

# FINAL PROGRAMME

**Wednesday 20/6/2012**

## MORNING SESSION

TIME	
9:00-9:15	<b>COMMENCEMENT</b>
9:15-10:00	Blanchard A TITLE: Can quantum vacuum be the physical origin of the cosmic acceleration?
10:00-10:45	Kiritsis E TITLE: New physics from gravity on asymptotically AdS spacetimes
10:45-11:00	<b>COFFEE</b>
11:00-11:35	Berti E TITLE: Astrophysical tests of general relativity and black hole bombs
11:35-12:10	Andersson N TITLE: Resistive relativistic magnetohydrodynamics
13:00-15:00	

## AFTERNOON PARALLEL SESSIONS

	<b>SESSION A</b>
15:00-15:20	Sarkar S TITLE: Increase of horizon entropy for black holes in Lanczos-Lovelock gravity
15:20-15:40	Kolekar S TITLE: Aspects of horizon entropy in Lanczos-Lovelock gravity and action principle for the fluid/gravity correspondence.
15:40-16:00	Cuadros-Melgar B TITLE: Quasinormal modes and thermodynamical aspects of the 3-dimensional Lifshitz black hole.
16:00-16:20	Maeda H TITLE: Generalized Misner-Sharp mass and dynamical black holes in Lovelock gravity
16:20-16:40	Yazadjiev S TITLE: Black hole uniqueness theorems in higher dimensions
16:40-17:00	<b>COFFEE</b>
17:00-17:20	Doneva D TITLE: Charged black holes in scalar-tensor theories of gravity
17:20-17:40	Skakala J TITLE: Black hole asymptotic quasi-normal modes and their conjectured relation to the black hole thermodynamics
17:40-18:00	Stefanov I TITLE: Thermodynamic phase structure of charged anti-de Sitter scalar-tensor black holes
18:00-18:20	Kraniotis G TITLE: Gravitational lensing by a Kerr-(anti) de Sitter black hole
18:20-18:40	Gossel G TITLE: Quantum particles around near-black hole objects: resonant particle capture, spectrum collapse, and the smooth transition to black hole absorption
18:40-19:00	Tsoukalas M TITLE: Conformally coupled scalar fields in higher dimensions: nontrivial vacua, instantons, and a generalization of the Yamabe problem

**AFTERNOON PARALLEL SESSIONS**

<b>SESSION B</b>	
<b>15:00-15:20</b>	Passamonti A TITLE: The evolution of the f-mode gravitational wave instability and its detection perspectives
<b>15:20-15:40</b>	Glampedakis K TITLE: Gravitational waves from color-magnetic 'mountains' in neutron stars
<b>15:40-16:00</b>	Armano M TITLE: LISA Pathfinder and MOND: towards a real space test
<b>16:00-16:20</b>	Stergioulas N TITLE: Nonlinear oscillations in mergers of compact object binaries
<b>16:20-16:40</b>	Tsagas C TITLE: Gravito-electromagnetic resonance
<b>16:40-17:00</b>	<b>COFFEE</b>
<b>17:00-17:20</b>	Loukes-Gerakopoulos G TITLE: Mind the resonances
<b>17:20-17:40</b>	Apostolatos T TITLE: A Newtonian problem as an insightful tool for the behavior of gravitational-wave sources
<b>17:40-18:00</b>	Pappas G TITLE: Astrophysical applications of analytic spacetimes
<b>18:00-18:20</b>	Sotani H TITLE: Constraints on the nuclear symmetry energy via asteroseismology
<b>18:20-18:40</b>	Chatziioannou K TITLE: Generic tests of gravity theories with gravitational waves from binary inspirals
<b>18:40-19:00</b>	Dionysopoulou K TITLE: General relativistic resistive magnetohydrodynamics with Whisky
<b>19:00-19:20</b>	Avgoustidis A TITLE: A critical look at effective field theory violations during Inflation

