the 21st century. It will offer ample opportunities to share results, build new collaborations and solidify the vision of a post-LHC circular particle collider. It will provide an important occasion to review the deliverables for the upcoming FCC mid-term review that will take place later this autumn, reinforce the bonds between the FCC collaborating institutes and refine the mid-term review submissions to the CERN Council later this year. We strongly

encourage the submission of proposals for posters via the conference's Indico page.

Registration is now open and participants are encouraged to book their accommodation early to take advantage of the many attractions and cultural activities that London has to offer.

More information and registration on Indico : <https://indico.cern.ch/event/1202105/>.

We would like to thank our local partners, namely the STFC, the University of Cambridge, Imperial College London, King's College London, the University of Manchester, the University of Oxford, Queen Mary University of London, Royal Holloway University of London and University College London for helping us with the organisation of this conference.

Restaurant No. 1 reopens following renovation

Restaurant No. 1 reopened on 20 March following the completion of several months of work.

With the exception of some improvements to the decor, most of the work went on behind the scenes, consisting of a complete electrical overhaul, replacement of all the lighting with LEDs and the installation of more energy-efficient and ergonomic equipment.

The heating, ventilation and air conditioning (HVAC) systems have been updated to include an optimised ventilation system and a new heat-recovery heating system, resulting in energy savings equivalent to two-thirds of the required 170 kW total consumption.

All the resource-intensive equipment involving the use of water has also been renovated and

optimised, notably in terms of water supply and treatment. All the underfloor ducts were enlarged and covered with custom-made floor plates to seal them off and make it easier to clean the kitchen and service areas.

The work is part of a general sustainability and energy-savings policy. It has also improved working conditions and safety and optimised the use of space, as well as meeting the needs of the restaurants' users.

Congratulations to everyone who was involved in the project and to the restaurant's personnel, who adjusted admirably well to the temporary arrangements while the work was in progress.

SCE department

The 8th IUPAP International Conference on Women in Physics | 10–14 July

The International Union of Pure and Applied Physics (IUPAP) will hold its **8th International Conference on Women in Physics (ICWIP 2023)**, on **10–14 July**. **Registrations are now open** for this virtual event, with India as the host country. The conference is jointly organised by the Gender in Physics working group of the Indian Physics Association and the Tata Institute of Fundamental Research (TIFR). It will be hosted by the Homi Bhabha Centre for Science Education (HBCSE) – a national centre of TIFR, which promotes quality

and equity in science and mathematics education from primary school to introductory college levels. The programme will consist of plenary sessions, interactive workshops, poster presentations, and networking sessions. In addition to the country papers depicting the status of women in physics, registered participants can make contributions related to physics, physics education and gender issues.

For more information and to register, go to: <https://icwip2023.hbcse.tifr.res.in/>.

Ombud's corner

Have we forgotten the Code of Conduct?

Every year, the Ombud writes a report taking stock of the past year's activities, which is addressed to the entire CERN community. This annual report is above all an opportunity to make observations, shed light on matters and, wherever possible, propose some remedial actions.

I'm currently in the process of finalising the latest report. Reflecting on the situations that caused 151 colleagues to contact the Ombud in 2022, I can already make one simple observation, which I would like to share with you.

At the heart of all the situations that were brought to my attention was an infringement of the Code of Conduct.

By way of reminder, the Code of Conduct was introduced in 2010. Immediately afterwards, the then Director-General, Rolf Heuer, created the role of CERN Ombud.

The Code of Conduct was developed through a bottom-up process, based on the input of many working groups that were asked to reflect on the Organization's values.

The values chosen were **commitment, professionalism, creativity, diversity** and **integrity**, all underpinned by another fundamental value: **respect for others**. These values, and the Code of Conduct, were widely embraced and adopted by the CERN community.

However, in the examples below, which illustrate the range of situations that were brought to my attention*, it's clear that the Code of Conduct was not followed:

- To get to her office, Jenna has to pass through a service area where photos of scantily dressed women are pinned up. She doesn't feel safe in that environment. Where is the respect for **diversity**?
- Paul, a young, recently recruited researcher, receives minimal support from his supervisor, despite repeatedly asking for it. He feels in desperate need of support and feedback, and wonders if this is "normal at CERN". Where is the **professionalism** of his supervisor?

- Jean, a member of a team that has to deliver to a tight schedule, disappears for hours at a time with no explanation and systematically arrives late and leaves early. The rest of the team has to pick up the slack. Where is the **commitment**?
- Simon, who has been in the same role and performing entirely satisfactorily for 12 years, is losing motivation and enthusiasm and wants to change job. Another unit offers him a project that matches his skill set and experience and really motivates him. But a position can't be opened for him in the other unit, so Simon is stuck. Doesn't this call for a little **creativity**?
- Elena has presented her work at a conference and is preparing to publish an article that will be important for her career. She finds out that someone else is about to publish an article that reproduces, almost point for point, the innovative aspects of her presentation. She's very worried that she might be being plagiarised. If this turns out to be the case, isn't the value of **integrity** being flouted?

Have we forgotten the Code of Conduct? I think it's important to remind ourselves how fundamental it is. If CERN's values are upheld, a conflict will rarely be destructive. In such cases, more often than not, it's about a difference of opinion or of needs, a lack of information or a healthy airing of views. Such conflicts can be constructive and are more easily resolved, especially with the help of the Ombud.

Let's remind ourselves of the importance of the Code of Conduct. We all have a role to play in making sure it's properly implemented, and we all reap its rewards.

Laure Esteveny

** Names have been changed.*

I want to hear from you – feel free to email ombud@cern.ch with any feedback or suggestions for topics you'd like me to address.

NB: If you would like to be notified about posts, news and other communications from the CERN Ombud, please register to receive the CERN Ombud news.