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INFN - LABORATORI NAZIONALI DI FRASCATI

LNF-93/003

22 Gennaio 1993

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J. Bijnens
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L. Paoluzi
R. Peccei
I. Peruzzi
R. Petronzio
R.J.N. Phillips
G. Pizzella
N. Truong
G. Vignola
L. Votano

DAΦNE

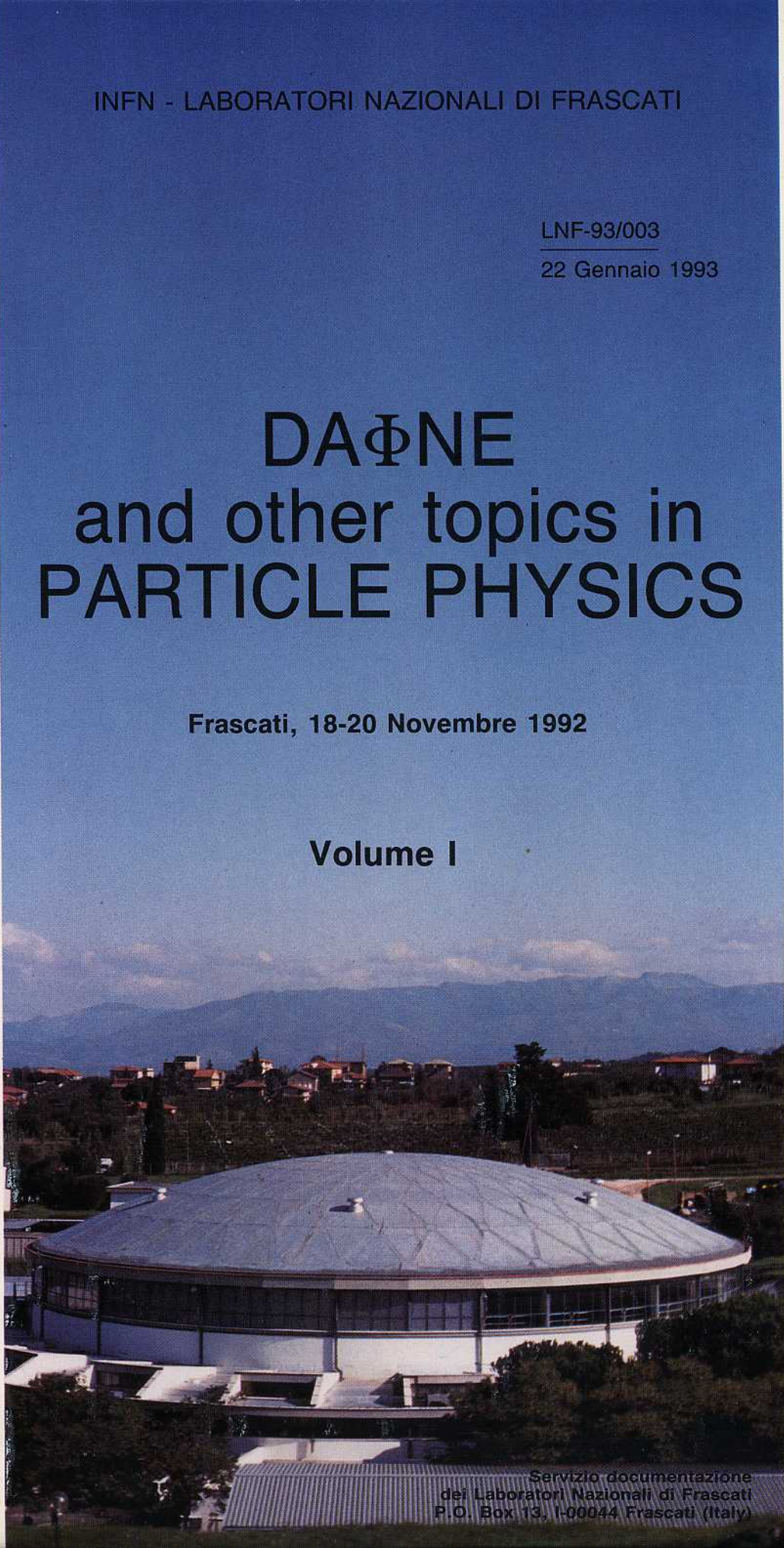
and other topics in PARTICLE PHYSICS

Frascati, 18-20 Novembre 1992

Volume I

Secretariat:

M.C. D'Amato
F. Scacchi



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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
P. 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 $K^0\bar{K}^0$

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

Afternoon

Physics at ϕ -Factories (Continue)

Chair: *K. Seth*

- D.Cline* An Asymmetric ϕ -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. Moinester Gamma Gamma Physics and its Measurement at DAΦNE
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.Bijnens* 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.Peruzzi Large Hadron Beauty (LHB) Perspectives

Chair: *G. Salvini*

- J.Ellis* Quantum Mechanics at ϕ -Factories
N.Cabibbo Closing Remarks

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