

# PROGRAM

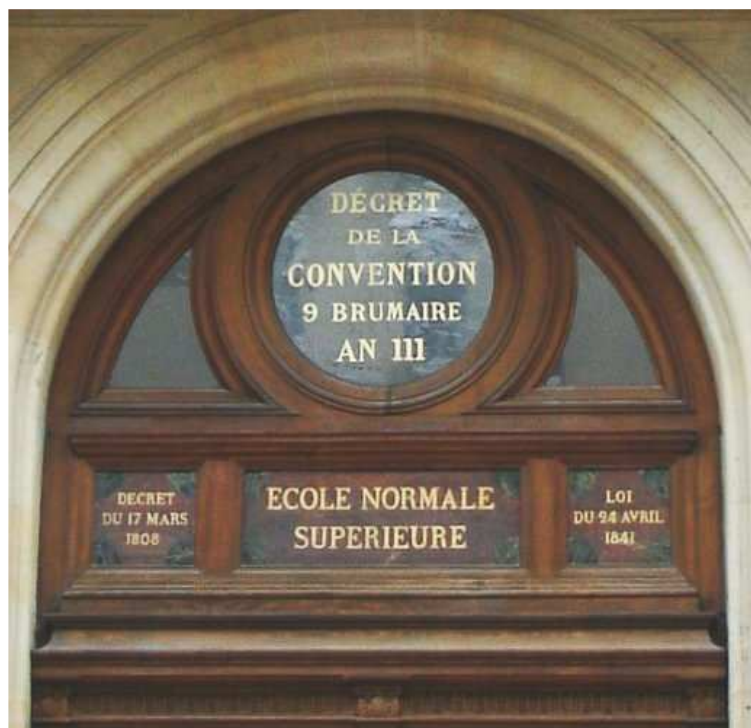


Sunday July 12, 2009

Ecole Normale Supérieure (45, rue d'Ulm, 75230 Paris)

10:00 – 12:00 Registration

14:30 – 19:30 Registration



## Monday morning, July 13, 2009

UNESCO Place de Fontenoy

8:00-9:00 Registration

UNESCO ROOM I

9:00—10:10 Opening Ceremony

Welcoming Addresses

from the chairs, directors and representatives of:

IOC MG12, ICTP, IUPAP, NSF, CNES, ENS, OdP, U Nice, U Provence, IHP,  
U Savoie

MG Awards Presentation

Jean-Pierre Bourguignon, Jaan Einasto, Christine Jones, Michael Kramer

Illustration of Pietro Cascella's "Mother Earth" by Cordelia Cascella Von den  
Steinen

10:10—10:30 Coffee Break

Plenary Session Chair: Fang Li-Zhi

10:30—11:05 Alain Connes

*5 minutes discussion*

11:05—11:40 Demetrios Christodoulou

*5 minutes discussion*

11:40—12:15 Hernando Quevedo

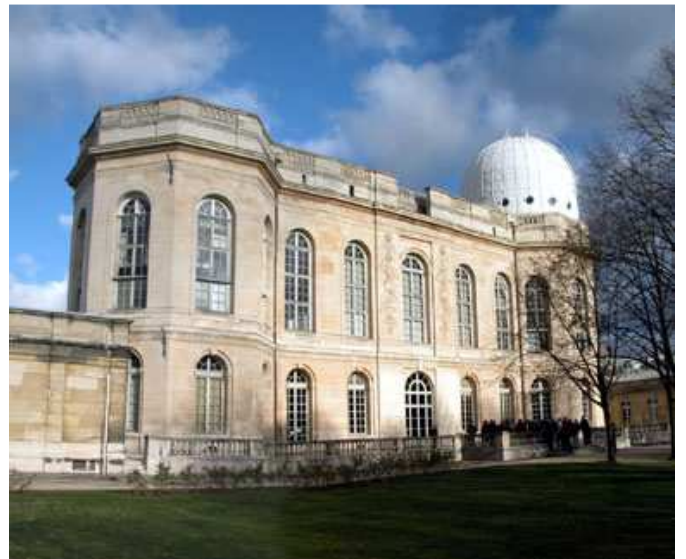
*5 minutes discussion*

LUNCH BREAK



Monday afternoon, July 13 2009 Parallel Sessions  
UNESCO 14:00—17:30, others 14:30—18:30

