

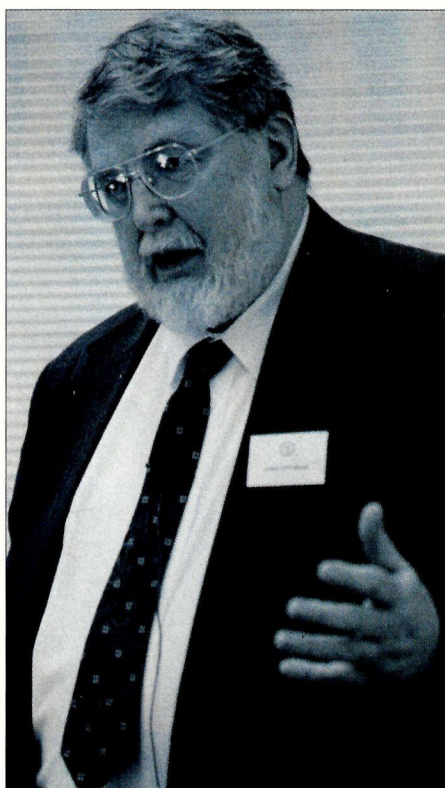
PEOPLE

UNITED STATES

Major change in leadership at the DOE's high-energy physics division...

John O'Fallon (pictured right), who was director of the Division of High Energy Physics for 15 years, has moved to a new position in the US Department of Energy (DOE). On 24 March he became executive assistant for international and interagency planning in the office of the associate director for High Energy and Nuclear Physics (HENP). In his new position, O'Fallon's responsibilities will centre around two major activities in the DOE's high-energy physics programme. These include designing, planning and implementing policies regarding US involvement with the LHC at CERN, and establishing the framework necessary for other international projects the global high-energy physics community proposes to pursue. In addition, he will lead a DOE initiative designated as Streamlining Departmental Grants Processing, which is part of the DOE's E-Government Strategic Action Plan.

Particle physics in the US has seen several major achievements during O'Fallon's time as director of the Division of High Energy Physics. These include the discovery of the top quark and the first observation of the tau neutrino at

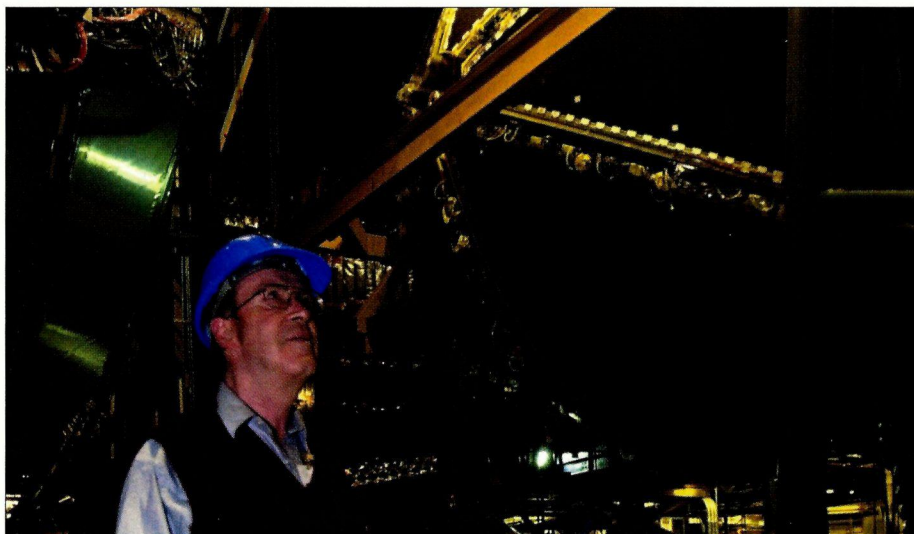


Fermilab, the first observation of CP violation in the B-meson system and the precision measurement of $\sin 2\beta$ at SLAC, and convincing evidence for atmospheric neutrino oscillations at SuperKamiokande. After the demise of the SSC, O'Fallon played an instrumental role in setting the framework for US scientists to continue research at the high-energy frontier, by laying the groundwork with CERN and by orchestrating the shift to research at the LHC.

