

# COSMO'21 Parallel Session Schedule

Table 1: Monday Aug 2, 2021

| Session | Time     | Speaker               | Title   |
|---------|----------|-----------------------|---|
| A1      | 11:45 AM | Angelo Caravano       | Lattice simulations of the deep inflationary phase  |
|         | 12:00 PM | Matthew Davies        | Non-Gaussianity in General Idealized Models of Inflation                                      |
|         | 12:15 PM | Sami Raatikainen      | Primordial black hole production in stochastic ultra-slow-roll inflation                      |
|         | 12:30 PM | Walter Riquelme       | Primordial non-Gaussianity from the angular clustering: prospects for DES                     |
| A2      | 11:45 AM | Salome Mchedlidze     | Evolution and signatures of primordial magnetic fields  |
|         | 12:00 PM | Nhat-Minh Nguyen      | Direct applications of galaxy clustering modeling at field level                              |
|         | 12:15 PM | Cora Uhlemann         | Nu $\nu$ Cosmology beyond the average from one-point statistics                               |
|         | 12:30 PM | Neil D. Barrie        | Affleck-Dine Leptogenesis from Higgs Inflation  |
| A3      | 11:45 AM | Francesca Gerardi     | Unbiased likelihood-free inference of the Hubble Constant from light standard sirens          |
|         | 12:00 PM | Gabriele Franciolini  | Searching for Primordial Black Holes: The Role of 3rd Generation Gravitational Wave Detectors |
|         | 12:15 PM | Henrique Rubira       | A hybrid simulation of gravitational wave production in first-order phase transitions         |
|         | 12:30 PM | Diego Blas            | Binary systems as gravitational wave detectors  |
| A4      | 11:45 AM | Bartolomeo Fiorini    | Fast generation of mock galaxy catalogues in modified gravity models with COLA                |
|         | 12:00 PM | Matteo Cataneo        | Crossing the boundary of 2-point statistics in modified gravity and dark energy               |
|         | 12:15 PM | Léo Vacher            | Astrophysical and local constraints on string theory: runaway dilaton models                  |
|         | 12:30 PM | Daniela Saadeh        | Can we Vainshtein screen a fifth fundamental force?   |
| B1      | 3:00 PM  | Thomas Morrison       | Non-Gaussianity from Phase Transitions During Inflation                                       |
|         | 3:15 PM  | Qianshu Lu            | Missing scalars at the cosmological collider  |
|         | 3:30 PM  | Saarik Kalia          | Warming Up Cold Inflation   |
|         | 3:45 PM  | Rose Baunach          | Does Planck Actually “See” the Bunch-Davies State?  |
| B2      | 3:00 PM  | Sujeong Lee           | Combining Spectroscopic and Photometric Surveys with the DMSS sample                          |
|         | 3:15 PM  | Supranta Sarma Boruah | Map-based cosmology inference with lognormal cosmic shear maps                                |
|         | 3:30 PM  | Matthew McQuinn       | On the primordial information available to galaxy redshift surveys                            |
|         | 3:45 PM  | Michael Chapman       | Measuring the growth rate using small-scale clustering in eBOSS                               |
| B3      | 3:00 PM  | Caleb Levy            | Multi-component multiscatter capture of Dark Matter   |
|         | 3:15 PM  | Huangyu Xiao          | Simulations of Axion Minihalos  |
|         | 3:30 PM  | Ahmad Borzou          | Estimation of the Mass of Dark Matter Using the Observed Mass Profiles of Late-Type Galaxies  |
|         | 3:45 PM  | Sebastian Baum        | Paleo-Detectors - Digging for Dark Matter (and Neutrinos)                                     |
| B4      | 3:00 PM  | Eva-Maria Mueller     | Cosmology Results from eBOSS  |
|         | 3:15 PM  | Fabrizio Rompineve    | A Dark Sector to restore Cosmological Concordance   |
|         | 3:30 PM  | Vivian Sabla          | No $H_0$ assistance from assisted quintessence  |
|         | 3:45 PM  | Heling Deng           | A possible mass distribution of primordial black holes implied by LIGO-Virgo                  |

