

A NATURE-LOVER'S GUIDE TO CERN

Nature still has a foothold amidst the tangle of CERN's industrial infrastructure. A biodiversity tour of the Laboratory



The "Nature et abeilles" club maintains a dozen beehives and compiles inventories of the flora and insects on the CERN sites. (Image: Julien Ordon, Anna Mestvirishvili/CERN)

Admittedly, the CERN sites seem nothing like the green and grass-laden campuses that students dream about. Visitors are immediately struck by the almost-brutalist industrial edifices, car-parks and roads. And yet, in the midst of the metal and the tarmac, nature still has a firm foothold. Look closely and you will spy green enclaves and an unexpected variety of fauna and flora, lovingly maintained by the team responsible for parks maintenance at CERN. Believe it or not, parks and woodlands account for 100 hectares out of the 211 hectares of land within CERN's fences.

If you're still in doubt, then come with us on a tour of the Laboratory's green back-office.

CERN's sites, and more especially the Meyrin and Prévessin sites, are dotted with islands of greenery that are home to typical dry grassland flora, in particular a remarkably diverse population of wild orchids. CERN thus has the widest variety of orchid species in the Geneva region. Their names testify to their particular flowering processes and evocative forms, such as the bee orchid (*Ophrys apifera*), the man orchid (*Orchis antropophora*), or the monkey orchid (*Orchis simia*).

(Continued on page 2)

A WORD FROM CHARLOTTE LINDBERG WARAKAUlle

CERN'S TEACHER PROGRAMMES AT 20

"We were a group of nine physics-teachers from seven different countries who took part in a pilot-project at CERN for three weeks in the summer of 1998." So began the report from the first ever CERN High-School Teacher programme (HST). Twenty years later, over 800 teachers have benefited from taking part in HST, and CERN's teacher programmes have diversified beyond recognition.

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Published by:

CERN-1211 Geneva 23, Switzerland writing-team@cern.ch

Printed by: CERN Printshop

©2018 CERN-ISSN: Printed version: 2011-950X

Electronic Version: 2077-9518

A WORD FROM CHARLOTTE LINDBERG WARAKAULLE

CERN'S TEACHER PROGRAMMES AT 20

The multinational HST still takes place every summer and hardly a week goes by at CERN without a national teacher programme in which teachers from a particular country are given an introduction to particle physics in their native language. The programmes welcome teachers from around the world, and in CERN's 60th anniversary year, a special school was organised for teachers from the Members of SESAME, the Middle East's new light source. All in all, close to 12 000 teachers have joined CERN's teacher programmes, and have returned to their schools to share their new knowledge and enthusiasm for research with their students. Over a period of 20 years, that adds up to many thousands of students, infused with a passion for physics.

Organised by a highly dedicated team, our teacher programmes form part of CERN's core mission to educate and train the scientists and citizens of tomorrow. This is not only important for the continuity of the field of particle physics, but also for society in general. As the global labour market is developing, the need for STEM skills continues to increase rapidly. Equally importantly, scientific literacy is an essential prerequisite for individuals to navigate the modern world and for society to overcome many of the global challenges before us. Institutions such as CERN, at the forefront of modern research, have a unique role to play, and a responsibility to fulfil, in engaging the young. This is where our teacher programmes fit in.

The teacher programmes would not be possible without the engagement of col-

leagues from across the Laboratory, and we are deeply grateful to them for generously sharing their time and expertise. Their knowledge is now shared in classrooms throughout the world.

The report of the first HST in 1998 concluded with the words: "I wouldn't have wanted to do anything else during this part of my vacation!" Every year since, teachers have left CERN with this spirit of exploration, learning, friendship and fun. An incredible basis for sharing knowledge and engaging the next generation in the unique journey of scientific exploration.

Read about the 20th anniversary of the High-School Teacher programme (<https://home.cern/about/updates/2018/07/cerns-international-high-school-teacher-programme-turns-20>).

*Charlotte Lindberg Warakaulle
Director for International Relations*

A NATURE-LOVER'S GUIDE TO CERN

But the most numerous species, and the most recognisable in bright pink, is the pyramidal orchid (*Anacamptis pyramidalis*).

"These" orchids are a precious asset in CERNs grasslands, explains CERN parks manager, Mathieu Fontaine. "For conservation reasons, we have a sustainable management policy that includes late cutting."

