

Session Program

7-11 Dec 2020



Progress on Old and New Themes in cosmology (PONT) 2020

Invited talks

Palais des Papes, Avignon, Chambre du Trésorier

Monday 7 December

09:00

Invited talks: Observational Cosmology

Session | **Location:** Palais des Papes, Avignon, Chambre du Trésorier

09:00–09:30 **The early years of weak-lensing in cosmology**

Speaker
Nick Kaiser

09:40–10:10

The Rubin Observatory (previously LSST): status and anticipated cosmology achievements

Speaker
Pierre Astier

10:20–10:40 **Coffee break**

10:40–11:10 **LiteBIRD, in quest for the primordial gravitational waves**

Speaker
Ludovic Montier

11:20–11:50 **The dipole in the galaxy bispectrum**

Speaker
Roy Maartens

12:00–12:25 **A crisis in the standard model?**

Speaker
Eleonora Di Valentino

12:30

15:10

Invited talks: Observational Cosmology

Session | **Location:** Palais des Papes, Avignon, Chambre du Trésorier

15:10–15:35 **The status of cosmological tensions after Planck**

Speaker
Silvia Galli

15:40–16:10 **The Hubble Constant Tension/Problem/Crisis**

Speaker
Adam Riess

16:20–16:35 **Coffee Break**

16:35–17:00 **A sound-horizon-agnostic look at the Hubble tension**

Speaker
Prof. Levon Pogosian

17:00

Tuesday 8 December

09:00

Invited talks: Dark Matter and Dark Energy

Session | **Location:** Palais des Papes, Avignon, Chambre du Trésorier

09:00–09:30

Primordial Black Holes as a common origin for baryons and dark matter?

Speaker

Sébastien Clesse

09:40–10:10

Dark matter direct detection: present scenario and future prospects

Speaker

Prof. José Matias-Lopes

10:20–10:40

Coffee Break

10:40–11:10

Effective Field Theory of Dark Energy: current constraints and forecasts

Speaker

Noemi Frusciante

11:20–11:50

Fifth force searches in galaxies

Speaker

Dr Harry Desmond

12:00–12:25

New tests for ultra-light dark matter with black hole superradiance

Speaker

Dr Diego Blas Temino

12:30

15:50

Invited talks

Session | **Location:** Palais des Papes, Avignon, Chambre du Trésorier

15:50–16:20

Coffee break

16:20–16:50

Updates on sub-GeV Direct Detection

Speaker

Tien-Tien Yu

17:00

Wednesday 9 December

09:00

Invited talks: The Early Universe

Session | **Location:** Palais des Papes, Avignon, Chambre du Trésorier

09:00–09:30

A fresh look at the calculation of tunneling actions

Speaker

Prof. Jose Ramon Espinosa

09:40–10:10

Quantum scale symmetry in cosmology

Speaker

Christof Wetterich

10:20–10:40

Coffee Break

10:40–11:10

Neff in the Standard Model - an Update

Speaker

Marco Drewes

11:20–11:50

Thermal production and interaction rates in the early universe

Speaker

Jacopo Ghiglieri

12:00–12:30

Swampland and Trans-Planckian Censorship Constraints on Inflation and Dark Energy

Speaker

Robert Brandenberger

12:30

Thursday 10 December

09:00

Invited talks: Gravitational Waves

Session | **Location:** Palais des Papes, Avignon, Chambre du Trésorier

09:00–09:30 **Primordial gravitational waves with a blue-tilted spectrum**

Speaker

Sachiko Kuroyanagi

09:40–10:10

Cosmology with gravitational wave standard sirens: current results and future prospects

Speaker

Nicola Tamanini

10:20–10:40 **Coffee Break**

10:40–11:10

Detecting Gravitational Wave Backgrounds and their anisotropies using networked detectors

Speaker

Carlo Contaldi

11:20–11:45 **Black hole metric from scattering amplitudes in various dimensions**

Speaker

Pierre Vanhove

12:00–12:30 **Tests of gravity with gravitational waves**

Speaker

Dr Miguel Zumalacarregui

12:30