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

# **Monday 7 December 2020**

#### Contributed talks - Chambre du Trésorier (14:30 - 15:10)

time	[id] title	presenter
14:30	[2] Forecast on lepton asymmetry from future CMB experiments	Mr BONILLA RIVERA, Alexander
14:50	[8] Cosmology from low radio frequencies with LoTSS	Prof. SCHWARZ, Dominik

#### Contributed talks - Chambre du Trésorier (17:00 - 18:00)

time	[id] title	presenter
	[9] Oscillating scalar fields and the Hubble tension: a resolution with novel signatures	Prof. SMITH, Tristan
17:20	[21] Detecting dark matter signals by radio data of galaxy clusters	Dr CHAN, Man Ho
17:40	[28] The synergy between CMB spectral distortions and anisotropies	LUCCA, MATTEO

## **Tuesday 8 December 2020**

### Contributed talks - Chambre du Trésorier (14:30 - 15:50)

time [id] title	presenter
14:30 [1] CANCELED	Prof. SAHOO, Pradyumn Kumar
14:50 [15] Dark matter bound states: where do we stand?	Dr BIONDINI, Simone
15:10 [13] Scalar field dark matter around supermassive Black Holes	Dr VALAGEAS, Patrick
15:30 [24] Black Holes at Cosmic Dawn	MIRABEL, Felix

#### Contributed talks - Chambre du Trésorier (17:00 - 18:00)

time	[id] title	presenter
17:00	[45] The threshold for Primordial Black Holes: formation and cosmological impact	Dr MUSCO, Ilia
17:20	[4] Mass spectrum of primordial black holes	DOLGOV, Alexander
17:40	[74] Minimal self-interacting dark matter models with light mediator	Mr VANDERHEYDEN, LAURENT

## Wednesday 9 December 2020

### Contributed talks - Chambre du Trésorier (14:30 - 18:00)

time	[id] title	presenter
14:30	[14] MEMe model: a generalized coupling theory	FENG, Justin
	[30] Where is the cosmic rest frame? : the local Universe and the Cosmological principle	RAMEEZ, Mohamed
	[31] Implications of microscopic black holes in neutrino telescopes, FCC and the early Universe	SONG, Ningqiang
15:30	Coffee break	
	[32] A formulation to study formation of Bose-Einstein condensation in cosmology at the level of particle physics processes	Mr GULTEKIN, Kemal
16:10	[33] On the quantum origin of a small positive cosmological constant	Prof. DAS, Saurya
	[39] Impact of Low Reheating Temperature and X-ray Bound Relaxation on Sterile Neutrino DM Searches in Terrestrial Experiments	BENSO, Cristina
16:50	[25] Spherical cosmological models: an alternative cosmology	DEJONGHE, Herwig
17:10	[46] Charging dark matter up	Dr BELTRAN JIMENEZ, Jose

## **Thursday 10 December 2020**

### Contributed talks - Chambre du Trésorier (14:30 - 18:00)

time	[id] title	presenter
	[22] Cross-correlation of the astrophysical gravitational-wave background with galaxy clustering	VARDANYAN, Valeri
	[73] Probing pre-BBN era with Primordial Gravitational Waves: Modified Gravity and Non-Standard Cosmology	GHOSHAL, Anish
15:10	[34] Classical de Sitter string backgrounds and the swampland	Dr ANDRIOT, David
15:30	[40] A probe into leptophilic scalar dark matter	Ms CHAKRABORTI, Sreemanti
15:50	Coffee break	
16:10	[35] Cosmological constraints on multi-interacting dark matter	Dr HOOPER, Deanna C.
	[36] The early dark energy resolution to the Hubble tension in light of large-scale structure data and the CMB lensing anomalies	Dr MURGIA, Riccardo
16:50	[37] Hints for decaying dark matter from S8 measurements	Mr FRANCO ABELLAN, Guillermo
17:10	[10] Integral X-ray constraints on sub-GeV dark matter	Mrs PINETTI, Elena
17:30	[44] Probing freeze-in dark matter with gamma ray telescopes	HERMS, Johannes

## Friday 11 December 2020

#### Contributed talks - Chambre du Trésorier (09:00 - 12:40)

time [id] title	presenter
09:00 [11] Anisotropic cosmological models under f(R;T) theory of gravity	MISHRA, Bivudutta
09:20 [5] Bounds on masses of dark matter particles in \$R^2\$-gravity	ARBUZOVA, Elena
09:40 [16] Constraints on the growth rate using the observed power spectrum and multi-tracers	VILJOEN, Jan-Albert
10:00 [29] Accelerated universe from non-extensive entropy	SHEYKHI, Ahmad
10:20 [76] Gravitational radiation from MHD turbulence in the early universe	ROPER POL, Alberto
10:40 Coffee break	
11:00 [43] Thick Branes in Extra Dimensions and Suppressed Couplings	LANDIM, Ricardo
11:20 [47] Hubble-induced phase transitions: Walls are not forever	BETTONI, Dario
11:40 [71] Coupling to matter in degenerate scalar-tensor theories	GARCIA-SAENZ, Sebastian
12:00 [72] The 1/N expansion for stochastic fields in de Sitter spacetime	MOREAU, Gabriel
12:20 [75] M-theory and the birth of the Universe	KLINKHAMER, Frans