



Programme of Parallel Sessions Talks

Tuesday 5 July

Session 1: Cosmology

Chair: Paul Shellard

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|-------|---|
| 14:00 | Camille Bonvin <i>University of Cambridge</i>
What galaxy surveys really measure |
| 14:15 | Mischa Gerstenlauer <i>University of Heidelberg</i>
Inflationary Correlation functions without Infrared Divergences |
| 14:30 | Yi Wang <i>McGill University, Canada</i>
Signatures for inflation in a landscape |
| 14:45 | David Wands <i>University of Portsmouth</i>
Scale dependence of local-type non-Gaussianity |
| 15:00 | Hassan Firouzjahi <i>IPM, Tebran</i>
Curvature perturbations and waterfall quantum fluctuations in hybrid inflation |
| 15:15 | Andrei Frolov <i>Simon Fraser University, Canada</i>
Local non-Gaussianity Estimators for the CMB data analysis |
| 15:30 | TEA |
| 16:00 | Johannes Noller <i>Imperial College, London</i>
Non-Gaussianity in single field models without slow-roll |
| 16:15 | Alessandro Tronconi <i>Bologna University</i>
Inflation and Reheating in Spontaneously Generated Gravity |
| 16:30 | Mark Jackson <i>University of Leiden</i>
Observing Quantum Gravity in the Sky |

- 16:45 **Anastasia Fialkov** *Tel Aviv University*
How Sensitive is the CMB to a Single Lens?
- 17:00 **Andrew Pontzen** *University of Cambridge*
Isotropy of the CMB: physics and statistics
- 17:15 **Jaiyul Yoo** *University of Zurich*
General relativistic description of the observed galaxy power spectrum
- 17:30 **Ian Moss** *University of Newcastle*
Hot fluctuations from the hot big bang
- 17:45 **Damien Easson**
Constraining the Inflaton Lagrangian with Primordial Gravitational Waves

Tuesday 5 July

Session 2: String Theory

Chair: Daniel Baumann

- 14:00 **Kunihito Uzawa** *Kindai University*
Warped de Sitter compactifications
- 14:15 **Susha Parameswaran**
On Couplings in MSSM Heterotic Orbifold Models
- 14:30 **Diederik Roest** *University of Groningen*
Stability of non-supersymmetric vacua of supergravity and string theory
- 14:45 **Damien George** *Nikhef, Amsterdam*
A systematic approach to model building
- 15:00 **Daisuke Yokoyama** *Tokyo Institute of Technology*
Superconformal index for large N quiver Chern-Simons theories
- 15:15 **Takuya Saka** *Tokyo Institute of Technology*
N=4 Instanton Effective Action in Omega-background and D3/D(-1)-brane System in R-R Background
- 15:30 TEA

- 16:00 **Ling Yan Hung** *Perimeter Institute*
On Holographic Entanglement Entropy and Higher Curvature Gravity
- 16:15 **Matthew Lippert** *University of Crete*
Holographic Models of the Quantum Hall Effect
- 16:30 **Betti Hartmann** *Jacobs University, Bremen*
Holographic superconductors and superfluids: backreaction
- 16:45 **Gonzalo Torroba** *Stanford University, SLAC*
A simple harmonic universe
- 17:00 **Simon Gentle** *University of Durham*
Linear response from black holes
- 17:15 **Tom Hartman** *Institute for Advanced Study, Princeton*
Title TBC
- 17:30 **Marika Taylor**
The holographic fluid dual to vacuum Einstein gravity
- 17:45 **Michele Cicoli** *DESY, Hamburg*
Testing anisotropic string compactifications in the lab

Tuesday 5 July

Session 3: Cosmological Defects

Chair: Tasos Avgoustidis

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- 14:00 **Rhiannon Gwyn** *King's College, London*
Theoretical constraints on brane inflation and cosmic superstring radiation
- 14:15 **Mark Hindmarsh** *University of Sussex*
Cosmic Microwave Background constraints and prospects for detection
- 14:30 **Mairi Sakellariadou** *King's College, London*
Recent developments on cosmic string dynamics
- 14:45 **Koichi Miyamoto** *Institute for Cosmic Ray Research, Japan*
Title TBC

- 15:00 **Ana Achucarro** *University of Leiden*
Ultra-high speed collision and reconnection of Abelian Higgs strings in the deep type-II regime
- 15:15 **Mareike Haberichter** *Manchester University*
Spinning Skyrmions
- 15:30 TEA
- 16:00 **Mustafa Amin** *Massachusetts Institute of Technology*
Oscillons at the end of inflation
- 16:15 **Stephen Feeney** *University College, London*
First Observational Tests of Eternal Inflation
- 16:30 **John Giblin** *Kenyon College / Perimeter Institute, Canada*
Gravitational Radiation from Bubble Collisions
- 16:45 **Ken'ichi Saikawa** *University of Tokyo*
Axion cosmology and domain walls

