

**XXII RETINHA**

**Report of Contributions**

Contribution ID: 0

Type: **not specified**

## Abertura

*Monday, 21 February 2011 09:15 (15 minutes)*

**Presenter:** HAMA, Yogiro (USP)

Contribution ID: 1

Type: **not specified**

## **Hidrodinâmica e ridges**

*Monday, 21 February 2011 09:30 (30 minutes)*

**Primary author:** ANDRADE, Rone Peterson Galvao de (IF - USP)

**Presenter:** ANDRADE, Rone Peterson Galvao de (IF - USP)

Contribution ID: 2

Type: **not specified**

## **Relativistic dissipative hydrodynamics and heavy ion collisions: some recent developments**

*Monday, 21 February 2011 10:00 (30 minutes)*

**Primary author:** PERALTA, Jerónimo (IFT - Unesp)

**Presenter:** PERALTA, Jerónimo (IFT - Unesp)

Contribution ID: 3

Type: **not specified**

## Café

*Monday, 21 February 2011 10:30 (30 minutes)*

Contribution ID: 4

Type: **not specified**

## **Fluxo dirigido na hidrodinâmica evento a evento**

*Monday, 21 February 2011 11:00 (30 minutes)*

**Primary author:** GARDIM, Fernando (USP)

**Presenter:** GARDIM, Fernando (USP)

Contribution ID: 5

Type: **not specified**

## **Chaos and the vacuum structure of SU(2) Yang-Mills theory**

*Monday, 21 February 2011 11:30 (30 minutes)*

**Primary author:** Mr WOITEK, Marcio (IFT)

**Presenter:** Mr WOITEK, Marcio (IFT)

Contribution ID: 6

Type: **not specified**

## Almoço

*Monday, 21 February 2011 12:00 (2 hours)*



Contribution ID: 7

Type: **not specified**

## **J//Psi mass shift and J/Psi-nuclear bound state**

*Monday, 21 February 2011 14:00 (30 minutes)*

**Primary author:** TSUSHIMA, Kazuo (Adelaide Univ.)

**Presenter:** TSUSHIMA, Kazuo (Adelaide Univ.)

Contribution ID: 8

Type: **not specified**

## **Pulsares e magnetares**

**Primary author:** LOPES, Luiz Laercio (UFSC)

**Presenter:** LOPES, Luiz Laercio (UFSC)

Contribution ID: 9

Type: **not specified**

## **Estudo da interação DN com um modelo de quarks inspirado na QCD no calibre de Coulomb**

*Monday, 21 February 2011 15:00 (30 minutes)*

**Primary author:** FONTOURA, Carlos Eduardo (IFT - Unesp)

**Presenter:** FONTOURA, Carlos Eduardo (IFT - Unesp)

Contribution ID: 10

Type: **not specified**

## **Three-body model of the interaction in heavy meson decay**

*Monday, 21 February 2011 15:30 (30 minutes)*

**Primary author:** GUIMARÃES, Karin Silvia Franzoni Fornazier (ITA)

**Presenter:** GUIMARÃES, Karin Silvia Franzoni Fornazier (ITA)

Contribution ID: 11

Type: **not specified**

## **Radiative decay of X(3872) as a mixed molecule-charmonium state in QCDSR**

**Primary author:** ZANETTI, Carina (IF- USP)

Contribution ID: 12

Type: **not specified**

## Café

*Monday, 21 February 2011 16:00 (30 minutes)*

Contribution ID: 13

Type: **not specified**

## **Regras de soma da QCD para a estrutura estreita X(4350).**

*Monday, 21 February 2011 17:00 (30 minutes)*

**Primary author:** DIAS, Jorgivan M. (IF - USP)

**Presenter:** DIAS, Jorgivan M. (IF - USP)

Contribution ID: 14

Type: **not specified**

## **Radiative decay of X(3872) as a mixed molecule-charmonium state in QCDSR**

*Monday, 21 February 2011 16:30 (30 minutes)*

**Primary author:** ZANETTI, Carina (IF - USP)

**Presenter:** ZANETTI, Carina (IF - USP)



Contribution ID: 15

Type: **not specified**

## **Dinâmicas da QCD não linear em interações fóton-fóton em altas energias**

*Tuesday, 22 February 2011 09:30 (30 minutes)*

**Primary author:** CARVALHO, Fabiana (UNIFESP)

**Presenter:** CARVALHO, Fabiana (UNIFESP)

Contribution ID: 16

Type: **not specified**

