

Faces & Places

AWARDS

National Technical University of Athens honours Rolf Heuer

In October 2015, the National Technical University of Athens (NTUA) awarded the degree Doctor *honoris causa* to Rolf Heuer, Director-General of CERN from 2009 to 2015.

Evangelos Gazis of NTUA, in his *laudatio*, highlighted Heuer's "outstanding contribution to the field of particle physics for his excellent management of CERN and his involvement during the LHC commissioning, which led to the discovery of the Higgs boson" (Nobel prize 2012). Heuer was also awarded for his strong involvement in science policy-making, his support of the NTUA particle-physics community, and for his efforts and vision to disseminate scientific and technological results to the general public.



From left to right, Dimitris Papantonis, NTUA vice-rector, Evangelos Gazis, professor of the Faculty of Applied Mathematical and Physical Sciences, and Rolf Heuer.

APPOINTMENTS

Joel Butler elected as the new CMS spokesperson

On 10 February, members of the CMS collaboration Board, the "parliament" of the collaboration, held a ballot to appoint their next leader. The Board chose Joel Butler, who brings a wealth of experience – more than 30 years at Fermilab and more than 10 of those with CMS – to this important management role, leading a collaboration of 3000 people from across the globe.

Prior to joining Fermilab, Butler earned a degree in physics from Harvard University, before pursuing a PhD in experimental particle physics from MIT. Since joining the CMS collaboration in 2005, he has contributed to several endeavours, including the US efforts on the Forward Pixel Tracker and the upgrade project. He led the overall US participation in the collaboration from 2007 until the end of 2013.

Soon after his election, Butler declared that high on his priority list is making sure that all collaborators are able to participate in the collaboration's research easily and to the best of their abilities. When he takes over at the helm later this coming September, CMS will have moved its Run 2 data collection



Joel Butler will start in September as the new CMS spokesperson.

into a higher gear: "These will be years of tremendous opportunities and tremendous challenges. I think the opportunities are obvious: by the end of this period, we'll have close to 100 fb^{-1} of data. We should get the first 25 by the end of this year. It will be enormously exciting to see what nature has in store for us," he said.

While Butler has spent much of his career studying flavour physics, he prefers not to narrow his personal expectations of what CMS might discover over the coming years. "I'm a particle physicist, I want to go find out what's there. I don't have too many profound prejudices over what it should be. I think – I hope – we will see new physics soon. But even if we don't find anything quickly, we will still have a long, long way to go. We have to continue to upgrade CMS and to cast a broad net out wide to try to catch what's out there, because we really

don't know what the new physics might be or how much data we need to capture it," he affirms.

"I think we've constructed a fantastic detector that's very well suited to the physics that we're trying to explore. That's an extreme compliment to our founding fathers, who designed a great detector." To ensure that CMS can continue this fruitful exploration, Butler points out that the collaboration has crucial technical tasks in the coming months, such as installing a new pixel tracker and new sensors for the hadron calorimeter during the next year-end technical stop.

Butler takes the reins from a distinguished line of previous spokespersons. He has worked closely with many of them in the past, and says he expects to apply what he has learnt from each of them, when he starts his term. "I've been on the Management

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Board and the Executive Board as an adviser to all of them since I joined. The experience that our former spokespersons and many other people in CMS have had over the years is invaluable and had to be a guidepost to our future. We have to take advantage of that experience.” However, he is aware of the value of change: “Every

successful organisation has to continually try to make successive improvements or it will essentially get stagnant. While CMS is enormously successful, there are things we can do better.”

Understandably, Butler is excited to take on his new role in a collaboration in which he has worked for a long time: “I think

CMS is an absolutely spectacular collection of people that are really passionate and committed to doing physics. They have tremendous technical and analytical skills and are a pleasure to work with,” he says. “It’s a tremendous honour to be chosen to do this and I’m going to try to do my best for everybody.”

AWARDS

New awards for artists at CERN

Arts@CERN has recently announced the winning artists of COLLIDE Geneva, ACCELERATE Lithuania and ACCELERATE UAE. CERN’s programme fosters creative collisions between science and art, and has also recently launched the COLLIDE International Award – a new collaboration between CERN and the Foundation for Art and Creative Technology (FACT) in Liverpool (UK).

In the framework of the new award, a two-month residency programme will grant the winning artist time to explore and reflect on the crossover between artistic and scientific research at the largest particle-physics laboratory in the world. Consequently, the artist will spend a one-month residency at FACT, developing the winning proposal into production.