CERN boasts many species of trees, but in recent years, dozens of poplars have had to be felled. Most were planted about forty years ago and were reaching the end of their lives. As this happens they become dangerous, their roots invading underground water and electricity networks. The time for re-planting has arrived. "Next winter we will be planting about 90 saplings on the Swiss part of the Meyrin site," says Mathieu Fontaine. "Further planting cam-

paigns are planned in subsequent years in order to replenish CERN's tree population."

CERN is also committed to biodiversity and nature conservation in the land just beyond its fences. France and Switzerland have lent CERN a number of parcels, amounting to 415 hectares, which not yet been given over to science and constitute the unfenced site of the Organization. This includes about 300 hectares of agricultural land leased to farmers and 90 hectares of woods. CERN has undertaken to manage these tracts on behalf of its Host States. The Laboratory is thus helping to support agriculture in the *Pays de Gex*, which has seen rampant urbanisation over the past 20 years, and contributing to the preservation of the region's last lowland forests. That's great news for the biodiversity, rural life and people in the *Pays de Gex*, who can continue to enjoy these unspoilt areas.

CERN's woodlands are brimming with local varieties such as oak, ash, wild cherry, hornbeam, aspen, poplar, and common alder, managed and operated by the French national forestry commission, *Office national des forêts* (ONF). "These tracts are managed in the same way as regular high forests, with holes made to allow natural regeneration," CERN's park warden, Erwan Le Marrec, explains. For a number of years, horses have been used to remove the felled trees, thus minimising the impact on the environment.

The timber from the commercial operation of the forests or from the felling of ageing trees (poplars) is either used for wood energy, to heat public buildings in the *Pays de Gex*, or sent to local sawmills and made into items like pallets.

On the fauna side, CERN's famous sheep have now started grazing CERN's pas-

tures, as they do every year. Starting at Point 1 behind the Globe, they will spend the whole summer ambling from one meadow to the next, their bells tinkling within earshot of our offices and laboratories.

The Prévessin site has other surprises in store for the nature enthusiasts among us. Take a stroll to the end of Route Heisenberg and behold the bees! Every ten days, members of the CERN club “Nature et Abeilles” look after the dozen beehives there. This year, the first spring harvest produced about 120 kilograms of honey. A second harvest is planned for the end of July.

The “Nature et Abeilles” (<http://staff-association.web.cern.ch/clubs/nature-et-abeilles-club>) club is also involved in nature conservation activities. For example, it regularly draws up floristic and entomological inventories on CERN’s various plots, aimed at gaining a better understanding of the sites’ fauna and flora and taking appropriate action whenever necessary.

CERN’s parks and woodlands offer an attractive environment for rich biodiversity. Make the most of them and share your experiences with everyone by sending your photos and stories to internal.communication@cern.ch



Flowering from May onwards, the pyramidal orchid is the most prolific of the orchids growing at CERN.
(Image: Pauline Albert/CERN)



Every summer, CERN’s fields are kept tidy by a flock of sheep. An air of the countryside, with the tinkling of bells, can be heard amid the concrete and metal of CERN’s buildings. (Image: Noemi Caraban/CERN)



One of the spectacular poplar-felling campaigns. These trees are about forty years old. Often weakened by mistletoe (as in the photo), they have become a hazard for CERN’s installations. (Image: Erwan Le Marrec, ONF)



The “Nature et Abeilles” club looks after a dozen beehives which have already produced 120 kg of honey in the spring, with more to come in the summer. An excellent harvest! (Image: Julien Ordan, Anna Mestvirishvili/CERN)

Cristina Agrigoroae

SUMMER SCIENCE EVENTS

Following on from the recent CineGlobe and Science Night events, CERN will be participating in the Swiss National Day celebrations on 1 August



Fun physics workshop during Science Night on 7 July: children observe the lines created by magnetic fields.
(Image: Loraine Massarotti/CERN)

Each summer, CERN goes out to meet the general public, offering visitors a refreshing science cocktail. This year, the summer events began at the end of June with the CineGlobe international film festival. On the theme of “Intelligent futures”, the festival explored the world of artificial intelligence. The festival ended with film screenings during the Science Night event,

which took place in the *Perle du Lac* park in Geneva on 7 and 8 July.

