

2017 IN PICTURES

New records for the accelerators, torrents of data for the computing systems, a cornucopia of results for the experiments, new countries joining the CERN family, and much more... discover 2017 in pictures.



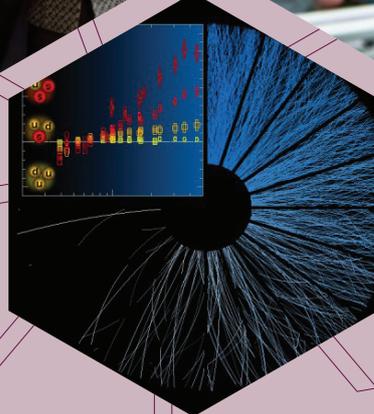
16 JANUARY

India becomes a CERN Associate Member State. Amandeep Singh Gill, Ambassador and Permanent Representative of India to the Conference on Disarmament, is seen here with Fabiola Gianotti, CERN Director-General. In their hands are the official notifications from the Indian government and from CERN. (CERN-PHOTO-201701-009-16)



18 JANUARY

The BASE antimatter experiment announces the most precise measurement ever made of the magnetic moment of the antiproton. Nine months later, the collaboration improves the precision of the previous measurement by a factor of 350 (see p. 18). (CERN-PHOTO-201710-255-8)



24 APRIL

New results from the ALICE collaboration reveal previously unseen phenomena in proton collisions: particles usually produced during collisions of heavy nuclei are observed (see p. 16). (OPEN-PHO-EXP-2017-003-2)

27 AVRIL

CERN and the American Physical Society sign an agreement on open-access publishing in the framework of the SCOAP³ (Sponsoring Consortium for Open Access Publishing in Particle Physics) initiative (see p. 34).

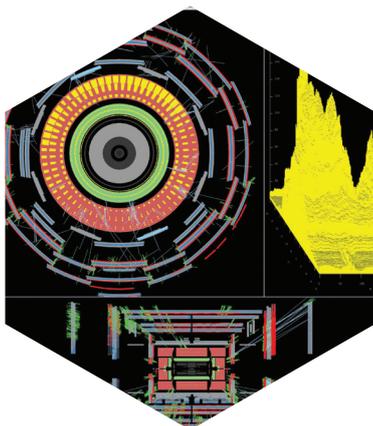
9 MAY

Frédéric Bordry, CERN Director for Accelerators and Technology, Fabiola Gianotti, CERN Director-General, and Maurizio Vretenar, leader of the Linac4 project, officially open the Laboratory's brand-new linear accelerator. Linac4 will supply the CERN accelerator complex from 2021 (see p. 46). (CERN-PHOTO-201705-120-19)



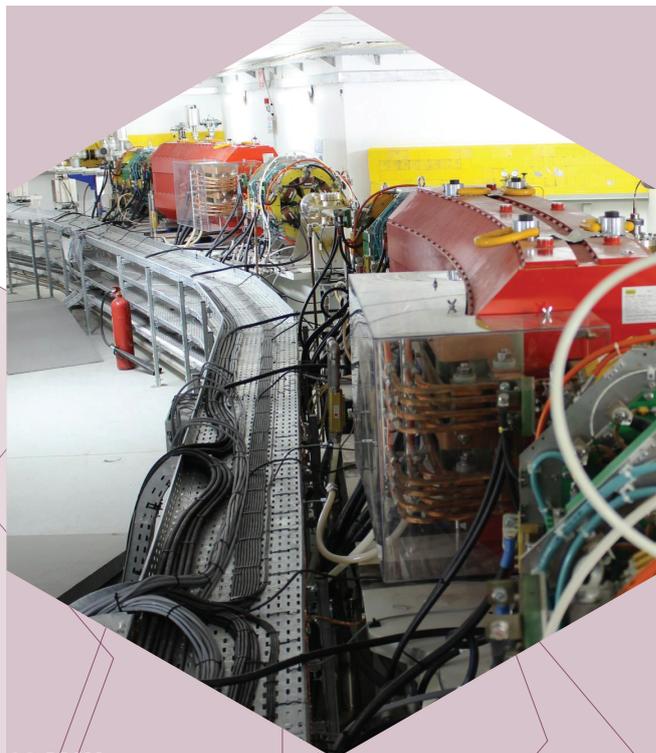
21 MAY

The arrival of twenty Hungarian students at CERN marks the start of the annual series of internships for high-school students from the Member States. On the agenda: two weeks of scientific discovery and discussions (see p. 38). (CERN-PHOTO-201705-131-29)