- 14:00 **Jonathan Ganc** *University of Texas, Austin*
Title TBC
- 14:15 **Alex Bernardini** *Universidade Federal de São Carlos*
Reproducing neutrino effects on the matter power spectrum
through a degenerate Fermi gas approach
- 14:30 **James Fergusson** *University of Cambridge*
Title TBC
- 14:45 **Donough Regan** *University of Sussex*
CMB Trispectrum Constraints
- 15:00 **Amjad Ashoorioon** *Uppsala University*
Effects of Nonlinear Dispersion Relations on Non-
Gaussianities
- 15:15 **Daniel Grin** *Institute for Advanced Study, Princeton*
Compensated Isocurvature Perturbations and the Cosmic
Microwave Background
- 15:30 TEA
- 16:00 **Krzysztof Turzyski** *University of Warsaw*
Strongly Coupled Perturbations in Two-Field Inflationary
Models
- 16:15 **Marieke Postma** *Nikhef*
M-flaton and its spectators
- 16:30 **Sonia Paban** *University of Texas at Austin*
Initial Conditions for Inflation Revisited
- 16:45 **Jose Fonseca** *University of Portsmouth*
Non-Gaussianity and gravitational waves from Curvaton
- 17:00 **David Rapetti** *Dark Cosmology Centre, Copenhagen*
Testing cosmology with galaxy clusters
- 17:15 **Richard Easther** *Yale University*
Title TBC

Wednesday 6 July

Session 2: Particle Phenomenology

Chair: Ben Allanach

- 14:00 **Otto Kong** *National Central University, Taiwan*
Analysis of Dynamical Symmetry Breaking in Supersymmetric Models
- 14:15 **Dimitry Madigozhin** *Joint Institute for Nuclear Research, Russia*
Title TBC
- 14:30 **Evelina Gersabeck** *INFN Perugia, Italy*
Searches for lepton flavour and lepton number violation in kaon decays at CERN
- 14:45 **Michele Veltri** *INFN Firenze & Universita' Urbino*
Precise Form Factor Measurement of $K^{+-} \rightarrow \pi^0 \mu^{+-}$ decays
- 15:00 **Giulia De Bonis** *University of Roma Sapienza and INFN*
ANTARES – A Neutrino Telescope in the Mediterranean Sea
- 15:15 **Shin Sasaki** *Tokyo Institute of Technology*
R-symmetry Breaking and O’Raifeartaigh Model with Global Symmetries at Finite Temperature
- 15:30 TEA
- 16:00 **Paul Archer** *University of Sussex*
Flavour Physics in the Softwall Model
- 16:15 **Angela Lepidi** *Ludwig-Maximilians-University München*
Bose-Einstein Condensates and Primordial Magnetogenesis
- 16:30 **Seodong Shin** *Seoul National University*
The same charge dimuon asymmetry and electroweak precision with Z
- 16:45 **Yutaka Ookouchi** *IPMU, Japan*
Direct hybrid gauge mediation and cosmological implications
- 17:00 **Kyu Jung Bae** *Korea Advanced Institute of Science and Technology*
Thermal production of axinos
- 17:15 **Yuichiro Nakai** *Yukawa Institute for Theoretical Physics, Kyoto*
Inflation in Gauge Mediation and Gravitino Dark Matter

- 14:00 **Ignacy Sawicki** *IITP, University of Heidelberg*
Dark energy from dust with non-vanishing pressure
- 14:15 **Lasma Alberte** *Ludwig-Maximilians-University*
Ghosts in massive gravity
- 14:30 **Gustavo Niz** *University of Portsmouth*
Can the graviton have a mass?
- 14:45 **Atifah Mussa** *University College, London*
Existence of relativistic stars in $F(T)$ gravity
- 15:00 **Tessa Baker** *University of Oxford*
Consistent Parameterizations of Modified Gravity
- 15:15 **Alexander Vikman** *CERN*
Imperfect Dark Energy of Kinetic Gravity Braiding
- 15:30 TEA
- 16:00 **Jean Alexandre** *King's College, London*
Dynamical mass generation in Lifschitz-type field theories
- 16:15 **Jun-Qi Guo** *Simon Fraser University, Canada*
Small Cosmological Constant from Running of Gravitational
Coupling
- 16:30 **Clare Burrage** *Switzerland*
de Sitter Galileons
- 16:45 **Tony Padilla** *University of Nottingham*
Title TBC
- 17:00 **Jonathan Pearson** *Manchester University*
Generalized perturbations in dark energy and modified gravity