Table 2: Tuesday Aug 3, 2021

| Session | Time     | Speaker              | Title   |
|---------|----------|----------------------|---|
| C1      | 11:45 AM | Jan Kwapisz          | Is asymptotically safe inflation eternal ?  |
|         | 12:00 PM | Jeff Kost            | Massless Preheating and Electroweak Vacuum Metastability  |
|         | 12:15 PM | Sovan Sau            | Diffusion of density inhomogeneities in the early universe  |
|         | 12:30 PM | Carlos Martins       | BBN with varying fundamental constants: Improved constraints & a possible Li problem solution     |
| C2      | 11:45 AM | Lukas Witkowski      | Oscillations in the stochastic gravitational wave background from small-scale features            |
|         | 12:00 PM | Toshinori Hayashi    | A strategy to search for an inner binary black hole from the motion of the tertiary               |
|         | 12:15 PM | Takahiro Terada      | Induced Grav. Waves from the End of Reheating: Case of Primordial-Black-Hole-Dominated Univ.      |
|         | 12:30 PM | Shuang-Yong Zhou     | New positivity bounds from full crossing symmetry   |
| C3      | 11:45 AM | Luca Caloni          | Updated cosmological constraints on Macroscopic Dark Matter                                       |
|         | 12:00 PM | Sambo Sarkar         | Halo uncertainties in electron recoil events at direct detection experiments                      |
|         | 12:15 PM | Grace Lawrence       | Gusts in the Headwind: Uncertainties in Direct Dark Matter Detection                              |
|         | 12:30 PM | Satyabrata Mahapatra | Muon ( $g - 2$ ) and XENON1T Excess with Dark Matter in $L_\mu - L_\tau$ Model                    |
| C4      | 11:45 AM | Seshadri Nadathur    | Beyond BAO: geometry and growth information from voids in eBOSS DR16                              |
|         | 12:00 PM | Andrei Cuceu         | Towards sub percent measurements of the expansion rate above redshift 2.                          |
|         | 12:15 PM | Giulia Giannini      | Redshift Calib. of DES Y3 Maglim Lens Sample using Self-Organizing Maps & Clustering Redshifts    |
|         | 12:30 PM | Isabelle Tanseri     | Updated neutrino mass bounds from galaxy clustering   |
| D1      | 3:00 PM  | Aaron Tohuvaohu      | The Best Case Scenario: Towards prompt arcminute localization of a GW source                      |
|         | 3:15 PM  | Tina Kahniashvili    | Circularly polarized gravitational waves from the early universe turbulent sources                |
|         | 3:30 PM  | ChangHoon Hahn       | Constraining Neutrino Mass with The Galaxy Bispectrum   |
|         | 3:45 PM  | Christina Kreisch    | Constraining Elusive Neutrino Properties Near and Far   |
| D2      | 3:00 PM  | Keir Rogers          | Strong bound on canonical ultra-light axion dark matter from the Lyman-alpha forest               |
|         | 3:15 PM  | William DeRocco      | Hunting for Axions in the Solar Basin   |
|         | 3:30 PM  | So Chigusa           | Direct detection of light bosonic dark matter using spin excitation                               |
|         | 3:45 PM  | Wei-Xiang Feng       | Seeding Supermassive Black Holes with Self-interacting Dark Matter: A Unified Scenario w/ Baryons |
| D3      | 3:00 PM  | Brian Lu             | The Impact of Baryons on Cosmological Inference from Weak Lensing Statistics                      |
|         | 3:15 PM  | Hong-Yi Zhang        | Gravitational effects on oscillon lifetimes   |
|         | 3:30 PM  | Soubhik Kumar        | Dark Radiation Isocurvature: Constraints and Application to the H0 Tension                        |
|         | 3:45 PM  | Chia-Feng Chang      | Gravitational Waves from Global Cosmic Strings and Cosmic Archaeology                             |
| D4      | 3:00 PM  | José Ricardo Correia | High resolution calibration of string modelling   |
|         | 3:15 PM  | Oliver Philcox       | Large Scale Structure Cosmology from the 4-Point Function   |
|         | 3:30 PM  | Yueying Ni           | Super-resolution cosmological simulation  |
|         | 3:45 PM  | Ferah Munshi         | Can you constrain dark matter at the limits of galaxy formation?                                  |

