

## APS announces awards for 2000

The American Physical Society's awards and prizes for 2000 have been announced. The Tom W Bonner prize goes to Raymond G Arnold of The American University, for his leadership in pioneering measurements of the electromagnetic properties of nuclei and nucleons at short distance scales that addressed the fundamental connection of nuclear physics to quantum chromodynamics and motivated new experimental programmes.

The Dannie Heineman prize goes to Sidney Coleman of Harvard, for his incisive contributions to the development and understanding of modern theories of elementary particles. His contributions to symmetry breaking and the roles played by internal and space-time

symmetries as well as the structure of solutions in an important model in quantum field theory have been of particular note.

The W K H Panofsky prize is awarded to Martin Breidenbach of SLAC, Stanford, for his numerous contributions to electron-positron physics, especially with the SLD detector at the Stanford Linear Collider. His deep involvement in all aspects of the project led to a number of important advances both in the measurement of electroweak parameters and in accelerator technology.

The Anesur Rahman prize goes to Michael J Creutz of Brookhaven, for first demonstrating that the properties of quantum chromodynamics can be computed numerically on the

lattice through Monte Carlo methods, and for numerous contributions to the field thereafter.

The J J Sakurai prize goes to Curtis G Callan Jr of Princeton, for his classic formulation of the renormalization group and his contributions to instanton physics and the theory of monopoles and strings.

The Robert R Wilson prize goes to Maury Tigner of Cornell, for his notable contributions to the accelerator field as an inventor, designer, builder, and leader, and also for early pioneering developments in superconducting radio-frequency systems, his inspiration and intellectual leadership for the construction of CESR, and leadership of the SSC Central Design Group."



Former CERN director-general and 1984 Nobel laureate for Physics **Carlo Rubbia** is pictured here with the winner of the XXX International Physics Olympiad, **Konstantin Kravtsov** (Russian Federation). The event took place recently at Padua University and attracted 292 high school students from the following countries: Albania; Argentina; Australia; Austria; Azerbaijan; Belarus; Belgium; Bosnia-Herzegovina; Bulgaria; Canada; Chinese Taipei; Colombia; Croatia; Cuba; Cyprus; the Czech Republic; Denmark; Estonia; Finland; Georgia; Germany; Great Britain; Greece; Hungary; Iceland; India; Indonesia; Ireland; I R of Iran; Israel; Italy; Kazakhstan; Kuwait; Latvia; Liechtenstein; Lithuania; Macedonia; Mexico; Moldova; Mongolia; New Zealand; Norway; the Philippines; Poland; P R of China; Portugal; R of Korea; Romania; the Russian Federation; Singapore; Slovakia; Slovenia; Spain; Suriname; Sweden; Switzerland; Thailand; the Netherlands; Turkey; Turkmenistan; Ukraine; USA; Vietnam; Yugoslavia. The XXXI International Physics Olympiad will be held in Leicester, UK, in July 2000.



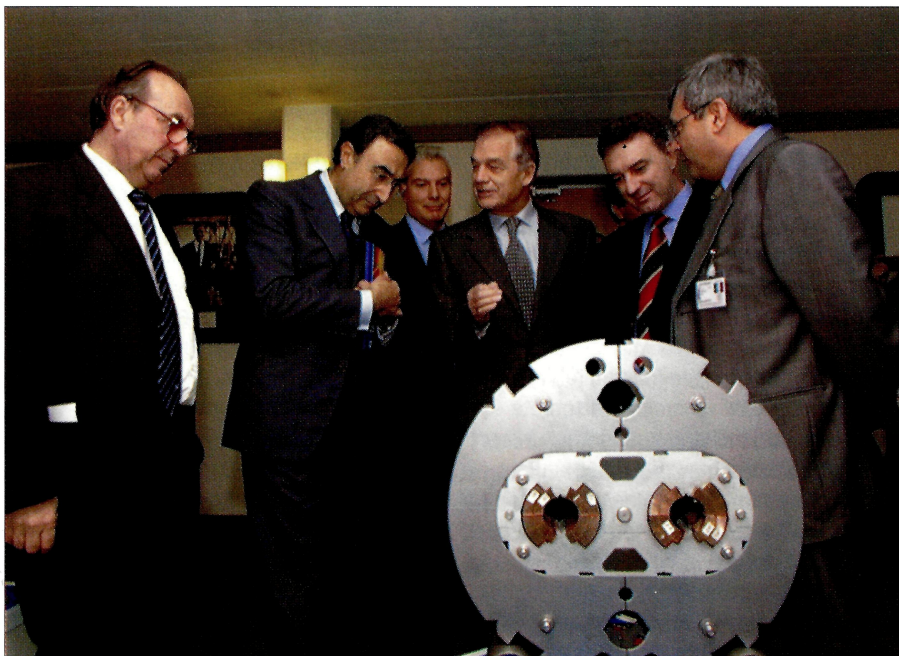
CERN director-general **Luciano Maiani** holds the Prix de la Fondation de Genève, which is awarded annually (since 1997) by the city and canton of Geneva to "people or institutions who have contributed to the radiating influence of Geneva around the world". Looking on are **Françoise Demole** of the Foundation, and Foundation president **Ivan Pictet**.



