

## **Session Program**

**Mar 10 - 14, 2025**



**HADRONS 2025**

***Poster session***

Centro Cultural da UFRGS  
Rua Eng. Luiz Englert, 333 - Porto Alegre-RS

# Sun, March 9

5:30 PM

## Poster session: PS1

**Session** | **Location:** Centro Cultural da UFRGS, Rua Eng. Luiz Englert, 333 - Porto Alegre-RS

17:30 - 17:32

### Forward electroweak gauge boson production in the color dipole S-matrix framework

**Speaker**

Yan Bandeira

17:32 - 17:34

### $\mathcal{PT}$ -Symmetric Hamiltonians: Fundamental Concepts and Applications

**Speaker**

Cristian Colombo

17:34 - 17:36

### Critical Phenomena and Renormalization Group

**Speaker**

Mr Artur Soares Rodrigues

17:36 - 17:38

### Color Confinement and Topology in Lattice Gauge Theories

**Speaker**

Rafael Tonhon

17:38 - 17:40

### Interplay between symmetry and dynamics in the pole structure of the three-gluon vertex

**Speaker**

Bianca Maria Silveira de Oliveira

17:40 - 17:42

### Effects of the Critical Point on Selected Observables from 3+1D EbE Hybrid Simulations

**Speaker**

Vinícius França

17:42 - 17:44

### Photon Propagator in Confinement and Deconfinement Phases of Lattice QED

**Speaker**

Pablo Nascimento Mandelo

17:44 - 17:46

### The nonperturbative dynamics of the three and four gluon vertices in the soft kinematics

**Speaker**

Leonardo Santos

17:46 - 17:48

**Renormalons in the QCD spectral function, experimental data, and potential implications to the muon  $g-2$** **Speaker**

Marcelle Caram

17:48 - 17:50

**Impact of dynamical quarks on the soft kinematics of the three-gluon vertex****Speaker**

Lais Almeida Wendland

17:50 - 17:52

**Soft and semi-hard components of multiplicity distributions in the  $k_T$  factorization approach****Speaker**

Mr Henrique Rodrigues Martins Fontes

17:52 - 17:54

**Hydrodynamics from local phase space dominance****Speaker**

Jadna Louise Barauna

17:54 - 17:56

**Observables and spectral functions in pseudo-hermitian theories \ Observáveis e funções espectrais em teorias pseudo-hermitianas****Speaker**

Itai Pinheiro

17:56 - 17:58

**Extension of the Relativistic Thomas-Fermi model using the three-dimensional basis of the oscillator in oblate and prolate spheroidal coordinates****Speaker**

Pamela Oliveira

17:58 - 18:00

**Properties of the hidden strangeness  $P_s(2080)$** **Speaker**

Breno Agatao Garcia

18:00 - 18:02

**Shock Formation in Relativistic Viscous Fluid Dynamics****Speaker**

Eduardo Oliveira Pinho

18:02 - 18:04

**Constraining the Quark-Gluon Vertex: A Study of Transverse Slavnov-Taylor Identities****Speaker**

Marcelo Antonio Sakaguti Dória

18:04 - 18:06

**Valence and sea parton correlations in double parton scattering from data****Speaker**

Joao Vitor

18:06 - 18:08

**A comparative study between UrQMD and SMASH: Numerical implementations associated with hadronic transport in the context of heavy ion collisions**

**Speaker**

Sofia Gemmi dos Santos

18:08 - 18:10

**Infrared study of the transversely projected quark-gluon vertex**

**Speaker**

Gustavo Linhares

18:10 - 18:12

**Yang-Mills correlation functions due to percolating center vortices**

**Speaker**

Bruno Soares

6:30 PM

# Mon, March 10

5:30 PM

## Poster session: PS2

**Session** | **Location:** Centro Cultural da UFRGS, Rua Eng. Luiz Englert, 333 - Porto Alegre-RS

17:34 - 17:36

### The Glauber-Gribov theory for dihadron productions in nuclear collisions

**Speaker**

Luis Ferreira

17:36 - 17:38

### Higher-order QCD corrections to the Higgs decay into hadrons

**Speaker**

Cristiane Yumi London

17:38 - 17:40

### Transfer learning for efficient emulator training in relativistic heavy-ion collisions

**Speaker**

Gabriel Alves de Lima Guimarães

17:40 - 17:42

### Decay widths of a $J^P = \frac{3}{2}^-$ $N^*$ resonance obtained from pseudoscalar-baryon and vector-baryon dynamics.

**Speaker**

Alonso de Jesus Vertel Nieto

17:42 - 17:44

### Study of the azimuthal asymmetry in heavy ion collisions combining initial state momentum orientation and final state collective effects

