CERN Bulletin

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Celebrating 50 years of the CERN relay race

As this year's edition of the legendary race approaches, the time has come to look back on 50 years of exuberance, silly costumes, beer drinking and the occasional bit of running

The first edition of the CERN Relay Race, in 1971. (Image: CERN)

The 2022 CERN relay race, the 50th to date, saw a record number of participants (156 teams of over 1000 runners and walkers) dashing across the Meyrin site. For the first time ever, it included CERN Alumni participants, who ran in locations across the globe in their own virtual relay race. Following this momentous anniversary, the race returns on Wednesday, 31 May for its 51st edition. The course remains unchanged, as do the conditions for entering the competition: teams of six runners belonging to the same professional unit (department, group, project, experiment or firm), will run distances of 1000, 800, 800, 600, 600 then 400 metres on the Meyrin site. But, looking back on more than 50 years of the CERN relay race, how has this landmark event of life at the Laboratory evolved over the decades?

The race's rules have changed little since the first edition in 1971, when teams of five runners covered distances of 1500, 1000, 800, 500 and 300 metres respectively, representing a total of 4100 metres. The Focus Users Group, composed of Stig Lindbäck, Mick Ferran, David Townsend, Mike Gerard and William Hart, triumphed in an impressive time of 12'42.

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A word from Rhodri Jones

Busy as a BE

The smooth running of the complex is the main focus of the BE department and, with the recommissioning now behind us, I would like to update you on some of our ongoing activities.

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Busy as a BE

As head of the Beams department (BE), I am proud to report on a very successful recommissioning of the accelerator complex following a busy year-end technical stop (YETS), thanks to the dedication of all the groups involved from across the Accelerator and Technology sector, with the support of teams throughout CERN and our many external partners. The smooth running of the complex is the main focus of the BE department and, with the recommissioning now behind us, I would like to update you on some of our ongoing activities.

Extensive preventive and corrective maintenance was carried out during the YETS on all systems under our responsibility. Accelerator controls have been performing very well, with close to zero downtime during the latest operational period. Nevertheless, a lot is still going on behind the scenes to manage technical debt, improve end-user functionality and explore new opportunities. A few examples include the upgrade of the accelerator complex timing backbone to the BE-developed White Rabbit technology, the transition from running accelerator controls on physical computer servers to orchestrated applications in containers in collaboration with the IT department, the development of a centralised, low-code, graphical application platform for the Accelerator and Technology sector, and the deployment of data-science-based optimisation solutions.

Progress has also been achieved with the CERN industrial controls platforms that run the technical infrastructure of the CERN site and its experimental detector and accelerator installations. This includes evolving the frameworks to support user requirements, preparing for a major new release of the underlying operating system and planning the major upgrades planned for Long Shutdown 3 (2026–2028).

Another pillar of the BE department is the newly formed Geodetic Metrology group, which performs the survey and alignment of accelerator and experimental components and provides the geodetic references required for all current and future accelerator installations at CERN. The team has recently been developing a new measurement technique based on frequency scanning interferometry, which is now being industrialised as a collaborative effort between several groups of the department. This technique innovates in that it can probe the inside of a cryostat, which is why it was recently used on the first of the new High-Luminosity LHC triplet quadrupole magnets built and tested at Fermilab. As the magnet was cooled down to liquid helium temperatures for the first time, the BE surveyors were able to continuously monitor the position of the cold mass inside its vacuum vessel with a resolution of a few micrometres.

On the accelerator side, the H- ion source that provides the protons for CERN's accelerator complex received a significant upgrade during the YETS, ready for 2023 operation. The design of the electrodes that extract the negative hydrogen ions was modified to improve the quality of the beam from the source. These changes allowed Linac4, the linear accelerator that feeds the complex, to reach 40% higher beam intensities. The YETS also provided a welcome opportunity to install new equipment in the LHC, including two new crystal collimators that complete the requirements for the protection of the machine during heavy-ion operation. Unfortunately, due to a mechanical issue, one of these had to be removed shortly before the start-up; it is scheduled to be re-installed later in the year.

Experimental areas have not been left out: the newly refurbished East Area is already welcoming this year's experimental users and its CHARM facility is operating at full capacity to test electronic systems for radiation tolerance. Similarly, the beams are back for users of the North Area, fed by the SPS beam, and the North Area is currently undergoing the first phase of a consolidation programme that aims to completely overhaul the facility by the early 2030s. In addition to managing this extensive refurbishment campaign, the teams supporting these facilities have been busy preparing for what's to come and studying how to secure a long-term future for the North Area by providing higher intensity for possible dark matter or kaon physics experiments.

The BE department is also very much involved in creating a longer-term vision for CERN, working on the design of all future collider options to ensure

that they are on a firm footing – research and development into all the relevant aspects of these projects is being actively pursued.
The countless projects that we are leading could not be carried out without the precious collaboration of the many teams involved from departments across CERN as well as our external partners. I thank all of you for your commitment to ensuring the reliable operation of our remarkable accelerator complex.