With O'Fallon's change of post, Robin Staffin is now serving as acting director of High Energy Physics, as well as continuing in his present capacity as deputy associate director for HENP. Staffin, who has been deputy associate director for two years, received his PhD in high-energy theory under Sidney Drell at SLAC. Prior to coming to HENP, he served as deputy assistant secretary for research and development in the DOE's Office of Defense Programs, and was later appointed senior policy advisor for science and technology and scientific advisor to the secretary of energy.

...and at Jefferson Lab's Experimental Hall B

On 1 February 2003, Bernhard Mecking stepped down as leader of Hall B to return to full-time research at the Thomas Jefferson National Accelerator Facility (Jefferson Lab) in Newport News, Virginia. Mecking came to Jefferson Lab from the University of Bonn 18 years ago, before Hall B even existed. He had a vision for the CEBAF Large Acceptance Spectrometer (CLAS), a remarkable instrument that he led from its conception through the design and construction phases, and finally to commissioning and experiments. Mecking, seen here with CLAS, will now work on extracting physics from the terabytes of data that CLAS has accumulated. Fellow veteran Jefferson Lab physicist Volker Burkert succeeds him as the new Hall B leader.



AWARDS

CMS suppliers receive Gold and Crystal awards

Four years after its inception, the awards ceremony to honour CMS's top suppliers has become a regular fixture in the collaboration's calendar. This year, in three separate ceremonies, eight companies received the Gold Award and four the prestigious Crystal Award.

On 10 February, the visit to CERN of the director and deputy-director of the Snezhinsk All-Russian Institute of Scientific Research for Technical Physics (VNIITF) of the Russian Federal Nuclear Centre (RFNC) provided an occasion for the first ceremony. The VNIITF received a Gold Award for exceptional performance in the assembly of steel absorber plates for the CMS forward hadron calorimeter. The institute has developed a special welding technique, allowing a high-quality detector to be produced at relatively low cost.

The main ceremony took place on 24 February during the CMS week at CERN, when eight firms collected their awards. Four of them – Techmeta, Doosan Heavy Industries & Construction, Hamamatsu Photonics and Polymicro Technologies – received the Crystal Award. Techmeta, a French firm specializing in electron-beam welding, was rewarded for its assembly of the three components of the CMS solenoid conductor. Korean firm Doosan Heavy Industries & Construction manufactured the device for swivelling the CMS coil into a horizontal position for insertion into the vacuum vessel. The company managed to produce and deliver this complex, custom-built piece of equipment in just one year. Hamamatsu Photonics developed and produced the avalanche photodiodes for the electromagnetic calorimeter. The Japanese firm introduced a number of innovations to enhance the radiation hardness and magnetic field resistance of the photodiodes so that they could withstand the challenging conditions of the LHC environment. The fourth Crystal Award winner, Polymicro Technologies of the US, produced the 1115 kilometres of quartz plastic optical fibres for the forward hadron calorimeter, which are designed to withstand the extreme radiation levels in the forward region of CMS.

At the same ceremony, Gold Awards were presented to four firms – Franc-Comtoise



Felicitas Pauss (left) hands a CMS Gold Award to Georgy Rykovanov, director of Russia's RFNC-VNIITF Institute.



The winners of eight CMS suppliers' awards during their visit to the CMS assembly site on 24 February.

Industrie, Dembiermont, MFK and EAE. French firm Franc-Comtoise Industrie was rewarded for its on-site assembly of the two CMS magnet end-cap yokes, which are made up of six iron disks 15 metres in diameter, weighing between 300 and 700 tonnes. A second French company, Dembiermont, manufactured aluminium alloy rings for the flanges of the external mandrels of the CMS coil. These 7 metre diameter seamless rings are probably the largest of their type currently in existence. Finally, Turkish companies MFK and EAE joined forces to produce components for the hadron forward calorimeter. The components were produced with great care and in only 10 months, well in advance of the agreed schedule.