Cassandre Poirier-Simon receives a three-month residency at CERN, in the framework of the COLLIDE Geneva programme, which is funded by a joint partnership between the Republic and Canton of Geneva and the City of Geneva. The programme now has a category for “digital

Aiste Valiute and Daumantas Plechavičius



Artists Julijonas Urbonas from Lithuania (left) and Aisha Juma from the United Arab Emirates (right) were the winners of the ACCELERATE country-specific award, for artists to spend a one-month residency at CERN.

writing”, so the selected artist can now explore the scientific atmosphere in this way.

In March, the ACCELERATE Lithuania and ACCELERATE UAE juries also announced their respective winners:

Julijonas Urbonas and Aisha Juma. These two short-residency awards opened last September, in collaboration with the Rupert Arts and Education Centre in Vilnius, Lithuania and ADMAF in Abu Dhabi, UAE.

Sinead Fardon



VISIT

On 24 March, the president of the Swiss Confederation, Mr **Johann Schneider-Ammann**, paid a short visit to CERN. The president was welcomed by CERN Director-General **Fabiola Gianotti**, and also met with Frédéric Bordry, director for Accelerators and Technology, Martin Steinacher, director for Finance and Human Resources, and Friedemann Eder, head of CERN’s Host States Relations Section. During the visit, the president was accompanied by Erik Reumann, spokesperson of the Federal Department of Economic Affairs, Education and Research, Alexandre Fasel, ambassador and permanent representative of Switzerland to the United Nations Office and other international organisations in Geneva, and Patrick Pardo, counsellor at the Permanent Mission of Switzerland to the United Nations Office and other international organisations in Geneva. The exchanges covered, among other topics, CERN’s scientific future (High-Luminosity LHC and beyond) and the strong support of Switzerland as a host state. Here, president Johann Schneider-Ammann (left) and CERN’s Director-General Fabiola Gianotti (right) are pictured after signing the guestbook, at the conclusion of the visit.



OBITUARIES

Heinz Filthuth 1925–2016

Heinz Filthuth, an important figure in the bubble-chamber era at CERN, passed away on 21 January.

Joining the Organization in 1955, Filthuth was among the first physicists employed by CERN, studying cosmic rays with a cloud chamber at the Jungfrauoch in the Swiss Alps. He became a member of the team led by Charles Peyrou that built the first hydrogen bubble chambers at CERN. The 30 cm chamber, completed in 1959, and the 2 m chamber, which followed in 1965, were to be the primary instruments for the study of resonances and strange particles for more than a decade. During the same period, Filthuth also worked with the 80 cm hydrogen bubble chamber built at Saclay, which was exposed to a beam of stopping K^- mesons at CERN's Proton Synchrotron. One of the most prominent results from this experiment was the determination of the relative parity of the Σ and Λ hyperons, which favoured the unitary symmetry (flavour $SU(3)$) proposed by Murray Gell-Mann and Yuval Ne'eman over a competing theory by Werner Heisenberg.

In 1964, Filthuth accepted a professorship



Heinz Filthuth, left, with Bernard Gregory, then Director-General of CERN, at the 1967 conference in Heidelberg.

at the University of Heidelberg, where he founded the Institute for High Energy Physics to measure and analyse a large sample of stopping K^- interactions recorded in the 80 cm Saclay chamber at CERN, to enhance the study of hyperon decays. In 1967, he organised the Heidelberg International Conference on Elementary

Particles, which participants remembered favourably for many years.

Filthuth also represented Germany on the European Committee for Future Accelerators (ECFA) from 1966 – the beginning of ECFA in its current form – to 1970. He strongly promoted the construction of the Big European Bubble Chamber (BEBC) at CERN, a joint CERN–France–Germany project. BEBC started operations in the West Area, recording interactions from the Super Proton Synchrotron neutrino beam in the mid-1970s.

After leaving academia in 1974, Filthuth, being a gifted experimentalist, continued the development of radiation sensors for a broad range of applications in industry, medicine and science. He collaborated for several years with Georges Charpak on optical imaging and radiography at Biospace Mesures, the laboratory that Charpak founded in Paris in 1989, and more recently developed detectors for the study of microbial communities at the Max Planck Institute for Marine Microbiology in Bremen.

● His former colleagues.

Jialin Xie 1920–2016

Jialin Xie, professor at the Institute of High Energy Physics (IHEP), expert in accelerator physics and technology and free-electron lasers, recipient of China's top science award and academician of the Chinese Academy of Sciences (CAS), died on 20 February at the age of 96, in Beijing, China.

