

CONTENTS

Foreword	iii
Acknowledgements	iv
Organization	v
Reports from the B Factories	
CESR and CLEO	3
<i>Klaus Honscheid</i>	
Status of KEKB Accelerator and Detector, BELLE	12
<i>Fumihiko Takasaki</i>	
Status of PEP-II and BaBar	22
<i>Jonathan Dorfan</i>	
HERA-B Status	35
<i>Michael Medinnis</i>	
Brief Report from the Tevatron	43
<i>Manfred Paulini</i>	
Heavy Flavor Physics and CP Violation	
Heavy Quark Decays	53
<i>Ronald A. Poling</i>	
Heavy Quark Lifetimes, Mixing, and CP Violation	80
<i>Guy Blaylock</i>	
e'/ϵ Results from KTeV	104
<i>Edward Blucher</i>	
Results on Direct CP Violation from NA48	120
<i>Giles Barr</i>	
A Status Report of KLOE at DAΦNE	132
<i>Sergio Bertolucci</i>	

Quark Mixing Matrix Studies and Lepton Flavor Violation Searches Using Rare Decays of Kaons	140
<i>William Molzon</i>	
Tau Physics	157
<i>Antonio Pich</i>	
B Decays, the Unitarity Triangle, and the Universe	174
<i>Adam F. Falk</i>	
Neutrino Physics	
Solar Neutrinos	201
<i>Yoichiro Suzuki</i>	
Atmospheric Neutrinos and the Oscillations Bonanza	229
<i>W. Anthony Mann</i>	
Accelerator and Reactor Neutrino Experiments	257
<i>Luigi DiLella</i>	
Neutrino Mass and Oscillations	283
<i>R. G. Hamish Robertson</i>	
Electroweak Interactions and Beyond	
Precision Electroweak Physics at the Z	307
<i>Morris L. Swartz</i>	
Electroweak Measurements from Hadron Machines	333
<i>Mark Lancaster</i>	
Precise Electroweak Results from LEP2	352
<i>David G. Charlton</i>	
R Values in Low Energy e^+e^- Annihilation	368
<i>Zhengguo Zhao</i>	
Status of the Muon ($g - 2$) Experiment	386
<i>B. Lee Roberts</i>	
Ten Years of Precision Electroweak Physics	398
<i>Alberto Sirlin</i>	
New Particle Searches	416
<i>Vanina Ruhlmann-Kleider</i>	
Recent Developments in Physics Beyond the Standard Model	440
<i>Gian F. Giudice</i>	

Structure Within Particles

Structure Functions in Deep Inelastic Lepton-Nucleon Scattering	467
<i>Max Klein</i>	
Diffraction and the Pomeron	495
<i>Halina Abramowicz</i>	
The Spin Structure of the Nucleon	521
<i>Gerhard K. Mallot</i>	
Structure of the Photon	538
<i>Jonathan M. Butterworth</i>	
Rare Φ Decays and Exotic Hadrons	558
<i>Sergei I. Serednyakov</i>	

QCD Phenomena and Theory

Fragmentation and Hadronization	577
<i>Bryan R. Webber</i>	
Tests of Perturbative QCD and Jet Physics	607
<i>John Womersley</i>	
Applications of QCD	632
<i>Martin Beneke</i>	
Lattice Calculations and Hadron Physics	657
<i>Sinya Aoki</i>	

Cosmology and Astrophysics

Dark Matter Searches	687
<i>Bernard Sadoulet</i>	
Supernovae, Dark Energy, and the Accelerating Universe: The Status of the Cosmological Parameters	715
<i>Saul Perlmutter</i>	
High Energy Particles from the Universe	740
<i>Rene A. Ong</i>	
Cosmic Microwave Background: Past, Future, and Present	765
<i>Scott Dodelson</i>	

Looking to the Future

Physics Needs for Future Accelerators	787
<i>Joseph D. Lykken</i>	
R&D Progress Toward Future Linear Colliders	806
<i>Gustav-Adolf Voss</i>	
Towards Very High Energy Accelerators	816
<i>Jonathan S. Wurtele</i>	
Gravity, Particle Physics and Their Unification	840
<i>Juan M. Maldacena</i>	
Assessment and Outlook	853
<i>Burton Richter</i>	
Program	883
Contributed Papers	889
Participants	901
Author Index	915
Subject Index	917