

Experimental Search for Quantum Gravity

Schedule

All talks and discussions will take place in room FA32 on the 3rd floor in the AlbaNova building.

Monday, July 12th

Time	Speaker	Topic
9:45	REGISTRATION	
10:00	Hossenfelder, Sabine	Opening/Organizational Stuff
10:15	Wagner, Robert	Exploring quantum gravity with VHE γ -ray telescopes – status, prospects and limitations
11:00	COFFEE BREAK	
11:15	Kelley, John	Searching for Quantum Gravity with High-energy Neutrinos
12:00	LUNCH	
14:00	Calmet, Xavier	Unitarity in Quantum Gravity and Models of Particle Physics
14:45	Sakellariadou, Mairi	Noncommutative Geometry as framework for Unification: Introduction and cosmological consequences
15:30	COFFEE BREAK	
15:45	Christian, Joy	Probing the Planck Scale with Cosmic Neutrinos
16:30	Alexander, Stephon	Quantum Gravity Phenomenology, Neutrino Oscillations and Dark Energy
17:30	RECEPTION	

Tuesday, July 13th

Time	Speaker	Topic
10:15	Bambi, Cosimo	Search for quantum gravity effects in astrophysical compact objects
11:00	COFFEE BREAK	
11:15	Collins, Hael	The subtleties of a quantum field in an inflationary universe
12:00	LUNCH	
14:00	Sudarsky, Daniel	Phenomenology of a Lorentz -respecting space-time granularity
14:45	Kent, Adrian	Testing the (Non)locality of the Gravitational Field
15:30	COFFEE BREAK	
15:45	Magueijo, Joao	A quantum gravity foundation for inflation? Sleeping with the enemy
16:30	Discussion	What to sacrifice? Moderation: Claus Lämmerzahl Panelists: Xavier Calmet, Domenico Giulini, Stephon Alexander

Wednesday, July 14th

Time	Speaker	Topic
10:15	Roura, Albert	Quantum light-cone fluctuations: probing quantum metric fluctuations with massless fields
11:00	COFFEE BREAK	
11:15	Bojowald, Martin	LQGD(S)R: On the low-energy implications of loop quantum gravity
12:00	LUNCH	
14:00	Liberati, Stefano	Emergent gravity phenomenology
14:45	Dowker, Fay	Polarization Diffusion from Spacetime Uncertainty
15:30	COFFEE BREAK	
15:45	Smolin, Lee	On the issue of non-locality in deformed special relativity
16:30	Discussion	Experiments and Thought Experiments Moderation: Amit Hagar Panelists: Joy Christian, Lee Smolin, ...

Thursday, July 15th

Time	Speaker	Topic
10:15	Mavromatos, Nick	Naturalness, Planck scale, quantum-gravity induced refractive indices and the GRB 090510 results
11:00	COFFEE BREAK	
11:15	Troja, Eleonora	Precursor activity in short duration GRBs
12:00	LUNCH	
14:00	Cavaglia, Marco	Hunting for black holes at the LHC
14:45	Rizzo, Thomas	Testing Gravity at Colliders
15:30	COFFEE BREAK	
15:45	Landsberg, Greg	Vanishing Dimensions and Planar Events at the LHC
16:30	Discussion	The Future of Particle Physics Moderation: Greg Landsberg Panelists: Marco Cavaglia, Thomas Rizzo, Brian Keating
18:00	BBQ	The BBQ will take place in front of the institute.

Friday, July 16th

Time	Speaker	Topic
10:15	Hofmann, Stefan	Massive Cosmological Gravitons
11:00	COFFEE BREAK	
11:15	Keating, Brian	Experimental Quantum Gravity with the BICEP CMB Polarimeter
12:00	LUNCH	
14:00	Amelino-Camelia, Giovanni	Quantum Gravity Phenomenology farther, slower
14:45	Closing	