

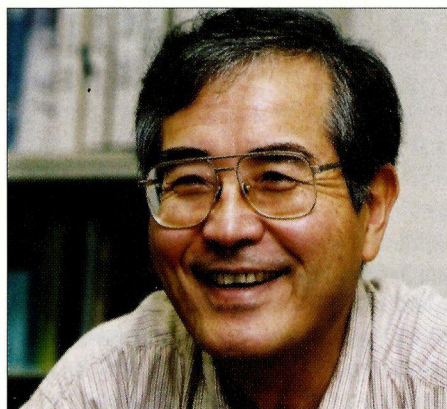
APPOINTMENTS

KEK chooses director-general

On 24 June the KEK board of councillors recommended Yoji Totsuka to the Japanese minister of education and science as the next director-general of KEK, to take over from Hirotaka Sugawara. Totsuka's term of office will run for three years from 1 April 2003.

Totsuka, now professor of physics at the University of Tokyo's Institute for Cosmic Ray Research (ICRR), is well known as the leader of the SuperKamiokande group. He began his research career by studying a large emulsion stack that had been exposed to cosmic rays. Totsuka then switched to a counter experiment in the tunnel of Kamioka mine. This was his first connection with Kamioka. After his doctoral work there he moved to Europe with his colleagues to participate in the DASP experiment at DESY. The group continued their electron-positron experiment with JADE at PETRA.

In the early 1980s, Totsuka returned to Tokyo to start a proton-decay experiment at Kamioka. Under the leadership of Masatoshi Koshihara he built the giant Kamiokande water Cherenkov detector. Although proton decays did not show up, neutrinos from supernova SN1987A in the Large Magellanic Cloud paid the detector a visit. Totsuka inherited the



KEK's new director-general Yoji Totsuka.

Kamiokande leadership from Koshihara and led the building of a detector that was 10 times larger – SuperKamiokande, which gave the first clear evidence of neutrino oscillation using atmospheric neutrinos.

Totsuka served as the director of the Institute for Cosmic Ray Research from 1997 to 2001. He has received various prizes and medals including a Nishina Memorial Prize, the Rossi Prize from the American Astronomical Society, a Purple Ribbon Medal from the Japanese government and the Panofsky Prize from the American Physical Society.



Bernard D'Almagne assumed the directorship of the French Linear Accelerator Laboratory (LAL) in Orsay on 1 May 2002, taking over from Francois Richard.

D'Almagne has spent most of his career at LAL working on CERN experiments. Notably, he directed the construction of a number of powerful detectors. These include the OPGA lead-glass calorimeter, which underlined the success of the CERN photoproduction experiments WA4 and NA14, the large wire proportional chambers of NA14, the quartz radiators for the DELPHI RICH detector as well as the electronics for its silicon microstrip detector, and the electronics and trigger system used in the electromagnetic calorimeter of LHCb.

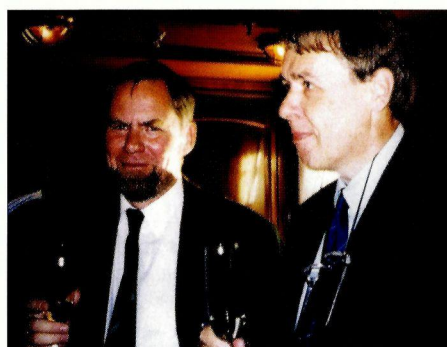
He interrupted this impressive series of technical achievements from May 1998 to November 1999 when he occupied the post of scientific deputy director of France's institute for nuclear and particle physics (IN2P3). During this time he also became interim director of IN2P3. He was a member of CERN's SPS committee from 1990 to 1993, and its president from 1995 to 1998. From 2001 to April this year he was deputy spokesman of the LHCb experiment.

D'Almagne takes the reins of a laboratory that plays a major role in many significant experiments at CERN, Fermilab and SLAC, as well as experiments in neutrinos and cosmology. LAL is also a major player in accelerator R&D and construction – LAL built the linear injector for CERN's LEP collider, and the lab is also involved in the CLIC and TESLA linear collider projects.