**Speaker**

Érison Rocha

17:44 - 17:46

### Investigating the Top Quark Production by Black Hole Evaporation in $pp$ collisions at the LHC and FCC

**Speaker**

Mrs Brenda R. A. Miranda

17:46 - 17:48

### The proton structure and particle production

**Speaker**

Mr Richard Terra

17:48 - 17:50

### Particle production by $\gamma - \gamma$ interactions in future electron-ion colliders

**Speaker**

Ms Juciene Teixeira Souza

17:50 - 17:52

### Heavy-Hadron Photoproduction in NRQCD Factorization Formalism at LHC Energies

**Speaker**

Rodrigo Nascimento

17:52 - 17:54

**Photoproduction of Vector Mesons at the LHC via Peripheral Heavy-Ion Collisions****Speaker**

Pedro Eduardo Azevedo da Costa

17:54 - 17:56

**Photoproduction of light vector mesons in the dipole picture****Speaker**

Haimon Trebien

17:56 - 17:58

**Exclusive  $\rho$  and  $J/\Psi$  photoproduction in ultraperipheral  $pO$  and  $OO$  collisions****Speaker**

Luana Santana

17:58 - 18:00

**Exploring High-Energy QCD Through Diffractive Vector Meson Production in Ion Collisions****Speaker**

Mr João Vítor Bulhões da Silva

18:00 - 18:02

**Production of exotic states in photo-induced processes at LHC and EIC****Speaker**

Mr Fernando César

18:04 - 18:06

**The Effect of Acausality on Bayesian Analyses of Heavy-Ion Collisions****Speaker**

Thiago Siqueira Domingues

18:06 - 18:08

**Parametrization of perturbative QCD in hadronic tau decays****Speaker**

Rita Oliveira

18:08 - 18:10

**Tau polarization observables in neutrino - nucleus interactions at the LHC energy range****Speaker**

Reinaldo Francener

18:10 - 18:12

**DATA ANALYSIS IN HIGH ENERGY PHYSICS USING MACHINE LEARNING METHODS****Speaker**

Matheus Guilherme Miotto

18:12 - 18:14

**An approach to minimize systematic errors in higgs events searches using ML****Speaker**

Marcio De Sousa Mateus Junior

18:14 - 18:16

**Impact parameter description of the nucleus and the incoherent photoproduction of vector mesons in the color dipole approach**

**Speaker**

Luiza Perin

18:18 - 18:20

**APPLICATION OF VARIATIONAL AUTOENCODERS TO GENERATE D0 MESON KINEMATICS AT THE LHC**

**Speaker**

Allan Eduardo Flores Godoi Ferreira

18:20 - 18:22

**Meson production by photon-photon interactions in fixed target collisions at the LHC**

**Speaker**

Sandra Tacianny Karol de Araujo

6:30 PM

## Tue, March 11

5:30 PM

### Poster session: PS3

**Session** | **Location:** Centro Cultural da UFRGS, Rua Eng. Luiz Englert, 333 - Porto Alegre-RS

17:30 - 17:32 **A Study on the Tidal Deformability of Compact Objects**

**Speaker**

Eduardo do Carmo da Silva

17:32 - 17:34

**Pion condensation and chiral symmetry breaking in the early universe**

**Speaker**

Osvaldo Ferreira

17:34 - 17:36

**Machine Learning Applied to Quark Stars and Neutron Stars: From Observations to EoS**

**Speaker**

Dr Fábio Köpp

17:36 - 17:38

**Strange and non-strange quark stars from resummed QCD**

**Speaker**

Tulio Eduardo Restrepo Medina

17:38 - 17:40

**Interpreting the neutrino signal from core-collapse supernovae using neural networks**

**Speaker**

Isadora Espindola

17:40 - 17:42

**Thermal evolution of quark stars from perturbative QCD**

**Speaker**

Úrsula Fonseca

17:42 - 17:44

**Neural Network-Based Approach for Inferring the Neutron Star Equation of State**

**Speaker**

André Gonçalves da Silva

17:44 - 17:46

**Constraining the neutron star equation of state by including the isoscalar-vector and isovector-vector coupling using the Bayesian approach**

**Speaker**

Dr Deepak Kumar

17:46 - 17:48

**Effective models of QCD with an infrared confinement**

**Speaker**

Bruno Lopes



17:48 - 17:50

**Speed of sound, compressibility and adiabatic index in the Many-Body Forces Model for nuclear matter at finite temperature****Speaker**

Rafael Jacobsen

17:50 - 17:52

**Studying gauge-space geometry via lattice QCD****Speaker**

João Octavio Kül

17:52 - 17:54

**Interactions of the deuteron with a hadronic medium****Speaker**

Rodrigo Oliveira Magalhães

17:54 - 17:56

**Effects of the Medium Separation Scheme on Cold, Magnetized Two-Flavor Color Superconducting Quark Matter****Speaker**

Francisco Xavier Azeredo

17:56 - 17:58

**New Tool to Detect Inhomogeneous Chiral Symmetry Breaking****Speaker**

Theo Motta

17:58 - 18:00

**Effects of the Critical Point on QGP Vorticity and Polarization Observable****Speaker**

Mr Jonatan Sola

18:00 - 18:02

**Total proton-air cross section in a QCD-inspired model****Speaker**

THOMAS VENTURA ISER

18:02 - 18:04

**The Nambu--Jona-Lasinio model with quark anomalous magnetic moment****Speaker**

Mr Rafael Cardoso

18:04 - 18:06

**Effective coupling for the NJL model based on fractals****Speaker**

Varese Salvador Timóteo

18:06 - 18:08

**Exploring the QCD Phase Structure at Finite  $T$ ,  $\mu_B$ , and  $\mu_I$  within the NJL Model****Speaker**

Arthur Pasqualotto

18:08 - 18:10

**Thermomagnetic effects on light pseudoscalar meson masses within the SU(3) Nambu--Jona-Lasinio model****Speaker**

Joana Carolina Sodré

18:10 - 18:12

**Multistrange meson-baryon interactions**

**Speaker**

Taísa Veloso Barreto Bezerra

18:12 - 18:14

**Double Shock Waves in Ultrarelativistic Fluid Dynamics**

**Speaker**

Davi Oliveira

6:30 PM