

## Session Program

22-26 Aug 2022



## COSMO'22

### *Parallel Session Lecture Room*

Rio de Janeiro  
Vice-Governador Rúbens Berardo street, 100 - Gávea Rio de Janeiro - 22451-070

# Monday 22 August

14:00

## Parallel Session Lecture Room: Inflation and primordial universe

**Session** |

**Location:** Rio de Janeiro, Vice-Governador Rúbens Berardo street, 100 - Gávea Rio de Janeiro - 22451-070

14:00–14:20 **Generalized SU(2) Proca theory and constant-roll inflation**

**Speaker**

Yeinzon Rodríguez García

14:20–14:40

**A new mechanism for primordial black hole formation during reheating**

**Speaker**

Luis Enrique Padilla Albores

14:40–15:00

**Inflation with two-form field: the production of primordial black holes and gravitational waves**

**Speaker**

Dr Ippei Obata

15:00–15:20

**Effective field theory of waterfall in hybrid inflation**

**Speaker**

Maria Mylova

15:20–15:40

**Cosmological bootstrap in slow motion and the low speed collider**

**Speaker**

Sébastien Renaux-Petel

15:40

16:10

## Parallel Session Lecture Room: Modified Gravity & Dark Energy

**Session** |

**Location:** Rio de Janeiro, Vice-Governador Rúbens Berardo street, 100 - Gávea Rio de Janeiro - 22451-070

16:10–16:30  **$R^2$ -gravity quark stars from perturbative QCD**

**Speaker**

Sergio Jorás

16:30–16:50

**Gravitational-wave polarizations in generic higher-curvature gravity**

**Speaker**

Mr Tomoya Tachinami

16:50–17:10

**An effective fluid description of scalar-vector-tensor theories under the sub-horizon and quasi-static approximations**

**Speaker**

JOHN BAYRON ORJUELA-QUINTANA

17:10–17:30

**Dynamical Stability Analysis of Accelerating  $f(T)$  Gravity Models**

17:30

**Speaker**

Prof. Bivudutta Mishra

## Tuesday 23 August

14:00

### Parallel Session Lecture Room: Gravitational Waves and Black Holes

**Session** |

**Location:** Rio de Janeiro, Vice-Governador Rúbens Berardo street, 100 - Gávea Rio de Janeiro - 22451-070

14:10-14:30

**Standard Siren Cosmology: The new dark sirens constraints and perspectives of a novel hybrid method.**

**Speaker**

Clecio R. Bom

14:30-14:50

**Cosmology With Bright Standard Sirens**

**Speaker**

Josiel Mendonça

14:50-15:10

**Measuring the Hubble constant with black sirens**

**Speaker**

Riccardo Sturani

15:10-15:30

**Kink-antikink scattering in a quantum vacuum**

**Speaker**

George Zahariade

15:40

# Wednesday 24 August

11:25

## Parallel Session Lecture Room: CMB

**Session** |

**Location:** Rio de Janeiro, Vice-Governador Rúbens Berardo street, 100 - Gávea Rio de Janeiro - 22451-070

11:25-11:45 **BINGO Telescope: An Overview**

**Speaker**

Carlos Wuensche

11:45-12:05 **Component separation in BINGO 21 cm simulated maps using GNILC**

**Speaker**

Larissa Santos

12:05-12:25 **The Impact of Beam Convolution on Mapmaking**

**Speaker**

Joao Alberto de Moraes Barretos

12:25

## Thursday 25 August

14:00

### Parallel Session Lecture Room: Gravitational waves and black holes

**Session** |

**Location:** Rio de Janeiro, Vice-Governador Rúbens Berardo street, 100 - Gávea Rio de Janeiro - 22451-070

14:00–14:20

#### Primordial gravitational waves from excited states

**Speaker**

Spyros Sypsas

14:20–14:40

#### Searching for boson-star mergers in gravitational-wave data

**Speaker**

Juan Calderon Bustillo

14:40–15:00

#### Empirical relation in supernova gravitational waves

**Speaker**

Hajime Sotani

15:00–15:20

#### De-singularizing the extremal GMGHS black hole via higher derivatives corrections

**Speaker**

Kunihito Uzawa

15:40

16:10

### Parallel Session Lecture Room: Statistical Methods and Tensions in Cosmology

**Session** |

**Location:** Rio de Janeiro, Vice-Governador Rúbens Berardo street, 100 - Gávea Rio de Janeiro - 22451-070

16:10–16:30

#### Model-independent tests of the standard cosmological model

**Speaker**

Carza Bengaly

16:30–16:50

#### A Test of the Standard Cosmological Model with Geometry and Growth

**Speaker**

Dr Rodrigo von Martens

16:50–17:10

#### First constraints on the intrinsic CMB dipole and our velocity with Doppler and aberration

**Speaker**

Pedro da Silveira Ferreira

17:10–17:30

#### New CMB lensing mass maps from the Atacama Cosmology Telescope and their implications for structure growth

**Speaker**

Frank Qu

17:30

# Friday 26 August

14:00

## Parallel Session Lecture Room: Inflation and primordial universe

**Session** |

**Location:** Rio de Janeiro, Vice-Governador Rúbens Berardo street, 100 - Gávea Rio de Janeiro - 22451-070

14:00–14:20

### Attractor solutions and features in the power spectrum from turns in multi-field inflation

**Speaker**

Perseas Christodoulidis

14:20–14:40

### A new formalism to define a vacuum state in curved space-time

**Speaker**

Nelson Pinto-Neto

14:40–15:00

### Stability Criteria in $f(R)$ Gravity from Thermodynamics Analogy

**Speaker**

Dr César Peralta

15:00–15:20

### SuGOHI! Dissecting a strong lensing interacting galaxy system

**Speaker**

João Paulo França

15:20

16:35

## Parallel Session Lecture Room: CMB

**Session** |

**Location:** Rio de Janeiro, Vice-Governador Rúbens Berardo street, 100 - Gávea Rio de Janeiro - 22451-070

16:35–16:55

### $y$ -type E and B modes of the Sunyaev Zel'dovich effect from reionisation and post reionisation epochs.

**Speaker**

Aritra Kumar Gon

16:55–17:15

### Next generation of CMB lensing power spectrum estimation

**Speaker**

Louis Legrand

17:15