23 MAY

Ready for physics at the LHC! The experiments start their data-taking for 2017.



16 MAY

The SESAME (Synchrotron-light for Experimental Science and Applications in the Middle East) accelerator is officially inaugurated at Allan in Jordan by King Abdullah II of Jordan, surrounded by representatives of the SESAME Member States and the directors of the international organisations that have supported the laboratory.

SESAME is a synchrotron-light source enabling research in several fields, from solid-state physics to environmental science and archaeology.

Based on CERN's governance model, SESAME is an unprecedented collaboration in the Middle East, bringing together Cyprus, Egypt, Iran, Israel, Jordan, Pakistan, the Palestinian Authority and Turkey. CERN has also made a huge technical contribution through the development of magnets in the framework of the CESSAMag project, co-financed by the European Commission.

On 12 January, a beam circulated in the synchrotron for the first time. The first synchrotron light marked the start of the experimental programme and of collaboration between scientists in the Middle East.

12 JUNE

The ICARUS neutrino detector leaves CERN for its new home, Fermilab in the United States. ICARUS then arrives safe and sound after a six-week odyssey. (CERN-PHOTO-201612-323-10)



16 JUNE

Ameenah Gurib-Fakim, President of the Republic of Mauritius, signs the CERN visitors' book while Bidhya Devi Bhandari, President of the Federal Democratic Republic of Nepal, is shown around the ATLAS experiment control room by Dave Charlton, former spokesperson of the experiment. (CERN-PHOTO-201706-146-9 and CERN-PHOTO-201706-145-9)

27 JUNE

In the presence of Dalia Grybauskaitė, President of the Republic of Lithuania, Fabiola Gianotti, CERN Director-General, and Linas Linkevičius, Minister of Foreign Affairs of the Republic of Lithuania, sign an agreement with a view to the admission of Lithuania as an Associate Member State of CERN.

29 JUNE

The CERN Computer Centre sets a new record, with 200 million gigabytes (petabytes) of data, the equivalent of 1400 years of high-definition video, permanently archived in its magnetic-tape libraries (see p. 26). (CERN-PHOTO-201705-115-7)

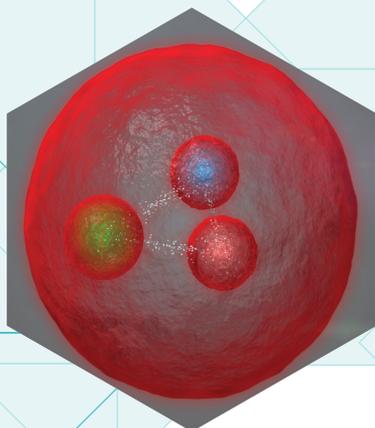
4 JULY

The Republic of Slovenia officially becomes an Associate Member State in the pre-stage to Membership of CERN. Vojislav Šuc, Ambassador of the Republic of Slovenia to the United Nations Office and other international organisations in Geneva, hands the official notification to Fabiola Gianotti, CERN Director-General. (CERN-PHOTO-201707-165-1)



7 JULY

Frédéric Bordry, CERN Director for Accelerators and Technology, welcomes Duško Marković, the Prime Minister of Montenegro, to the superconducting magnet hall. (CERN-PHOTO-201707-175-45)