New director takes over at NORDITA

Petter Minnhagen, a professor of theoretical condensed matter physics at the University of Umeå, Sweden, has been appointed the director of The Nordic Institute for Theoretical Physics (NORDITA) in Copenhagen. He takes over from Paul Hoyer, who returns to his professorship of theoretical physics at the University of Helsinki. NORDITA was founded in 1957 and is funded by the five Nordic countries – Denmark, Finland, Iceland, Norway and Sweden – through the Nordic Council of Ministers. Its current research areas include astrophysics and cosmology, biological physics, condensed matter physics and nuclear physics, as well as particle physics.

The early histories of NORDITA and the CERN Theory Division are intimately related. Indeed, the CERN Theory Division was born in Copenhagen in 1952, under the leadership of



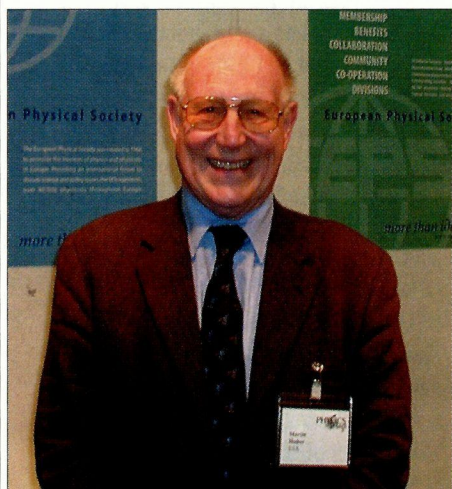
Toasting NORDITA's change in leadership are outgoing director Paul Hoyer (right) and his successor Petter Minnhagen.

Niels Bohr, and moved to Geneva five years later. The CERN Theory Division thus provided the nucleus on which NORDITA was founded. For further information see www.nordita.dk.

European Physical Society names its latest president

Martin Huber, a professor at Switzerland's ETH in Zurich and a former head of the European Space Agency's Space Science department, was elected president of the European Physical Society (EPS) at this year's EPS council meeting in Berlin. He will serve one year as vice-president before taking up office in April 2003.

Huber is currently a visiting scientist at the International Space Science Institute (ISSI) in Bern, and has recently worked at the Smithsonian Astrophysical Observatory. Until the mid-1970s he worked at the Harvard



Martin Huber will become president of the European Physical Society in April 2003.

College Observatory in laboratory astrophysics. Returning to Europe, he took a position in ETH's new Atomic Physics and Astrophysics group. When Switzerland joined the European Southern Observatory in 1980, Huber became a member, and later chairman, of its Observing Programme Committee.

Later, he was involved in the definition of ESA's long-term science programme Horizon 2000 as a member of the agency's Space Science Advisory Committee and chair of its Solar System Working Group.

In the EPS, Huber has chaired the Astrophysics Division, transforming it into the Joint Astrophysics Division of the EPS and European Astronomical Society when the latter was founded in 1990.

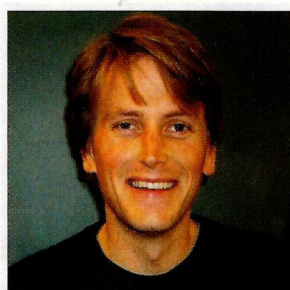
AWARDS

Slovak team wins national award

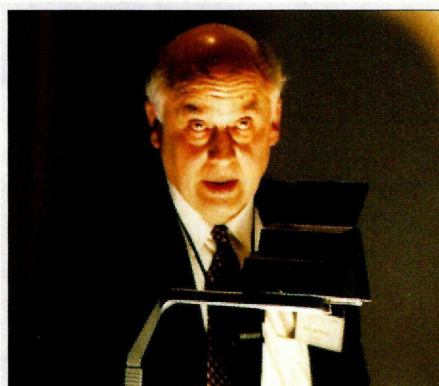
The Slovak Academy of Sciences has awarded a prize for outstanding results to a team of scientists from the Institute of Experimental Physics in Košice, the P J Šafárik University in Košice, the Comenius University in Bratislava and CERN. Ladislav Šándor, Anton Jusko, Ivan Králik, Karel Šafařík, Jozef Urbán and Roman Lietava received the award for work on the production of strange baryons and antibaryons in lead-lead collisions at the WA97 and NA57 heavy-ion experiments at CERN. This work provided one of the main pieces of evidence for the formation of a new state of matter (*CERN Courier* June 2000 p25). The award was presented on 21 June in the Smolenice castle near Bratislava.



