



the

**Abdus Salam**

**International Centre for Theoretical Physics**

Fourth International Conference on Perspectives in Hadronic Physics

Cosponsor(s): INFN, Istituto Nazionale di Fisica Nucleare, Italia  
 Organizer(s): S. Boffi, C. Ciofi degli Atti, M. Giannini  
 Trieste – Italy, 12 – 16 May 2003

**Final programme**

**Monday, 12 May 2003** (Room: Main Building Lecture Hall)  
**Chairman: Xiangdong JI / B. Schoch**

**12 May 2003**

|                      |   |
|----------------------|---|
| <b>08:30 – 09:20</b> | (Room: Main Building, Lobby)<br><b>Registration (entrance level, outside Main Lecture Hall)</b>                               |
| <b>09:20 – 10:00</b> | <b>J. Stachel / Heidelberg</b><br><b>Quark–gluon plasma: facts and facets</b>   |
| <b>10:00 – 10:40</b> | <b>D. Treleani / Trieste</b><br><b>Multiple production of heavy quarks in pp and in pA interactions at very high energies</b> |
| <b>10:40 – 11:10</b> | ---- Coffee break ----  |
| <b>11:10 – 11:50</b> | <b>T. Ullrich / BNL</b><br><b>Survey of experimental results from RHIC</b>  |
| <b>11:50 – 12:30</b> | <b>E. Vercellin / Torino</b><br><b>ALICE</b>  |

|               |   |
|---------------|---|
| 12:30 – 14:30 | ---- Lunch break ----   |
| 14:30 – 15:10 | <b>G. Bali / Glasgow</b><br><b>Lattice gauge calculations of hadron properties</b>  |
| 15:10 – 15:50 | <b>A. Thomas / Adelaide</b><br><b>Lattice QCD: How non-perturbative quarks and gluons make hadrons</b>                                |
| 15:50 – 16:30 | <b>Ch. Pauli / Heidelberg</b><br><b>On the renormalization of an effective light-cone Hamiltonian and the physical meson spectrum</b> |
| 16:30 – 17:00 | ---- Coffee break ----  |
| 17:00 – 17:40 | <b>T. Nakano / Osaka</b><br><b>Spring-8</b>   |
| 17:40 – 18:00 | <b>H. Gutbrod / GSI</b><br><b>GSI</b>   |
| 18:00 – 19:30 | ---- Get-together Drink ----  |

**Tuesday, 13 May 2003** (Room: Main Building Lecture Hall)  
**Chairman: W. Goeckle / P. Braun-Munzinger / B.Z. Kopeliovich**

**13 May 2003**

|               |   |
|---------------|---|
| 09:00 – 09:40 | <b>M.B. Johnson / LANL</b><br><b>Propagation of fast partons in nuclear medium</b>                                  |
| 09:40 – 10:20 | <b>B. Kopeliovich / Heidelberg</b><br><b>Pion quenching in cold and hot media</b>                                   |
| 10:20 – 10:50 | ---- Coffee break ----  |
| 10:50 – 11:30 | <b>M. Leitch / Los Alamos</b><br><b>J/Psi and heavy-quark production in E866 at FNAL and PHENIX at RHIC</b>         |
| 11:30 – 11:50 | <b>C. Ciofi degli Atti / Perugia</b><br><b>FSI in semi-inclusive DIS</b>  |
| 11:50 – 12:10 | <b>A. Polleri / Munich</b><br><b>Kinetic description of charmonium production in high-energy nuclear collisions</b> |
| 12:10 – 12:30 | <b>H. Gutbrod / GSI</b><br><b>p-Bar A scattering and charm production</b>   |
| 12:30 – 14:30 | ---- Lunch ----   |
| 14:30 – 15:10 | <b>X. Ji / Maryland</b><br><b>Viewing the proton through "color" filters</b>  |
| 15:10 – 15:50 | <b>M. Vanderhaeghen / Mainz</b><br><b>Deeply virtual Compton scattering and meson production</b>                    |
| 15:50 – 16:30 | <b>K. de Jager / Jlab</b><br><b>Recent results from Jlab on nucleon response functions</b>                          |
| 16:30 – 17:00 | ---- Coffee break ----  |
| 17:00 – 17:40 | <b>J.-M. Laget / Saclay</b><br><b>Overview of hard scattering processes at Jlab</b>                                 |

- 17:40 – 18:20**      **K. Rith / Erlangen**  
**Selected recent results from HERMES**
- 18:20 – 18:40**      **G. Lykasov / Dubna**  
**Hadron multiplicity in semi-inclusive lepton-nucleon and lepton-nucleus scattering**

**Wednesday, 14 May 2003 (Room: Main Building Lecture Hall)**  
**Chairman: M.A. Braun / R. Schiavilla / J.M. Laget / F. D. Pa**

