CONF-820897 SLAC-259 (T/E) ₩C-34d

PROCEEDINGS

OF

SUMMER INSTITUTE ON PARTICLE PHYSICS

August 16 - 27, 1982

PHYSICS AT VERY HIGH ENERGIES

Program Directors

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Sponsored by Stanford University and Stanford Linear Accelerator Center under contract with the U.S. Department of Energy. Contract DE-AC03-76SF00515

January 1983

Printed in the United States of America. Available from National Technical Information Service, U.S. Department of Commerce, 5285 Port Royal Road, Springfield, VA 22161. NTIS Price codes:

Printed copy,
Microfiche copy,

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PREFACE

This year's SLAC Summer Institute on Particle Physics was held from August 15 to August 27, 1982, its 10th meeting. The celebration of this birthday was absorbed into a more general celebration of 5th, 10th, 15th, 20th, and 25th anniversaries of many significant events in the life of the laboratory. The title of this year's Institute was "Physics at Very High Energies," and in pursuing that theme we heard lectures on the Standard Model, and on what may lie beyond it, from varying degrees of heresy. We heard of the new tools being designed and built to probe the secrets to be found at higher energies than presently attainable, and reviewed the existing experimental data that shed light on the physics of very high energy.

The now traditional format for the Institute was followed, the first seven days being spent with the mornings given to pedagogic lectures on the experimental and theoretical foundations of the topic. In the afternoon we had seminars and (often) lively discussions of the morning's lectures. The "school" led into a three-day topical conference in which the most recent theoretical and experimental results were presented and discussed. We heard the first results from the CERN $\bar{p}p$ collider, and perhaps the first clear evidence of jets in hadronic collisions from the $p\bar{p}$ and new ISR experiments.

About 365 physicists participated in this, the 10th Institute, with representatives from 12 foreign countries. This year, 102 participants were from out of state. It was a lively, informative and stimulating meeting.

We would like to thank Anne Mosher for her efforts as Coordinator of the Institute and as Editor of the Proceedings. The success of this meeting is, in very large part, due to her careful preparation and thoughtful attention. We would also like to thank Anne and her staff for the smooth and effective running of the meeting.

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