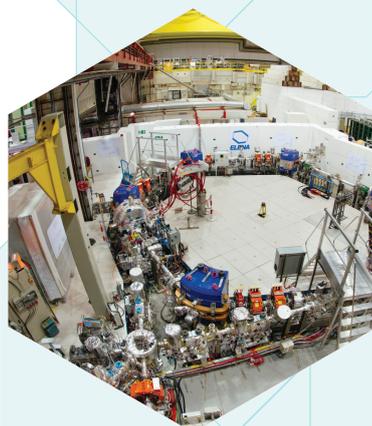
6 JULY

The LHCb collaboration observes a charming new particle belonging (along with protons) to the baryon family and containing two charm quarks and one up quark (see p. 15). (OPEN-PHO-EXP-2017-004-7)



19 JULY

Physics goes musical, as the Canadian rock group Arcade Fire discovers the CERN Control Centre and the US group Pixies poses in front of a mock-up of the CMS detector.



2 AUGUST

Ready, steady, decelerate! ELENA, CERN's new deceleration ring for antimatter experiments, receives its first beam of antiprotons (see p. 47). (CERN-PHOTO-201611-300-1)

3 AUGUST

The ALPHA experiment publishes the first observation of the hyperfine structure of antihydrogen, opening the way for a better understanding of the differences between matter and antimatter (see p. 18). (CERN-PHOTO-201601-005-11)



12 SEPTEMBER

Charlotte Warakaulle, CERN Director for International Relations, and Rolf Heuer, President of the SESAME Council, in front of the 58 computer servers ready to be sent to Jordan for use by the brand-new SESAME synchrotron laboratory. In 2017, CERN also donated computer equipment to Algerian and Bulgarian institutes. (CERN-PHOTO-201709-215-1)



17-21 SEPTEMBER

Over a thousand scientists and engineers meet in Geneva for a major conference on superconductors and their applications, EUCAS 2017. To mark the occasion, a superconducting magnet takes pride of place outside the United Nations Office in Geneva. (CERN-PHOTO-201709-213-1)



20 SEPTEMBER

Māris Kučinskis, Prime Minister of the Republic of Latvia, takes the opportunity during his visit to CERN to discover the experiments of S'Cool Lab, the laboratory for schools. (CERN-PHOTO-201709-228-22)

20 SEPTEMBER

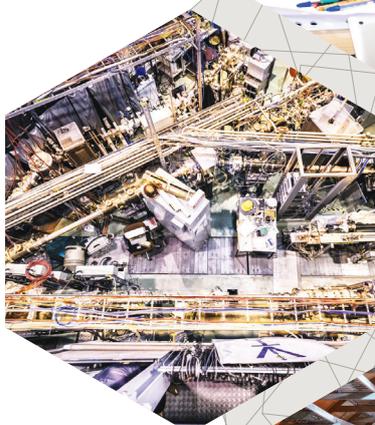
The two winning teams from the 2017 Beamline for Schools competition, from Italy and Canada, arrive at CERN to carry out their experiments using a CERN accelerator. (CERN-PHOTO-201710-242-29)

29 SEPTEMBER

CERN opens its doors to over 1400 people for the 2017 European Researchers' Night event. (CERN-PHOTO-201710-241-13)

16 OCTOBER

Happy birthday ISOLDE! The oldest experimental facility at CERN still in service celebrates 50 years of physics. (CERN-PHOTO-201511-224-5)



15 DECEMBER

CERN celebrates the 25th anniversary of the LHC experimental programme, which began with the Evian meeting, a vital step in the design and development of the LHC experiments. (CERN-PHOTO-201712-303-5)

30 OCTOBER

The LHC's data-taking goal for 2017 is reached. Three days later, the accelerator sets a new record for instantaneous luminosity, i.e. the number of collisions per second (see p. 21). (CERN-PHOTO-201802-030-6)



12 DECEMBER

The new CERN-MEDICIS facility produces its first radioisotopes destined for medical research (see p. 33). (CERN-PHOTO-201705-117-19)

10-19 NOVEMBER

A flock of passionate volunteers, plenty of activities, thousands of visitors of all ages... CERN serves up a feast of science as the guest of honour at the *Automnales*, Geneva's annual fair (see p. 37). (CERN-PHOTO-201711-279-13)