At a memorial symposium at MIT for Henry Kendall (1926-99) are (left) longtime Kendall collaborator and co-Nobel prizewinner **Jerome Friedman**, with session chairman **Francis Low** of MIT. (Maurice Jacob.)

### CERN Theory Division

Guido Altarelli will become head of CERN's Theory Division from July 2000. He will succeed Alvaro de Rujula.



Some 22 companies presented their latest technology at the Italy at CERN trade fair in November 1999. Opening the exhibition, Italian Minister of Research Ortensio Zecchino said, "The co-operation of science and industry increases the returns to CERN Member States and stimulates technological transfer. The exhibition is particularly well timed, now that LHC construction is in full course, because it symbolizes the reinforcement of ties between CERN and one of its major sponsors."

The special technology on show included: cryogenics and vacuum technologies; electric power and power electronics; special and industrial gases; and small and precision machined mechanical components. Italy contributes 13.6% of CERN's 939 million Swiss franc budget. With a total of 1033 visiting scientists and 339 staff members at CERN, of its Member States Italy is the major scientific user of CERN.

Seen here admiring a cross-section of the LHC superconducting collider are (left to right) CERN director-general **Luciano Maiani**, Italian Minister of Research **Ortensio Zecchino**, CERN Technical Support Division leader **Alberto Scaramelli**, CERN Supplies, Procurement and Logistics Division leader **Romeo Perin**, CERN-Italy industrial liaison officer **Lucio Rossi** and high-precision press tool manufacturer Malvestiti SPA director **G Malvestiti**.



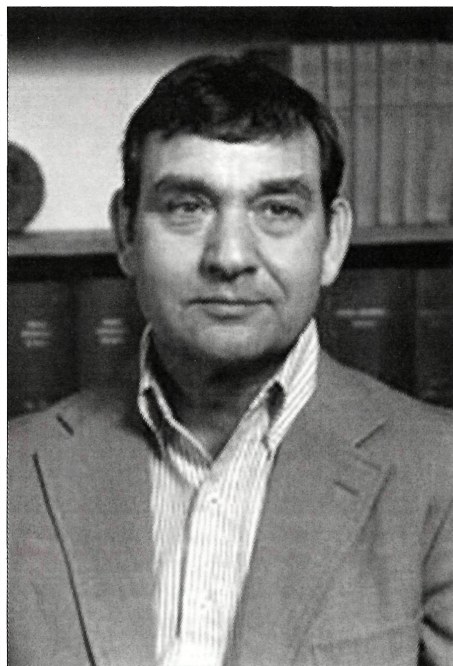
The Theory Division at LAPP, Annecy, recently celebrated its 20th anniversary. Present at the celebrations were current division head **Paul Sorba** (right) with former division head **Raymond Stora**.



1999 Physics co-Nobel prizewinner **Martin Veltman** (right) in conversation with supersymmetry pioneer **Julius Wess** during a meeting in Hamburg in November 1999. The meeting was in memory of distinguished theorist Harry Lehmann, who died in November 1998. (André Martin.)

An international workshop – A Synchrotron Radiation Source at JINR: Prospects of Research – was held recently at the Joint Institute for Nuclear Research (JINR), Dubna, near Moscow. Under discussion was the construction of a third-generation synchrotron radiation source – based on the MEA-AmPS facility presented to the institute by NIKHEF (Amsterdam – *CERN Courier* February 1999 p18).





Sam Treiman 1925–99.

## Sam Treiman 1925–99

Sam Treiman, widely known for his many contributions to elementary particle physics, died on 30 November 1999 after a prolonged battle with leukemia.

His scientific work was wide ranging. However, he had the greatest love for, and the deepest impact on, weak interactions. In 1959, Treiman and Princeton colleague Marvin Goldberger derived what became known as the Goldberger–Treiman relation, which connected two seemingly disparate areas of physics: the strong- and weak-interaction properties of the proton and neutron. This discovery catalysed a series of developments that eventually led to today's Standard Model of elementary particle physics.

