

PEOPLE

MEETINGS

Snowmass 2001, A Summer Study on the Future of Particle Physics will take place in Snowmass, Colorado, on 30 June – 21 July 2001 with Ronald C Davidson and Chris Quigg as co-chairmen. Contact Cynthia M Sazama, Conference Office, MS 122, Fermi National Accelerator Laboratory, PO Box 500, Batavia IL 60510-0500; e-mail "sazama@fnal.gov"; fax +1 630 840 8589.

The XXI Physics in Collision Conference will take place on 28–30 June 2001. Contact Department of Physics, Seoul National University, Seoul 151-742, Korea. Soo-Bong Kim is the chairman.

For more information, see "<http://neutrino.snu.ac.kr/pic2001>".

The 4th Southern European School of the European Physical Society – Physics in Medicine is being hosted by the Portuguese Physical Society and the University of Algarve at the University of Algarve, Faro on 1–12 September 2001.

The School is intended for young postgraduate and final year graduate physicists, and for hospital technical personnel, from Southern Europe and Northern Africa. Participants will hear the most recent scientific and technological advances in Medical Physics; the talks are designed to broaden the participants' understanding of physics in medicine and to familiarize them with the latest advances in related technological applications.

The main topics to be discussed are: radiation physics and detectors (Maria Conceição Abreu), biophysics (Leonor Cruzeiro-Hansson), brain activity (Eduardo Ducla Soares), cardiovascular physiology (David Evans), respiratory activity (Manuel Paiva), medical physics (João José Pedroso Lima), magnetic resonance imaging (Steffen Petersen), brain modelling (Carla Silva), the status of clinical medical physicists (Marina Téllez), lasers in medical physics (Sigrid Avrillier) and Monte Carlo simulations applied to radiotherapy (Luís Peralta).

The deadline for registration is 30 April 2001. There are some scholarships available; these should be requested by 28 February 2001. For registration forms and further information, please visit "<http://www.ualg.pt/eps-school>" or e-mail "eps@ualg.pt".



At the opening of the "Poland at CERN" industrial exhibition at CERN on 17 October, 19 specialist high-tech companies displayed their wares. Left to right: **Kazimierz Stepień**, CERN Supplies, Procurement and Logistics Division Leader **Karl-Heinz Kissler**, Ministry of Economy Undersecretary of State **Henryk Ogryczak**, CERN director-general **Luciano Maiani**, State Committee for Scientific Research Under Secretary of State **Malgorzata Kozłowska** and National Atomic Energy Agency President **Jerzy Niewodniczański**.

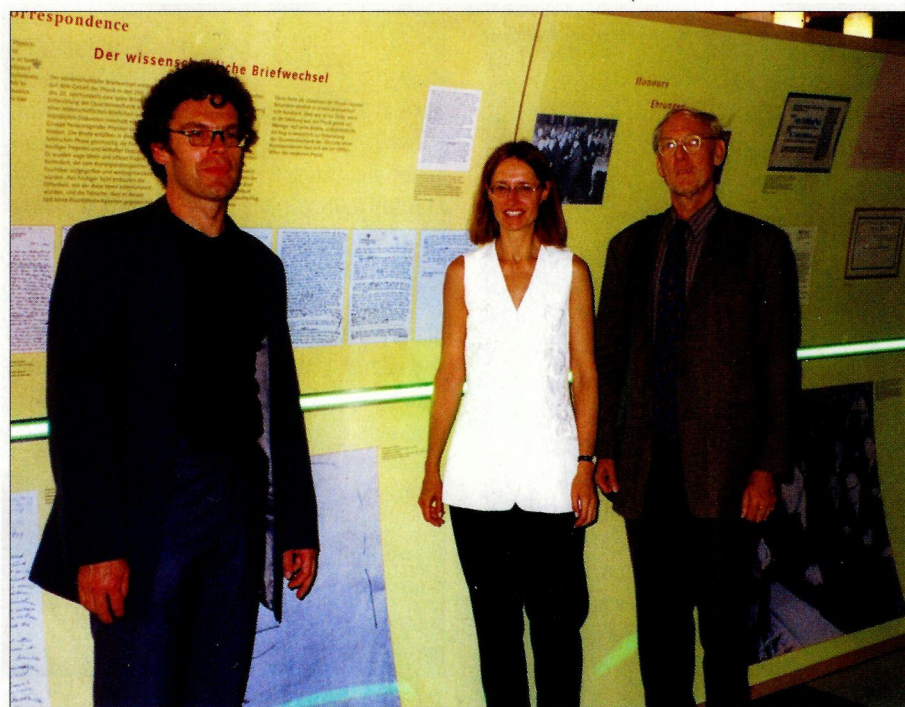


Anil Kakodkar, director of the Bhabha Atomic Research Centre and chairman-designate of the Indian Atomic Energy Commission and Secretary of India's Department of Atomic Energy signs CERN's VIP visitors' book, watched by LHC project director **Lyn Evans** (left) and research director **Roger Cashmore**. India is a significant supplier of equipment for CERN's LHC collider.



