# SCIENTIFIC PROGRAMME
## *PRELIMINARY*

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**Monday, February 28th**
**8.30 – 11.30 (3h)**
**Session I – Astrophysics and Cosmology**

1. The startup of LIGO (Alan Wiseman, Madison)
2. On the Origin of Cosmic Rays (Alvaro de Rujula, CERN)
3. Gamma Ray Astronomy on the Ground: Results and Perspectives (Bruno Khelifi, Heidelberg)
4. Galactic Gamma Rays from Dark Matter Annihilation (Dmitri Kazakov, ITEP)
5. New Physics with neutrino, cosmology and astrophysics (Alexander Dolgov, Ferrara)

**16.30 – 19.00(2h30)**

**Session I – Astrophysics and Cosmology (cont.)**

1. Review of Dark Matter Searches (Rita Bernabei, Roma)
2. Searching for Dark Matter in Space (Aldo Morselli, Roma)
3. Dark Energy and (new?) Particle Physics (Antonio Masiero, Padova)
4. Neutrinos: a theoretical perspective (Guido Altarelli, Roma/CERN)

**19.00**
**Let's have a drink!**

**Tuesday, March 1st**
**8.30-11.30 Session II –Neutrino Physics**

1. The Role of Black Holes in the Universe (Andreas Eckart, Koln)
2. Results from Amanda (Kurt Woschnagg, Berkeley)
3. Results from SNO (Jeanne Wilson, Oxford)
4. Results from K2K (Takeshi Nakadaira, KEK)
5. Results from Kamland (Patrick Decowski, Berkeley)
6. Neutrino Motion and Radiation in Matter (Alexander Studenikin, Moscow)

**16.30- 17.20 (1h.)**
**Session II –Neutrino Physics (cont.)**
7. The Startup of MINOS (Tass Belias, Rutherford)
8. The CNGS program: a status report (Eugenio Coccia, LNGS)

**17.30- 19.30 (3h.)**
**Session III- QCD Physics**

1. Studies of Jet Properties at the Tevatron (Mario Martinez, Barcelona)
2. Hadron Spectroscopy and Heavy Flavours Production at HERA (Davide Boscherini, Bologna)
3. Review of experimental results on Pentaquarks (Michail Danilov, ITEP)
4. Renormalons at the boundaries between perturbative and non-perturbative QCD (Andrei Kataev, Moscow)

**Wednesday, March 2nd**
**8.30-11.30**
**Session IV –Heavy Flavour Physics**

1. Vus and Rare Kshort Decays at KLOE (Mario Antonelli, LNF)
2. KLOE Results on the f0, a0 Scalars, and on eta Decays (Fabio Ambrosino, Naples)
3. Recent BES Results on Charmonium Physics (Gang Li, Beijing)
4. Charm Physics with CLEO (Alex Smith, Minnesota)
5. Psi-Psi' Phases and Impact on Measurements in Charmonium (Ping Wang, Beijing)
6. Production, Masses and Lifetimes of B and C Hadrons at the Tevatron (Mike Hildreth, Notre Dame)
7. Charm Physics with BELLE (A.S.Kuzmin, Novosibirsk)
8. Rare Decays and Exotic States at BaBar (Steven Robertson, Montreal)
9. CP violation in K -> 3pi decays (Eugenij Shabalin, Moscow)
10. On the K-Kbar system and CPT (Victor Novikov, Moscow)

**17.00 – 19.30**
**Session V– Round Table: Which Physics with High Intensity Medium Energy Accelerators?**
**"Physics and Feasibility of High Intensity, Medium Energy Accelerators"**

**Round Table Members:**
The situation in Europe: a critical assessment (Franco Cervelli, Pisa)
Super DAPHNE, Super PEP2 (Pantaleo Raimondi, Frascati)
Physics at Super DAPHNE (Gino Isidori, Frascati)
Physics at Proton Factories (Speaker TBA)
Physics at Super PEP2 (Speaker TBA)
An High Intensity Proton Beam at CERN (Roland Garoby, CERN)

**GALA DINNER**

**Thursday, March 3rd**
**8:30 – 11.30 (3h)**
**Session VI-CP Violation and Rare Decays**

1. Search for Direct CPV in K decays (Marco Sozzi, Pisa)
2. Klong in e-e-gamma (Sasha Glazov, Chicago)
3. CPV Angles measurement at Babar (Tom Latham, Warwick)
4. Measurements of Vub and Vcb at BaBar (Rolf Dubitzky, Heildeberg)
5. Angles of the Unitarity Triangle from BELLE (A.Schwartz, Cincinnati)
6. Sides of the Unitarity Triangle from BELLE (Isamu Nakamura, KEK)
7. Bd and Bs oscillations at the Tevatron (Stephanie Menzemer, MIT)
8. "CP Violation: Circa 2005" (Amarjit Soni, Brookhaven)

**16.30-19.30**
**Special Session - PHYSICS AND SOCIETY - The energy problem**

1. Energy from Fusion, from Dream to ITER (Duarte Borba, EFDA-CSU Culham)
2. Geothermal energy (Ruggero Bertani, ENEL)
3. Wind and Idro energy (Mats Leijon, Uppsala)
4. Solar Energy (Marco Rosa Clot, Firenze)

***CONCERT***

**Friday, March 4th**
**8.30 – 11.30 (3h)**
**Session VII– EW and Top Physics**

1. Alfa_em measurements at LEP (Giovanni Abbiendi, Bologna)
2. W Boson Properties at LEP (Chris Parkes, Glasgow)
3. W production and Mass at the Tevatron (Oliver Stelzer-Chilton)
4. Top mass (George Velev, Fermilab)
5. Top Properties and Cross Section (Frank Fiedler, Munich)
6. Di-Boson Production and Higgs Searches at the Tevatron (Daniel Elvira)
7. Determination of Vus: recent progresses from theory (Vittorio Lubictz, Roma)

**16.30-19.30 (3h)**
**SESSION VIII –**
**Search for Physics Beyond the SM**
1. Search for Physics Beyond the Standard Model at LEP (Isabel Trigger, CERN)
2. EWK and New Physics at HERA (Judith Katzy, DESY)
3. Searches for SuperSymmetry at the Tevatron (Arnaud Duperrin, Marseille)
4. Non SUSY Searches at the Tevatron (Kaori Maeshima, Fermilab)
5. Ignoring the Hierarchy Problem (Andrea Romanino, CERN)

**Saturday, March 5th**
**8.30-10.30 (2h)**
**Session IX – Future Scenarios**

1. Findings and Prospects of the SDSS Search (Tamas Budavari, Baltimore)
2. The On-Going Effort Towards a Global Linear Collider (Carlo Pagani, Milano)
3. Table-Top Accelerators (Jerome Faure, Paris)
4. Preparing for Physics at LHC (Fabiola Gianotti, CERN)