It was the 12th year of the Science Night event, organised by the Science History Museum, and a team of 20 volunteers ran a CERN stand entitled “A world of pARTicles”. Young and old alike were able to discover the fundamental principles of physics through entertaining activities: fun physics

workshops, drawing activities and virtual reality headsets.

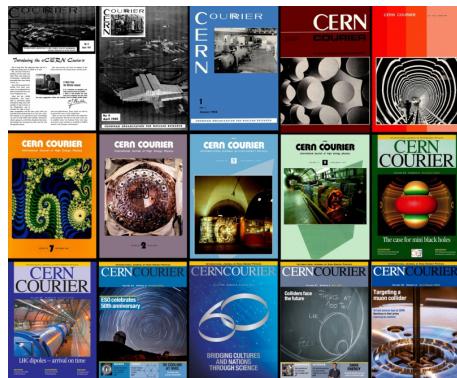
For its next public event, CERN will be the guest of honour at the Swiss National Day celebrations organised by the City of Geneva in the *La Grange* park on 1 August.

Visitors will be able to discover CERN's work through a varied programme of activities – fun physics experiments, the "Drole de physique" show, virtual reality headsets, film screenings, and robot and programming workshops. Come and see us from 1.00 p.m. onwards!

We still need volunteers to run the robot and programming workshops: sign up here! (See in the Announcements)

THE CERN COURIER IS EVOLVING

Give your feedback to help guide the Courier's evolution, both in print and online, via an online survey



From its first issue in 1959 to today, the *CERN Courier* magazine has gone through several transformations. Now is the time to help shape its future. (Image: Cristina Agrigoroae/CERN)

First published in August 1959, the *CERN Courier* continues to keep the international high-energy physics community informed

of the latest developments across the field. The *Courier* seeks not just to report news, but also to offer researchers an opportunity to share their research for the benefit of the field as a whole.

A glance through the magazine's back catalogue is a journey through the rise of the Standard Model of particle physics, the growing connections between particle physics and cosmology/astrophysics, the increasing scale and complexity of accelerators, detectors and computing, and the shift from small to international collaborations involving thousands of people. Today, in this large and complex landscape, and as physicists work out how best to explore the world beyond the Standard Model, communication is as important as ever.

That's why we are making changes to the *CERN Courier* website (<https://cerncourier.com/>), in a first step towards a more dynamic online presence. The fully revamped site is set to launch in 2019.

To help guide the *Courier*'s evolution, both in print and online, and for the chance to win some CERN merchandise, you're invited to give feedback via an online survey. The survey should take approximately 10 minutes to complete and will close at the end of August 2018.

Give your feedback via this online survey (<https://www.surveymonkey.co.uk/r/CERNCourier>) to help guide *CERN Courier*'s evolution

Matthew Chalmers

SUMMER SWARM OF STUDENTS SEEKS SCIENCE AT CERN

Several programmes for students running this summer have benefited from the support of the CERN & Society foundation



The summer students from non Member States benefit from a 2 months training programme thanks to the CERN & Society foundation and its donors. (Image: Noemi Caraban/CERN)

Summer is upon us, and while many are preparing for their holidays, at CERN this is the busiest time of the year.

From June until August, the CERN campus will be swarming with summer students from all over the world, keen to spend this season of rest learning and working alongside scientists and fellow students. Most of them had arrived by the end of June and will spend eight to ten weeks going from lectures to workshops and getting hands-on experience with physics, computing and engineering. This year, 62 students will benefit from this unique learning opportunity thanks to a long list of generous CERN

& Society donors including the Science and Technology Facilities Council, a US-based private foundation and the Julius Baer bank.

CERN & Society's work does not end here. A remarkable donation by Strangeworks has made possible an exciting internship programme in entrepreneurship, taking place for the first time this year. The CERN Entrepreneurship Student Programme will welcome its first interns in August. For five weeks, ten master's-level students will delve into the world of innovation as well as technology and knowledge trans-

fer, all fields of CERN excellence, guided by CERN experts.

In September, we will welcome the 2018 winners of the CERN Beamline for Schools competition. Two high-school teams, from India and the Philippines, will transform their scientific experiments and ideas into reality. These teams were selected from among the 195 that participated in the competition this year, representing a to-

tal of 1535 students getting engaged with science. This year's competition was made possible thanks to a donation by the Arconic Foundation, with additional contributions from the Motorola Solutions Foundation and Amgen Inc., as well as from the Ernest Solvay Fund, managed by the King Baudouin Foundation.