Rhodri Jones
Head of the Beams department

Celebrating 50 years of the CERN relay race

>>> This first successful event kick-started the relay race tradition at CERN, whose first decade was marked by debates around the race's frequency and rules, and by the arrival of the first women's teams in 1975.
In 1976, new summertime rules caused a one-hour time difference between France and Switzerland. Despite CERN adopting a compromise solution by shifting its official hours by 30 minutes, the race could not be organised during lunch hours. John Adams, Director-General of the Laboratory, gave permission for a 4 p.m. start on Friday, 11 June and agreed to fire the starting gun – the race was followed by a soirée dansante in the Coop restaurant.
Fast forward a few decades to 2020 and 2021, the COVID-19 pandemic caused the first and only gap in the event's history, but the CERN relay race returned in full force on Thursday, 9 June 2022. 156 teams took part in this special edition, which was won by the "Doublé" team. Thanks to an online tracking app and much enthusiasm from the Running Club organisers and alumni, seven teams composed of CERN Alumni from across the globe were able to take part in their various locations. The winning team, the « Chasers », featured participants from Bosnia and Herzegovina, Belgium, Canada and Norway. This new format allowed a familiar face to take part in the fun: David Townsend, who was a member of the first winning team back in 1971, commented when signing up, "I will be on a hiking tour in Cornwall in the UK, but I will find time to make my contribution, although not at my 1971 pace!".
As the 2023 relay race approaches, determined runners are already aiming for the podium. Among them is the "Charly's Tonight" team, which has been participating in the race for the past 20 years. When asked about their chances of winning this year's event, team captain John Osborne was quietly optimistic "The team has bags of experience, and training this year is going well. Our strategy is being finalised – mostly over beers in Charly's Pub in St Genis – and, after narrowly missing the podium last year, hopes are high for an improvement in 2023".
We are counting on runners, spectators (and clement weather) to make this 51st edition the best one yet. Registration will be open on the CERN Running Club's website until 48 hours before the event.

David Dallman (former CERN Running Club President), Rachel Bray, Sébastien Ponce and Roddy Cunningham

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30 years of a free and open Web

30 April 2023 marks 30 years since the release of the World Wide Web software to the public

ORGANISATION EUROPEENNE POUR LA RECHERCHE NUCLEAIRE
CERN EUROPEAN ORGANIZATION FOR NUCLEAR RESEARCH

STATEMENT CONCERNING CERN W3 SOFTWARE RELEASE INTO PUBLIC DOMAIN

TO WHOM IT MAY CONCERN

Introduction

The World Wide Web, hereafter referred to as W3, is a global computer networked information system.

The W3 project provides a collaborative information system independent of hardware and software platform, and physical location. The project spans technical design notes, documentation, news, discussion, educational material, personal notes, publicity, bulletin boards, live status information and numerical data as a uniform continuum, seamlessly intergated with similar information in other disciplines.

The information is presented to the user as a web of interlinked documents .

Acces to information through W3 is:

- via a hypertext model;
- network based, world wide;
- information format independent;
- highly platform/operating system independent;
- scalable from local notes to distributed data bases.

Webs can be independent, subsets or supersets of each other. They can be local, regional or worldwide. The documents available on a web may reside on any computer supported by that web.

Declaration

The following CERN software is hereby put into the public domain:

- W 3 basic ("line-mode") client
- W 3 basic server
- W 3 library of common code.

CERN's intention in this is to further compatibility, common practices, and standards in networking and computer supported collaboration. This does not constitute a precedent to be applied to any other CERN copyright software.

CERN relinquishes all intellectual property rights to this code, both source and binary form and permission is granted for anyone to use, duplicate, modify and redistribute it.

CERN provides absolutely NO WARRANTY OF ANY KIND with respect to this software. The entire risk as to the quality and performance of this software is with the user. IN NO EVENT WILL CERN BE LIABLE TO ANYONE FOR ANY DAMAGES ARISING OUT THE USE OF THIS SOFTWARE, INCLUDING, WITHOUT LIMITATION, DAMAGES RESULTING FROM LOST DATA OR LOST PROFITS, OR FOR ANY SPECIAL, INCIDENTAL OR CONSEQUENTIAL DAMAGES.

Geneva, 30 April 1993

W. Hoogland
Director of Research

H. Weber
Director of Administration

opie certifiée conforme

ait à Genève le 03-05-93

The original internal document that marked the release of the World Wide Web to the public, signed by Walter Hoogland and Helmut Weber. (image: CERN)

Exactly 30 years ago, on 30 April 1993, CERN made an important announcement. Walter Hoogland and Helmut Weber, respectively the Director of Research and Director of Administration at the time, decided to publicly release the tool that Tim Berners-Lee had first proposed in 1989 to allow scientists and institutes working on CERN data all over the globe to share information accurately and quickly. Little did they know how much it would change the world.

On this day in 1993, CERN released the World Wide Web to the public. Now, it is an integral feature of our daily lives: according to the International Telecommunications Union, more than 5 billion people, two thirds of the worldwide population, rely on the internet regularly for research, industry, communications and entertainment.

"Most people would agree that the public release was the best thing we could have done, and that it was the source of the success of the World Wide Web," says Walter Hoogland, co-signatory of the document that proclaimed the Web's release, "apart from, of course, the World Wide Web itself!"

Public domain: then and now

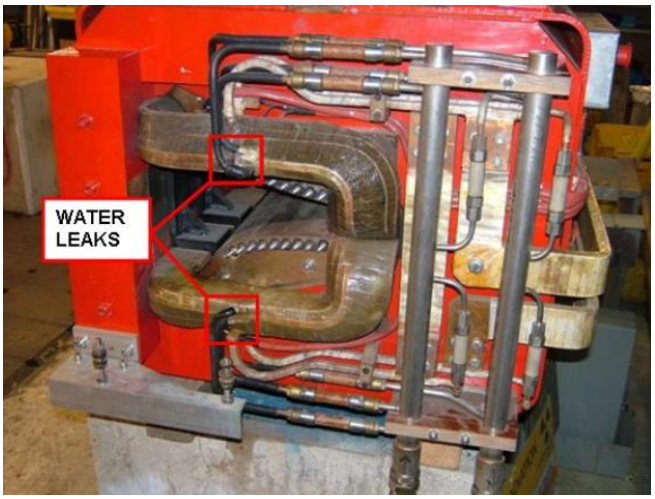
The release of the World Wide Web was launched by an internal document, addressed "to whom it may concern" and signed by Hoogland and Weber. Back In 1993, copyright licensing standards were in the very first stages of development. In this first release, the document states that "CERN relinquishes all intellectual property rights to this code, both source and binary form, and permission is granted for anyone to use, duplicate, modify and redistribute it."

