



The Abdus Salam
International Centre for Theoretical Physics



Fifth International Conference
on
PERSPECTIVES IN HADRONIC PHYSICS
Particle-Nucleus and Nucleus-Nucleus Scattering at Relativistic Energies

Cosponsors:

The Italian National Institute for Nuclear Physics (Istituto Nazionale di Fisica Nucleare - INFN)
Consorzio per l'incremento degli Studi e delle Ricerche dei Dipartimenti di Fisica dell'Università di Trieste
Università degli Studi di Perugia, Dipartimento di Fisica

Directors:

C. Ciofi degli Atti, D. Treleani

Trieste – Italy, 22 - 26 May 2006

Main Building Lecture Hall

PROGRAMME

MONDAY, 22 MAY 2006 (MAIN BUILDING LECTURE HALL)

08:30 - 09:30 (Room: Main Building Lobby) **REGISTRATION / ADMINISTRATIVE FORMALITIES**

09:30 - 09:45 **OPENING SESSION**

HADRON STRUCTURE

09:45 - 10:15 **A. THOMAS / (TJNAL) Contribution of Strange Quarks to the Structure of the Nucleon** (to be presented by **W. Melnitchouk**)

10:15 - 10:45 **B. PIRE / (Palaiseau) Hard exclusive reactions and hadron structure**

10:45 - 11:00 (*Room: Main Building Lobby*)
--- **COFFEE BREAK** ---

11:00 - 11:30 **J.-P. LANSBERG / (Palaiseau) Exclusive meson pair production at $\gamma^*\gamma^*$ scattering at forward angles**

11:30 - 12:00 **B. POVH / (Heidelberg) Two Scales of Hadronic Structure**

- 12:00 - 14:00** *(Room: Main Building Cafeteria)*
--- *LUNCH BREAK* **---**
- 14:00 - 14:30** **C. KEPPEL / (TJNAL) Quark-Hadron Duality**
(To be presented by P. Bosted)
- 14:30 - 15:00** **M. MAZOUS / (Grenoble) Deeply Virtual Compton Scattering in Jlab Hall A**
- 15:00 - 15:30** **E. FERREIRA / (Rio de Janeiro) Elastic photo and electroproduction of vector mesons**
- 15:30 - 15:50** **E. SANTOPINTO / (Genova) Elastic form factors of the nucleon in the relativized hyper-central constituent quark model**
- 15:50 - 16:10** **Y.B. DONG / (Beijing) Nucleon Form Factor and N- Δ Transition in a Hypercentral Constituent Quark Model**
- 16:10 - 16:25** *(Room: Main Building Lobby)*
--- *COFFEE BREAK* **---**
- 16:25 - 16:55** **G. SALME' / (INFN Roma) Electromagnetic Form Factors of Hadrons and Higher Fock Components**
- 16:55 - 17:25** **P. KROLL / (Wuppertal) Exclusive Scattering at Large Momentum Transfer**
- 17:25 - 17:50** **B. PASQUINI / (Pavia) Generalized Parton Distributions in a Meson Cloud Model**
- 17:50 - 18:15** **S. SCOPETTA / (Perugia) Generalized parton distributions of hadrons with composite constituents**
- 18:15 - 18:40** **W. MA / (Beijing) TBC**
- 18:40 - 18:55** **J. SA BORGES/(Rio de Janeiro) The in-medium modification of the rho resonance**
- 19:30 - 22:00** **(Room: Main Building Terrace)**
--- **GET TOGETHER DRINK** **---**

TUESDAY, 23 MAY 2006 (Main Building Lecture Hall)

