



Lectures

- E. de Rafael:
Large N_c QCD and low energy phenomenology
- J. P. Egger:
Physics of exotic atoms
- G. Martinelli:
Status of CP violation
- A. Masiero:
CP violation beyond the Standard Model
- A. Pich:
Physics at τ /charm factories

Special Sessions

- Hadronic cross sections at DAΦNE
- Chiral perturbation theory and lattice calculations

Contributions by EurodaΦne Collaboration

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INFN - LABORATORI NAZIONALI DI FRASCATI

LNF-97/021 (IR)

17 Giugno 1997

LNF SPRING SCHOOL IN NUCLEAR AND SUBNUCLEAR PHYSICS

Frascati, 14-18 April, 1997

To be held jointly with
V EURODAΦNE
Collaboration Meeting

VOLUME I



INFN – Laboratori Nazionali di Frascati
SIS – Pubblicazioni

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17 Giugno 1997

**LNF SPRING SCHOOL &
V EURODAΦNE Collaboration Meeting**

Frascati, April 14–18 1997

Volume I

LNF SPRING SCHOOL & V Eurodaphne Collaboration Meeting

Frascati, April 14-18 1997
New High Energy Building - Main Auditorium

Program

MONDAY 14

- 09.00 Registration
- 09.30 Welcome
- 10.00 **M. Preger** The DAFNE Accelerator Project
- 10.45 **F.L. Fabbri** The FINUDA Detector
- 11:30 *Coffee Break*
- 12.00 **G. Colangelo** Introduction to Chiral Perturbation Theory
- 13:45 *Lunch at ENEA Cafeteria*
- 15:00 (L) **G. Martinelli** On the Status of CP-Violation(I)
- 16:30 *Coffee Break*
- 17:00 EURODAPHNE Collaboration Meeting - Closed Session

TUESDAY 15

- 09.30 (L) **E. de Rafael** Large N_c QCD and Low-Energy Phenomenology (I)
- 11:00 *Coffee Break*
- 11.30 **P. Franzini** The KLOE Experiment
- 12.30 Visit to DAFNE and Experiments
- 13:45 *Lunch at ENEA Cafeteria*

Mini Workshop on Hadronic Cross-sections and Radiative Corrections :

- 15:00 **F. Jegerlehner** Introduction to problems of very precise cross-sections at DAFNE energies
- 15:35 **J. Kuehn** Extracting α_s from electron-positron annihilation around 10 GeV
- 16:10 **G. Cabibbo** Luminosity and energy measurements at DAFNE
- 16:30 *Coffee Break*

- 17:00 **L. Trentadue** Large angle QED processes at e^+e^- colliders at energies below 3 GeV
 17:35 **G. Montagna** QED radiative corrections and radiative Bhabha scattering : a status report
 18:10 Discussion

WEDNESDAY 16

- 09.30 (L) **A. Pich** Physics at τ -charm factories (I)
 11:00 *Coffee Break*
 11.30 (L) **E. de Rafael** Large N_c QCD and Low-Energy Phenomenology (II)
 13.00 **J. Kambor** Recent Developments on Heavy Baryon Chiral Perturbation Theory
 13:45 *Lunch at ENEA Cafeteria*
 15:00 (L) **G. Martinelli** On the Status of CP-Violation (II)
 16:30 *Coffee Break*
 17:00 **E. Shabalin** CP Effects in Decay of Charged Kaons into 3 Pions
 17.25 **M. Knecht** On the Standard Model Estimate on ϵ'/ϵ in presence of a small $q\text{-}\bar{q}$ condensate
 17.50 **J. Taron** Chiral Perturbation Theory : the Nonet Case
 18:15 **P. Gosdzinsky** Vector Meson Masses

THURSDAY 17

- 09.30 (L) **A. Pich** Physics at τ -charm Factories (II)
 11:00 *Coffee Break*
 11.30 **J. Stern** Comments on Two Loop $\pi\text{-}\pi$ Scattering Amplitude
 12:00 (L) **J-P. Egger** Phenomenology of Exotic Atoms
 13:45 *Lunch at ENEA Cafeteria*
 15:00 (L) **A. Masiero** CP-Violation Beyond the Standard Model (I)
 16:30 *Coffee Break*
 17:00 **S. Dubnicka** The Complete Pion Electromagnetic Structure Model and DAFNE Experiments
 17.25 **E. Boglione** Unquenching the Scalar Glueball
 17.50 **S. Peris** Ultraviolet Renormalons and Low-Energy QCD
 18:15 **E. Pallante** Quenched Chiral Perturbation Theory (*)
 20:30 *Social Dinner*

FRIDAY 18

- 09:30 (L) **A. Masiero** CP-Violation Beyond the Standard Model (II)
- 11:00 *Coffee Break*
- 11:30 (L) **C. Guaraldo** The DEAR Experiment
- 12:00 (L) **J-P. Egger** Experimental Aspects of Physics of Exotic Atoms
- 13:45 *Lunch at ENEA Cafeteria*
- 15:00 **S. Bellucci** The decay $\eta \rightarrow \pi\pi\gamma\gamma$
- 15:30 **H. Neufeld** Non-Leptonic Radiative Kaon Decays
- 16:00 **N. Achasov** Search for the Scalar a_0 and f_0 Mesons in the reaction $e^+e^- \rightarrow \gamma \pi^0 \pi^0 \eta$
- 16:30 *Coffee Break*
- 17:00 **G. D'Ambrosio** Vector Resonance Exchange Contributions to $K \rightarrow \pi\gamma\gamma$ and $K_L \rightarrow \gamma\gamma^*$
- 17:25 **J. Portoles** The Slope of the $K_L \rightarrow \pi\pi\gamma$ and Vector Meson Contributions in a Factorization Approach
- 17:50 **J.A. Oller** Chiral Symmetry Coupled Channel Approach to the S-wave Meson-meson Interaction and the $\gamma\gamma \rightarrow$ meson meson Process
- 18:15 **V. Antonelli** Chiral Quark Model in K-meson Physics
- Concluding Remarks**

(L) = Lectures

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