However, as the open source concept was further developed, in 1994, the next version of the software was released under an open source licence, as opposed to a public domain release. This meant that CERN still retained the copyright, but anybody who wished to could use and modify the Web freely. You can read more about the licensing of the Web at this link.

Releasing the World Wide Web to the public has arguably allowed it to grow into the giant it is today. Making it free and accessible to everyone was a move reflecting CERN's core values of open collaboration for the benefit of society. This is now encapsulated in CERN's Open Science Policy, which perpetuates the culture of openness and sharing at the Laboratory.

Naomi Dinmore

Accelerator Report: mostly on schedule, sometimes not…



This picture shows the AD quadrupole where the water leak was situated. This is a half quadrupole that simultaneously generates a dipolar field to deviate the antiproton beam and a quadrupolar field to focus the antiprotons. (Image: CERN)

Today, almost the whole accelerator complex is operational and providing beams to all the experimental facilities as scheduled. The LHC experiments are taking data, while the LHC is nearing the end of the intensity ramp-up phase; already last weekend it was colliding beams with 1200 bunches per beam, one week earlier than initially scheduled. As I write, beams with ~1800 bunches are in collision – the last step before the full machine is filled with ~2400 bunches per beam.

The only physics that has not yet started is at the Antiproton Decelerator (AD), which was initially scheduled to start on 11 May, but unfortunately had to be delayed due to a technical problem. On 14 March, during the hardware recommissioning of the antiproton complex concluding the YETS, a water leak appeared in a special quadrupole magnet in the AD machine. The leak, situated at the entry of the insulated magnet coils, could not be repaired in situ, which meant that the roof of the AD tunnel had to be opened and the magnet removed for repair in the magnet workshop. The coils were exchanged, the magnet was tested and the magnet field maps were measured. After full validation, the repaired magnet was re-installed in the AD tunnel on 28 April, which was followed by electrical and vacuum reconnection. After the initial vacuum pump down, vacuum leak detections were performed with success. Since the vacuum in the AD machine needs to be of very high quality, the vacuum chamber and associated equipment had to be baked-out. This is a more than two-week-long process that started last week: the vacuum chamber and associated equipment for the whole vacuum sector concerned are heated up to evacuate and pump the residual gas molecules, including those from the surface layer of the vacuum chamber.

While various teams were busy repairing and validating the magnet and its reconnection, the AD-ELENA operations team continued the hardware recommissioning of the other parts of the AD, while also performing ELENA beam commissioning with H^- ions from a local ion source with the aim of minimising the time lost and being as efficient as possible for the recommissioning of the antiproton beams for the experiments.

This means that the beam commissioning of the AD will start on 12 June and be compressed to aim for delivery of antiprotons from ELENA to the eagerly waiting AD-ELENA experiments on 30 June.

All the technical teams at CERN work hard during the year-end technical stop (YETS) to execute the huge task of corrective and preventive maintenance in addition to consolidation and upgrade activities. Thanks to their efforts and high-quality work, most of the accelerator complex was recommissioned efficiently and delivered nearly all the required beams on – and in some cases ahead of – schedule. Sometimes, nevertheless, a single component that had previously functioned well and showed no signs of weakness can cause problems that force us to change some of our plans.

Rende Steerenberg

Happy birthday to the Passport to the Big Bang

The Passport to the Big Bang discovery trail is celebrating its tenth anniversary - ten years during which local people have been able to find out about science and technology while cycling around the France-Geneva countryside

A Passport to the Big Bang mini-exhibition in the countryside around CERN. (Image: CERN)

Are ugly quarks the same as beauty antiquarks? Can neutrinos be used as an anti-mole system? If you don't know the answers to these fascinating questions, then it's high time you jumped on your bike and got your Passport to the Big Bang. This booklet, brimming with fun puzzles, is also the route-map for the cycle trail of the same name. The Passport to the Big Bang connects various interactive mini-exhibitions located in front of the CERN sites around the countryside in the border region between Geneva and France. Each exhibition explains an aspect of CERN's research and technologies, provides a video that can be watched through a telescope and sets a riddle that must be solved in order to complete the "LHC Mission". A map shows the waymarked routes that can be taken between the platforms.

The Passport to the Big Bang is ten years old, so it's a good opportunity to take a closer look at this scientific discovery trail, launched by CERN in an effort to communicate on its activities and provide an additional tourist attraction in the local region. CERN has 15 sites scattered around the Geneva-France border region. "We realised that people living nearby these sites had no idea about what was going on behind the fences," recalls Corinne Pralavorio, a member of CERN's communication team who founded the project. "So the idea behind the Passport to the Big Bang was to enable people to discover the incredible truth behind CERN's research without ever needing to have an access card."

