

Quantum Gravity in Cracow⁴
Correlations in Complex Systems
8-10 May 2015

Friday 8th May

(Room: A-1-03)

16:30 Registration & Welcome Coffee

Causal Dynamical Triangulations Session I (17:00 – 19:00)

17:00 Jerzy Jurkiewicz
Causal Dynamical Triangulations

18:00 Andrzej Görlich
How to define the continuum limit in CDT?

Saturday 9th May

(Room: A-1-13)

Causal Dynamical Triangulations Session II (9:30 – 11:00)

09:30 Jakub Gizbert-Studnicki
A Spontaneous Signature Change in CDT Quantum Gravity?

10:10 Daniel Coumbe
What is Dimensional Reduction Really Telling Us?

11:00 Coffee break

Loop Quantum Gravity Session I (11:30 - 14:00)

11:30 Jerzy Lewandowski
Loop Quantum Gravity

12:30 Jakub Mielczarek
Signature-change quantum cosmology

13:10 Boris Bolliet
The primordial tensor power spectrum in LQC

14:00 Lunch

Loop Quantum Gravity Session II (15:00 - 17:00)

- 15:00** **Norbert Bodendorfer**
Symmetry reductions in loop quantum gravity based on classical gauge fixings
- 15:40** **Mehdi Assanioussi**
Hamiltonian operator for LQG coupled to a scalar field
- 16:20** **Andrea Dapor**
Rainbows from Quantum Gravity

- 19:00** **Conference Dinner**
Restauracja Biała Róża
ul. Straszewskiego 16
www.restauracjabialarozza.pl

Sunday 10th May
(Room: A-1-13)

Other Approaches to Quantum Gravity Session I (9:30 – 11:00)

- 09:30** **Włodzimierz Piechocki**
Towards resolving generic singularity problem of general relativity
- 10:20** **Lisa Glaser**
The Hartle-Hawking wave function in Causal Set theory
- 11:00** **Coffee break**

Other Approaches to Quantum Gravity Session II (11:20 – 14:00)

- 11:20** **Luis Pires**
On the role of the extra kinetic term coupling in Horava Lifshitz gravity
- 12:00** **Sean Gryb**
An Introduction to Shape Dynamics: A Review of the Basic Principles, Formalism and Key Results
- 12:40** **Michał Eckstein**
Rethinking microscopic causality via noncommutative geometry
- 13:20** **Tomasz Trzeźniewski**
The κ -Carroll particle from 3d gravity
- 14:00** **Lunch**