LEPTON-NUCLEON AND LEPTON-NUCLEUS SCATTERING

- 09:00 - 09:30** **L. FRANKFURT / (Tel Aviv) Universalities and bifurcations in the physics of strong gluon fields**
- 09:30 - 10:00** **M. RIPANI / (INFN Genova) Nucleon spin physics with CLAS at Jlab: a window into the structure of hadrons**
- 10:00 - 10:30** **I. SCHMIDT / (Valparaiso) Higgs production through intrinsic heavy quarks**
- 10:30 - 10:45** *(Room: Main Building Lobby)*
--- COFFEE BREAK ---
- 10:45 - 11:15** **W. MELNITCHOUK / (TJNAL) Structure functions at low Q^2 : higher twists and target mass effects**
- 11:15 - 11:45** **E. IANCU / (Saclay) The high-energy limit of DIS diffraction in QCD**
- 11:45 - 12:15** **N. BIANCHI / (Frascati) Review on DIS electro-production on nuclei**
- 12:15 - 14:00** *(Room: Main Building Cafeteria)*
--- LUNCH BREAK ---
- 14:00 - 14:30** **H. PIRNER / (Heidelberg) Hadronization in Nuclear Collisions**
- 14:30 - 15:00** **V. METAG / (Giessen) Hadrons in the nuclear medium: recent experimental results**
- 15:00 - 15:30** **U. MOSEL / (Giessen) Hadrons in Medium: Low and High Energy Observables**
- 15:30 - 16:00** **P. BOSTED / (TJNAL) Tests of Factorization in Polarized and Unpolarized Semi-Inclusive Deep-Inelastic Scattering at Jlab**
- 16:00 - 16:15** *(Room: Main Building Lobby)*
--- COFFEE BREAK ---
- 16:15 - 16:45** **S. GILAD / (MIT) Interplay of nuclear structure and dynamics in the $^3\text{He}(e, e'p)d$ and $^3\text{He}(e, e'p)pn$ reactions at high momentum transfer**
- 16:45 - 17:15** **H. MORITA/ (Perugia-Sapporo) Hadron propagation in the medium: the exclusive process $A(e, e'p)B$ in few-nucleon systems**
- 17:15 - 17.45** **M. SARGSIAN / (FIU) Superfast Quarks in the Nuclear Medium**

17:45 - 18:15 **E. PIASETZKY / (Tel Aviv) Studying close proximity nucleons in nuclei via high-energy/large momentum-transfer exclusive electron nucleus reactions**

20:00 – 22:00 **POSTER SESSION with RECEPTION (Wine and Cheese)**

WEDNESDAY, 24 MAY 2006 (Main Building Lecture Hall)

NUCLEON-NUCLEUS AND NUCLEUS-NUCLEUS SCATTERING

09:00 - 09:30 **D. D'ENTERRIA / (CERN) Probing QCD at high parton densities: from RHIC to LHC**

09:30 - 10:00 **B. KOPELIOVICH / (Valparaiso) Jet time evolution and perturbative hadronization**

10:00 - 10:30 **J. QIU / (Iowa State) Universal nuclear dependence in high energy nuclear collisions**

10:30 - 10:45 *(Room: Main Building Lobby)*
--- COFFEE BREAK ---

10:45 - 11:15 **N. ARMESTO / (Santiago de Compostela) Testing radiative energy loss at RHIC and the LHC**

11:15 - 11:45 **M. STRICKLAND / (Frankfurt) Nonabelian plasma instabilities**

11:45 - 12:15 **G. MILLER / (Seattle) Quantum opacity, the RHIC HBT puzzle, and the chiral phase transition**

12:15 - 14:00 *(Room: Main Building Cafeteria)*
--- LUNCH BREAK ---

14:00 - 14:30 **E. OSET / (Valencia) Recent developments in chiral dynamics of hadrons and hadrons in a nuclear medium**

14:30 - 15:00 **M. Di TORO / (Catania) Heavy Ion Collisions at Relativistic Energies: Testing a Nuclear Matter at High Baryon and Isospin Density**

15:00 - 15:30 **R. RAPP / (Texas A&M) Dileptons and Medium Effects in Heavy-Ion Collisions**

- 15:30 - 15:45 *(Room: Main Building Lobby)*
 --- COFFEE BREAK ---
- 15:45 - 16:15 **M. MONTENO / (Torino) The physics program of the ALICE experiment at the LHC**
- 16:15 - 16:45 **F. ARLEO / (CERN) Hard pion and prompt photon at RHIC, from single to double inclusive production**
- 16:45 - 17:15 **F. GELIS / (Saclay) AGK cancellations in the Color Glass Condensate framework**
- 17:15 - 17:45 **C. SALGADO / (CERN) Jets in heavy ion collisions**

18:00 - 19:00 (Room: Main Building Lecture Hall)
 --- CONCERT ---

THURSDAY, 25 MAY 2006 (Main Building Lecture Hall)