Local authorities and institutions were involved in developing the trail, notably for the waymarking of the 54 kilometres of cycle paths interconnecting the platforms. "The aim was to develop the project hand-in-hand with the local communities because, apart from being a science lab, CERN is part of the cultural fabric and tourist landscape of the region," Corinne Pralavorio adds. The communes and the tourist offices take care of the upkeep of the cycle paths and help promote the trail.

This year, a new website with new functionalities has been added. "You can get help in navigating around the trail using an interactive map, a GPX file, or with a mobile app connected to the maps.cern website," explains Mélissa Samson, who has been making improvements to the trail. In addition to the "LHC Mission", visitors can also take part in the "LHC Geocaches" treasure hunt.

To mark the tenth anniversary of the Passport to the Big Bang, visitors who manage to complete the "LHC Mission" will receive a special edition of the winner's certificate together with a gift (available only at the CERN Reception). Hurry while stocks last!

You can pick up your Passport to the Big Bang in town halls (Mairies), tourist offices and at the CERN Reception, or download one from the dedicated website.

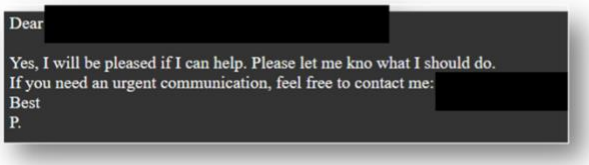
See the cern.ch/passeport-big-bang for more information.

Computer security: CEO fraud, second attempt

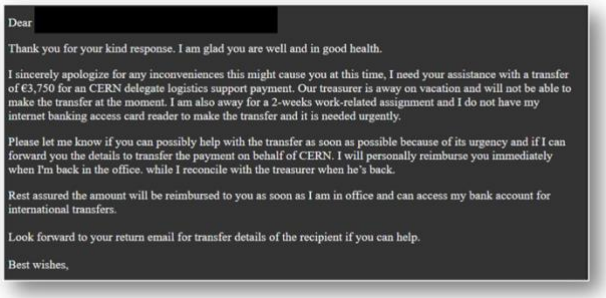
Members of a CERN board were recently targeted by so-called "CEO fraud", following the same format as the incident that occurred at the end of 2020. CEO fraud is a social engineering method to

extract money from a company, playing on several psychological techniques to prevent people thinking consciously:
Fear, guilt and shame, i.e. making a threat against you or your family ("I know what you did last summer and will tell your family if you don't…"). Under that pressure, you will just comply as you fear adverse consequences if you don't.
Flattery, i.e. luring your ego, pride or complacency (and narcissism?) into complying.
Seniority and respect, i.e. you blindly obey because you are instructed by someone much more senior than you, whereas you are just a little cog in the machine.
Help, i.e. pretending to be in a difficult/delicate situation and requiring immediate assistance.
Like in 2020, this "new" fraud played the "help" card against the Board by abusing the name of its president and spoofing his email address (see our Bulletin article on "Emails equal Letters"). It all happened on 8 December, when several people in this CERN board received the following message, purportedly from the president:

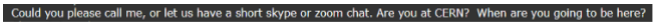
A nice intro. Adopting a colloquial tone towards the recipient and then introducing the need for assistance with a difficult situation. Playing the "help" card. The "From" address was spoofed to look like the alleged sender's home institute. The "Reply to" address was also tampered with and points elsewhere – to a Gmail address.
At this point, vigilance is required. If in doubt, check with us at Computer.Security@cern.ch. Maybe it's a known malicious scheme. Maybe others already reported it. In this case, however, some people replied:



The bait taken, a conversation is established. Time to strike:



Fortunately, the recipient now gets suspicious and contacts Computer.Security@cern.ch. Well done!
If in doubt, it's essential to establish a second line of communication that is less likely to be tampered with, like a phone call. Proof of identity can be sought by calling the real person's previously shared contact number, seeing if you recognise the other person's voice or entering into a colloquial conversation that would be hard to spoof or tamper. One of the recipients does just this:



… and the attacker tries to dodge the request:

Back to the subject. But too late, as this creates even more suspicion. And we receive another report. Well done, again! Game over for the attacker.
Reporting the scam to Computer.Security@cern.ch enabled CERN to:
- block similar emails from entering CERN mailboxes, and block the attacker's email address;
- identify other people who had received the scam and warn them (like the Board's Secretariat did – thank you very much!!!);
- ensure that the attacker's IBAN was flagged and blocked from being used at CERN.
This is why vigilance and suspicion are helpful. While you might (and should) be a nice, empathetic and helpful person, don't be taken advantage of. In particular, don't fall for such "CEO fraud" attempts. Similarly, don't let yourself be impressed (or intimidated!) by seniority. By CEO power. By a strong voice. Don't let yourself be ashamed, harassed or intimidated by emails trying to create fear, guilt or shame. These are usually scams, too. Instead, if you have any doubts,

involve your hierarchy, the CERN Internal Audit service or Computer.Security@cern.ch. They're there to support and help you! By acting swiftly, you can help protect CERN when other means fail. It's better to ask than to be sorry.

The Computer Security team

Official news

Family benefits – Obligation to provide information

Members of the personnel are reminded that, pursuant to Articles R V 1.38 and R V 1.39 of the Staff Regulations, they are obliged to declare the following in writing to the Organization within 30 calendar days:

- any change in family situation (marriage, civil partnership, birth or adoption of a child, divorce or dissolution of a partnership, death of a spouse or dependent child);
- any change in the situation of a dependent child (end of studies, start of paid employment, military service, marriage or civil partnership, change of residence or dependence status of a spouse's child);
- the amount of any financial benefit of a similar nature to those stipulated in the Staff Regulations (e.g. family allowance, child allowance, infant allowance, non-resident allowance or international indemnity) to which the member of the personnel or a family member may be entitled from a source other than CERN.