In the third ceremony on 7 March, CMS handed out further Gold Awards to three Russian and Bielorussian companies on the

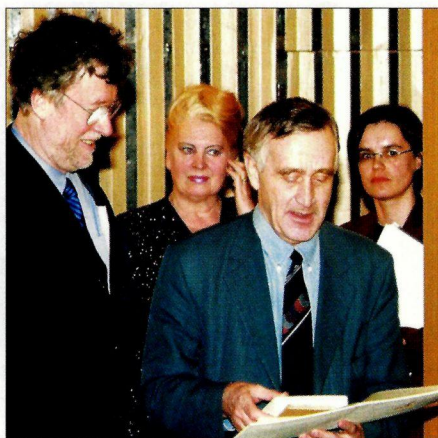


Directors of the three Russian and Bielorussian firms that received awards on 7 March at the CMS assembly site, where they stand in front of the hadron calorimeter together with visiting dignitaries from their countries and CMS collaboration leaders.

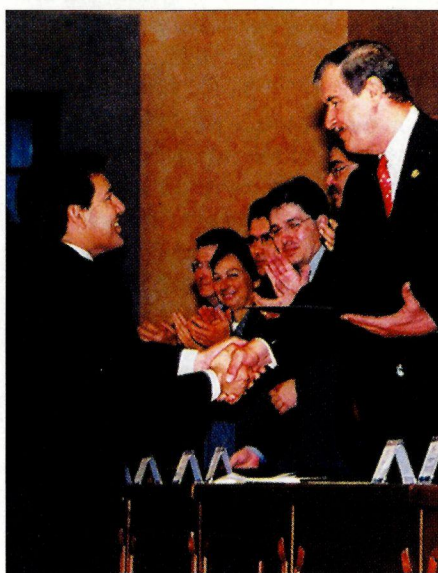
occasion of a visit by dignitaries from the two countries. The three awards were made to the Russian firms ENTEK and the Myasishchev Design Bureau, and the Bielorussian company MZOR. MZOR and ENTEK designed, produced and assembled the mechanical parts for the CMS hadron calorimeter end-caps. The MZOR machine-tools company fabricated the absorber plates and interfaces, and also produced special assembly tooling. In addition, ENTEK manufactured components for the calorimeter and took responsibility for its final assembly at CERN. The Myasishchev Design Bureau was responsible for the carbon fibre structures in which the fragile lead tungstate crystals of the electromagnetic calorimeter end-caps are to be embedded. These lightweight structures must support a weight of 22.9 tonnes in each end-cap.

PRIZES

On 19 March, **Alexander Skrinsky** (right), director of the Budker Institute of Nuclear Physics in Novosibirsk, received the 2002 Karpinsky Prize, which is awarded by the Alfred Toepfer Foundation and Russian Academy of Sciences. The prize was instituted in 1979 as a memorial to the Russian scholar Alexander Karpinsky, who in May 1917 became the first elected president of the Russian Academy of Sciences. The Karpinsky Prize is awarded biennially to a Russian researcher for achievements in natural sciences, ecology and humanities. This year it was presented to Skrinsky, seen here with **Albrecht Wagner**, in acknowledgment of his outstanding pioneering work on particle accelerators and accelerator technologies. These include new fundamental concepts on storage rings, linear colliders and electron cooling. The prize is accompanied by a scholarship of one year's research in Germany for a young scientist nominated by the laureate.



Gerardo Herrera Corral (left), of the Centro de Investigación y de Estudios Avanzados del IPN (CINVESTAV) in Mexico City, has been awarded the 2001 research prize of the Mexican Academy of Sciences for his experimental studies in high-energy physics. This major award is given every year to a young scientist who has made a distinguished contribution to any area of pure science. This is the first time that this prize has been given to an experimentalist in high-energy physics, and is an important sign of the growth of experimental high-energy physics in Mexico. Herrera Corral, seen here receiving the prize from the Mexican President **Vincente Fox**, leads the team of six Mexican institutes in the ALICE Collaboration at CERN. (Erik Meza.)