The new INTAS committee of scientists for field 1A – particle and nuclear, theoretical and plasma physics. Left to right: Secretary **Federico Ferrini**, **Noah Brosch** of Israel, **Maurice Jacob** of CERN and **Emilio Migneco** of Italy.

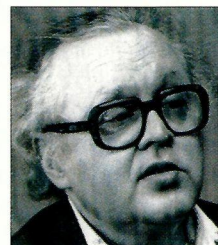
INTAS is an independent association formed by the European Community, its Member States and like-minded countries acting to preserve and promote the valuable scientific potential of the INTAS partner countries through East-West Scientific co-operation. The second CERN-INTAS call for proposals, directed to LHC experiments at CERN, is now open.



An attraction at CERN this summer was an exhibition organized by the Library of ETH, Zurich, to mark the centenary of Wolfgang Pauli (September p30). Seen here at the exhibition are organizers (left to right) **Rudolf Mumerthaler**, **Margit Unser** and **Herbert Funk** from the ETH Library.

Sidorov turns 70

Veniamin Sidorov was 70 on 19 October. An outstanding member of Gersh Budker's Siberian school, he started his career in Kurchatov's Institute after graduating from Moscow in 1953. His inventiveness and



Veniamin Sidorov.

experimental skills were shown while creating a unique multichannel time-of-flight neutron spectrometer for nuclear reactions, and later in experiments performed both at the Niels Bohr Institute in Copenhagen and in Moscow.

Since 1961 Sidorov's life has been closely linked to the Institute of Nuclear Physics, Novosibirsk, where he joined the pioneer work on electron colliders. Their successful commissioning earned the Lenin Prize of 1967. Sidorov's laboratory had to develop novel techniques of particle detection for collider experiments. Successful solutions allowed QED tests, studies of vector mesons and observations of the two-photon production, and created a base for future high-precision experiments at electron-positron colliders.

For more than 20 years, Sidorov, with his numerous followers, systematically studied electron-positron annihilation into hadrons using successively complicated detectors, from OLYA and ND to CMD-2 and SND at VEPP-2M, from MD-1 to KEDR at VEPP-4. The low-energy collider VEPP-2M was particularly fruitful: large data samples collected over 25 years significantly improved our knowledge of the properties of light vector mesons.

In 1989 Sidorov and other Novosibirsk physicists were awarded the USSR State Prize for the high-precision measurement of the mass of various particles from the kaon to the Υ based on the elegant method of resonance depolarization also developed in the Budker Institute.

In the late 1980s Sidorov's interests helped initiate work on low-dose digital X-ray devices for medical diagnostics. First developed and produced at the Budker Institute, they were useful for a range of medical studies and are now in mass production at two Russian factories. His organizing abilities are used in his position as deputy director of one of Russia's largest and most dynamic physics centres.

AWARDS

Jim Peebles of Princeton and **Allan Sandage** of the Carnegie Institute have been jointly awarded the first Gruber Foundation Cosmology Prize. Each winner receives \$150 000. Sandage was honoured for "his relentless pursuit of the true values of the Hubble constant, the deceleration parameter and the age of the universe." Peebles "with rigour and imagination advanced our understanding of phenomena which range from the creation of the lightest elements to the formation of galaxies and the cosmic distribution of matter and radiation". The Gruber prize will be awarded annually to an astronomer, physicist or mathematician selected by an international board of cosmologists.

ELECTION

Bekzhad Yuldashev, director-general of the Institute of Nuclear Physics (INP) in Ulugbek, Tashkent/Uzbekistan has been elected president of the Uzbekistan Academy of Sciences. The INP is a member of the CMS collaboration building a major detector for CERN's LHC programme.



This year marks the 100th anniversary of the birth of the famous French nuclear physicist Frédéric Joliot-Curie (1900–1958). With his wife Irène, the daughter of Pierre and Eve Curie, he discovered artificial radioactivity in 1934. In the following year, the husband-and-wife team were awarded the Nobel Chemistry Prize. At the anniversary event, a commemorative plaque was unveiled outside the famous Institut du Radium in Paris. Seen here by the plaque are the Joliot-Curies' son **Pierre Joliot-Curie** and daughter **Helène Langevin-Joliot**, themselves both distinguished scientists.