The procedures to be followed are available in the Admin e-guide: https://admin-eguide.web.cern.ch/en/procedure/change-family-situation

The Human Resources department also remains at your disposal to answer any questions: HR-Family.Allowance@cern.ch.

Members of the personnel are also reminded that any false declaration or failure to make a declaration with a view to deceiving others or achieving a gain resulting in a financial loss or loss of reputation for the Organization constitutes fraud and may lead to disciplinary action in accordance with Article S VI 2.01 of the Staff Rules.

HR department

CERN Health Insurance Scheme (CHIS) - Obligation to provide information

Staff members, graduates and fellows are reminded that, pursuant to Article IV 2.02 of the CHIS Rules, they are obliged to declare the following information concerning their spouse in writing to the Organization:

- any other primary health insurance scheme of which the spouse is a member; and
- in the event that the spouse does not have adequate primary health insurance, the amount of any income received by the spouse deriving from a professional activity and/or a retirement pension.

This declaration must be made within the 30 calendar days following any change in the spouse's:

- professional activity (e.g. start or end of employment contract, change of employer);

- health insurance (we remind you that a change of country of residence may lead to a change in your spouse's health insurance);
- gross income, if this results in a change of income bracket (see the table here).

Declarations must be made using the "SHIPID" (https://edh.cern.ch/Document/Personnel/SHIPID) (Spouse Health Insurance & Professional Income Declaration) form.

The Human Resources department therefore advises staff members, graduates and fellows to check with their spouse that the details submitted in their latest declaration are still up-to-date and, if this is not the case, to make a new declaration using the "SHIPID" form without delay. We remain at your disposal to answer any questions about the SHIPID form via the following e-mail address: chis.shipid@cern.ch

Members of the personnel are also reminded that any false declaration or failure to make a declaration with a view to deceiving others or achieving a gain resulting in a financial loss or loss of reputation for the Organization constitutes fraud and may lead to disciplinary action in accordance with the provisions of Article V 5.03 of the CHIS Rules and Article S VI 2.01 of the Staff Rules.

HR department

CERN Health Insurance Scheme (CHIS): new Rules as of 1 May 2023

The new Rules of the CERN Health Insurance Scheme (CHIS) will come into force on 1 May 2023. The CHIS will continue to reimburse sessions with a psychotherapist or psychologist prescribed by a medical practitioner in accordance with the General Rule, but they will henceforth be reimbursed as treatments dispensed by psychotherapists and psychologists for adults, rather than by medical auxiliaries, and will be subject to a special ceiling of 6'000 CHF per calendar year.

As a transitory measure, this year, any care received before 1 May 2023 will still be included in the medical auxiliaries ceiling (3'300 CHF). For any care received after 1 may 2023, the applicable ceiling treatments dispensed by psychotherapists and psychologists for adults has been prorated at 8/12 (4'000 CHF).

For further information, do not hesitate to contact the third-party administrator of the CHIS: UNIQA (72730 or 022 718 63 00, or uniqa@cern.ch)

HR department

Announcements

Pint of Science Festival 2023: come and meet CERN scientists on 22, 23 and 24 May

CERN scientists will participate in three Pint of Science events in Geneva and one in Saint-Genis-Pouilly. Come along and learn something new about CERN in your local bar

Pint of Science is an annual global science festival that gets researchers to share and discuss their findings with people in their local pub, bar, cafe or other public space. The first edition of Pint of Science took place in May 2013 in just three UK

cities. It quickly took off around the world and now happens in nearly 30 countries and over 400 cities. For the first time, CERN is taking an active part in some of the many Pint of Science events that are being organised in neighbouring France and Switzerland.
We've planned three amazing nights for you to learn about CERN, meet our scientists and have a drink with them. To participate, you don't need any prior scientific experience, just come and enjoy our scientists' interactive presentations!
For more information and to register:
#pint23
https://indico.cern.ch/e/pintofscience23
Entrance is free of charge. Registration is recommended for the event in Saint-Genis-Pouilly.

ColorRun in Cessy on Sunday, 14 May 2023 – Please observe the roadsigns

As part of the 2024 Terre de Jeux sporting event, the Cessy town hall is organising a ColorRun on Sunday, 14 May 2023, in aid of Monts Jura Handisports (monts-jura-handisports.fr).
The race will start in the centre of Cessy and will follow the path to LHC Point 5 and back.
Activities are planned on the car park at the entrance to Point 5. The organisers will take the necessary measures to ensure participants' safety. Although every effort will be made to keep the inconvenience caused by the race to the minimum, some traffic disruption is possible. If you are working on the site on Sunday, 14 May, please drive carefully and observe the roadsigns in place.

"Tour du Canton" race at CERN on 31 May

CERN will host the second stage of the 2023 Tour du Canton de Genève for the first time since 2004. The 8,9 km race is open to all and will start by the Esplanade des Particules before briefly crossing across CERN, taking in the Swiss countryside and vineyards near Satigny, and then returning to CERN for the finish.
More information and registration at http://www.courir-ge.ch/.
The organising committee is still looking for volunteers to ensure the event's success – please contact christian.burlet@cern.ch if you would like to help out.

51st CERN Relay Race – On your marks!