## Thursday 21/6/2012

### MORNING SESSION

TIME	
9:00-9:45	Kiefer C TITLE: Can effects of Quantum Gravity be observed in the Cosmic Microwave Background?
9:45-10:30	Dafermos M TITLE: <i>TBA</i>
10:30-10:45	<b>COFFEE</b>
10:45-11:20	Zanelli J TITLE: A new kind of supersymmetry
11:20-11:55	Sola J TITLE: The cosmological constant and the vacuum energy: old and new ideas
11:55-13:00	<i>Special Lecture</i> Speaker: Christodoulou D TITLE: The short pulse method and the formation of trapped surfaces in general relativity
13:00-18:00	<b>LUNCH AND/OR EXCURSION</b>
18:00-20:00	<b>ASSEMBLY OF GREEK SOCIETY HSRGC</b>
20:30-	<b>DINNER</b>

## Friday 22/6/2012

### MORNING SESSION

TIME	
9:00-9:45	Blanchet L TITLE: Gravitational radiation from compact binary star systems
9:45-10:30	Shoemaker D TITLE: Black Holes and Gravitational Waves: The quest to verify Einstein's predictions
10:30-10:45	<b>COFFEE</b>
10:45-11:20	Kleihaus B TITLE: Black Holes in higher dimensions
11:20-11:55	Fairhurst S TITLE: Gravitational Wave Astronomy
11:55-12:30	Laguna P TITLE: Binary black hole mergers in astrophysical environments
13:00-15:00	<b>LUNCH</b>

### AFTERNOON PARALLEL SESSIONS

	<b>SESSION A</b>
15:00-15:20	De S TITLE: Effects of modified gravity on 21 cm signal from high redshift universe
15:20-15:40	Micu O TITLE: Micro black holes at the LHC, Pierre Auger Observatory and beyond
15:40-16:00	Tartaglia A TITLE: Experimental determination of gravitomagnetic effects by means of ring lasers
16:00-16:20	Ninomiya K TITLE: Short-range Gravity experiment using digital image analysis
16:20-16:40	Tanaka S TITLE: MTV-G experiment: probing non-standard strong gravitational field at nuclear scale using geodetic precession.
16:40-17:00	<b>COFFEE</b>
17:00-17:20	Aretakis S TITLE: Stability and instability of extremal black holes
17:20-17:40	Papakostas T TITLE: Rotating figures of equilibrium
17:40-18:00	Pliakis D TITLE: Local existence for Euler-Einstein equations.
18:00-18:20	Civin D TITLE: Decay for wave equations on exterior Kerr–Newman spacetimes
18:20-18:40	Schlue V TITLE: Linear waves on expanding space
18:40-19:00	Rathore GS TITLE: Homogeneous Inflationary String Cosmological Model in Brans-Dicke Theory

**AFTERNOON PARALLEL SESSIONS**

<b>SESSION B</b>	
<b>15:00-15:20</b>	Kanti P TITLE: Wormholes in superstring effective theory: stability, trajectories and all that
<b>15:20-15:40</b>	Bezerra de Mello ER TITLE: Scalar vacuum polarization by cosmic string in constant curvature spacetime
<b>15:40-16:00</b>	Sobreiro R TITLE: Induced gravity from gauge theories
<b>16:00-16:20</b>	Siopsis G TITLE: Striped superconductors from AdS black holes
<b>16:20-16:40</b>	Roupas Z TITLE: Gravothermal Catastrophe with a Cosmological Constant
<b>16:40-17:00</b>	<b>COFFEE</b>
<b>17:00-17:20</b>	Willison S TITLE: Isometric embeddings of asymptotically AdS and asymptotically hyperbolic spaces
<b>17:20-17:40</b>	Meyer R TITLE: Parity breaking hydrodynamics in 2+1 Dimensions
<b>17:40-18:00</b>	Golovnev A TITLE: A simple approach to the Hamiltonian analysis of dRGT gravity
<b>18:00-18:20</b>	Vacaru S TITLE: Decoupling of field equations in Einstein and Modified Gravity
<b>18:20-18:40</b>	Walden P TITLE: Causal sets dynamics: Progress and outlook
<b>18:40-19:00</b>	Zoupas A TITLE: Effective equations of motion, decoherence, and backreaction

