

CERN Courier Archive: 1975

A LOOK BACK TO CERN COURIER VOL. 15, DECEMBER 1975, COMPILED BY PEGGIE RIMMER

CORNELL

Honouring Hans Bethe

Wide World Photo



Hans Bethe (left) taking a bike ride around the 12 GeV electron synchrotron at Cornell, with the Director of the Wilson Synchrotron Laboratory, Boyce McDaniel, at the dedication of the Laboratory in 1968.

Physicists and friends from all over the USA assembled at Cornell University on 24 October to honour Hans Bethe on his retirement.

Bethe has made important contributions to the fields of atomic, solid state and nuclear physics, and to the development of the theory of radiation. In 1967 he was awarded the Nobel Prize for calculations explaining how a star uses nuclear fuel as its power source, published in 1938. It is now known that most of the starlight visible in the night sky is produced by the 'Bethe cycle'.

In the past 20 years his research has been devoted largely to explaining the structure of nuclei in terms of the forces acting among their constituents. He has also been interested in neutron stars, thought to be made up of matter closely packed at nuclear densities. He is now working on problems of nuclear physics as the Karl Compton Professor of Physics at the Massachusetts Institute of Technology.

● Compiled from text on pp392–393.

FERMILAB

Lots of protons

Since its summer shutdown ended on 1 August, the synchrotron at the Fermi National Accelerator Laboratory has been operating mainly at an energy of 400 GeV. Previously it was best described as a 300 GeV machine making occasional excursions to 400 GeV. It is now running just as efficiently at the higher energy, averaging some 100 hours of physics out of the 125 hours scheduled each week.

The intensity at 400 GeV has reached 1.72×10^{13} protons per pulse (compared with 1.75×10^{13} at 300 GeV). Most effort is now going towards achieving higher beam intensities. The high energies and high intensities bring additional problems in their wake but they are all under reasonable control.

With these quantities of protons pouring out of the machine, experimenters can be kept happy in all three experimental areas at once—Meson, Neutrino and Proton.



The Fermilab building at night is a striking sight, Hi-Rising from the plains of Illinois. Inside, flora and fauna create a refreshing atmosphere. Fermilab Director, R R Wilson, drew much of his inspiration in selecting this layout from the restaurant–coffee lounge area in the CERN Main Building.

● Compiled from text on pp394–395.

CERN

The COURIER 1976

New methods of production and distribution of the COURIER will be operated from the beginning of 1976. They result from discussions during the past year to see how the journal can better serve the high energy physics community. The guiding idea has been that the usefulness of the COURIER will be increased if it becomes more fully

representative of the community at a time when the social and political climate makes integration of the whole field of research even more desirable.

We hope that after a few months of 'running in', we shall establish a better flow of news so that we can convey stories of what is happening in and around the field of high energy physics, no matter where these stories emerge.

● Compiled from text on pp397–398.



On 13 November diplomats from the Chinese Mission in Geneva and Embassy in Berne were invited to visit CERN as a gesture of appreciation for their considerable help in organizing the visit of the CERN delegation to China in September. While their husbands busied themselves with things scientific and technical, the diplomats' wives relaxed for a while, visiting the CERN Nursery School.

● Compiled from text on p389.



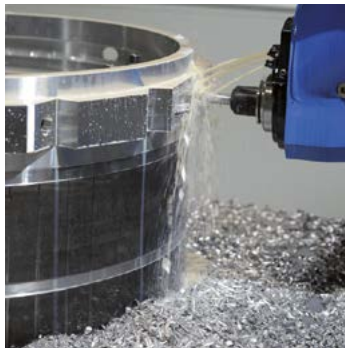
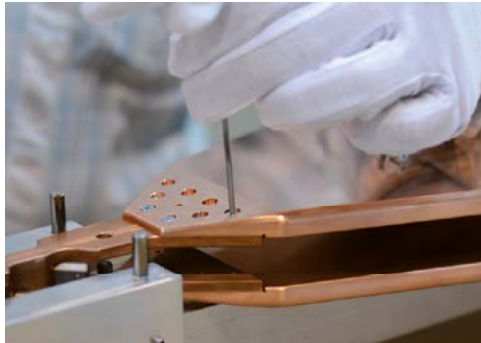
Compiler's note

With "2019" replacing "1976" in the excerpt concerning *CERN Courier*, the contents could pass almost unedited given the changes planned from next year (see p56). Out with the old, in with the new – sort of.

This archive feature will continue, with its backwards glance to yesteryears, albeit in a different format. If it provides a wistful touch of nostalgia for readers who were there then, for the majority who have come later it shows just how much things have changed – or maybe just how little in some cases!

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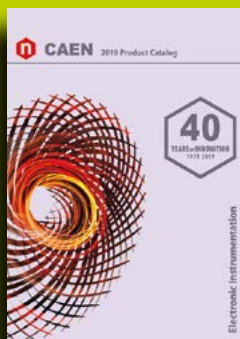
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WELCOME

CERN Courier – digital edition

Welcome to the December issue of *CERN Courier*.

Cosmic rays, being relatively easy to detect using inexpensive equipment, offer an ideal outreach and educational tool. Two projects described in this issue – Polarquest2018 and Clean2Antartica, which stem from existing networks of cosmic-ray detectors installed on high-school rooftops in Italy and the Netherlands – are taking cosmic-ray experiments to polar latitudes for the benefit of science, education and the environment. Going to other earthly extremes, this month's cover feature describes SNOLAB: the world's deepest cleanroom facility, located at a depth of 2 km and host to several neutrino and dark-matter experiments. On the machine front, Linac2 is switched off after 40 years of serving CERN with protons, while the world's first fourth-generation high-energy light source takes shape at the European Synchrotron Radiation Facility in Grenoble. Also featured in this issue is a call to address the gender imbalance in theoretical high-energy physics. Finally, in this last edition of *CERN Courier* in its current form, we report the results of our recent reader survey and set out the plans for the new-look magazine and website in 2019.

- The 2019 *CERN Courier* wall planner was sent to all subscribers, and can be obtained directly by getting in touch at cern.courier@cern.ch.

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