Left to right: Jozef Urbán, Ivan Králik and Ladislav Šándor receive their award from the president of the Slovak Academy of Sciences, Štefan Luby, and vice-president Karol Karovič.



Berlin's Humboldt University has presented the 2002 Lise Meitner Prize to **Boris Körs**. The prize rewards outstanding PhD thesis work in physics, and is awarded by the Association of Friends and Sponsors of the Institute of Physics. Körs's thesis, "Open Strings in magnetic background fields", demonstrates that Standard Model gauge theories can be incorporated into superstring theories. Körs now holds a postdoctoral position at the University of Utrecht's Spinoza Institute.



experiments at all the major accelerator laboratories worldwide.

Gabathuler himself has taken a particular interest in the H1 experiment at DESY, the CPLEAR experiment at CERN and the BaBar experiment at SLAC. He has also served as chair of the UK Particle Physics Committee and on many national and international panels concerned with the wellbeing of particle physics both in the UK and on the world stage. He is continuing with many of these commitments in his capacity as emeritus professor of physics at the University of Liverpool.

Speakers at the Erwinfest, a two-day meeting sub-titled "Quarks and symmetries – a perspective to celebrate the career of Erwin Gabathuler", covered all aspects of Gabathuler's distinguished scientific career. More than 80 people attended from laboratories around the world.

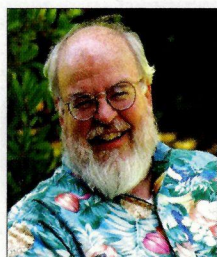
The University of Liverpool recently held an "Erwinfest" to celebrate the career of one of its most illustrious sons. **Erwin Gabathuler** retired from Liverpool's Sir Chadwick Chair of Physics in June after nearly 20 years at the university. During this time, he led experiments in Europe and the US concerned with the interactions of leptons, photons and hadrons. He also served as research director at CERN, and led the Liverpool particle physics group through a period in which it has achieved distinction in

Bogoliubov prize for young scientists

The Joint Institute for Nuclear Research (JINR) announces the N N Bogoliubov prize for young scientists. The prize, established in 1999 in memory of the eminent physicist and mathematician Nikolai Nikolaevich Bogoliubov (1909–1992), is awarded to researchers up to 33 years old for outstanding contributions in the fields of theoretical physics related to Bogoliubov's interests. As a rule, it is awarded to a scientist who has shown early scientific maturity and whose results are recognized worldwide.

Entries should try to emulate Bogoliubov's skill in using sophisticated mathematics to attack concrete physical problems. The prize is awarded once every two years in August. Entries for the 2003 prize (including CV and a one- or two-page abstract of submitted papers) should be sent to the Directorate of the Bogoliubov Laboratory of Theoretical Physics of the JINR before 1 May 2003 (Dr V I Zhuravlev, Scientific Secretary of Bogoliubov Laboratory of Theoretical Physics, JINR, Joliot-Curie Str. 6, 141980 Dubna, Moscow Region, Russia; email premia01@thsun1.jinr.ru).

Bogoliubov's main interests were nonlinear mechanics, statistical physics, quantum field theory and elementary particle theory.