- 09:00 - 09:30 **U. WIEDEMANN / (CERN) Hard Probes at RHIC and at the LHC: Physics Challenges**
- 09:30 - 10:00 **M. LEITCH / (Los Alamos) Quarkonia Production in p-p, p(d)-A and A-A collisions**
- 10:00 - 10:30 **E. FERREIRO / (Santiago de Compostela) Saturation: color strings, pomerons and color glass condensate**
- 10:30 - 10:45 *(Room: Main Building Lobby)*
 --- COFFEE BREAK ---
- 10:45 - 11:15 **J.-P. BLAIZOT / (ECT*) The high temperature phase of QCD**
- 11:15 - 11:45 **F. BECATTINI / (Firenze) Production of multiply heavy flavoured baryons from Quark Gluon Plasma at LHC**
- 11:45 - 12:15 **M. STRIKMAN / (Penn State) Revealing small x dynamics of nuclei and protons in ultraperipheral collisions at RHIC and LHC**
- 12:15 - 14:00 *(Room: Main Building Cafeteria)*
 --- LUNCH BREAK ---
- 14:00 - 14:25 **E. CATTARUZZA/(Trieste) Fractional momentum correlations in multiparton collisions at LHC**
- 14:25 - 14:45 **Y. KHARLOV / (IHEP) Direct photon detection in pp and Pb-Pb collisions in the ALICE experiment at LHC**
- 14.45 - 15:00 **G. UPADHYAYA/ (Ujjain) Gravitational effects in relativistic nucleus-nucleus**

collisions

15.00 – 15.15 A. RIOS HUGUET/(Barcelona) Correlations in hot symmetric nuclear matter

UNUSUAL STATES OF MATTER AND MATTER UNDER EXTREME CONDITIONS

15:15 – 15:45 F. PICCININI /(Pavia) New hadrons as four-quark states

15:45 - 16:15 V. VENTO / (Valencia) Topological Structure of Dense Hadronic Matter

16:15 - 16:30 *(Room: Main Building Lobby)*
--- COFFEE BREAK ---

16:30 - 17:00 M. ROSINA / (Ljubljana) The signature of some promising dimeson decays

17:00 -17:30 A. PANAGIOTOU / (Athens) Searching for Strange Quark Matter, ‘Strangelets’, with the CMS/CASTOR Detector at the LHC

17:30 - 18:00 M. POLYAKOV/(Bochum) Exotic hadronic states

18:00 - 18:20 G. LYKASOV/(Dubna) Charmonium dissociation by mesons and heavy ions collisions

18:20 - 18:40 P. HUTAURUK / (Indonesia Un.) Effect of the neutrino form factors on the neutrino cross section in dense matter

18:40 - 18:55 B. CHAKRABARTI / (Kolkata) A study of pentaquark states

20:30 – 22:30 --- CONFERENCE DINNER ---

FRIDAY, 26 MAY 2006 (Main Building Lecture Hall)

09:00 - 09:30 M. ALFORD / (St. Louis) Color superconductivity in ultra-dense quark matter

09:30 – 10:00 M. BALDO / (Catania) The Nuclear Matter Equation of State at High Density

10:00 - 10:30 **A. DRAGO / (Ferrara) The quark-deconfinement model of Gamma-Ray-Bursts**
10:30 - 10:45 *(Room: Main Building Lobby)*
 --- COFFEE BREAK ---

EXPERIMENTAL FACILITIES

10:45 - 11:15 **M. GARCON / (Saclay) Overview of physics with CLAS at Jlab**
11:15 - 11:45 **W. HENNING / (GSI) FAIR - Research and a Status Report**
11:45 - 12:15 **S. SAWADA / (KEK) Japan Proton Accelerator Research Complex, J-PARC**
12:15 - 14:00 *(Room: Main Building Cafeteria)*
 --- LUNCH BREAK ---
14:00 - 14:30 **S. KUMANO / (KEK) Hadron Physics at J-PARC**
14:30 - 15:00 **D. HASELL / (MIT) A High Luminosity Electron - Ion Collider**
15:00 - 15:30 *(Room: Main Building Lobby)*
 --- COFFEE BREAK ---

GUEST LECTURE and CLOSING

15:30 - 16:30 **R. GLAUBER / (Harvard) Quantum Optics and Heavy Ion Physics**
16:30 - 16:45 **CLOSING**