Joe Weber 1919–2000

Quantum electronics and gravity specialist Joe Weber died on 30 September. He was primarily known for his pioneering work in quantum electronics and for being the first to think of, design, build and operate a detector for gravitational radiation. He was a brilliant physicist, and a man of great courage and optimism.

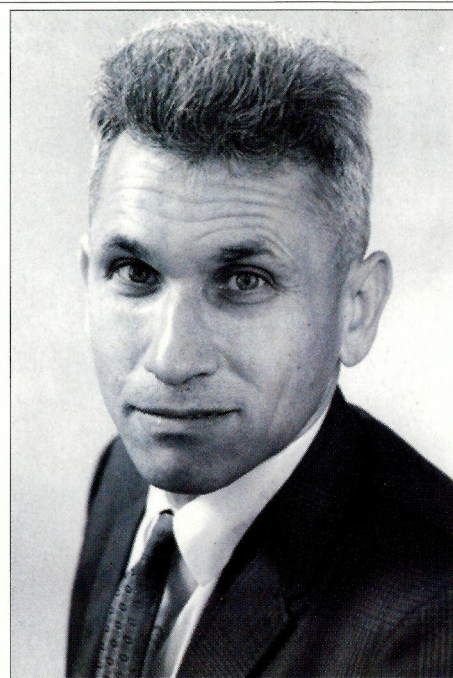
Weber was born on 17 May 1919 in Paterson, New Jersey. After his initial education he was appointed to the US Naval Academy by a senator from New Jersey as a result of a competitive examination, and was old enough to take up the appointment after one year. He stated: "I stood first in my class in thermodynamics, differential calculus and other subjects of very little interest to the Navy." He was commissioned as Ensign in June 1940 and posted to the aircraft carrier Lexington (which steamed out of Pearl Harbor on 5 December 1941).

After the sinking of the carrier in the Battle of the Coral Sea (1942), Weber was given command of a submarine chaser. After the war, as a result of early experience as a radio

amateur and work with radar during the war, he was put in charge of electronic counter-measures for the Navy, in which capacity he distributed significant quantities of grant money to assorted industrial and university research groups.

A number of them offered Weber jobs when he resigned his commission as Lt Commander in 1948, but he accepted a position as full professor of electrical engineering at Maryland, with the condition that he get a PhD in something, somewhere, soon. He moved to the Physics Department in 1961, and retired in 1989 as Senior Research Scientist and Professor Emeritus. He gave his first public talk of any kind on what is now called quantum electronics (masers and lasers) in a June 1951 meeting of the American Physical Society.

Weber published his first paper in the open literature on the subject in 1953. He received his PhD from the Catholic University of America in 1951 for work with Keith Laidler on the microwave inversion spectrum of ammo-



Joe Weber 1919–2000.

nia. He became interested in general relativity and trying to build a bridge between theory and the laboratory in the late 1950s. His work was published in *General Relativity and* ▷

American Physical Society Prizes

The prestigious prizes and awards of the American Physical Society for 2001 include:

- The Hans Bethe Prize to **Gerald E Brown** of the State University of New York, Stonybrook, for his insightful analyses of the effects of various nuclear constituents on nucleon interactions and nucleon structure, and his contributions to new viewpoints on supernovae, neutron stars and black hole formation;
- The Tom W Bonner Prize to **Claude Lyneis** of Berkeley and **Richard Geller** of Grenoble for their critical leadership in conceiving and developing the electron cyclotron resonance (ECR) ion source and advanced ECR source, which have opened a new era in heavy ion studies of nuclear phenomena;
- The Dannie Heineman Prize to **Vladimir Arnol'd** of the Steklov Institute for fundamental contributions to our understanding of dynamics and of singularities of maps with profound consequences for mechanics, astrophysics, statistical mechanics, hydrodynamics

and optics;