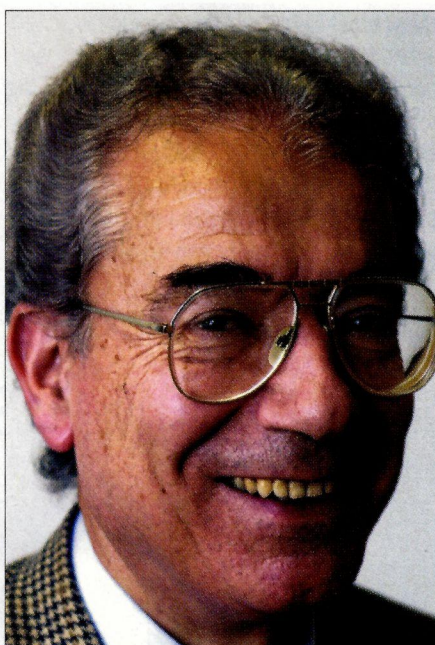


Bebo White of the Stanford Linear Accelerator Center (SLAC) joined the likes of Francis Ford Coppola and David Bowie as a member of the International

Academy of Digital Arts and Sciences (IADAS) in May. Modelled on the academies for the more traditional media, the IADAS is dedicated to the creative, technical, and professional progress of the Internet and interactive media. Every year, it presents the "Webby" awards, which have come to be recognized as the leading international honours for websites. White was one of SLAC's original WWW Wizards, who made the SLAC website a reference for particle physicists. See <http://www.iadas.net/>.



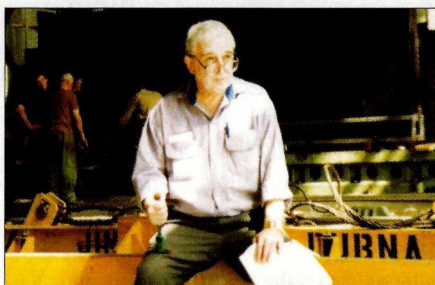
The theoretical physicist and well-known popularizer of science **Frank Close** has won a 2002 GlaxoSmithKline/Association of British Science Writers award for his article "Dark side of the moon" published in the UK's *Guardian* newspaper on 9 August 2001. These awards are normally intended for professional science writers, leading one magazine editor to comment that it was nice to see a scientist mixing it with the pros.



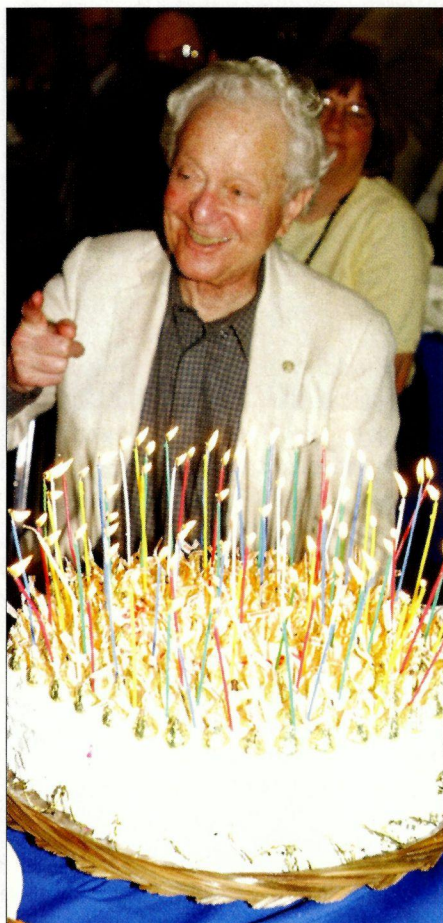
CERN's **Cristoforo Benvenuti** has been awarded the American Vacuum Society's Gaede-Langmuir Award for 2002. Conferred every two years, the award is one of the leading prizes in the vacuum field. Its very first winner in 1978 was Pierre Auger, one of CERN's founding fathers.

Benvenuti has been singled out for his work on getters, which made their name at CERN with the LEP electron-positron collider. Getters are materials that capture gas molecules thereby acting as vacuum pumps. In LEP, the getter was laid out in strips running right round the machine. For LEP's successor, the Large Hadron Collider, Benvenuti had the idea of covering the walls of the vacuum chamber with a thin film of getter. This prevents the walls of the chamber from generating gas and means that the whole chamber becomes its own

pump. Several kilometres of the future accelerator will be fitted with vacuum chambers coated in this way. Benvenuti's innovation has led to two patents and has been adopted by other accelerator laboratories. The prize-giving ceremony will be in November at the Society's 49th International Symposium to be held in Denver, US.



