

The 3rd Conference of the Polish Society on Relativity

Quantum and Alternative Approaches to Gravity

Monday (26th September)

08 ³⁰ – 09 ¹⁵	registration	
09 ¹⁵ – 09 ³⁰	opening	
09 ³⁰ – 10 ³⁰	Jan Ambjørn	CDT and Minisuperspace
10 ³⁵ – 11 ⁰⁰	coffe break	
11 ⁰⁰ – 11 ²⁰	Jakub Gizbert-Studnicki	Phase Structure of Causal Dynamical Triangulations Model in 4D
11 ²⁵ – 11 ⁴⁵	Andrzej Görlich	Causal Dynamical Triangulations with Toroidal Topology
11 ⁵⁰ – 12 ¹⁰	Daniel Nathan Coumbe	Some Recent Results in Euclidean Dynamical Triangulations
12 ¹⁵ – 12 ³⁵	Włodzimierz Piechocki	Addressing the Issue of Quantum Spikes
12 ⁴⁰ – 13 ⁴⁰	lunch break	
13 ⁴⁰ – 14 ¹⁰	Jerzy Lukierski	Kappa-Deformations — Historical Remarks and Recent Developments
14 ¹⁵ – 14 ³⁵	Jerzy Kowalski-Glikman	Symmetries of Flat Quantum Spacetime
14 ⁴⁰ – 15 ⁰⁰	Giacomo Rosati	Planck-Scale Modified Spacetime Symmetries and Propagation of IceCube GRB-neutrinos
15 ⁰⁵ – 15 ³⁰	coffe break	
15 ³⁰ – 15 ⁵⁰	Maciej Dunajski	Projective Surfaces and Einstein Metrics
15 ⁵⁵ – 16 ¹⁵	Piotr Chruściel	The Past Limit of Trautman-Bondi Mass

Tuesday (27th September)

09 ¹⁵ – 10 ¹⁵	Kristina Giesel	Reduced Loop Quantization with 4 Klein-Gordon Scalar Fields
10 ²⁰ – 10 ⁴⁵	coffe break	
10 ⁴⁵ – 11 ⁰⁵	Ilkka Mäkinen	Time Evolution in Deparametrized Models of Loop Quantum Gravity
11 ¹⁰ – 11 ³⁰	Michał Artymowski	Inflation, Scalar-Tensor Theories and LQC
11 ³⁵ – 11 ⁵⁵	Łukasz Nakonieczny	Classical Gravity and the Quantum One-Loop Effective Action – the Higgs Case
12 ⁰⁰ – 12 ²⁰	Tomasz Trzeźniewski	Nonlinear Field Space Theory and Quantum Gravity
12 ²⁵ – 12 ⁴⁵	Iwo Białynicki-Birula	From Uncertainty Relations to Fluctuations of Geometry in a Hot Universe
12 ⁵⁰ – 13 ⁴⁰	lunch break	
13 ⁴⁰ – 14 ⁰⁰	Katarzyna Senger	Gravity with Higher Order Lagrangians
14 ⁰⁵ – 14 ²⁵	Pradyumn Kumar Sahoo	Kaluza-Klein Dark Energy Model in the Form of Wet Dark Fluid in $f(R, T)$ Gravity
14 ³⁰ – 14 ⁵⁰	Leszek Sokolowski	Degrees of Freedom and Lagrangians Explicitly Depending on the Weyl tensor
14 ⁵⁵ – 16 ⁰⁰	coffe break + poster sesion	
16 ⁰⁰ – 17 ⁰⁰	PoToR general assembly	
19 ⁰⁰ – 22 ⁰⁰	conference dinner	

Classical Gravity Session

Wednesday (28th September)