## **Phenomenological aspects of the eikonal zero in the momentum transfer space**

*Tuesday, 22 February 2011 10:00 (30 minutes)*

**Primary author:** FAGUNDES, Daniel Almeida (UNICAMP)

**Presenter:** FAGUNDES, Daniel Almeida (UNICAMP)

Contribution ID: 17

Type: **not specified**

## Café

*Tuesday, 22 February 2011 10:30 (30 minutes)*

Contribution ID: 18

Type: **not specified**

## **Minijatos com saturação**

*Tuesday, 22 February 2011 11:00 (30 minutes)*

**Primary author:** GIANNINI, André (IF - USP)

**Presenter:** GIANNINI, André (IF - USP)

Contribution ID: 19

Type: **not specified**

## **Chiral Kpi scattering and Lass data**

**Primary author:** MAGALHÃES, Patrícia (IF - USP)

**Presenter:** MAGALHÃES, Patrícia (IF - USP)

Contribution ID: 20

Type: **not specified**

## **Almoço**

*Tuesday, 22 February 2011 12:00 (2 hours)*

Contribution ID: 21

Type: **not specified**

## Triply heavy baryons in QCD sum rules

*Tuesday, 22 February 2011 14:00 (30 minutes)*

**Primary author:** ALBUQUERQUE, Raphael Moreira de (USP)

**Presenter:** ALBUQUERQUE, Raphael Moreira de (USP)

Contribution ID: 22

Type: **not specified**

## **O vértice $J/\Psi D_s^* D_s^*$ sob a análise das regras de soma da QCD**

*Tuesday, 22 February 2011 14:30 (30 minutes)*

**Primary author:** OSÓRIO, Bruno (UERJ)

**Presenter:** OSÓRIO, Bruno (UERJ)



Contribution ID: 23

Type: **not specified**

## Estudo do vértice $B_s^*BK$ usando as regras de soma da QCD

*Tuesday, 22 February 2011 15:00 (30 minutes)*

**Primary author:** CERQUEIRA, Angelo (UERJ)

**Presenter:** CERQUEIRA, Angelo (UERJ)

Contribution ID: 24

Type: **not specified**

## **Estudo das ressonâncias Y(4140) e Y(3930) utilizando as regras de soma da QCD**

*Tuesday, 22 February 2011 15:30 (30 minutes)*

**Primary author:** FINAZZO, Stefano Ivo (IF - USP)

**Presenter:** FINAZZO, Stefano Ivo (IF - USP)

Contribution ID: 25

Type: **not specified**

## Café

*Tuesday, 22 February 2011 16:00 (30 minutes)*

Contribution ID: 26

Type: **not specified**

???

*Tuesday, 22 February 2011 16:30 (30 minutes)*

**Primary author:** STEFFENS, Fernanda (Mackenzie)

**Presenter:** STEFFENS, Fernanda (Mackenzie)

Contribution ID: 27

Type: **not specified**

???

*Tuesday, 22 February 2011 17:00 (30 minutes)*

**Primary author:** GAMBIN, Ediana

**Presenter:** GAMBIN, Ediana

Contribution ID: 28

Type: **not specified**

## Phenomenological Aspects of the Eikonal Zero in the Momentum Transfer Space

Recent model-independent analyses of pp elastic scattering have indicated evidence of an eikonal zero (change of sign) in the momentum transfer space. In this communication, we investigate the consequences of this zero in the description of the differential cross section data, showing that it plays a central role in the reproduction of the dip region and the data at large momentum transfer. Comparisons of empirical analytical parametrizations with phenomenological models are also presented and discussed.

**Primary authors:** Mr FAGUNDES, Daniel Almeida (UNICAMP); Prof. MENON, Márcio José (UNICAMP)

**Presenter:** Mr FAGUNDES, Daniel Almeida (UNICAMP)

Contribution ID: 29

Type: **not specified**

## O vértice $J/\Psi D_s^* D_s^*$ sob a análise das regras de soma da QCD

Neste trabalho, estudamos como obter a constante de acoplamento do vértice mesônico  $J/\Psi D_s D_s$  usando as Regras de Soma da QCD. Também obtivemos os fatores de forma para os dois casos fora da camada de massa:  $D_s^*$  off-shell e  $J/\Psi$  off-shell.