Julian Budagov celebrated his 70th birthday in July soon after overseeing the completion of a major Joint Institute for Nuclear Research (JINR) contribution to the ATLAS experiment at CERN. The Dubna-based JINR was responsible for constructing 65 21-ton modules for the experiment's hadron barrel tile calorimeter, the last of which was complete by June.



Leon Lederman confronted a bewildering array of candles in June during his 80th birthday celebrations at Fermilab, the US national laboratory he directed from 1978 to 1989. Lederman, 1988 physics Nobel laureate with Melvin Schwartz and Jack Steinberger "for the neutrino beam method and the demonstration of the doublet structure of the leptons through the discovery of the muon neutrino", has long been an advocate of good science education. Today, staff of Fermilab's Lederman Science Education Center and education department train and work with 6000–7000 teachers every year, while Lederman himself promotes a physics–chemistry–biology sequence for science teaching, arguing that physics provides the conceptual underpinning for many other fields.

"I am working hard on changing the current high-school science curricula...trying to dump the hundred-year-old biology–chemistry–physics sequence," he explained. "If you think finding the Higgs particle is hard..." The candles, on the other hand, presented Lederman with less of a challenge.

MEETINGS

The 2002 US–CERN–Japan–Russia Joint Accelerator School will be held on 6–14 November in Long Beach, California, US, covering the field of linacs. The registration fee is \$800 (with limited financial assistance available), and the deadline for applications is 1 October. See <http://uspas.fnal.gov>.

Jefferson Lab is organizing an **International workshop on hydrogen in materials and vacuum systems** on 11–13 November. This is an informal workshop combining scientific, technological and industrial perspectives to engage new ideas in the science, engineering and art of hydrogen in materials and vacuum systems. There is a nominal registration fee to cover expenses and proceedings. See <http://www.jlab.org/hydrogen/index.html>.

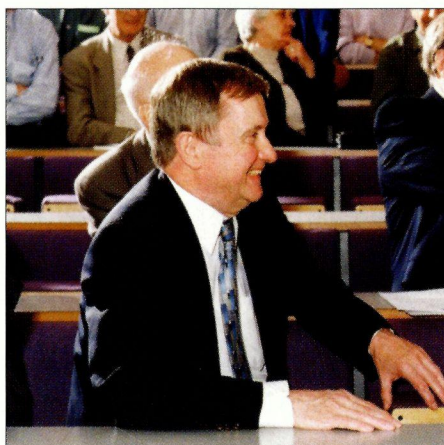
The First "FrontierScience" Conference will be held in Frascati, Italy, on 6–11 October. Topics include heavy quark production and spectroscopy; semileptonic decays; CP violation; mixing; hot trends in instrumentation; the future in flavour and new frontiers. The conference is chaired by Franco L Fabbri. See <http://frontierscience.inf.infn.it> or email frontierscience@inf.infn.it.

Experimental particle physicist Dowell retires

About 80 people attended a half-day meeting at the University of Birmingham, UK, on 3 July to mark the retirement of John Dowell.

Speakers were Malcolm Derrick from the Argonne National Laboratory, Chris Damerell from the Rutherford Appleton Laboratory, John Garvey from Birmingham, Carlo Rubbia from CERN, Peter Kalmus from Queen Mary University of London, and Nick Ellis from CERN. Their talks charted most of Dowell's career in experimental particle physics. In 1955, Dowell was a research student on the Birmingham 1 GeV proton synchrotron. He went on to work at NIMROD – the 7 GeV accelerator at the Rutherford Laboratory – before moving to the OMEGA spectrometer and then the UA1 experiment at CERN. At present he is a member of the H1 collaboration at DESY in Hamburg, and the ATLAS experiment at CERN.