RETIREMENTS



Ted Wilson (right), a well known figure in accelerator physics, retired from CERN in March. After an earlier year at CERN, he came to the laboratory in 1967, where he worked on the SPS and collaborated closely with John Adams on the design and commissioning of the accelerator. In 1980 he joined the PS and worked on the antiproton accumulator. Later he became a member of the LHC Committee and was entrusted with the task of writing a report on the design of the future accelerator. Drawing on this experience Wilson, seen here with his assistant **Suzanne von Wartburg** during an EPAC meeting in 1994, took over as head of the CERN Accelerator School (CAS) in 1992. In this capacity he was responsible for organizing around 25 schools, not including special schools in India and China, and in particular he took part in the development of joint schools with Japan. Although now retired and having handed over the reigns of CAS to Daniel Brandt, Wilson will continue to pursue his interests in accelerators.

MEETINGS

SUSY 2003, "Supersymmetry in the desert", the 11th Annual International Conference on Supersymmetry and Unification of the Fundamental Interactions, will be held on 5–10 June at the University of Arizona in Tucson. Conference topics will include phenomenological aspects of SUSY and SUSY breaking; experimental searches, constraints and bounds; string phenomenology, extra dimensions and the brane world; formal aspects of SUSY, SUGRA and string theory; and

astrophysical and cosmological connections. Full details are available on the web at <http://newton.physics.arizona.edu/susy2003>.

PHYSTAT2003 will be held at SLAC in Stanford, California, on 8–11 September. It will cover statistical issues in the fields of particle physics, astrophysics and cosmology. This is the fourth conference in the series that started at CERN with the "Confidence Limits Workshop" in January 2000. More information about this year's conference at SLAC can be found on the web at <http://www-conf.slac.stanford.edu/phystat2003>.

The EuroConference on Hadron Structure Viewed with Electromagnetic Probes, a conference on electromagnetic interactions with nucleons and nuclei, will take place on 7–12 October at Santorini, Greece. The conference programme will include QCD structure of hadrons, nucleon form factors and polarizabilities, highly exclusive processes, and nucleon correlations in nuclei. The conference is part of the 2003 Euresco Conference Programme, and further information is available from the website at <http://www.esf.org/euresco/03/pc03117>.

CENTENARY

Florida symposium fetes Paul Dirac

When Paul Dirac, one of the founders of modern physics, retired from Cambridge University in 1970, he joined the Department of Physics at Florida State University (FSU), where he continued to work on problems in fundamental physics and taught a variety of courses. He died in Florida in 1984 and is buried in Tallahassee's Roselawn Cemetery. So it was fitting that one of the last events to celebrate Dirac's centenary in 2002 was the Dirac Centennial Symposium organized by the FSU.

The symposium, organized by Howie Baer and colleagues, was a one-and-a-half day celebration of Dirac's achievements and their continuing impact upon research at the frontiers of physics. More than 150 participants heard talks by a variety of eminent speakers,



Participants at Florida State University's Dirac Centennial Symposium, including, second from left, Pierre Ramond, then moving right, Paul Langacker, Brian Serot, Laurie Brown, Monica Dirac, Leo Halpern, Joe Polchinski and Howie Baer.

including Laurie Brown and Leopold Halpern, who provided some historical perspective; Pierre Ramond, who generalized Dirac's equation and introduced fermions into string theory; Brian Serot, on building atomic nuclei using the Dirac equation; Paul Langacker, who dealt with one of Dirac's pet ideas in a talk on time

variation of physical constants; and Joe Polchinski, who brought monopoles up to date with duality and string theory. In the keynote banquet speech, Dirac's daughter Monica presented a personal portrait of her father. A commemorative volume summarizing the talks is to be published by World Scientific.

