DAΦNE
and other topics in PARTICLE PHYSICS

Frascati, 18-20 Novembre 1992

Volume I
DAΦNE and Other Topics in PARTICLE PHYSICS

Frascati, 18-20 November 1992

VOLUME I

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Organizing Committee

R. Baldini
P. Franzini
L. Maiani
G. Pancheri
M. Piccolo

Secretariat

M.C. D'Amato
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PREFACE

The Meeting on DAΦNE and Other Topics in Particle Physics took place in Frascati, at the INFN National Laboratories, from November 18 to November 20, 1993, and was part of the series of Congressini di Fenomenologia previously held in Torino, Perugia, Trieste, Bari and Rome (Accademia dei Lincei). This year the meeting coincided with the completion of the DAΦNE Physics Handbook by the DAΦNE Theory Working Group. The meeting was dedicated to illustrate the results of this effort and to assess the progress of theoretical and experimental work at the Frascati Laboratories, as they are on the verge of starting the DAΦNE program.

Copies of the transparencies prepared for the meeting are collected in this volume. In presenting them, we would like once more to thank all the participants to the Meeting and, last but not the least, the Frascati staff who contributed to organize it with dedication and enthusiasm.

Luciano Maiani
Chairman of the Organizing Committee
DAΦNE and Other Topics in Particle Physics
Frascati, 18-20 November 1992

PROGRAMME

Wednesday, November 18th

Physics at φ-Factories

Morning

Chair: M. Greco

L. Maiani  Report from the DAΦNE Theory Group
F. Franzini  Status of the KLOE Detector
G. Vignola  Status of the DAΦNE Project
M. Calvetti  Report from CP Violation Experiments

Afternoon

Chair: J. Gasser

H. Leutwyler  Chiral Perturbation Theory
J. Donoghue  Anatomy of a Weak Nonleptonic Matrix Element

Chair: J. Lee-Franzini

F. Close  Scalar Meson Substructure in φ Radiative Decays
R. Petronzio  Anomalous Chiral Lagrangian and Photon Processes at DAΦNE
G. Alexander  Bose-Einstein Correlations in K⁰K⁰

Thursday, November 19th

Morning

Astroparticle Physics

Chair: G. Matone

L. Paoluzi  Results from the GALLEX Experiment
G. Pizzella  The Ultra Low Temperature Detector Nautilus
F. Halzen  Physics at the South Pole (Amanda)

Chair: G. Alexander

V. Berezinsky  Galaxy Formation and Supersymmetric Particles
G. Battistoni  Results from the Macro Experiment
L. Votano  Results from the LVD Experiment
Afternoon

Physics at $\phi$-Factories (Continue)

Chair: K. Seth

D. Cline       An Asymmetric $\phi$-factory for Unique CPT and Quantum Mechanics Tests
T. Bressani    Nuclear Physics with Kaons at DAPHNE with the FINUDA Detector

Chair: A. Courau

A. Molinari  Non-mesonic Decay of Lambda-Hypernuclei and Parity Violating Nuclear Electron Scattering
M. Moineker  Gamma Gamma Physics and its Measurement at DA$\phi$NE
N. Truong     Alternative to Chiral Perturbation Theory
B. Borgia     Observation of High Mass Gamma Gamma Events at LEP

Friday November 20th

Heavy Flavours from Low to High Energy

Morning

Chair: A. Bramon

J. Bijnen         Nambu–Jona–Lasinio Like Models and the Low Energy Effective Action of QCD
R. Cester         Charmonium Spectroscopy-New Results from Experiment E760 at FermiLab
P. J. Franzini    Fine Structure in Heavy Quark Physics

Chair: N. Paver

R. Peccei       Quark Masses and Mixing in Composite Models
R. J. N. Phillips Possible b-quark Polarization Effects at LEP

Afternoon

Chair: M. Pennington

G. Capon         Experimental Results on Heavy Flavours at LEP
I. Peruzzo       Large Hadron Beauty (LHB) Perspectives

Chair: G. Salvini

J. Ellis         Quantum Mechanics at $\phi$-Factories
N. Cabibbo       Closing Remarks
# TABLE OF CONTENTS

## Volume I

**Physics at φ-Factories I**

The DAφNE Theory Working Group  
L. Malani ................................................................. 5

KLOE Status Report  
P. Franzini ................................................................. 49

DAφNE: The Frascati φ–Factory  
G. Vignola ................................................................. 83

KAONS in the ‘90’s  
M. Calvetti ................................................................. 131

Chiral Perturbation Theory: Effective Low Energy Theory of QCD  
H. Leutwyler ................................................................. 175

Anatomy of a Weak Matrix Element  
J. Donoghue ................................................................. 219

Why φ → γS Is Important  
F. Close ................................................................. 241

Photon-Pion Anomalous Interactions at DAφNE  
R. Petronzio ................................................................. 267

Bose-Einstein Enhancement in K⁺K⁻  
G. Alexander ................................................................. 285

## Volume II

**Astroparticle Physics**

Results from the GALLEX Experiment  
L. Paoluzi ................................................................. 297

The Nautilus Experiment  
G. Pizzella ................................................................. 329

Physics at the South Pole (Amanda)  
F. Halzen ................................................................. 343

Galaxy Formation and Neutralino  
V. Berezinsky ................................................................. 381

Results from the Macro Experiment  
G. Battiston ................................................................. 399

First Results: Large Volume Detector (LVD) at Gran Sasso Laboratory  
L. Votano ................................................................. 445
Physics at $\phi$-Factories II

Design of an Asymmetric $\phi$-Factory to Search for Violations of CPT and Q.M.
D. Cline .................................................................463

Nuclear Physics at DA$\phi$NE: FINUDA Experiment
T. Bressani ..............................................................505

Non-mesonic Decay of $\Lambda$-Hypernuclei and Parity Violating Nuclear Electron Scattering
A. Molinari ..............................................................527

Meson Structure at DA$\phi$NE Via Two Photon Reactions
M. Moinester ...........................................................557

Phenomena Involving $\pi$, $k$, $\eta$. Sistematic Analysis: Chiral Perturbation Theory
N. Truong ...............................................................579

High Mass $2\gamma$ Events
B. Borgia .................................................................623

Volume III

Heavy Flavours from Low to High Energy

Nambu–Jona–Lasinio–Like Models and the Low Energy Effective Action of QCD
J. Bijnens ........................................................................643

Formation of (c $\bar{c}$) States from Antiproton–Proton Annihilations in the Fermilab Accumulator (E760)
R. Cester .........................................................................657

Fine Structure of the P–States in Heavy Quarkonium and the Nature of the Spin–Dependent Potential
P.J. Franzini ......................................................................681

Quark Masses and Mixing in Composite Models
R. Peccei ..........................................................................713

Possible b-Polarization Effects at LEP
R.J.N. Phillips ..................................................................741

Experimental Results on Heavy Flavours at LEP
G. Capon ..........................................................................757

Large Hadron B–factory (LHB) Perspectives
I. Peruzzi .........................................................................801

Quantum Mechanics at DA$\phi$NE
J. Ellis ............................................................................833

List of Participants ..........................................................859