Treiman was a revered teacher and mentor. His first graduate student was Steven Weinberg. Treiman's exceptional teaching achievements were honoured in 1985 when

he was awarded the Oersted Medal of the American Association of Physics Teachers.

He entered Northwestern University in 1942, initially intending to study chemical engineering, but his studies were interrupted by the war where he served in the US Navy as a radar technician. Treiman joined the Princeton faculty in 1952, eventually becoming the Eugene V Higgins Professor in 1977. He served as chairman of the department from 1981–7 and retired in 1998.

As a member of the High-Energy Physics Advisory Panel of the Department of Energy and a member of the Board of Governors of the Superconducting Supercollider, his advice was widely sought. Treiman was elected to the National Academy of Sciences in 1972. He was also a member of the American Academy of Arts and Sciences and the American Philosophical Society.

## Rudolf Steinmaurer 1903–99

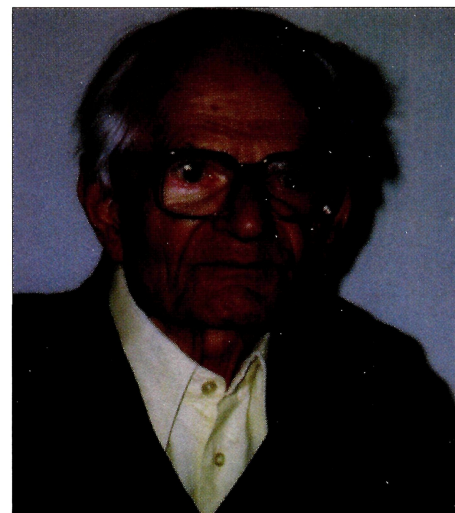
In August 1999 Rudolf Steinmaurer, former head of the Institute of Experimental Physics at Innsbruck, died in his 97th year. He studied physics, mathematics, meteorology and astronomy in Vienna and Graz, where Viktor F Hess entrusted him with experiments in cosmic-ray research. Cosmic-rays became the subject of his thesis. In 1931 he followed Hess to Innsbruck. In 1937, when Hess moved back to Graz, Steinmaurer stayed on and later became head of the Institute at Innsbruck.

After the war he followed with great interest the development of particle physics in Europe – which led to the establishment of CERN. When, in 1959, Austria joined CERN,

Steinmaurer founded a group for high-energy physics at Innsbruck and supported the creation of a chair for Theoretical Particle Physics, now headed by Professor Rothleitner. Among Steinmaurer's students were Walter Ambach (Medical Physics, Innsbruck) and Gerd Otter (Aachen).

Having assisted Viktor F Hess in his epic pioneer work on cosmic rays, Steinmaurer may have been the last witness of those heroic times. He will be remembered as a kind and helpful man who placed a great deal of importance on the conscientious and correct execution of any duty.

*Ivo Steinacker.*



Rudolf Steinmaurer 1903–99.

### MEETINGS

CERN and The European Space Agency are jointly organizing a workshop, called **Fundamental Physics in Space**, to be held at CERN on 5–7 April 2000. More information is available on the CERN Web site at "<http://www.cern.ch/Physics/Events/Conferences/2000/0405CERNESA/>". Those interested in participating in the workshop, should contact one of the meeting co-chairmen on "maurice.jacob@cern.ch" or "mhuber@estec.esa.nl".

The Crimea summer school seminar, **New Trends in High-Energy Physics** (formerly "Hadrons"), will be held between 27 May and 4 June 2000 on the southern coast of the Crimea, Ukraine. The programme will cover the theory and experiments of elastic and diffractive scattering of hadrons and nuclei; deep inelastic scattering and multiparticle dynamics; collective properties of strongly interacting matter; heavy flavours and hadron spectroscopy; duality, strings and confinement; the Standard Model and beyond; advances in quantum field theory; new

physics at future colliders, and more. The preliminary list of lecturers includes: L D Faddeev, V S Fadin, S B Gerasimov, M Gorenstein, W Greiner, R Jackiw, L L Jenkovszky, A B Kaidalov, E A Kuraev, L N Lipatov, N N Nikolaev, D V Shirkov, Yu Shtanov, Yu Sitenko, A A Slavnov and H Stoecker. Please make applications to: Crimea summer school, Bogolyubov Institute for Theoretical Physics, Kiev-143, Ukraine, or e-mail "[crimea2000@gluk.org](mailto:crimea2000@gluk.org)"; fax (00380 44) 2665998. Further information is available at "<http://www.gluk.org/hadrons/crimea2000/>".