Os resultados apresentados são preliminares mas mostram um bom indício de como serão os resultados finais.

**Primary author:** RODRIGUES, Bruno (UERJ)

**Presenter:** RODRIGUES, Bruno (UERJ)

Contribution ID: 30

Type: **not specified**

## Relativistic Dissipative Hydrodynamics and Heavy Ion Collisions: some recent developments

In this talk I will review some recent developments in the relativistic dissipative hydrodynamical description of heavy-ion collisions. In particular I will discuss the application of the divergence-type formalism to heavy-ion collisions, and compare the observables extracted from it with those obtained by using conformal second-order hydrodynamics. Finally, I will briefly show some recent results obtained from hydrodynamics coupled to chiral fields.

**Primary author:** Dr PERALTA-RAMOS, Jeronimo (IFT)

**Presenter:** Dr PERALTA-RAMOS, Jeronimo (IFT)



Contribution ID: 31

Type: **not specified**

## ESTUDO DA INTERAÇÃO DN COM UM MODELO DE QUARKS INSPIRADO NA QCD NO CALIBRE DE COULOMB

Nós investigamos a interação do meson charmoso ( $D$ ) com o nucleon usando um modelo de quarks inspirado no Hamiltoniano da QCD no calibre de Coulomb. O Hamiltoniano microscópico incorpora um potencial de confinamento de Coulomb e uma interação hiperfina de gluons transversos consistente com o comportamento finito do propagador dos gluons no infravermelho. Inicialmente, nós obtivemos uma função de massa para os quarks-constituintes resolvendo uma equação de gap. Os estados ligados dos mesons e barions são obtidos no espaço de Fock usando um esquema de cálculo variacional. A seguir, nós usamos as massas dos quarks constituintes e as funções de onda dos hadrons para derivar uma interação efetiva meson-nucleon a partir do mecanismo de “quark-gluon interchange”. Isso nos levou a uma interação meson-barion de curta-distância. O setor de longa-distância da interação é devido ao modelo de troca de um meson, que inclui a troca de um meson vetorial ( $\rho$ ,  $\omega$ ) e um escalar ( $\sigma$ ), descritos por Lagrangianas efetivas. Esse potencial efetivo méson-barion foi usado em uma equação de Lippmann-Schwinger para obter seções de choque e deslocamentos de fase para os canais de Isospin  $I = 0$  e  $I = 1$ . Nossos resultados foram comparados com cálculos similares feitos recentemente usando o modelo de quarks não-relativístico.

**Primary author:** Mr FONTOURA, carlos (Phd student)

**Presenter:** Mr FONTOURA, carlos (Phd student)

Contribution ID: 32

Type: **not specified**

## Three-body model of the interaction in heavy meson decay

We develop a relativistic three-model for the final state interaction in  $D^+ \rightarrow K^+ \pi^- \pi^-$  decay based on the ladder approximation of the Bethe-Salpeter equation. The decay amplitude is separated in a smooth term and a three-body fully interacting contribution, that is factorized in the standard two-meson resonant amplitude times a reduced complex amplitude that carries the effect of the three-body rescattering mechanism. The off-shell reduced complex amplitude is a solution of an inhomogeneous Faddeev type integral equation, that has as input the S-wave isospin  $1/2 K^+ \pi^-$  transition matrix. The parameters of the S-wave isospin  $1/2 K^+ \pi^-$  scattering matrix is fitted to the experimental data.

**Primary author:** Mrs FORNAZIER, Karin (ITA Instituto Tecnológico de Aeronáutica)

**Co-authors:** Prof. DOS REIS, Alberto (CBPF); Prof. DELFINO, Antonio (UFF); Prof. BEDIAGA, Ignacio (CBPF); Prof. TOMIO, Lauro (IFF e IFT); Prof. ROBILLOTA, Manuel (IFUSP); Ms MAGALHÃES, Patricia (IFUSP); Prof. FREDERICO, Tobias (ITA); Dr DE PAULA, Wayne (ITA)

**Presenter:** Mrs FORNAZIER, Karin (ITA Instituto Tecnológico de Aeronáutica)

Contribution ID: 33

Type: **not specified**

## $J/\Psi$ mass shift and $J/\Psi$ -nuclear bound state

We calculate mass shift of the  $J/\Psi$  meson in nuclear matter arising from the modification of  $DD$ ,  $DD^*$  and  $D^*D^*$  meson loop contributions to the  $J/\Psi$  self-energy.