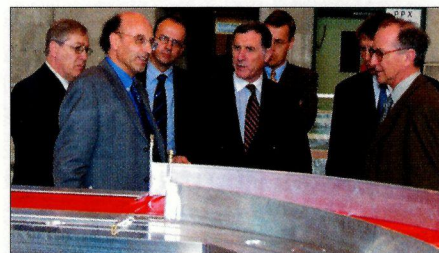
VISITS

Hundreds of school students from around Europe visit CERN each year, but not many come all the way from the US. Yet 15 students from the class of **Ken Wester** (at left rear of picture), a physics teacher at Columbus High School, Mississippi, made the trip. Wester participated in CERN's High School Teachers Programme last year, and was so enthralled that he organized for his

final-year students to visit CERN. The 18-year-olds arrived on 10 March and spent two days at the laboratory, visiting the CMS construction site and the AD antimatter factory, before leaving on a tour of Switzerland and Germany. The students are seen here with their teacher by the model of CMS in Building 40, together with CMS spokesman **Michel Della Negra** (front).



The TESLA test facility was one of the highlights of a recent visit to DESY by **John Marburger** (left), director of the US Office of Science and Technology Policy (OSTP). Marburger, a physicist and former director of the Brookhaven National Laboratory, was at the laboratory to learn more about the status of the TESLA X-ray laser and the TESLA linear collider, as well as international collaboration at DESY. As the scientific advisor to the US President, Marburger plays a critical role in the development of the country's scientific strategy. His office is currently working with other partners to produce guidelines for a possible decision-making process to build an international linear collider. Marburger is seen here with **Susan Elbow** (centre), American consul general in Hamburg, **Albrecht Wagner**, director of DESY, and **Hans Weise**, coordinator of the linear accelerator of the TESLA Test Facility.



David Syz (centre), state secretary for economic affairs in Switzerland, visited CERN on 3 March with his board of directors. During the visit Syz heard about Technology Transfer at CERN and the openlab project, and visited the assembly area for ATLAS, where the ATLAS spokesman **Peter Jenni** (second from left) described the progress with various components, including the toroid magnet coils seen here.

OBITUARIES

William T Kirk 1927–2003

In 1956 Edward L Ginzton, the then director of the Microwave Laboratory at Stanford University, advertised for an assistant. William "Bill" Kirk, a history graduate of Cornell in 1952, who was working in industry after graduation, responded to the ad and moved to Stanford. He remained there until his death, from cancer, on 14 February 2003.

Kirk became much more than an administrator and assistant to SLAC's directors. He was a problem solver, a mediator, a guardian of the Queen's English, and an invaluable bridge between all members of the SLAC community – technical workers, administrators and scientists. He later ably directed all of SLAC's information activities.

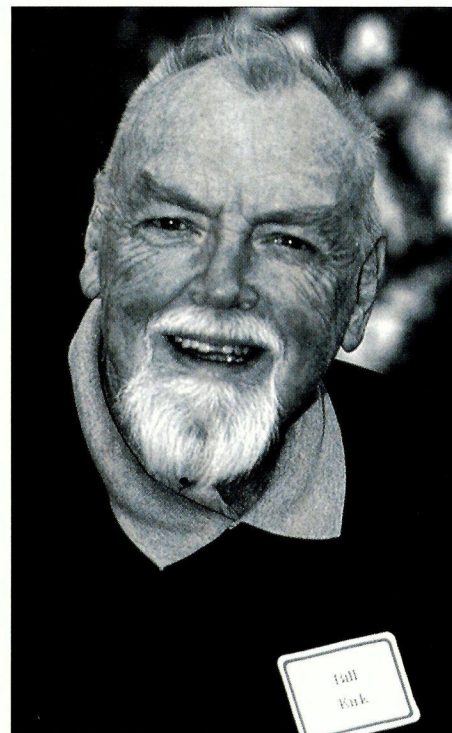
Kirk is probably most widely remembered for creating SLAC's particle-physics magazine *Beam Line* in 1974. Until 1988 he was the *Beam Line*, performing all the work from writing to composition, layout and typesetting. After 1988 he remained as co-editor until his retirement in 1993, when he continued as an informal advisor to the editor.

