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PROCEEDINGS OF THE FIFTH INTERNATIONAL WORKSHOP ON NEXT-GENERATION LINEAR COLLIDERS

*Stanford Linear Accelerator Center
Stanford University, Stanford, California 94309*

October 13-21, 1993

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Fifth International Workshop on Next-Generation Linear Colliders

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Fifth International Workshop on Next-Generation Linear Colliders

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PREFACE

The Fifth International Workshop on Next-Generation Linear Colliders was hosted by SLAC, the Stanford Linear Accelerator Center, between October 13 and 21, 1993. This series of workshops which began in 1988 continues to show a rapidly growing interest in this field, and there were 262 attendees from 9 countries at this meeting.

The workshop was organized with the first one and one-half days for plenary sessions to review the R&D progress from around the world. The program for the opening sessions is shown in Fig. 1. We then separated into seven working groups as shown in Fig. 2 for four days of lively discussions and exchange of ideas. The chairpersons reported on each day's activities in a short plenary session first thing in the morning. The last one and one-half days were plenary sessions where the chairpersons attempted the impossible of summarizing the work in their group. They succeeded, and their reports are the contents of this proceedings.

Overall, the workshop was a success both technically and socially. The several test facilities around the world are progressing very well and will answer, in the next few years, many questions regarding technical choices for the next Linear Collider. The growing internationalization of the R&D programs is an encouraging step towards collaboration on the construction of this accelerator as a world machine.

Finally, I, the workshop chairman, would like to thank the working group chairpersons and scientific secretaries, the support staff, and especially the workshop administrator for helping in making LC93 a success.

James Mc(Ewan) Paterson



5th International Workshop on
NEXT-GENERATION LINEAR COLLIDERS
PROGRAM FOR OPENING PLENARY SESSIONS
SLAC Auditorium

WEDNESDAY, OCTOBER 13

9:00	Welcome	S. Drell/E. Paterson
9:15	Hawaii 93	R. Settles
9:45	New Results From the SLC	J. Seeman
10:15	CLIC Overview	W. Schnell
10:45	Coffee Break	
11:05	JLC Overview	K. Takata
11:35	NLC Overview	J. Irwin
12:05	S-band Overview	G. Voss
12:35	Lunch	
2:00	TESLA Overview	A. Mosnier
2:30	VLEPP Overview	V. Balakin
3:05	Emittance 93 Summary	T. Higo
3:35	Coffee Break	
3:55	RF 93 Summary	G. Caryotakis
4:25	Status of Interlaboratory Collaboration	D. Burke
4:40	Working Group Organization	Chairmen
5:45	Welcome Dinner	

THURSDAY, OCTOBER 14

8:30	FFTB Status	D. Burke
8:55	ATF (JLC)	J. Urakawa
9:20	CLIC Injector	J. Madsen
9:45	S-band Test Accelerator	N. Holtkamp
10:10	Coffee Break	
10:30	TESLA Test Accelerator	H. Edwards
10:55	NLCTA	R. Ruth
11:20	Working Group Plans	
12:30	Lunch	
2:00	Begin Working Group Sessions	

WORKING GROUPS

- WG1** ELECTRON AND POSITRON SOURCES AND INJECTORS
(Including beam dynamics and polarized beams)
Chairmen - Jym Clendenin, Jan Madsen
Scientific Secretary - Dian Yeremian
- WG2** DAMPING RINGS, BUNCH COMPRESSORS AND PRE-ACCELERATORS
(Including beam dynamics)
Chairmen - Torsten Limberg, Junji Urakawa
Scientific Secretary - Michiko Minty
- WG3** RF SOURCES AND STRUCTURES FOR NORMAL AND SUPERCONDUCTING LINACS
(Including 2-beam accelerators)
Chairmen - Hajime Mizuno, Dieter Proch
Scientific Secretary - Sami Tantawi
- WG4** BEAM DYNAMICS OF THE MAIN ACCELERATOR
(Including emittance preservation, multibunch stability, etc., in both normal and superconducting structures)
Chairmen - Alban Mosnier, Kathy Thompson
Scientific Secretary - Eric Nelson
- WG5** INSTRUMENTATION FOR LINEAR COLLIDERS
(Including feedback or feedforward, emittance measurements, auto alignment, ground motion suppression, etc.)
Chairmen - Alexander Mikhailichenko, Marc Ross
Scientific Secretary - Patrick Puzo
- WG6** FINAL FOCUS AND INTERACTION REGIONS
(Including optical designs and the integration of detectors)
Chairmen - Paul Emma, Toshiaki Tauchi
Scientific Secretary - Peter Tenenbaum
- WG7** OVERALL PARAMETERS AND CONSTRUCTION TECHNIQUES
Chairmen - Greg Loew, Bjorn Wiik
Scientific Secretary - Patrick Krejcik

Fig. 2