**21:00 PUBLIC TALK**

**TITLE:** *"Modern Cosmology: The cosmic history and the fate of the Universe"*

**SPEAKER:** Spyros Basilakos (RCAAM, Academy of Athens)

## Saturday 23/6/2012

### MORNING PARALLEL SESSIONS

<b>SESSION A</b>	
<b>9:00-9:20</b>	Mitsou E TITLE: Zero-point quantum fluctuations in cosmology
<b>9:20-9:40</b>	Burde G TITLE: Groups of Coordinate Transformations Between Accelerated Frames Based on the Equivalence Principle
<b>9:40-10:00</b>	Perivolaropoulos L TITLE: Generalizing LCDM with Inhomogeneous Dark Energy
<b>10:00-10:20</b>	Frusciante N TITLE: Lagrangian bias in the local bias model
<b>10:20-10:40</b>	Miritzis J TITLE: Acceleration in Weyl integrable spacetime
<b>10:40-11:00</b>	Astorino M TITLE: Charging axisymmetric spacetimes with Cosmological Constant
<b>11:00-11:20</b>	<b>COFFEE</b>
<b>11:20-11:40</b>	Dent T TITLE: Fundamental Physics and Cosmology with the Einstein Gravitational-Wave Telescope
<b>11:40-12:00</b>	Markakis C TITLE: Iteration stability of the Einstein constraints in the conformal thin-sandwich approach
<b>12:00-12:20</b>	Khodam-Mohammadi A TITLE: F(R)-ghost dark energy modified gravity
<b>12:20-12:40</b>	Krueger C TITLE: Effect of temperature on oscillations in young neutron stars
<b>12:40-13:00</b>	Pouri A TITLE: Testing General Relativity using the growth rate of structure

<b>SESSION B</b>	
<b>9:00-9:20</b>	Chryssomalakos C TITLE: Operational geometry on de Sitter Spacetime
<b>9:20-9:40</b>	Weinfurtner S Title: Spacetime from bits: A new framework for 2D discrete GR
<b>9:40-10:00</b>	Vernieri D TITLE: Horava–Lifshitz gravity: Detailed balance revisited
<b>10:00-10:20</b>	Christodoulakis T TITLE: Canonical quantization of constrained Lagrangians and conditional (Noether) symmetries
<b>10:20-10:40</b>	Bonder U TITLE: Quantum Gravity phenomenology without Lorentz invariance violations
<b>10:40-11:00</b>	Ma Y TITLE: On the Extension of Loop Quantum Gravity
<b>11:00-11:20</b>	<b>COFFEE</b>
<b>11:20-11:40</b>	Nungesser E TITLE: Future non-linear stability of the Einstein-Vlasov system with Bianchi A symmetry
<b>11:40-12:00</b>	Tsampanlis M TITLE: Geometrization of Lie and Noether symmetries with applications in Cosmology
<b>12:00-12:20</b>	Paliathanasis A TITLE: Using Noether symmetries to specify f(R) gravity

<b>12:20-12:40</b>	Zampeli A TITLE: Hawking radiation from chirality and the principle of effective gravity
<b>12:40-13:00</b>	Malekjani M TITLE: Interacting models of Dark energy and Statefinder diagnosis

### Poster Presentations

1. Iosif P

POSTER TITLE: The CFC approximation in uniformly and differentially rotating relativistic stars.

2. Stavrinou P

POSTER TITLE: Weak Gravitational Field in Finsler-Randers Space and Raychaudhuri Equation

3. Bandyopadhyay T

POSTER TITLE: A Study of Generalized Second Law of Thermodynamics in Magnetic Universe in the Light of Non-Linear Electrodynamics

4. Ivanov M

POSTER TITLE: Low-energy quantum gravity: some prospects in cosmology and astrophysics

5. Zampeli A

POSTER TITLE: Signs and Cosmology