

MULTIVERSE AND FUNDAMENTAL COSMOLOGY

SUNDAY

09.09.2012

17⁰⁰ - 20⁰⁰	Registration at the ground floor of the Klub "13 muz", Plac Żołnierza Polskiego 2, Szczecin, Poland
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PLENARY TALKS

MONDAY

10.09.2012

Plenary session I

Chairman: M. P. Dąbrowski

8⁰⁰	Registration at Klub "13 muz" (ground floor), Plac Żołnierza Polskiego 2		Varying constants (theory and experiment), superstring theory and superstring landscape, multiverse
9¹⁵	<i>Conference opening (Sala Kominkowa, 1st floor)</i>		
9³⁰	Jean-Philippe Uzan "Fundamental constants, cosmology and gravitation"	50+10	
10³⁰	Claus Kiefer "Arrow of time from quantum cosmology"	50+10	
11³⁰	<i>Coffee break</i>		
12⁰⁰	Alexei Starobinsky "Stochastic inflation: local duration, correlations and post-inflationary spatial topology"	50+10	
13⁰⁰	<i>Lunch</i>		
15⁰⁰	<i>Contributed talks</i>		
19⁰⁰	<i>Welcome cocktail – Restaurant "Zamkowa", Pomeranian Dukes' Castle, Rycerska street, No 3</i>		

TUESDAY

11.09.2012

Plenary session II

Chairman: J.-P. Uzan

9³⁰	Alexander Vilenkin "The multiverse and its measure"	50+10	Decoherent histories, multiverse, quantum cosmology
10³⁰	Martin Bojowald "Singularities and causality in loop quantum cosmology"	50+10	
11³⁰	<i>Coffee break</i>		
12⁰⁰	Jerzy Jurkiewicz "The transfer matrix in four dimensional causal dynamical triangulation"	50+10	
13⁰⁰	<i>Lunch</i>		
15⁰⁰	<i>Contributed talks</i>		

WEDNESDAY

12.09.2012

Plenary session III

Chairman: M. Bojowald

9³⁰	David Polarski “Dark energy”	50+10	Quantum gravity, dark energy
10³⁰	Carlos Martins “Three tests of Lambda CDM”	50+10	
11³⁰	<i>Coffee break</i>		
12⁰⁰	Michael Heller “At the limits of space-time”	50+10	
13⁰⁰	<i>Walk to a passenger harbour – Jana z Kolna street by the river Odra</i>		
14-20⁰⁰	<i>Hydroplane boat excursion from inland port in Szczecin to a seaport Świnoujście and back along the Szczecin Bay (diner in Świnoujście at 15¹⁵; then walk along the town to the beach and back)</i>		

THURSDAY

13.09.2012

Session III

Chairman: L. Gergely

9³⁰	<i>Contributed talks</i>		Cosmological models, inflation, CMB
10³⁰	<i>Contributed talks</i>		
11³⁰	<i>Coffee break</i>		
12⁰⁰	<i>Contributed talks</i>		
13⁰⁰	<i>Lunch</i>		
15⁰⁰	<i>Contributed talks</i>		
18⁰⁰	Public talk by Michael Heller “Cosmos of George's Lemaitre” (in polish) - Faculty of Theology, Papieża Pawła VI street, No 2		
20³⁰	<i>Conference Dinner – “Willa West Ende” Wojska Polskiego street 65</i>		

FRIDAY

14.09.2012

Plenary session IV

Chairman: K.A. Meissner

9³⁰	Robert R. Caldwell “Gravitational screening: nonlinear superposition and geometry”	50+10	Observational cosmology, dark energy, cosmological tests.
10³⁰	Renate Loll “Quantum Spacetime, from a Practitioner's Point of View”	50+10	
11³⁰	<i>Coffee break</i>		
12⁰⁰	Shinji Tsujikawa “Discrimination between dark energy models from recent observations”	50+10	
13⁰⁰	<i>Lunch</i>		
15⁰⁰	<i>Contributed talks</i>		
17⁰⁰	Closing of the conference		