**14 May 2003**

- 09:00 – 09:40**      **I. Zahed / Stony Brook**  
**Semiclassical interpretation of high energy collisions off hadrons and nuclear matter**
- 09:40 – 10:00**      **D. Dutta / TUNL**  
**Nuclear transparency measurements at Jlab and the search for colour transparency**
- 10:00 – 10:20**      **C. Guaraldo / Frascati**  
**First results on kaonic hydrogen from DEAR at DAFNE**
- 10:20 – 10:50**      ---- Coffee break ----
- 10:50 – 11:30**      **M. Baldo / Catania**  
**Neutron stars**
- 11:30 – 11:50**      **A. Drago / Ferrara**  
**Gamma ray bursts from delayed collapse of neutron stars to quark matter stars**
- 11:50 – 12:10**      **O. Lyytikäinen / Giessen**  
**Ground state correlations in deep inelastic scattering and Drell-Yan process**
- 12:10 – 12:30**      **M. Rosina / Ljubljana**  
**Double-heavy baryons and mesons**
- 12:30 – 14:30**      ---- Lunch ----
- 14:30 – 15:10**      **R. Schiavilla / Jlab**  
**Nuclear forces and nuclear systems**
- 15:10 – 15:50**      **M.A. Braun / St. Petersburg**  
**FSI and finite formation time in  $A(e,e')X$  and  $A(e,e'p)B$  processes**
- 15:50 – 16:20**      ---- Coffee break ----
- 16:20 – 16:40**      **B. Reitz / Jlab**  
**The  $4\text{He}(e,e'p)3\text{H}$  at Jlab**
- 16:40 – 17:00**      **D. Higinbotham / Jlab**  
**The  $3\text{He}(e,e'p)X$  at Jlab**
- 17:00 – 17:20**      **L. Weinstein / Old Dominion**  
**NN Correlations measured in  $3\text{He}(e,e'pp)n$  at Jlab**
- 17:20 – 17:40**      **G. Batigne / Grenoble**  
**First results of the G0 commissioning Run**

**Thursday, 15 May 2003 (Room: Main Building Lecture Hall)**  
**Chairman: W. Plessas / F. Iachello / M. Ripani / W.-D. Nowak**

15 May 2003

- 09:00 – 09:40 **S. Scherer / Mainz**  
**Structure of hadrons in relativistic chiral perturbation theory**
- 09:40 – 10:20 **F. Iachello / Yale**  
**Structure of the nucleon from electromagnetic form factors**
- 10:20 – 10:50 --- Coffee break ---
- 10:50 – 11:10 **E. Santopinto / Genova**  
**Electromagnetic form factors and Hypercentral Quark Model**
- 11:10 – 11:30 **W. Plessas / Graz**  
**Quark model description of light and strange baryons**
- 11:30 – 11:50 **G. Salme' / Roma2**  
**Transverse asymmetry of  $^3\text{He}$  and the neutron magnetic form factor**
- 11:50 – 12:10 **B. Silvestre-Brac / Grenoble**  
**Electromagnetic splittings in mesons and baryons**
- 12:10 – 12:30 **A. Valcarce / Salamanca**  
**A quark model study of the  $p(d,d')$  reaction and the  $\sigma_{NN^*}(1440)$  coupling constant**
- 12:30 – 14:30 --- Lunch ---
- 14:30 – 14:50 **U. Mueller / Mainz**  
**MAMI**
- 14:50 – 15:10 **B. Schoch / Bonn**  
**Meson production and experimental studies of the excitation spectrum of the nucleon**
- 15:10 – 15:30 **L. Tiator / Mainz**  
**Electroproduction of nucleon resonances**
- 15:30 – 15:50 **A. Sarty / Saint Mary's**  
**Recoil-polarization measurements for neutral pion electroproduction near the Delta resonance**
- 15:50 – 16:10 **S. Dytman / Pittsburgh**  
**Critical evaluation of  $N^*$  states in light of recent data**
- 16:10 – 16:30 **M. Manley / Kent**  
**Introduction to BRAG: The baryon resonance analysis group**
- 16:30 – 17:00 --- Coffee break ---
- 17:00 – 17:20 **M. Ripani / Genova**  
**Resonance search in two pion electroproduction at Jefferson Lab.**
- 17:20 – 17:40 **M. Gorchtein / Genova**  
**Generalized nucleon sum rules within a constituent quark model**
- 17:40 – 18:00 **N. D'Hose / Saclay**  
**Possible measurements of GPD's at CERN**

Friday, 16 May 2003 (Room: Main Building Lecture Hall)

Chairman: T. Nakano / K. Rith

**16 May 2003**

**09:00 – 09:20**

**W.-D. Nowak / DESY**  
**HERMES-II**

**09:20 – 09:40**

**K. de Jager / Jlab**  
**The Jlab 12 GeV upgrade and beyond**

**09:40 – 10:00**

**K. de Jager / Jlab**  
**Future developments on high-energy photon polarimeter in Jlab**

**10:00 – 10:20**

**R. Beck / Mainz**  
**MAMI-C**

**10:20 – 10:40**

**J. Hasell / MIT**  
**Status of the BLAST experiment**

**10:40 – 11:10**

--- Coffee break ---

**11:10 – 11:30**

**A. Deshpande / Brookhaven**  
**Future of e-N facilities in USA**

**11:30 – 11:50**

**A. Bressan / Trieste**  
**Status of the COMPASS experiment**

**11:50 – 12:10**

**S. Strauch / GWU**  
**Medium modification of the proton form factor**

**12:10 – 12:30**

**C. Guaraldo / Frascati**  
**The HadronPhysics I3**

**12:30 – 12:45**

**Closing Remarks**