Registration is open for the 51st edition of the CERN Relay Race. The event will take place on Wednesday 31 May at 12.15 – it is always a beautiful, sunny day. The Staff Association clubs will be running information stands and activities in front of Restaurant 1, and food and drinks will be provided by Novae.
Sign up here (https://runningclub.web.cern.ch/node/add/RelayRegistration) for the Relay Race or here (https://runningclub.web.cern.ch/node/add/NordicWalkRegistration) for the Nordic Walking event – you can also scan the QR code on the poster. If you do not intend to run, please note that the organising committee is still looking for volunteers

to help with the event – please contact roddy.cunningham@cern.ch.

We look forward to welcoming you at the starting line!

As warmer days arrive, beware of tick bites!

A guide to ticks, risks and prevention, to help you enjoy the great outdoors safely

For many of us, warmer days bring outdoor pursuits, such as hiking, biking and so much more. They also signal the return of little parasitic mites called ticks, whose bites can have severe consequences for our health through the transmission of various infectious agents. The most common infections caused by tick bites are Lyme disease* (Lyme Borreliosis), generally treatable with antibiotics, and tick-borne encephalitis** (TBE), which is rarer than Lyme disease with 5000 to 13 000 cases reported globally each year. Although there is no vaccine against Lyme disease, one does exist against TBE and it is recommended for anyone residing in or travelling to areas where the disease is prevalent. In Europe, the TBE vaccination is recommended in Austria, Czech Republic, Estonia, Finland, Germany, Latvia, Lithuania, Poland, Slovakia, Slovenia, Sweden, Switzerland and Western Russia.

Ticks live all year round but are most active between March and November. They are generally found in damp, wooded areas and grassy fields, either in the long grass or on plants close to the ground. On human bodies, ticks like warm, moist areas where the skin is thin: behind the ears, around the neck, under the armpits, on the navel, in the groin, behind the knees or on the inner thighs. A careful inspection after any outing is essential.

How can I protect myself?

You can protect yourself from tick bites by following these few simple steps:

- Cover up: wear a long-sleeved top, long trousers, long socks, and closed-toe shoes. Choose light-coloured clothes, as ticks will be more visible on them.
- Spray your clothes, shoes, and skin with tick repellent (available in pharmacies).
- Examine your body whenever you might have been exposed to ticks (after a walk in the woods, a picnic on the grass, etc.).

What should I do if I have been bitten by a tick?

Don't apply a salve or lotion as this could cause the release of the Borrelia bacterium, that is present in tick saliva and causes Lyme disease. Remove the tick immediately and carefully by:

- Using a tick-remover tool/card or fine-tipped tweezers.
- Grasping the tick as close to the skin's surface as possible without squeezing the tick. (Do not rotate the tool but pull outwards with steady, even pressure).
- Disinfecting the skin on and around the bite.
- Keeping an eye on the bite area for around six weeks.

Contact your doctor if:

- You have been bitten by a tick and are pregnant or immunocompromised (immunosuppressive treatment, HIV, etc.).
- Your child under the age of eight has been bitten.
- The tick remained implanted in your/their skin for more than 36 hours or you were unable to remove it.
- You don't know when it became implanted but it was full of blood at the time of extraction.
- A red rash, which does not itch, develops and spreads around the bite site (more than 3 days and up to several weeks afterwards).
- You have symptoms such as unexplained pain, fever or fatigue, joint pain, neurological disorders, or the appearance of a red rash elsewhere in the days and weeks following the bite.

If you are worried about a possible tick bite or have flu-like or unusual symptoms after being bitten by a tick, please consult your doctor or a pharmacist. Also don't hesitate to contact the Medical Service if you have any questions: infirmary.Service@cern.ch

*https://piqure-de-tique.ch/la-borreliose-en-bref/ (automatic translation available in English)

**https://piqure-de-tique.ch/la-fsme-en-bref/ (automatic translation available in English)

L&D micro-talk - "Creating a culture of psychological safety"

The May/June issue of the *CERN Courier* is out

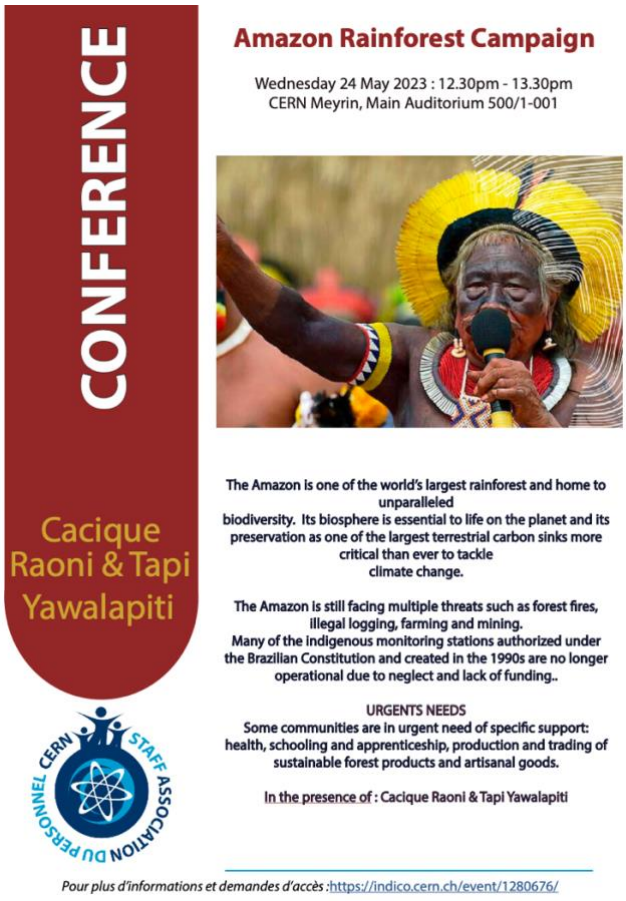
Meet “the python” – one of eight 60m-long high-temperature superconducting links to power new magnets for the High-Luminosity LHC. Developed at CERN via a multi-disciplinary approach and in collaboration with industry, the technology has also been used to demonstrate record power-transmission capability for electricity grids, and is being explored for use in electric aircraft.