- The Keithley Award to **James E Faller** of NIST for the development of sensitive gravitational detectors and their successful application in the study of physics and geophysics;
- The Lilienfeld Prize to **Lawrence Krauss** of Case Western Reserve for outstanding contributions to the understanding of the early universe, and extraordinary achievement in communicating the essence of physical science to the general public;
- The Maria Goeppert-Meyer Award to **Janet Conrad** of Columbia for her leadership in experimental neutrino physics, particularly for initiating and leading the NuTeV decay channel experiment and the Mini-BooNE neutrino oscillations experiment, which are noted for their timeliness and significance in resolving frontier issues in neutrino physics;
- The Lars Onsager Award to **Bertrand Halperin** of Harvard for his wide-ranging contributions to statistical physics and quantum fluids, especially the elucidation of

low-dimensional electronic phenomena; and for his exemplary leadership in bringing theory to bear on the understanding of experiments;

- The W K H Panofsky Prize to **Paul Grannis** of the State University of New York, Stonybrook, for his distinguished leadership and vision in the conception, design, construction, and execution of the D0 experiment at the Fermilab Tevatron proton-antiproton collider;
- the J J Sakurai Prize to **Nathan Isgur** of Jefferson Laboratory, **Mikhail Voloshin** of Minnesota and **Mark Wise** of Caltech for the construction of the heavy quark mass expansion and the discovery of the heavy quark symmetry in quantum chromodynamics, which led to a quantitative theory of the decays of c and b flavoured hadrons;
- and the Robert R Wilson Prize to **Claude Pellegrini** of UCLA for his pioneering work in the analysis of instabilities in electron storage rings, and his seminal and comprehensive development of the theory of free-electron lasers.

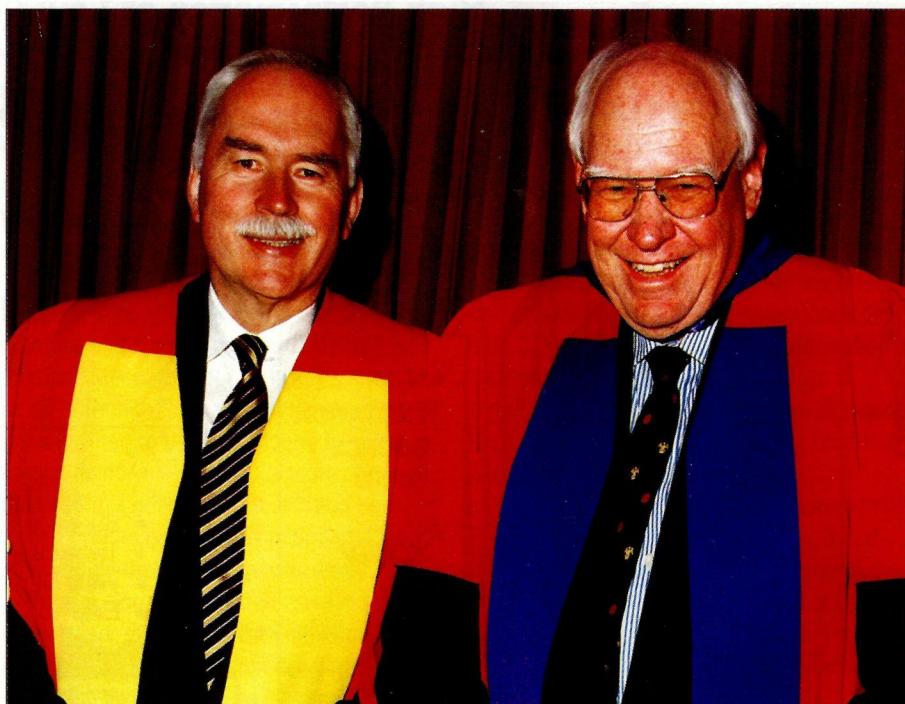
Gravitational Radiation in 1961.

He designed and built the first detectors for gravitational radiation (first published data in 1969) including both the bar antenna design (which he used) and the free-mass interferometer (built by his student/postdoc Robert L Forward at Hughes Research Laboratories in the early 1970s).

In the 1980s Weber conceived a possible coherent mode for detecting neutrinos (analogous to Mossbauer scattering of gamma rays) using single nearly-perfect crystals of silicon and quartz, and operated prototype detectors as a solar "telescope" near a research nuclear reactor (as part of an effort for the remote detection of nuclear submarines).

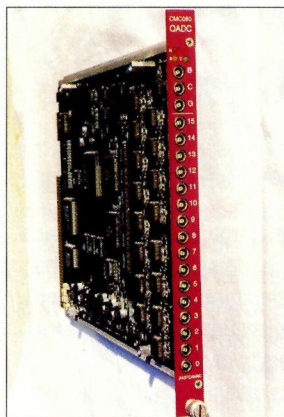
Professor Weber was a Life Fellow of IEEE and APS. He was a member of IAU, AAS, the Italian Physical Society and the Astronomical Society of the Pacific, and an honorary member of the Astronomical Society of India. He was awarded Guggenheim and Fulbright fellowships, prizes from the Gravity Research Foundation, Sigma Xi and the NY Academy of Sciences.