Xie was born in Harbin, Heilongjiang province, on 8 August 1920. He graduated from Yenching University, China, in 1943, and in 1947 he moved to the US to continue his studies. At Caltech, Xie obtained his masters degree in physics in 1948, and in 1951 he



Jialin Xie.

received his PhD from Stanford University.

From 1951 to 1955, he worked at the microwave and high-energy physics laboratory at Stanford University. He was then in charge of building an accelerator at Michael Reese Hospital in Chicago, which was the highest-energy (45 MeV) medical accelerator in the world, at that time.

In 1955, Xie decided to return to China. Although he was facing many difficulties, including a lack of proper equipment



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and up-to-date information, and even continuous exposure in a dangerous environment, putting his life in danger at times, Xie remained determined to continue with his research.

In 1964, following successful R&D activities on various components of an electron linear accelerator, including an electron gun, a disc-loaded accelerating tube, a high-power pulse modulator, a microwave system and a high-power klystron, he built a 30 MeV electron linac – the first ever built in China. For this important success, Xie was awarded the Scientific and Technological Achievement Prize at the National Science and Technology Conference in 1978.

In 1980, he was elected academician of CAS. During the 1980s, Xie headed the design, manufacture and construction of the Beijing Electron–Positron Collider Project (BEPC), the first high-energy circular collider in China, which produced its first collisions in 1988. In 1990, he was awarded a Supreme Prize for National Science and Technology Progress.

In 1986, Xie proposed the development of the Beijing Free-Electron Laser, a

microwave-electron-gun-sourced and linac-based infrared free-electron laser. Using funds provided in 1987 under the State 863 High-Tech Programme, he succeeded in building China's first linac-based infrared free-electron laser, which produced spontaneous emission in May 1993; the lasing reached saturation at the end of 1993. This was the first infrared free-electron laser built in Asia. In 1994, he was awarded the Supreme Prize for Science and Technology Progress by CAS.

Xie published more than 40 scientific papers and several specialised books. As professor of IHEP and guest professor at various universities and institutes, he mentored a great number of accelerator physicists.

In 2015, the International Astronomical Union announced that Minor Planet No. 32928 was to be named after Xie, in recognition of his outstanding contributions in particle-accelerator science. IHEP established a Youth Innovation Fund, which was named the “Xie Jialin Fund”.

In April 2016, the Asia Committee for Future Accelerators (ACFA) decided to establish four named prizes, the first

being named after Xie. The prize awards lifetime achievements in the field of particle-accelerator science and technology worldwide, with no age limit. The first “Xie Jialin” Prize is to be announced at the IPAC2016 conference, in Korea, this May.

Xie has long been at the forefront of accelerator science-and-technology research, and made a significant contribution to the sustainable development of China's high-energy physics and particle-accelerator science and technology, which had a great impact on the future of the field, both for big facilities and for the younger generation of scientists.

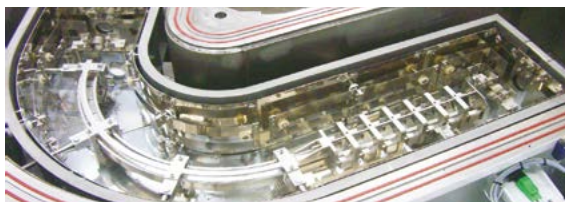
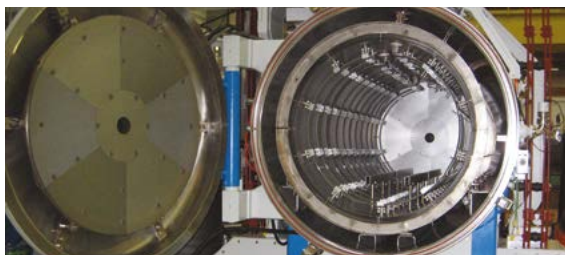
The deepest condolences of all at IHEP and his friends around the world are with his family at this time. May academician Professor Jialin Xie rest in peace.

● *Jie Gao, IHEP, CAS.*

CORRECTION

The birth date in the recent obituary for Namik Kemal Pak (*CERN Courier* April 2016 p34) should have been 1947 and not 1949. The online version has been corrected.

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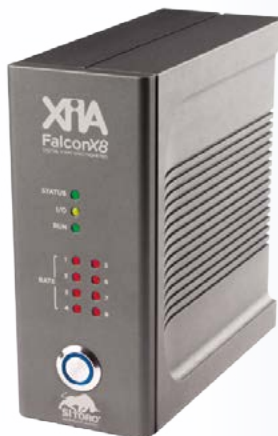
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