While Kirk was a history major and novelist, he understood high-energy physics and high-energy physicists. His writings on high-energy

physics, such as the article "High Energy Physics – An Introduction" that among other topics compared the technology and purpose of storage rings and fixed-target machines, have become classics in popular science writing. Kirk also wrote lucid articles on the operation of PEP, the discovery of the J/Psi particles and many others. He became very much in demand as an editor of the many international conference proceedings of meetings in high-energy physics, a task he always undertook with great skill and a drive for perfection.

Bill was a very humble person, notwithstanding his major contributions to high-energy physics. Most of the verbiage in the 1957 proposal to government agencies, which led to the creation of SLAC, largely originated from Kirk's pen, yet his name does not appear among the profuse acknowledgments in the document.

Throughout his career, Kirk divided his interests in high-energy physics and writing with a dedication to athletics. He was a member of several of Cornell University's successful football teams, an avid golf player, and the instigator of and slugger in the annual



baseball game between theorists and experimentalists at SLAC. Kirk's contributions to SLAC and to high-energy physics will be long remembered. He was a great man, always available, always constructive and always helpful. We will miss him.
Pief Panofsky, SLAC.

Viktor S Rumyantsev 1945–2003

Viktor Rumyantsev, who died on 28 February 2003, began his scientific career at the Institute of Physics, National Academy of Sciences in Minsk, Belarus, where he performed experimental research in the field of particle physics. In 1974 he started working in close collaboration with colleagues from the Joint Institute for Nuclear Research (JINR) in Dubna, Russia, where he investigated multi-particle production in pion-nucleus collisions.

In 1994 Rumyantsev was elected deputy director of the Dzhelepov Laboratory of Nuclear Problems at JINR, and became active in the ATLAS Collaboration, especially in the construction of the Tile Calorimeter

Barrel, and also the Liquid Argon Calorimeter and the MDT chambers. He also contributed to the WA-102 experiment at the OMEGA spectrometer at CERN, in the search for exotic mesons in double pomeron exchange processes.

From 1999, Viktor headed the Particle Physics Laboratory of the National Centre for High Energy and Particle Physics in Minsk. His scientific activity here, with the exception of the ATLAS project, essentially concentrated on the application of micro-channel aluminium oxide plates in particle detectors.

For all his colleagues he was, and remains, a beloved and admired scientist and friend.
Nikolai A Russakovich, JINR.



OBITUARIES

Aris Angelis 1954–2003

On 5 February, our colleague and dear friend Aris Angelis left us at a moment when we all believed he could win the battle for his life.

Aris graduated from the University of Athens in 1975. He went on to Oxford University where he received his doctorate in 1984. During this period he suffered his first attack of the illness that was eventually to claim his life, which he saw off through a combination of aggressive treatment and the determination that was so much a part of his character. As a result of the treatment at the time, his doctors told him that he would not be able to take part in competitive sport again. However, he went on to represent Oxford at karate in the varsity match against old-rivals Cambridge, and was a regular performer in mountain marathons around Switzerland.