His wife, astronomer Virginia Trimble, provided this synopsis.



At a graduation ceremony at Witwatersrand University, Johannesburg, South Africa, **Achim Richter** (left) of Darmstadt Technical University and former chairman of CERN's ISOLDE Experiments Committee was awarded an honorary doctorate. He is seen here with **Friedel Sellschop** of Witwatersrand University (p9).

FREE LITERATURE

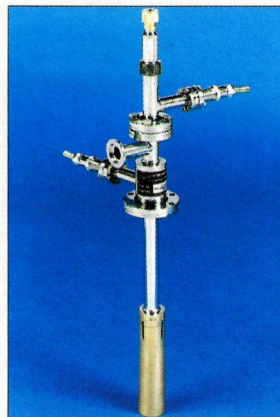


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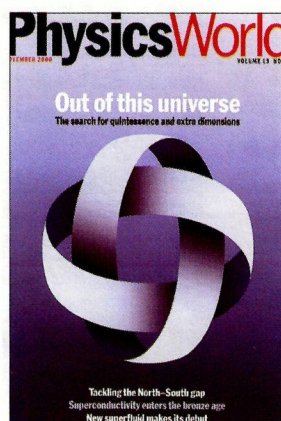


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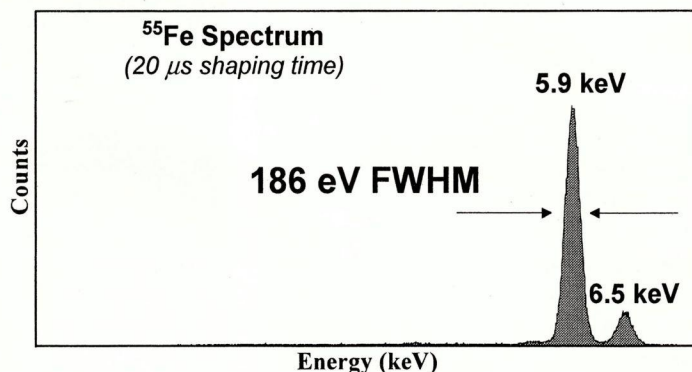
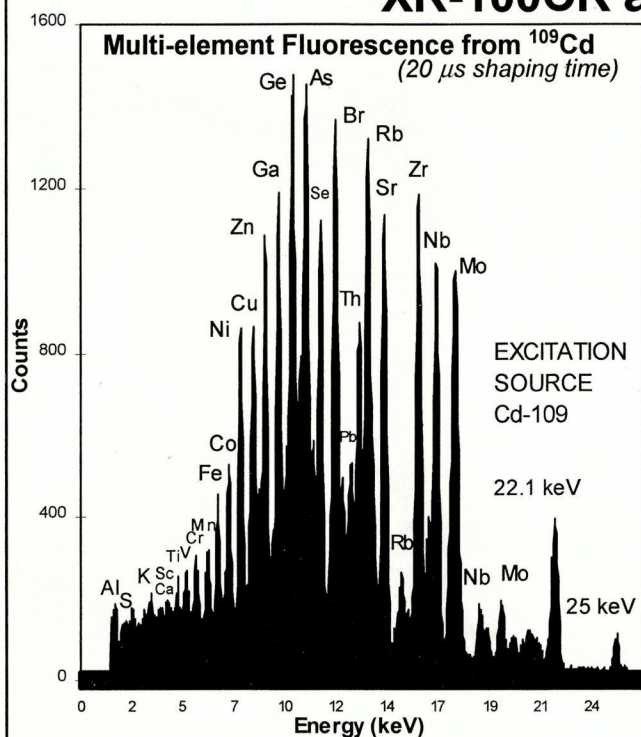
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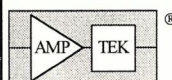
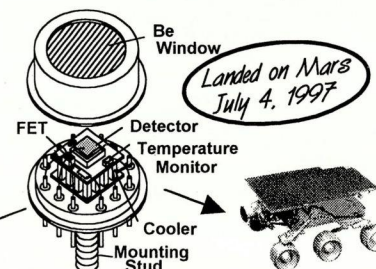
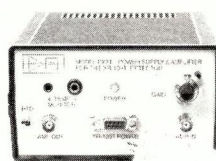
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