This year's Prizes for Achievement in Accelerator Physics and Technology were awarded to Karl Brown of SLAC and Daniel Birx of Science Research Laboratory during the US Particle Accelerator School held at Brookhaven. From left, USPAS Director Mel Month; Brown; James Leiss, who presented the awards to the winners; Birx; and Brookhaven Deputy Director Marty Blume.

US PARTICLE ACCELERATOR SCHOOL
Summer schools

Continuing it's educational efforts, the US Particle Accelerator School (USPAS) held two summer schools this year. The USPAS has two basic purposes – education in accelerator physics and technology, in particular to train apprentices and update experts; and to encourage US universities and Laboratories to offer programmes in accelerator physics by developing textbooks, training faculty, and organizing schools.

The first of this year's summer schools was a two-week university-style course held at the University of California at Berkeley. These university-style schools aim to present courses in greater depth, to promote student-teacher interaction, and to encourage the attendance of younger students, as university credit can be earned.

Emphasizing the importance of university education in particle accelerators, Mel Month, Director and Founder of the USPAS said, 'As graduate students, physicists are taught at the university how to build detectors or portions of large detectors – but their only real opportunity to learn how to build an accelerator or any of its parts has been at accelerator Laboratories after they graduate. This just won't do. In the future, we must find new ways for students to study particle accelerators in the university.'

The Berkeley course in June was the most successful university-style school to date. Over half of the 140 registered students will receive up to 3 university credit hours. Courses included: theory and design of particle beams, introduction to accelerator physics, introduction to free electron lasers, principles of acceleration, and introduction to beam instabilities.

The second of this year's summer schools was held from July 24 – August 4 at Brookhaven. Symposium-style, concentrating on lectures, it covered a wide range of subjects, including particle beam fundamentals, intense beams, accelerator technology, instabilities, nonlinear dynamics, high luminosity colliders, and linear colliders, with an afternoon devoted to the new US Superconducting Supercollider (SSC) project.

In addition, this year's Prizes for Achievement in Accelerator Physics and Technology went to Daniel Birx of Science Research Laboratory of California, and Karl Brown, of Stanford Linear Accelerator Center (SLAC), at a ceremony at Brookhaven. These awards were initiated in 1985 and are an annual feature of the US Particle Accelerator School.

Daniel L. Birx was cited 'for developments in high power magnetic switching technology with applications such as high repetition rate induction linacs, free electron lasers and laser isotope separation'. His important work has impacted a number of prominent US national projects – high power free electron lasers (FEL) for defence applications, FELs for heating fusion plasmas (the MTX experiment at Livermore), high average power gas lasers, and the development of high power 'relativistic klystrons' in a collaborative effort involving SLAC, Berkeley and Livermore. These microwave source developments may be an important step towards future high gradient linear colliders for physics.

Karl L. Brown was honoured 'for insights into particle beam transport and for introducing formalisms in use throughout the world.' He has pioneered both the development and application of concepts of charged particle optics. His contributions have helped make possible new sophisticated designs in the latest generation of electron-positron colliders.

This year's Accelerator School Prize Committee consisted of J.E. Leiss, W.K.H. Panofsky, R.H. Siemann, and S. van der Meer and the awards were supported by Universities Research Association, the Continuous Electron Beam Accelerator Facility, SURA, Intermagnetics General Corporation, Varian Vacuum Products, and the Westinghouse Electric Company.

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