We look forward to welcoming all of them to CERN! They are the future of science and

we are grateful to our partners for making all this possible.

If you would like to learn more about CERN & Society and how you can make a difference in the lives of young people, visit our website (<http://www.cern.ch/giving>).

Benedetta Nirta

COMPUTER SECURITY: MUSIC, VIDEOS AND THE RISK FOR CERN

Do you like listening to music while you work? What about watching videos during your leisure time at CERN?

Do you like listening to music while you work? What about watching videos during your leisure time at CERN? Sure this is fun. Having your colleagues participate in this is even more fun. However, this fun is usually not for free. There are artists and the music and movie companies who earn their living from music and videos. Thus, if you want to listen to music or watch movies at CERN, make sure that you own the proper rights to do so (and that you have the agreement of your supervisor to do this during working hours). Note that these rights are personal: you usually do not have the right to share music or videos with third parties without violating copyrights. Therefore, making copyrighted

music and videos public, or sharing music and videos as well as other copyrighted material, is forbidden at CERN. It violates the CERN Computing Rules and it contradicts CERN's Code of Conduct, which expects each of us to behave ethically and honestly, and to credit others for their contribution. Copyright violation is also illegal in different ways in different European and other countries, including in CERN's two host states. Violating copyright is not a trivial offense. Sharing music or videos via the CERN network or from CERN computers will reflect back on the Organization and shed a bad light on all of us. Therefore, help keep CERN's reputation and integrity protected. Respect copyright! Users vio-

lating these rules may face serious consequences, including the involvement of their supervisor and, if applicable, the payment of any (financial) compensation as CERN will decline any costs of the infraction. Do you want to learn more about computer security incidents and issues at CERN? Follow our Monthly Report (<https://cern.ch/security/reports/en/monthly-reports.shtml>). For further information, questions or help, check our website (<https://cern.ch/Computer.Security>) or contact us at Computer.Security@cern.ch.

Stefan Lueders and The Computer Security Team

Announcements

PARTIAL CLOSURE OF ROUTE EINSTEIN ON 31 JULY

Please take note that, due to handling operations of 3 chimneys, the Route Einstein will be partially closed the 31 July from 11 h to 19 h.

A detour will be set up via Route Démocrate from Entrance B.

Thank you for your understanding,
EN-EL group



VIDEO CONFERENCE: VIDYOCONNECT TO REPLACE CURRENT CLIENTS

As part of our effort to upgrade the Vidyo infrastructure to the latest release and following results from the testing¹ of the new VidyoConnect client that replaces VidyoDesktop, we plan to switch to VidyoConnect on 7 August. Whenever you start a new VidyoConference after that date you will have the choice to use the web version client of VidyoConnect on a browser, from any platform, or to install the new VidyoConnect desktop client for Mac and Windows users. From 7 August, Linux users will only be proposed to use the web

browser version of VidyoConnect that is supported by both Chrome and Firefox web browsers.

For Mobile users, as of 7 August the VidyoMobile app will not allow you to connect to your meetings and you will be required to switch to the new VidyoConnect Mobile app² on your device as of that day. This app is available on the Google Play Store or on the Apple App Store (it can be downloaded but cannot be used to connect to meetings before 7 August).

In case of any issue please contact the helpdesk.

The CERN video conference team

1. Join the pilot (http://avcdocs.web.cern.ch/VidyoConnect/VidyoConnect_pilot/).
2. More information (http://avcdocs.web.cern.ch/VidyoConnect/VidyoConnect_mobile/)

Ruben Domingo Gaspar Aparicio

SUMMER SCHEDULE OF THE BULLETIN FOR THE CERN COMMUNITY

This issue of the Bulletin covers weeks 30, 31 and 32. The next issue will be published on 14 August and will cover weeks 33, 34 and 35.

News for the CERN Community is regularly posted here: <https://home.cern/cern-people>

Thank you for your understanding,
The Editorial Content Development section (IR-ECO-CO)

CONTRAFLOW SYSTEM AT GATE C FROM 30 JULY TO 3 AUGUST

Owing to the work in progress to install new access equipment, a contraflow system will be in force at Gate C from 30 July to 3 August.

Specifically, the lane for vehicles exiting the site will be closed from 30 July to 1 August,

then the lane for traffic entering the site will be closed from 2 to 3 August inclusive.