- 14:00 **Raquel Ribeiro** *University of Cambridge*
Large slow-roll corrections to the bispectrum of noncanonical inflation
- 14:15 **Gonzalo Palma** *Universidad de Chile*
Features of heavy physics in the CMB power spectrum
- 14:30 **Matteo Fasiello** *Padua, Italy*
Effective Field Theory of Inflation
- 14:45 **Anatoly Dymarski** *Institute for Advanced Study, Princeton*
(Single field) models of inflation with large NG
- 15:00 **Ely Kovetz** *Tel Aviv University*
Pre-Inflationary Relics and Large Scale CMB Anomalies
- 15:15 **Sander Mooij** *Nikhef, Amsterdam*
Goldstone Bosons in Higgs Inflation
- 15:30 TEA
- 16:00 **Thorsten Battefeld** *University of Göttingen*
A grazing ESP encounter during Inflation
- 16:15 **Chia-Min Lin** *National Tsing Hua University*
Hilltop Supernatural Inflation
- 16:30 **Paulo Reimberg** *Universidade de Sao Paulo*
CMB temperature and polarization can be described by Boltzmann's equations
- 16:45 **Levon Pogosian** *Simon Fraser University, Canada*
CMB B-modes from Faraday rotation
- 17:00 **Giovanni Marozzi** *College de France, Paris*
Light-cone averaging in cosmology: formalism and applications

Thursday 7 July

Session 2: Astro-particle Physics

Chair: James Fergusson

- 14:00 **Chian-Shu Chen** *National Center for Theoretical Sciences, Taiwan*
Bimodal/Schizophrenic Neutrino As a Bridge between
Inflation and Dark Energy
- 14:15 **Motohiko Kusakabe** *University of Tokyo*
Possible signatures of exotic long-lived strongly interacting
massive particles (SIMPs) on light element abundances
- 14:30 **Alexander Kartavtsev** *Max-Planck Institute for Nuclear Physics*
Non-equilibrium QFT approach to resonant leptogenesis
- 14:45 **Dario Schalla** *TU Dortmund*
Title TBC
- 15:00 **Robert Crittenden** *University of Portsmouth*
On the evidence for axions from Active Galactic Nuclei
- 15:15 **Hayato Motohashi** *University of Tokyo*
Title TBC
- 15:30 TEA
- 16:00 **Deog Ki Hong** *Pusan National University, Republic of Korea*
Techni-dilaton as Dark Matter
- 16:15 **Janine Hütig** *Goethe-University, Frankfurt*
Leptogenesis - A fully quantum mechanical description in a
thermal bath
- 16:30 **Subhendra Mohanty** *Physical Research Lab., Ahmedabad, India*
Reconciling relic density with indirect signals of dark matter
annihilation via Sommerfeld enhancement
- 16:45 **Csaba Balazs** *Monash University*
The status of the cosmic electron-positron anomaly
- 17:00 **Michael Schmidt** *Durham University*
Radiative Neutrino Masses and Dark Matter

- 14:00 **Johanna Karouby** *McGill University, Canada*
On the Instability of the Lee-Wick Bounce
- 14:15 **Tsutomu Kobayashi** *Kyoto University*
Primordial non-Gaussianity from G-inflation
- 14:30 **Jeremy Sakstein** *University of Cambridge*
Modified Gravity makes Galaxies Brighter
- 14:45 **Sébastien Renaux-Petel** *University of Cambridge*
Primordial fluctuations and non-Gaussianities in a Galilean theory
- 15:00 **Federico Urban** *University of British Columbia*
Resonant Dark Energy and Cosmic Magnetic Fields
- 15:15 **Darrel Yawitch** *King's College London*
Emergent relativistic-like Kinematics and Dynamical Mass Generation for a Lifshitz-type Yukawa model
- 15:30 TEA
- 16:00 **George Zahariade** *Université Paris 7 Denis Diderot*
From k-essence to generalised Galileons and beyond...
- 16:15 **Masahide Yamaguchi** *Tokyo Institute of Technology*
Runaway Domain Wall and Space-time Varying alpha
- 16:30 **Philippe Brax** *IPHT Saclay, France*
The environmentally dependent dilaton
- 16:45 **Tamara Davis** *University of Queensland, Australia*
Results from the WiggleZ Dark Energy Survey
- 17:00 **Rachel Rosen**
Addressing the Ghost Problem in Massive Gravity