Table 3: Wednesday Aug 4, 2021

| Session | Time     | Speaker                | Title   |
|---------|----------|------------------------|---|
| E1      | 11:45 AM | Ankit Beniwal          | Thermal WIMPs and the scale of new physics  |
|         | 12:00 PM | Michael Zantedeschi    | Primordial black holes from confinement   |
|         | 12:15 PM | Fumio Uchida           | Baryon isocurvature constraints on the primordial magnetic fields                                 |
|         | 12:30 PM | Gaétan Facchinetti     | Subhalo properties in simplified dark matter models and impact on indirect searches               |
| E2      | 11:45 AM | Juraj Klarić           | Uniting low-scale leptogeneses  |
|         | 12:00 PM | Julian Rey             | Primordial black holes in an early matter-dominated era and stochastic inflation                  |
|         | 12:15 PM | Fazlollah Hajkarim     | Production of Thermal Axions in the Early Universe  |
|         | 12:30 PM | Gen Ye                 | Cosmological parameter shifts and AdS-EDE   |
| E3      | 11:45 AM | Nilanjandev Bhaumik    | PBHs and induced GWs from single field inflation and the small scale imprints of reheating        |
|         | 12:00 PM | Giorgos Korkidis       | A new probe of dark energy  |
|         | 12:15 PM | Naomi Robertson        | Cluster mass calibration with ACT and KiDS  |
|         | 12:30 PM | Thomas Edwards         | Using Radio Observations of Neutron Stars to Probe QCD Axion Dark Matter                          |
| E4      | 11:45 AM | Florian Niedermann     | Addressing the Hubble tension with new early dark energy  |
|         | 12:00 PM | Alessio Notari         | Cosmic Axion Background: the QCD axion as a hot relic   |
|         | 12:15 PM | Lennart Balkenhol      | Constraints on Cosmology from the SPT-3G 2018 EE/TE Power Spectra                                 |
|         | 12:30 PM | Luu Hoang Nhan         | The Hubble Constant in the Axi-Higgs Universe   |
| F1      | 3:00 PM  | Fei Huang              | Resurrecting Low-Mass Axion Dark Matter Via a Dynamical QCD Scale                                 |
|         | 3:15 PM  | Itamar Allali          | Gravitational Decoherence with Applications to Dark Matter Phenomenology                          |
|         | 3:30 PM  | Kevin Zhou             | Stellar Shocks From Dark Matter   |
|         | 3:45 PM  | Youjia Wu              | Dark Stars Powered by Self-Interacting Dark Matter  |
| F2      | 3:00 PM  | Alessio Spurio Mancini | CosmoPower: emulating cosmolog. power spectra for accelerated inference from next-gen. surveys    |
|         | 3:15 PM  | Heyang Long            | Streaming Velocity Effects on the Post-reionization 21 cm BaryonAcoustic Oscillation Signal       |
|         | 3:30 PM  | Alina Sabyr            | Cosmo. Constraints from Weak Lensing Peaks: Can Halo Models Accurately Predict Peak Counts?       |
|         | 3:45 PM  | Brandon Buncher        | Probabilistic Cosmic Web Classification using Fast-Generated Training Data                        |
| F3      | 3:00 PM  | Ari Cukierman          | The oscillating sky: BICEP as an axion direct-detection experiment                                |
|         | 3:15 PM  | Ritoban Basu Thakur    | The BICEP-Array program   |
|         | 3:30 PM  | Mudit Jain             | CMB birefringence due to ultralight axion string networks   |
|         | 3:30 PM  | Qiuyue Liang           | Neutrino-Assisted Early Dark Energy as a solution to Hubble tension                               |
| F4      | 3:00 PM  | Jose María Ezquiaga    | Probing the standard cosmological model with the population of binary black-holes                 |
|         | 3:15 PM  | Soichiro Morisaki      | Observation of gravitational waves from two neutron star black hole coalescences                  |
|         | 3:30 PM  | Michael A. Fedderke    | Bridging the microhertz gap with asteroids: opportunities and challenges for grav. wave detection |
|         | 3:45 PM  | Jack Setford           | Mirror Neutron Stars  |

Table 4: Thursday Aug 5, 2021

| Session | Time     | Speaker            | Title  |
|---------|----------|--------------------|--|
| G1      | 11:45 AM | Patrick Stoecker   | Setting bounds on the lightest neutrino mass with CosmoBit, the GAMBIT cosmological module                 |
|         | 12:00 PM | Tsung-Han Yeh      | BBN and CMB combined and separate constraints on new physics: measuring $N_{\text{eff}}$ and its evolution |
|         | 12:15 PM | Anirban Das        | Self-interacting neutrinos as a solution(?) to the Hubble tension  |
|         | 12:30 PM | Qianhang Ding      | Ultrahigh-energy Gamma Rays and Gravitational Waves from Primordial Exotic Stellar Bubbles                 |
| G2      | 11:45 AM | Venus Keus         | CP-violating inflation and its cosmological imprints   |
|         | 12:00 PM | Sebastian Zell     | Black Hole Metamorphosis: What happens after half evaporation?   |
|         | 12:15 PM | Ranjan Laha        | Low Mass Black Holes from Dark Core Collapse   |
|         | 12:30 PM | Hayato Motohashi   | Exact solution for wave scattering from black holes  |
| G3      | 11:45 AM | Benjamin Joachimi  | KiDS-1000: new constraints on the amplitude of structure formation from cosmic shear and beyond            |
|         | 12:00 PM | Dmitry Blinov      | PASIPHAЕ: Through the veil of dust to inflation  |
|         | 12:15 PM | Andreu Font-Ribera | Dark Energy Spectroscopic Instrument: Overview and early data  |
|         | 12:30 PM | Martin Makler      | Constraints on modified gravity using Einstein rings   |
| G4      | 11:45 AM | Steffen Hagstotz   | A new measurement of the Hubble constant with Fast Radio Bursts  |
|         | 12:00 PM | Natalie Hogg       | Constraints on the distance duality relation with standard sirens  |
|         | 12:15 PM | David Jones        | Cosmo. Results from the RAISIN Survey: Type Ia SNe in the Near IR as a Novel Path to Dark Energy           |
|         | 12:30 PM | Xilu Wang          | r-Process Radioisotopes from Near-Earth Supernovae and Kilonovae   |