Our understanding of particle physics has increased enormously during Dowell's career,



John Dowell retired in July.

going from a study of proton–proton elastic scattering at 1 GeV, through hadron spectroscopy, to a deep understanding of interactions at the quark level. One outstanding highlight was the discovery of the W and Z

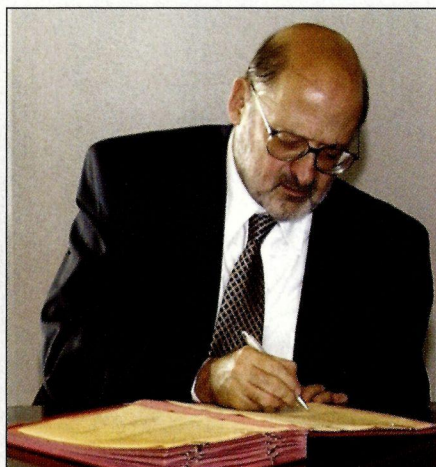
bosons produced in proton–antiproton collisions at 540 GeV and observed by the UA1 experiment. For his contribution to this discovery Dowell was elected a fellow of the Royal Society in 1986.

Dowell has also made a significant contribution to determining the direction of particle physics research in the UK and in CERN. He was chairman of the UK Particle Physics Committee from 1981 to 1985, a period which overlapped with the Kendrew Committee set up to evaluate the quality and level of UK involvement in particle physics. He was co-spokesperson for the UA1 experiment from 1985 to 1988, chairman of the LEP Committee from 1993 to 1996 and chairman of the ATLAS Collaboration Board from 1996 to 1997. As an *ex officio* member of CERN's Scientific Policy Committee from 1993 to 1996 he was at the heart of European debate on the direction of particle-physics research.

VISITS



Boris Paton, president of the National Academy of Sciences of the Ukraine (left) and CERN director for collider programmes, **Roger Cashmore**, frame a statue of the Goddess of Fortune presented to CERN by Dr Paton during a visit to the laboratory in June. The statue will be prominently displayed at the laboratory. Ukrainian cooperation with CERN dates back to a 1993 co-operation agreement, and Ukrainian physicists are currently involved in the ALICE and CMS experiments being prepared for the laboratory's Large Hadron Collider. Dr Paton's visit paves the way for expanded Ukrainian involvement with CERN. In an expression of intent signed during Dr Paton's visit, the two parties agreed to increase Ukrainian involvement in CERN research and educational programmes, including participation in the LHCb experiment and in Grid computing projects.



During a visit to CERN on 18 July, the Brazilian Minister of State for Science and Technology, **H E Ronaldo Mota Sardenberg**, signed a joint statement with the laboratory's director-general, Luciano Maiani, expressing interest in closer links between Brazil and CERN. Brazil has a strong tradition in particle physics, and is a long-standing partner of CERN.

The joint statement seeks to deepen this partnership, supporting the long-term continuation of a Co-operation Agreement first established in 1990, and encouraging strengthened Brazilian participation in CERN's Large Hadron Collider (LHC) project. Brazilian physicists are already involved in the LHCb, ATLAS and CMS experiments preparing for the LHC. The minister and the director-general also agreed to study the possibility of Brazil joining CERN-led Grid computing infrastructure projects.

A working group is to be established to examine ways of strengthening Brazil's links with CERN, and to prepare the way for a request from Brazil to CERN Council for Brazil to become an Observer at the Council. Observer status allows a country's representatives to attend Council meetings but not to participate in votes, which are the prerogative of the organization's member states. If admitted, Brazil would join Israel, Japan, the Russian Federation, the United States of America, Turkey, the European Commission and UNESCO as an Observer.



John Marburger (second from right), science adviser to the US president and director of the US Department of Energy's Office of Science and Technology Policy, addressed a meeting of the directorate of Dubna's Joint Institute for Nuclear Research in June.

Symposia to commemorate Weisskopf and Jentschke

CERN will be holding symposia in memory of two of its former director-generals who died earlier this year. On 17 September, the laboratory will remember Victor Weisskopf, director-general from 1961 to 1965 (*CERN Courier* June p28), and on 31 October, a symposium will be dedicated to the memory

of Willibald Jentschke (*CERN Courier* May p40), director-general from 1971 to 1975.