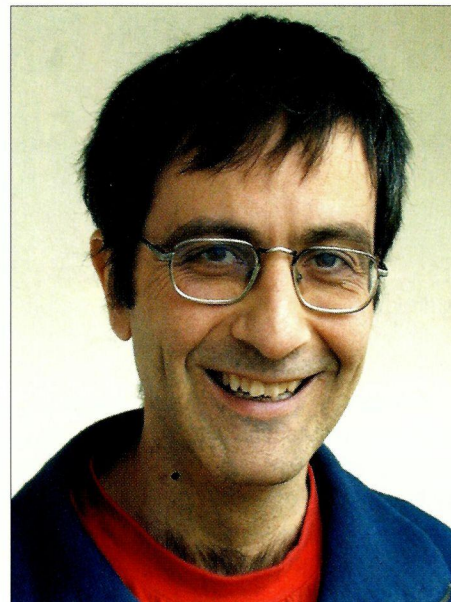
Aris worked on several experiments at CERN, starting at the ISR. He developed a taste for heavy-ion physics through the experiments NA34, WA93/98, SIGAPO, ALICE and finally CMS. He had a nomadic career, holding positions at University College London, McGill University, the University of Geneva and CERN. Since 1997 he had been attached to the University of Athens.

Aris left his mark on CERN's heavy-ion pro-

gramme from the early days at the SPS to the very end, preparing for the future at the LHC within ALICE and CMS. Those of us who knew and worked with Aris appreciated him both as an enthusiastic colleague and as a warm and helpful friend. Younger colleagues thought of him as their mentor during their crucial and difficult first steps in science. Others looked forward to working with him at the LHC.

Aris was also an effective communicator. Very aware of the need for the public communication of our field, he became a CERN guide in 1999 and was consistently voted one of CERN's best. His explanations of the science in English, French, Italian and Greek were greatly appreciated and the CERN visits service received many complimentary letters following his tours. He also took part in many special events, such as CERN open days and the Oracle of Delphi theatrical event staged in an experimental hall, and always with the same enthusiasm, dedication and competence. Aris was also an active and enthusiastic member of the European Particle Physics Outreach Group, where he represented ALICE, and he acted as secretary of the LHC Outreach Group.

Aris's dogged determination, his sense of



right and wrong, and his stubborn persistency left no-one indifferent. These characteristics earned him respect and made him a reliable friend, who was always ready and willing to help. His untimely and unjust departure came as a shock to us all – Aris was not the kind to give in. To suffer a life-threatening illness once is cruel, twice is a tragedy. On both occasions, however, Aris faced his illness with a courage and dignity that set an example for us all.

Apostolos D Panagiotou, University of Athens, and James Gillies, CERN.

NEW PRODUCTS

Electron Tubes has launched a counter timer module with upgraded software for PCs. The CT2 is designed to respond directly to all TTL photon and pulse counting systems, and with Active X it interfaces with Lab View and Visual Basic, and is Windows 98, 2000 and XP compliant. For further information, call +44 (0)1895 630 771, or see the website at <http://www.electrontubes.com>.

Polytec PI has introduced a new generation of digital piezo nanopositioning and nanoscanning controllers for use in metrology, surface

profiling, scanning microscopy, etc, with an improvement in linearity of two orders of magnitude. The new PI E-710.SCN controllers use a smart digital controller that reduces nonlinearity, phase lag and tracking errors. For further information, call Jim Gareau on +1 508 832 3456, e-mail info@polytecpi.com, or see the website at www.polytecpi.com.

Enerpac has announced a new range of aluminium cylinders with lifting capacities of 20–150 tonnes, and stroke lengths of up to 250 mm. The new cylinders, which utilize the latest in alloy technology, have the strength of steel with the advantages of aluminium. For

further information, call +31 318 535911, e-mail info@enerpac.com, or see the website at <http://www.enerpac.com>.

Microwave Amplifiers has recently introduced the AM84 and AM85 series of amplifiers, designed specifically as klystron drivers for both pulsed and CW applications. Available in the 1.1–3.1 GHz band as narrow-band or wideband units, and using the latest GaAsFET technology, the amplifiers provide high linearity at powers up to 1.2 kW. For further details call Neil Richardson on +44 (0)1275 853 196, or e-mail nrichardson@maltd.com.

CORRECTION

An error crept into the report on the Pomeranchuk Prize on p29 of the April edition. The prize winner was of course Bryce DeWitt (not Bruce DeWitt). Many apologies.

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