Two security guards will be on hand to enforce the contraflow and to direct traffic. Priority will be given to the prevailing flow of traffic, i.e. to vehicles entering the site

in the morning and leaving the site in the evening.

We apologise for any inconvenience caused and thank you for your understanding.

The SMB department

TRY THE NEW APP MYNOVAE.CH

A new Novae app give you access to your restaurant's menus

To access the new app MyNovae.ch:

1. Open a browser at MyNovae.ch
2. Enter your professional e-mail address (xxx@cern.ch). If you don't have a CERN e-mail address, use your personal e-mail address to register and then enter the following code on the welcome page: CERN123

For any questions, please contact support.mynovae@novae-restauration.ch



THE 2017 CERN ANNUAL REPORT IS AVAILABLE

The 2017 CERN Annual Report is available.

It was presented to the CERN Council in June and highlights CERN's main achieve-

ments and activities from 2017.

You can read it online here (<http://library.cern/cern-annual-report-2017-rapport-a>

nnuel-2017).

Paper copies are available at the Library.

Happy reading!

HELP PROMOTE CERN AND INNOVATION AT PARC LA GRANGE

The City of Geneva will celebrate the National Day at Parc La Grange on the theme *Tradition and Innovation*, with CERN and the City of Biel as guests of honor. With a program featuring physics experiments, virtual reality headsets, "Fun with Physics" shows, film screenings, robotics and programming workshops – the public of all ages will have an opportunity to discover CERN's activities in a fun and accessible way.

Do you want to represent CERN at this event? Become a volunteer by completing this Doodle (<https://doodle.com/poll/s8ybn9s3ay2f2ep>) !

You do not need to be a scientist. The ideal profile is someone from CERN with a good dose of pedagogy and enthusiasm.

Good to know:

- Wednesday 1 August 2018 from 12:30 to

21:00, split into two shifts.

- Any presence on the stand will be rewarded.
- French is a must in view of the local community expected at the event.
- English or any other language is definitely a plus.

Come participate in this cool summer event and become a CERN ambassador!

Ombud's corner

WHEREVER YOU ARE, DON'T FORGET THAT YOU REPRESENT CERN

Wednesday, 4 July: it's summer, the days are long, it's warm and sunny. Marc, Kevin, Miguel, Nicolas and Thomas¹, five colleagues from CERN, decide to go to the Bains des Pâquis in Geneva to relax after work. They head into town on the tram, getting off at Cornavin and continuing their journey on foot. On the way, they encounter a few young women, on their own or in groups, and try their luck with a few compliments to break the ice. When they get to the Bains, they take a table and order the obligatory fondue, washed down with a local white wine. The evening draws on and the wine flows freely. After paying the bill, they decide to go down to the lakeside before leaving the Bains. There aren't a lot of people about at that time, and they spot a young woman coming out of the sauna, dressed in just her bikini bottoms, heading to the lake to cool off. Kevin and Thomas surreptitiously pull out their mobile phones and start taking photos of the young woman, without her know-

ing. Two other colleagues from CERN, Jennifer and Claire-Lise², also happen to be there and look on, dumbfounded and shocked by what they see. They are all the more offended when they notice that the five friends are still wearing their CERN badges, which they had forgotten to take off when they left work. Other bystanders are equally appalled. Jennifer and Claire-Lise think about saying something to their discourteous colleagues, but decide against causing a scene in public and leave right away.

This behaviour is completely unacceptable. What's more, remember that, wherever you are, if you are identifiable as being associated with CERN, your behaviour may have a negative impact on CERN's reputation. You are ambassadors, and CERN expects exemplary behaviour, worthy of a prestigious institution that is financed by contributions from 22 Member States. This is one of the key principles of our

Code of Conduct. The attitude of Marc, Kevin, Miguel, Nicolas and Thomas was seedy, undignified and disrespectful to the young woman, especially somewhere like the Bains des Pâquis where she was well within her rights to walk around the sauna area in the attire of her choice, without being harassed. Their public behaviour has made our institution look bad. If they recognise themselves in this article, they need to understand that their behaviour goes against what is expected by the Staff Rules and Regulations and that such acts could result in disciplinary measures being taken.

If you'd like to comment on any of my articles or suggest a topic that I could write about, please don't hesitate to e-mail me at Ombuds@cern.ch.

1 - Names have been changed

2 - Names have been changed