This year’s Recontres de Moriond saw the announcement of the first collider neutrinos (p9), improved measurements of the W mass (p10), new limits on Majorana neutrinos (p9), ever tighter constraints on the properties of dark matter (p15), and much more. While the Standard Model stands strong, ingenious new ways to go beyond it include searches at CERN’s NA62 experiment operating in “beam-dump” mode (p11). This issue also marks 60 years since Cabibbo’s seminal paper on quark mixing (p43), and 50 years since Kobayashi and Maskawa generalised the description of quark mixing to three generations (p23).

Muons for cultural heritage (p32) and colliders (p47), a new user facility for plasma acceleration (p25), CERN’s Science Gateway (p49) and “exotic naturalness” (p21) are further highlights, as high-energy collisions recommence at LHC Run 3 (p8).

Read the digital edition of this new issue on CDS (https://cds.cern.ch/record/2857134?ln=en).

Conference on the Amazon rainforest - 24 May



Library - new books and e-books in April

The Library team adds new resources for the CERN community every day in its catalogue. Check the April 2023 additions here (https://catalogue.library.cern/search?q=_created%3A%5B2023-04-01%20TO%202023-04-31%5D%20AND%20publication_year%3A%5B2018%20TO%202023%5D&f=doctype%3ABOOK&f=doctype%3APROCEEDINGS&l=grid&order=asc&p=1&s=60&sort=bestmatch).

Find more books and e-books in the CERN Library Catalogue. (https://catalogue.library.cern/)

Please let us know if you cannot find the book you need via our request form. (https://catalogue.library.cern/request)

Enjoy reading! For any question or suggestion, contact the Library: library.desk@cern.ch

Obituaries

Giorgio Brianti (1930 – 2023)

Giorgio Brianti (right) with John Adams in 1979. (Image: CERN)

Giorgio Brianti, a pillar of CERN throughout his 40-year career, passed away on 6 April at the age of 92. He played a major role in the success of CERN and in particular the Large Electron–Positron Collider (LEP) project, and his legacy lives on across the whole of the accelerator complex.

Giorgio began his engineering studies at the University of Parma and continued them for three years in Bologna, where he obtained his undergraduate degree in May 1954. Driven by a taste for research, he learned, thanks to his thesis adviser, that Edoardo Amaldi was setting up an international organisation in Geneva called CERN and was invited to meet him in Rome in June 1954. In his autobiography – written for his family and friends – Giorgio describes this meeting as follows: "Edoardo Amaldi received me very warmly and, after various discussions, he said to me: 'You can go home: you will receive a letter of appointment from Geneva soon'. I thus had the privilege of participating in one of the most important intellectual adventures in Europe, and perhaps the world, which in half a century has made CERN 'the' world laboratory for particle physics."

Giorgio had boundless admiration for John Adams, who had been recruited by Amaldi a year earlier, recounting: "John was only 34 years old, but had a very natural authority. To say that we had a conversation would be an exaggeration, due to my still very hesitant English, but I understood that I was assigned to the magnet group". After participating in the design of the main bending magnets for the Proton Synchrotron, Giorgio was sent by Adams to Genoa for three years to supervise the construction of 100 magnets made by the leading Italian company in the sector, Ansaldo. Upon his return, he was entrusted with the control group and in 1964 he was appointed head of the Synchrocyclotron (SC) division. After only four years he was asked to create a new division to build a very innovative synchrotron – the Booster – capable of injecting protons into the PS and significantly increasing the intensity of the accelerated current. He described this period as perhaps his happiest from a technical point of view. Adams, who had been appointed Director-General of the new CERN Laboratory II to construct the 400 GeV Super Proton Synchrotron (SPS), also entrusted Giorgio with designing and building the experimental areas and their beamlines. The 40th anniversary of their inauguration was celebrated with him in 2018, and the current fixed-target experimental programme profits to this day from his foresight.

In January 1979 Giorgio was made head of the SPS division, but only two years later he was called to a more important role, that of technical director, by the newly appointed Director-General Herwig Schopper. As Giorgio writes: "The main objectives of the mandate were to build the LEP… which was to be installed in a 27 km circumference tunnel over 100 m deep, and to complete the SPS proton–antiproton programme, a very risky enterprise, but whose success in 1982 and 1983 was decisive for the future of CERN". The enormous technical work required to transform the SPS into a proton–antiproton collider that went on to discover the W

and Z bosons took place in parallel with the construction of LEP and the launch of the Large Hadron Collider (LHC) project, which Giorgio personally devoted himself to starting in 1982.

The LHC occupied Giorgio for nearly 15 years, starting from almost nothing. As he writes: “It was initially a quasi-clandestine activity to avoid possible reactions from the delegates of the Member States, who would not have understood an initiative parallel to that of the LEP. The first public appearance of the potential project, which already bore the name Large Hadron Collider, took place at a workshop held in Lausanne and at CERN in the spring of 1984.”