09 ¹⁵ – 09 ³⁵	Janusz Garecki	Canonical Superenergy and Angular Supermomentum Complexes in General Relativity and Some of their Applications
09 ⁴⁰ – 10 ⁰⁰	Adam Chudecki	Congruences of Null Strings and their Relation with Weyl Tensor and Traceless Ricci Tensor
10 ⁰⁵ – 10 ²⁵	Adam Szereszewski	Kundt's Metrics with Special Properties
10 ³⁰ – 10 ⁵⁰	Istvan Racz	The Many Faces of the Constraints in General Relativity
10 ⁵⁵ – 11 ¹⁵	coffe break	
11 ¹⁵ – 11 ³⁵	Olga Sergijenko	Observational Constraints on Tensor Perturbations in Cosmological Models with Dynamical Dark Energy
11 ⁴⁰ – 12 ⁰⁰	Mariusz Dąbrowski	Singularities and Cyclic Universes
12 ⁰⁵ – 12 ²⁵	Anna Nakonieczna	Multidimensional Dynamics of the Brane-Dilaton Black Hole System
12 ³⁰ – 12 ⁵⁰	Tomasz Miller	Causality for Probability Measures
12 ⁵⁵ – 13 ¹⁵	Michał Eckstein	Causality in Almost Commutative Space-Times
13 ²⁰ – 14 ¹⁰	lunch break	
14 ¹⁰ – 14 ³⁰	Tomasz Rembiasz	Magnetorotational Instability in Core-Collapse Supernovae
14 ³⁵ – 14 ⁵⁵	Orest Hrycyna	A New Generic Cosmological Scenario without Singularity
15 ⁰⁰ – 15 ²⁰	Zbigniew Haba	Diffusive DM/DE Interaction
15 ²⁵ – 15 ⁴⁵	Roman Plyatsko	Antigravity Effects in General Relativity
15 ⁵⁰ – 16 ¹⁵	coffe break	
16 ¹⁵ – 17 ¹⁵	Tilman Sauer	Einstein, Hilbert, and the Genesis of General Relativity
17 ²⁰ – 18 ²⁰	Zofia Szczęśna	art exhibition

Thursday (29th September)

09 ¹⁵ – 09 ³⁵	Yuri Taistra	One-Way Solutions of Maxwell Equation in Kerr Metric
09 ⁴⁰ – 10 ⁰⁰	Piotr Waluk	Degrees of Freedom of Weak Gravitational Field on a Spherically Symmetric Background
10 ⁰⁵ – 10 ²⁵	Tomasz Smółka	Hamiltonian Dynamics in Asymptotically Kerr Spacetimes. Examination of Quasilocal Mass in Kerr Spacetime
10 ³⁰ – 11 ⁰⁰	coffe break	
11 ⁰⁰ – 11 ²⁰	Andrzej Borowiec	Palatini Cosmological Models à la Starobinsky
11 ²⁵ – 11 ⁴⁵	David Hilditch	Dual Foliation Formulations of General Relativity
11 ⁵⁰ – 12 ¹⁰	Naqing Xie	Quasi-Local Mass Integrals and the Total Mass
12 ¹⁵ – 12 ³⁵	Mikołaj Korzyński	Optical Properties of the Black Hole Lattices
12 ⁴⁰ – 13 ⁰⁰	Jan Ostrowski	Mass Function of Galaxy Clusters in Relativistic Inhomogeneous Cosmology
13 ⁰⁵ – 13 ⁵⁵	lunch break	
13 ⁵⁵ – 14 ¹⁵	Andrzej Krasieński	Blueshifts in the Lemaitre-Tolman and Quasi-Spherical Szekeres Models.
14 ²⁰ – 14 ⁴⁰	Boudewijn Roukema	First Steps Towards Scalar-Averaged Cosmological N-Body Simulations
14 ⁴⁵ – 15 ⁰⁵	Mandar Patil	Can We Use Gravity to Produce Ultra-High Energy Cosmic Rays and Neutrinos?
15 ¹⁰ – 15 ⁴⁰	coffe break	
15 ⁴⁰ – 16 ⁰⁰	Andrzej Królak	First Observations of Gravitational Waves
16 ¹⁵ – 17 ¹⁵	Luciano Rezzolla	The Physics and Astrophysics of Merging Neutron-Star Binaries