

ENGINES OF DISCOVERY



A Century of Particle Accelerators

Andrew Sessler • Edmund Wilson

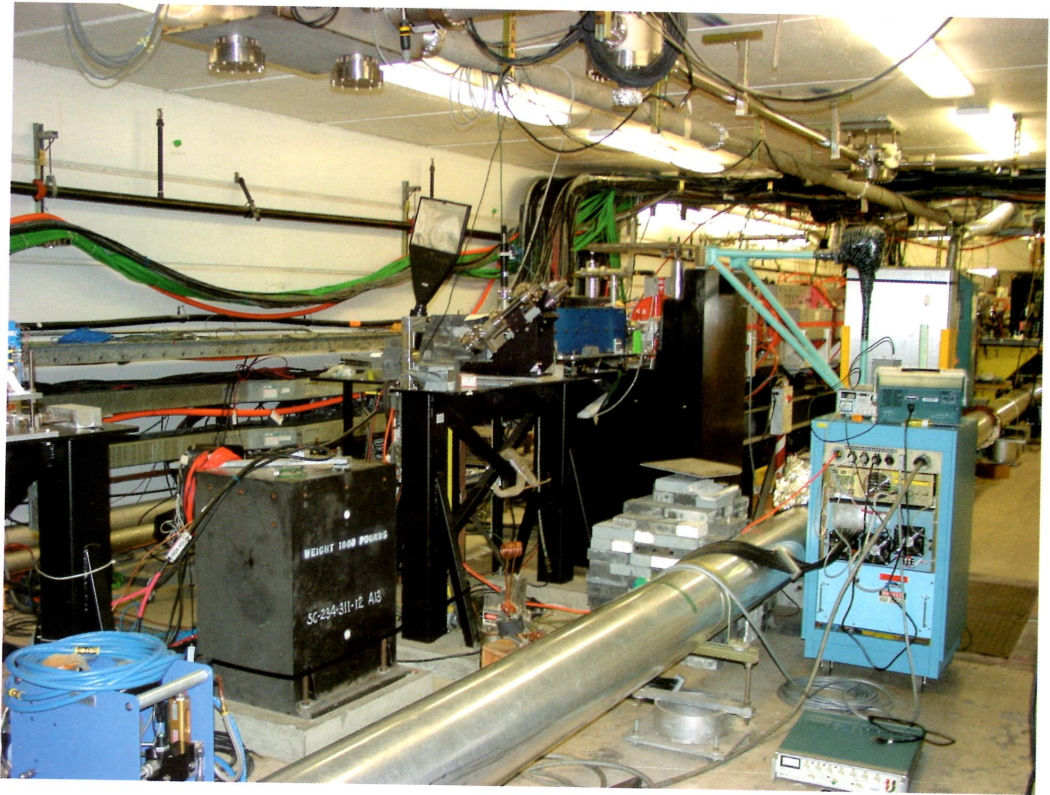


Fig. 10.12 The SLAC End Station first used to study the very fine final focus required for the International Linear Collider. It is in this same area, and using the very intense beam developed for the earlier study, that the experiments on wake-field acceleration were carried out.

Chandrashekar Joshi (1953–)

Indian-American physicist

APS James Clerk Maxwell Prize for Plasma Physics, 2006

US Particle Accelerator School Prize for Achievement in Accelerator Physics and Technology, 1997

American Physical Society Prize for Excellence in Plasma Physics, 1996

Queen Mary Prize of the Institute of Nuclear Engineers



Born in India, Joshi went to England for both his high school and university education. He received his BS degree from Queen Mary College of the University of London in 1974 and a PhD from Hull University in laser-plasma interactions in 1978. He then spent two years at the National Research Council in Ottawa, Canada. In 1980 he moved to the University of California in

Los Angeles, where he has remained ever since.

Although his experimental work was on traditional plasma problems at UCLA, Joshi was interested in other ideas developed by John Dawson on the laser-plasma acceleration of particles. In 1982, stimulated by the first workshop on the subject, Joshi started an experimental group on laser-plasma acceleration of particles in the Electrical Engineering department at UCLA. This new group had many ties to the theory and especially the numerical simulation work of John Dawson and his co-workers.

Almost all the fine accomplishments described in the section on lasers and plasmas, and those of the more than 30 groups worldwide devoted to this subject, can be traced back to the UCLA Group of Chan Joshi. Joshi himself has become a role model for many. He is currently a distinguished professor of Electrical Engineering at UCLA.