CONTRIBUTED TALKS

MONDAY
10.09.2012

Session I

Chairman: C. Martins

15 ⁰⁰	Salvador Robles-Perez "Inter-universal entanglement"	15+5	Superstring and M-theory cosmology, extra dimensions, superstring landscape, multiverse
15 ²⁰	Reinoud Slagter "Warped self-gravitating U(1) gauge cosmic strings in 5D"	15+5	
15 ⁴⁰	Adam Balcerzak "Redshift drift and inhomogeneities"	15+5	
16 ⁰⁰	Anna Nakonieczna "Phantom collapse of electrically charged scalar field in dilaton gravity"	15+5	
16 ²⁰	<i>Coffee break</i>		
16 ⁵⁰	Babak Vakili "A canonical approach to the classical and quantum massive cosmology"	15+5	
17 ¹⁰	Mariusz P. Dąbrowski "Varying constant cosmologies and cosmic singularities"	15+5	
17 ³⁰	Paweł Gusin "Universe with closed time-like curves in bounded region in T-dual pp-waves backgrounds"	15+5	
17 ⁵⁰	Dong-han Yeom "Euclidean quantum gravity and stochastic approach: application of fuzzy instantons"	15+5	
18 ¹⁰	Łukasz Nakonieczny "Fate of Yang-Mills black hole in early Universe"	15+5	
19 ⁰⁰	<i>Welcome cocktail – Restaurant "Zamkowa", Pomeranian Dukes' Castle, Rycerska street, No 3</i>		

TUESDAY
11.09.2012

Session II

Chairman: C. Kiefer

15 ⁰⁰	Alexander Kamenshchik "Classical and quantum Big Brake cosmology for scalar field and tachyonic models"	15+5	Quantum cosmology, cosmic singularities
15 ²⁰	Laszlo Gergely "The paradox of soft singularity crossing and its resolution by distributional cosmological quantities"	15+5	
15 ⁴⁰	Queisser Freidemann "Cosmological constant from decoherence"	15+5	
16 ⁰⁰	Jakub Mielczarek "Signature change in loop quantum cosmology"	15+5	
16 ²⁰	<i>Coffee break</i>		
16 ⁵⁰	Hector Hernandez "Anisotropic refinement in loop quantum cosmology"	15+5	
17 ¹⁰	Kourosh Nozari "Quantum Gravitationally Motivated Natural Cutoffs and Hilbert Space Representation of Quantum Mechanics"	15+5	
17 ³⁰	Masaaki Morita "Measuring cosmic inhomogeneities with information entropy"	15+5	
17 ⁵⁰	Jerzy Król "Some cosmological implications and restrictions from geometry and topology of 3- and 4-manifolds"	15+5	

THURSDAY

13.09.2012

Session IV

Chairman: M. Rogatko

9³⁰	Alexander Kaganovich "Effect of dynamical dark energy from first principles"	15+5	Cosmological models, modelling DM & DE
9⁵⁰	Igor Kanattsikov "Precanonical quantum gravity in vielbein variables and some applications"	15+5	
10¹⁰	Włodzimierz Piechocki, "Towards solution of the general cosmological singularity problem"	15+5	
10³⁰	Ewa Czuchry "Dynamics of the Bianchi IX model near the cosmological singularity"	15+5	
10⁵⁰	Amene Behboodi "Matter stability in a modified teleparallel gravity"	15+5	
11¹⁰	<i>Coffee Break</i>		
11⁴⁰	Tomasz Denkiwicz "Testing finite scale factor singularities"	15+5	
12⁰⁰	Krzysztof Urbanowski "Cosmology with time dependent vacuum energy"	15+5	
13⁰⁰	<i>Lunch</i>		

Session V

Chairman: A. Kamenshchik

15⁰⁰	Douglas Singleton "Hawking Radiation as a Mechanism for Inflation"	15+5	Inflation and the early universe, CMB
15²⁰	Boudewijn Roukema "Topological acceleration in relativistic cosmology"	15+5	
15⁴⁰	Alvaro La Cruz Dombriz "CMB tensor perturbations in fourth order gravity theories"	15+5	
16⁰⁰	<i>Coffee Break</i>		
16²⁰	Christian Steinwachs "Non-minimal Higgs Inflation and Frame Dependence in Cosmology"	15+5	
16⁴⁰	Janusz Garecki "On stability of the de Sitter spacetime"	15+5	
17⁰⁰	<i>End of session</i>		
18⁰⁰	Public talk by Michael Heller "Cosmos of George's Lemaitre" (in polish) - Faculty of Theology, Papieża Pawła VI street, No 2		
20³⁰	<i>Conference dinner - "Willa West Ende" Wojska Polskiego street, No 65</i>		

FRIDAY

14.09.2012

Session VI

Chairman: T. Denkiwicz

15⁰⁰	Alexei Toporensky "Stable superinflating solutions in f(R) gravity"	15+5	Non-standard theories of gravity
15²⁰	Michał Kamionka "Cosmic acceleration from modified gravity with Palatini formalism"	15+5	
15⁴⁰	Diego Saez-Gomez "Cosmological evolution in viable modified gravities"	15+5	
16⁰⁰	<i>Coffee Break</i>	15+5	
16³⁰	Orest Hrycyna "Dynamics of the Bianchi I model with a non-minimally coupled scalar field"	15+5	
16⁵⁰	Closing of the conference		