

MINI-WORKSHOP: PERSPECTIVES IN NONPERTURBATIVE QCD

7 and 8 May 2012

Instituto de Física Teórica – IFT
&
South-America Institute for Fundamental Research – SAIFR

A two-day workshop to discuss status and perspectives on selected topics in nonperturbative QCD. Physics topics include:

- QCD vacuum
- Quark-gluon confinement
- Dynamical Chiral Symmetry Breaking
- Hadron structure & Hadron-hadron forces
- Quark-gluon plasma

discussed in the context of the nonperturbative methods of:

- Lattice QCD
- Effective field theories
- AdS/CFT
- Dyson-Schwinger & Bethe-Salpeter equations
- QCD sum rules

SPEAKERS:

- 1) Anthony W. Thomas, Adelaide (Australia)
- 2) Jorge Noronha, Univ. of São Paulo (São Paulo)
- 3) Marcio Woitek Jr., IFT (São Paulo)
- 4) Ubirajara van Kolck, Paris Sud (France) & Univ. Arizona (USA)
- 5) Ian Cloët, Univ. Adelaide (Australia)
- 6) Peter Tandy, Kent State (USA)
- 7) Bruno El-Bennich, Univ. Cruzeiro do Sul (São Paulo)
- 8) Wolfgang Bietenholz, UNAM (Mexico)
- 9) Sergio Novaes, IFT (São Paulo)
- 10) Sandra Padula, IFT (São Paulo)
- 11) Craig D. Roberts, Argonne (USA)
- 12) Ricardo Matheus, IFT (São Paulo)
- 13) Fernanda M. Steffens, IFT (São Paulo)
- 14) David Wilson, Argonne (USA)

PROGRAM SCHEDULE

MONDAY, MAY 7TH

AUDITORIUM 4TH FLOOR OF IFT BUILDING

Monday, Monday May 7th		
10:00 – 10:50	Anthony Thomas	Nonperturbative QCD: status and perspectives
10:50 – 11:40	Jorge Noronha	AdS/CFT for the quark-gluon plasma
11:40 – 12:30	Marcio Woitek Jr	Chaotic thermalization in classical gauge theories
12:30 – 14:30	Lunch	Lunch
14:30 – 15:20	Bira van Kolck	Nuclear physics from QCD
15:20 – 16:10	Ian Cloët	QCD in nuclei
16:10 – 16:40	Coffee Break	Coffee Break
16:40 – 17:30	Peter Tandy	Insight for nonperturbative QCD from meson structure
17:30 – 18:20	Bruno El-Bennich	Dyson-Schwinger, Bethe-Salpeter approach to heavy-quark mesons

TUESDAY, MAY 8TH

AUDITORIUM NCC GROUND FLOOR OF IFT BUILDING

Tuesday, May 8th		
10:00 – 10:50	Wolfgang Bietenholz	Relating lattice QCD to chiral perturbation theory
10:50 – 11:40	Sergio Novaes	GridUNESP – a computational grid for scientific research
11:40 – 12:30	Sandra Padula	Measurements of Bose-Einstein correlations in pp collisions at LHC with CMS
12:30 – 14:30	Lunch	Lunch
14:30 – 15:20	Craig Roberts	Confinement contains condensates
15:20 – 16:10	Ricardo Mateus	QCD sum rules for hadron structure
16:10 – 16:40	Coffee Break	Coffee Break
16:40 – 17:30	Fernanda Steffens	Quark distributions at small Q^2
17:30 – 18:20	David Wilson	Contact interaction approach to QCD