The LHC project received a significant boost from Carlo Rubbia, who became Director-General in 1989 and appointed Giorgio as director of future accelerators. While LEP was operating at full capacity during these years, under his leadership new technologies were developed and the first prototypes of high-field superconducting magnets were created. The construction programme for the LHC was preliminarily approved in 1994, under the leadership of Chris Llewellyn Smith. In 1996, one year after Giorgio’s retirement, the final approval was granted. Giorgio continued to work, of course! In particular, in 1996 he agreed to chair the advisory committee of the Proton-Ion Medical Machine Study, a working group established within CERN aimed at designing and developing a new synchrotron for medical purposes for the treatment of radio-resistant tumours with carbon ion beams. The first centre was built in Italy, in Pavia, by the Italian National Centre for Oncological Hadrontherapy (CNAO). He was also an active member of the editorial board of the book “Technology meets Research”, which celebrated 60 years of interaction at CERN between technology and fundamental science.

Giorgio has left us not only an intellectual but also a spiritual legacy. He was a man of great moral rigour, with a strong and contemplative Christian faith, determined to achieve his goals but mindful not to hurt others. He was very attached to his family and friends. His intelligence, kindness and generosity shone through his eyes and, despite his reserved character, touched the lives of everyone he met.

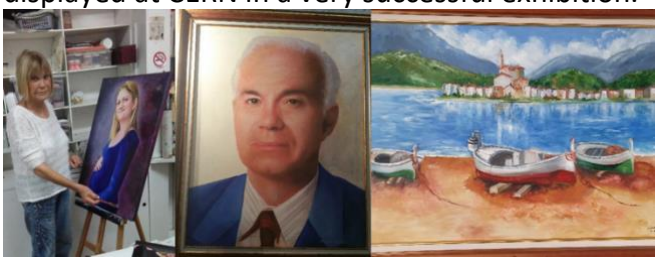
His colleagues and friends

Yolande Agnosini (1933 – 2023)

Yolande Beatrix Agnosini, née Soriano, passed away on Saturday, 8 April at the age of 89. She is now reunited with her husband, Fausto Agnosini, who also worked at CERN.

Yolande spent her entire career at CERN. Following a stint at the computer card punching service, she followed a course of study that enabled her to join the journals service at the CERN Library. Her colleagues appreciated her many strengths, among them her sociable nature, her smile and her hardworking attitude. She thoroughly enjoyed her different roles and considered CERN to be her second home.

In her retirement, Yolande divided her time between France and Spain and took up a new hobby: painting. Despite having no previous experience, she soon discovered a true gift for art, starting off with landscapes and moving on to portraits, which were incredibly true to life. Her work (some of which is reproduced below) was displayed at CERN in a very successful exhibition.



Some of Yolande's works, which she painted during her retirement. (Image: CERN)

Ombud's corner

2022 Annual Report by the Ombud – Why read it?

The 12th Annual Report by the Ombud is now available on CDS at this address. I hope you enjoy reading it. This year, for the first time, the full, detailed version is accompanied by a more concise PowerPoint version giving the key points.

The annual report is a key part of the Ombud's mandate:

"The Ombud shall issue an annual report on his/her activities to the Director-General. This report shall contain anonymous, statistical information with respect to matters brought to his/her attention, including their nature and status or outcome, as well as a general assessment of the operation of the Office of the Ombud."

First and foremost, the Ombud's annual report is a tool that ensures transparency and facilitates communication with the CERN community that the Ombud serves. Among the wealth of information it contains, you'll find the demographics of the 151 visitors to the Ombud's office during the year and a statistical analysis of the 205 issues that were discussed, in strict compliance with the confidentiality requirements. You will also find the results of a survey conducted amongst the visitors to find out to what extent their expectations had been met by their visit to the Ombud.

The report is also a chance for the Ombud to set out some observations and insights inspired by a year of active listening, analysis of situations and informal conflict resolution.

Finally, the Ombud also proposes pragmatic, simple actions aimed at helping to resolve the most acute and most frequently raised problems, as well as those that appear to be systemic.

The Ombud's observations and proposals are submitted to the Director-General and the Enlarged Directorate, who may, if they wish, take them up or use them for inspiration. This year's report was also presented to the CCP, the Standing Concertation Committee of Management and Staff Association representatives, on 6 April and will be presented to TREF, the Tripartite Employment Conditions Forum, on 10 May. Both occasions are great opportunities to discuss the Ombud's analysis of the systemic trends reported. In addition to these formal presentations and exchanges with the Ombud's stakeholders, each and every one of you can, individually, reflect on the observations and proposals that are particularly relevant to your working environment.

The key messages that I would like to convey this year are the following:

95% of the respondents to the feedback survey said that they would recommend a colleague facing a challenging situation to discuss it with the Ombud.

There is still a long way to go for informal dispute resolution to be fully integrated into the CERN culture. Mediation is effective and I often suggest it in the case of conflicts. Unfortunately, the offer is only rarely taken up.

Only 11% of visitors have allowed the Ombud to take informal action. The reasons given are the fear of negative consequences for their career and/or a feeling that it will serve no useful purpose. The Organization needs to make it safer for people to express concerns and disagreements in a constructive and respectful way.

Lack of respect and breach of the Code of Conduct are embedded in the vast majority of the issues discussed with the Ombud, whatever the category. From the Ombud's point of view, we need to find ways to realign our Laboratory's culture with the stated values.

You may have questions about my report, or wish to discuss some of the observations or the actions I've proposed. Please don't hesitate to send me your feedback and questions. I will be pleased to discuss them with you.

Laure Esteveny

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.