

# **HIPSTARS 2024 - Workshop on Heavy Ion Physics and Compact Stars**



**Tuesday 29 October 2024 - Friday 1 November 2024**

**Havana**

## **Scientific Programme**

HIPSTARS 2024 - Workshop on Heavy Ion Physics and Compact Stars  
Tuesday October 29th, 2024 — Program Schedule  
**14:50 - 15:00**

Welcome to ICIMAF: Introduction to our Workshop

Prof. Dra. Aurora Pérez Martínez

Instituto de Cibernética, Matemática y Física, ICIMAF

**15:00 - 15:30**

Cluster and hypernuclei production in heavy-ion collisions

Dra. Elena Bratkovskaya

**15:30 - 15:50**

Transport properties of the strongly interacting quark-gluon plasma

Ilia Grishmanovskii

**15:50 - 16:10**

Open heavy flavor and quarkonium production in relativistic heavy ion collisions

Jiaxing Zhao

**16:10 - 16:20**

Coffee Break

**16:20 - 16:40**

Exploring Dark Photon Production and Kinetic Mixing Constraints in Heavy-Ion Collisions

Adrian William Romero Jorge

**16:40 - 17:00**

Neutrino oscillations and spontaneous breaking of the Lorentz symmetry.

Israel Hernández Sehara

**17:00 - 17:10**

Closing

Wednesday October 30th, 2024 — Program Schedule

**15:00 - 15:30**

How to measure the nuclear equation of state in heavy ion experiments?

Dr. Joerg Aichelin

**15:30 - 15:50**

Heavy quark mass in QGP

Taesoo Song

**15:50 - 16:10**

Flow correlations as precision tool to measure the Equation-of-State

Tom Reichert

**16:10 - 16:20**

Coffee Break

**16:20 - 16:40**

Resonance suppression during the hadronic stage from the FAIR to the intermediate RHIC energy regime

Amine Chabane

**16:40 - 17:00**

Deuteron and Cluster Production in Heavy Ion collisions.

Marcus Bleicher

**17:00 - 17:10**

Closing

Thursday October 31st, 2024 — Program Schedule

**15:00 - 15:30**

How to find variable sources in low count rate X-ray all-sky surveys

Dr. Thomas Boller

**15:30 - 15:50**

Study of hypercompact HII regions by astronomical observations

Dr. Isabel Tatiana Rodríguez Esnard

**15:50 - 16:10**

To be announced

Dr. Duvier Fontanela

**16:10 - 16:20**

Coffee Break

**16:20 - 16:40**

Jets induced by chiral currents in the magnetosphere of a rotating black hole.

Eduardo García Reynaldo

**16:40 - 17:00**

Axial anomaly and breaking of chiral symmetry.

Alejandro Orue León

**17:00 - 17:20**

New observational constraints on Bose-Einstein condensate stars

Adriel Ernesto Rodríguez Concepción

**17:20 - 17:30**

Closing

Friday November 1st, 2024 — Program Schedule

**15:00 - 15:30**

Space-time emergence and machine learning

Dr. Nana Geraldine Cabo Bizet

**15:30 - 15:50**

On magnetized Bose-Einstein charged scalar condensate stars

Amanda Castillo

**15:50 - 16:00**

Coffee Break

**16:00 - 16:30**

Magnetized Strange Stars and Signals of Gravitational Waves

Dr. Daryel Manreza

**16:30 - 16:50**

Negative magnetoresistance induced by longitudinal photons in Dirac/Weyl semimetals.

Susana Montesinos

**16:50 - 17:20**

Photon magnetic properties and radiation pressures in nonlinear electrodynamics

Dra. Elizabeth Rodríguez Querts

**17:20 - 17:50**

To be announced

Dr. Alejandro Cabo

**17:50 - 18:00**

Closing