

Analytical Method Programme:

Monday Sept. 17th

09:00: Reception of the participants

09:30: Welcome address

10:00-10:45: Cliff Burgess

Gravitational Fields as Open Systems: Potential Surprises from Curved-Space QFT

10:45-11:15: Coffee break

11:15-12:00: Daniel Baumann

Inflationary correlations from the boundary

12:00-12:45: Eva Silverstein

Non-Gaussian tails and PBH production

12:45-14:30: Lunch break

14:30-15:15: Vincent Vennin

Stochastic Inflation and Primordial Black Holes

15:15-16:00: Sean Carroll

Quantum Circuit Cosmology

16:00-16:30: Coffee break

16:30-17:15: Leonardo Senatore

Recent developments of the Effective Field Theory of Large-Scale Structure

17:30-18:30: Open discussion

Tuesday Sept. 18th

10:00-10:45: Lisa Randall

Self charged dark matter

10:45-11:15: Coffee break

11:15-12:00: Azadeh Maleknejad

Primordial $SU(2)$ gauge fields and physics of inflation

12:00-12:45: Sebastien Renaux-Petel

Inflation, geometry and stochasticity

12:45-14:30: Lunch break

14:30-15:15: Liam McAllister
Quantum gravity constraints on large-field inflation

15:15-16:00: Shinji Mukohyama
Horava-Lifshitz cosmology revisited

16:00-16:30: Coffee break

16:30-17:15: Tommi Markkanen
The 1-loop effective potential for the Standard Model in curved spacetime

17:30-18:00: Daniel Litim
Quantum Gravity and Cosmology

18:00-18:30: Open discussion

Wednesday Sept. 19th

09:30-10:15: Cora Dvorkin
Cosmological Probes of Dark Matter: Current Status and Future Prospects

10:15-11:00: Luc Blanchet
Gravitational Waves and Theory

11:00-11:30: Coffee break

11:30-12:15: Ippocratis Saltas
Novel and model-independent test of theories beyond GR

12:15-13:30: Marcello Musso
Assembly bias in the cosmic web

13:45: Lunch break and free afternoon

Thursday Sept. 20th

10:00-10:45: Mark Neyrinck
The Cosmic Spiderweb: void/wall perpendicularity in the adhesion model

10:45-11:15: Coffee break

11:15-12:00: Sandrine Codis
Topology of the cosmic web

12:00-12:45: Paulo Reimberg
Large deviations theory applied to large scale structure cosmology

12:45-14:30: Lunch break

14:30-15:15: Raul Jimenez

Analytical methods to measure the energy scale of inflation from large scale structures

15:15-16:00: Suvodip Mukherjee

Probing Axions from the future CMB and Large Scale Structure Missions

16:00-16:30: Coffee break

18:00-19:00: Conférence grand public : *Pourquoi les mathématiques peuvent-elles expliquer le monde* - Intervention en français de Mario Livio (Space Telescope Institute, USA)

Friday Sept. 21st

10:00-10:45: Rien van de Weygaert

Caustic skeleton of the Cosmic Web

10:45-11:15: Coffee break

11:15-12:00: Roman Scoccimarro

Galaxy Bias Loops

12:00-12:45: Cora Uhlemann

Large-scale clustering with counts-in-cells statistics

12:45-14:30: Lunch break

14:30-15:15: Francis Bernardeau

Large-scale structure response functions

15:15-16:00: Fabian Schmidt

Galaxy bias and its implications for forward models of the large-scale structure

16:00-16:30: Coffee break

16:30-17:15: Atsushi Taruya

Lagrangian perturbation theory at shell crossing and beyond

17:30-18:30: Open discussion