The estimate includes the in-medium  $D$  and  $D^*$  meson masses consistently.

The  $J/\Psi$  mass shift (scalar potential) calculated is negative (attractive), and complementary to the attractive potential obtained from the QCD color van der Waals forces.

Some results for the  $J/\Psi$ -nuclear bound state energies are also presented.

**Primary author:** Dr TSUSHIMA, Kazuo (CSSM, Adelaide University)

**Co-authors:** Prof. THOMAS, Anthony (CSSM, Adelaide University); Prof. LU, Dinghui (Zhejiang University); Prof. KREIN, Gastao (IFT UNESP)

**Presenter:** Dr TSUSHIMA, Kazuo (CSSM, Adelaide University)

Contribution ID: 34

Type: **not specified**

## A study of the Y(4140) and Y(3930) resonances using the QCD sum rules

Previous studies of the Y(4140) and Y(3930) resonances as the molecular partners  $D_s * D_{s^*}$  and  $D * D^*$ , resp., with  $J^{PC} = 0^{++}$ , using the QCD sum rules, lead to diverging results for the mass of the  $D * D^*$  state as condensates of higher dimension are included and also to the curious result that the masses obtained for the  $D_s * D_{s^*}$  and  $D * D^*$  states are very close. In this work we study the effect of the inclusion of the dimension 10 condensates into the sum rules for the  $D_s * D_{s^*}$  and  $D * D^*$  states, with the goal of evaluating if the OPE convergence is achieved at this dimension and of studying the effect of these contributions on the mass of the  $D_s * D_{s^*}$  and  $D * D^*$  molecular states.

**Primary author:** Mr FINAZZO, Stefano (Universidade de São Paulo)

**Co-author:** Prof. NIELSEN, Marina (Universidade de São Paulo)

**Presenter:** Mr FINAZZO, Stefano (Universidade de São Paulo)

Contribution ID: 35

Type: **not specified**

## Chiral Kpi scattering and Lass data

*Monday, 21 February 2011 14:30 (30 minutes)*

**Primary author:** PATRÍCIA, Magalhães (USP)

**Presenter:** MAGALHÃES, Patrícia (IF-USP)

Contribution ID: 36

Type: **not specified**

## Condensados de gluons e a equação de estado do QGP a temperatura nula

O plasma de quarks e gluons sQGP que foi observado no RHIC é um sistema existente a altas temperaturas e potencial químico próximo de zero. Um sistema similar com potencial químico alto e temperatura próxima de zero pode existir no núcleo de estrelas compactas. Em tais sistemas as interações são parcialmente devidas a efeitos não-perturbativos, os quais sobrevivem após o desconfinamento e que estão relacionados com a presença de condensados de gluons no sQGP.

A partir da Lagrangiana da QCD decompomos o campo dos gluons em componentes de altos e baixos momentos. Fazemos a aproximação de campo médio para os gluons de altos momentos, e para a componente de baixos momentos levamos em consideração os condensados de gluons de dimensão dois e quatro. Com essas aproximações obtemos uma expressão analítica para a equação de estado, que é comparada com o modelo de sacola do MIT. Observamos que a componente dos gluons de altos momentos aumenta a densidade de energia e pressão, enquanto que a dos condensados suaviza a equação de estado.

**Primary author:** Dr AUGAITIS FOGAÇA, David (Universidade de São Paulo)

**Co-author:** Prof. NAVARRA, Fernando (Universidade de São Paulo)

**Presenter:** Dr AUGAITIS FOGAÇA, David (Universidade de São Paulo)

Contribution ID: 39

Type: **not specified**

## Condensados de gluons e a EOS do QGP frio

*Tuesday, 22 February 2011 11:30 (30 minutes)*

**Primary author:** ., David (IF - USP)

**Presenter:** ., David (IF - USP)