Programme on
“Quantum Physics and Gravity”
May 29 – July 6, 2017

organized by
Markus Aspelmeyer (U Vienna), Caslav Brukner (U Vienna), Domenico Giulini (ZARM Bremen, U Hannover), Daniel Grumiller (TU Vienna), Soo-Jong Rey (Seoul National U)

Week 4: June 19 – June 23, 2017

• Monday, June 19, 2017

10:00 – 11:00 Registration
11:00 – 11:30 coffee / tea break
11:30 – 12:30 Joan Simon
EPR=ER in LLM
12:30 – 14:30 lunch break
14:30 – 15:30 Oscar Fuentealba
Asymptotic structure of N=2 supergravity in 3D: extended super-BMS\textsc{\textit{s}}\textsc{\textit{3}} and nonlinear energy bounds

• Tuesday, June 20, 2017

10:00 – 11:00 Paul Romatschke
Lattice Simulations of 10d Yang-Mills in Toroidal Compatification
11:00 – 11:30 coffee / tea break
12:15 – 13:30 optional Lunch Talk at University: Hamed Barzegar
13:30 – 14:30 lunch break
14:30 – 15:30 Ivette Fuentes Guridi
Gravity in the quantum lab
15:30 – 16:00 break
16:00 – 17:00 Roger Penrose
Dark Matter Decay? Possible Observational Tests - According to Conformal Cyclic Cosmology
• Wednesday, June 21, 2017
  10:00 – 11:00 Iva Lovrekovic  
  Asymptotic Symmetry Algebra of Conformal Gravity in four dimensions
  11:00 – 11:30 coffee / tea break
  11:30 – 12:30 Rafael Sorkin  
  The quantum measure - and how to measure it
  12:30 – 14:30 lunch break
  14:30 – 15:30 Jakob Salzer  
  Aspects of Holography in Two-Dimensional Dilaton Gravity
  15:30 – 16:00 break
  16:00 – 17:00 Nikola Paunkovic  
  Symmetry protected entanglement between gravity and matter

• Thursday, June 22, 2017
  10:00 – 11:00 Marko Vojinovic  
  Cosmological Constant in Regge Quantum Gravity
  11:00 – 11:30 coffee / tea break
  11:30 – 12:30 Holger Müller  
  Quantum measurements of gravitational and sub-gravitational interactions
  12:30 – 14:30 lunch break
  14:30 – 15:30 Jörg Schmiedmayer  
  Probing quantum fields and their fluctuations with a quantum simulator
  15:30 – 16:00 break
  16:00 – 17:00 Hermann Verlinde  
  SYK, 2D CFT and Gravitational Scattering

• Friday, June 23, 2017
  10:00 – 11:00 Ayan Mukhopadhyay  
  Feynman diagrams and gravity join forces to crack the QGP
  11:00 – 11:30 coffee / tea break
  11:30 – 12:30 Dima Vassilevich  
  Parity anomaly in four dimensions
  12:30 – 14:30 lunch break

All talks take place at the ESI, Boltzmann Lecture Hall, except Lunch Talk on Tuesday!