

Preface

The 1st International Workshop on Accelerator Alignment was held at the Stanford Linear Accelerator Center on July 31 - August 2, 1989. It gave the chance for the accelerator alignment community to exchange experiences directly from colleague to colleague and to establish new lines of communication in order to share accomplishments and problems of the various laboratories. Furthermore the new challenge of the next generation linear colliders, which is confronting us with the micrometer world, was discussed in public for the first time.

In the course of the meeting it became evident, that such alignment workshops should be repeated from time to time. Thus the state of the art technologies could be presented to the alignment community. Also new developments and research of common interest might be published that way. Colleagues from the accelerator laboratories all over the world should share in the discussions in order to find practical solutions for the alignment problems also in the micron range.

It seemed to be reasonable to organize the 2nd workshop only one year after the first one in Hamburg, since the European attendance at Stanford was comparatively small. This should stimulate more colleagues from the European laboratories to participate and to present their experience. In fact we received 30 registrations from Europe, 18 from the United States and Canada and 3 from Japan.

In the following we are presenting the papers, which have been submitted for publication. They are arranged successively according to the schedule of the workshop:

Session A: Current Alignment Topics of the various accelerators

Session B: Optical Tooling, Fiducialization and Instrumentation, Specific alignment and surveying procedures, Evaluation concepts and accuracy considerations, Investigations of refraction and vibration

Session C: Surveying problems arising during the mounting and the control of the components of the large detectors

Session D: Present State of the Research for the Future Linear Colliders.

The papers are covering the whole range of the surveying problems at the accelerator laboratories and give a helpful supplement to the presentations and discussions during the workshop itself. If further informations will be necessary please use the addresses of the authors given in the appendix of the proceedings.

The next workshop is planned to be held in 1992 at SSC in Texas.

Franz Löffler