Later in the year, on 16 November, the Massachusetts Institute of Technology, where Weisskopf spent most of his working life, will be holding its own memorial symposium entitled "Viki: Theme and Variations". It will

combine reminiscences with talks about modern science, science politics and science education.

In December, the DESY laboratory will hold the first in an annual series of lectures by eminent scientists to commemorate its founding father, Willibald Jentschke.

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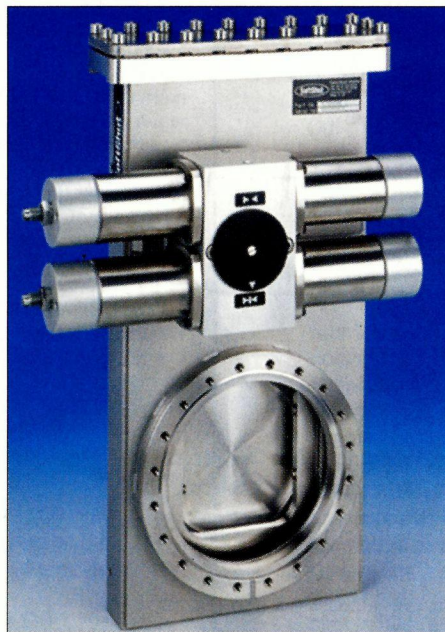
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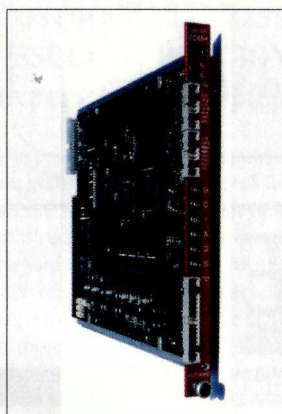
VMETRO has announced the CP-MDR customer programmable recorder for embedded real-time applications. Aimed at high-performance data acquisition applications, the CP-MDR comes in a one-slot VME version with one vacant PMC position, and a two VME slot

version with four vacant PMC positions. For full information, contact hschibbye@vmetro.no (Europe/Asia) or tbohman@vmetro.com (US).

Advanced Research Systems is offering two new products. The Displex DE204S is a compact low-vibration 4K research closed cycle cryostat providing 150 mW of cooling capacity at 4.2 K, and the Helitran LT-3 OM is a compact 4–400 K optical microscope open-cycle cryostat providing ultralow sample drift and vibration, and fast cool-down. For details, see www.arscryo.com.

Spiricon has announced a new low-cost NIR camera – the SP-1550M, at \$1995 – which measures the output of optical telecom devices from 1460 to 1625 nm. Coupled to the LBA-PC series beam analysers, it displays mode field patterns of fibres, laser diodes, LEDs and VCSELs in real time. The camera is a high-resolution CCD sensor with a phosphor coating that up-converts NIR radiation to visible radiation detectable by the CCD. The LBA-PC beam analysers correct for nonlinearity in the up-conversion process, which produces accurate measurements and beam profiles. Contact info@spiricon.com, or visit www.spiricon.com.

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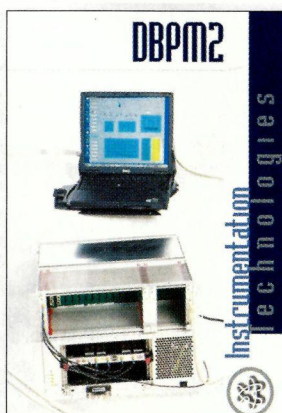


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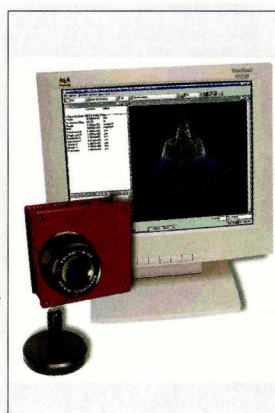


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