<b>ANM6</b>	Compact Binary Simulations: Miscellaneous ( <u>Frans Pretorius</u> )	U1
<b>ANM7</b>	Self Forces, Black Hole Perturbations ( <u>Eric Poisson</u> )	U5
<b>AP2</b>	Neutrino Physics, Astrophysics and Cosmology ( <u>Katsushiko Sato</u> )	U3
<b>APT2</b>	Extreme Properties of Neutron Stars: Observations and Theory ( <u>Mariano Mendez</u> , <u>Nanda Rea</u> )	U8
<b>APT3a</b>	Observations from High Energy Astrophysics Satellites ( <u>Elena Pian</u> , <u>Norbert Schulz</u> )	U9
<b>COM1</b>	Inflation ( <u>Jérôme Martin</u> )	IAP1
<b>COM2</b>	Dark Energy and Universe Acceleration ( <u>Alexei Starobinsky</u> , <u>David Polarski</u> )	OP1
<b>COT1</b>	Topology of the Universe ( <u>Marek Demianski</u> )	IAP2
<b>GW2/5</b>	Operating GW Detectors ( <u>Jean-Pierre Zendri</u> ) Advanced GW Detectors ( <u>David Blair</u> , <u>Kimio Tsubono</u> )	U16
<b>MGAT4</b>	Exact Solutions (Physical Aspects) ( <u>Susan Scott</u> )	U13
<b>MGAT7</b>	Gravitational Fields with Sources ( <u>Jose Lemos</u> , <u>Vitor Cardoso</u> )	IHP1
<b>MGAT8</b>	Alternative Theories ( <u>Kei-Ichi Maeda</u> )	IHP2
<b>MGAT9</b>	Self-Gravitating Systems ( <u>Pierre-Henri Chavanis</u> )	OP2
<b>OC1/2/3</b>	Primordial Gravitational Waves and the CMB ( <u>Leonid Grishchuk</u> ) CMB Experiments ( <u>Silvia Masi</u> ) The Planck Mission and the CMB ( <u>Martin Bucher</u> )	U14
<b>OC4/5</b>	Observational Gravitational Lensing [Microlensing] ( <u>Philippe Jetzer</u> ) Dark Matter and Large-Scale Structure, Weak Lensing ( <u>Yannick Mellier</u> )	U7
<b>SQG3</b>	AdS/CFT (Anti de Sitter/Conformal Field Theory) ( <u>Kostas Skenderis</u> )	IHP3



Tuesday morning, July 14, 2009  
UNESCO room I

Plenary Session Chair: Abhay Ashtekar

9:00-9:30        Juan Maldacena  
*5 minutes discussion*

9:35-10:05      Ashoke Sen  
*5 minutes discussion*

10:10- 10:30    Coffee Break

10:30—11:00    Gabriele Veneziano  
*5 minutes discussion*

11:05—11:35    Laurent Freidel  
*5 minutes discussion*

11:40-12:10     Herbert Hamber  
*5 minutes discussion*

12:15-12:45     Igor Rodnianski  
*5 minutes discussion*

LUNCH BREAK

Tuesday afternoon, July 14 2009  
Free for the Bastille Day Celebration

Tuesday evening, July 14 2009  
Champs de Mars  
Johnny Halliday Concert and Fireworks





Wednesday morning, July 15, 2009  
UNESCO room I

Plenary Session Chair: David Blair

9:00-9:30 David Reitze

*5 minutes discussion*

9:35-10:05 Bernd Bruegmann

*5 minutes discussion*

10:10- 10:30 Coffee Break

10:30—11:00 Thibault Damour

*5 minutes discussion*

11:05—11:35 Dick Manchester

*5 minutes discussion*

11:40-12:10 Michael Kramer

*5 minutes discussion*

LUNCH BREAK



Wednesday afternoon, July 15 2009 Parallel Sessions  
UNESCO 14:00—17:30, others 14:30—18:30

<b>ANM1</b>	Post-Newtonian and Analytic Approximations ( <u>Luc Blanchet</u> , <u>Gerhard Schaefer</u> )	IAP1
<b>ANM4</b>	Numerical Methods in General Relativity and Algebraic Computation ( <u>Christian Klein</u> )	IAP2
<b>APT3b</b>	Observations from High Energy Astrophysics Satellites ( <u>Elena Pian</u> , <u>Norbert Schulz</u> )	ENS1
<b>APT5</b>	Galactic Gamma-Ray Sources: steady vs. transient sources ( <u>Marco Tavani</u> )	U14
<b>BHT3</b>	Black Holes and Magneto-Hydrodynamics ( <u>Gennady Bisnovatyi-Kogan</u> )	U7
<b>BHT4a</b>	Black Hole Thermodynamics ( <u>Iosif Khriplovich</u> )	U9
<b>BHT5</b>	Black Holes and the Information Puzzle ( <u>Gabriele Veneziano</u> , <u>Marika Taylor</u> )	ENS4
<b>BHT6</b>	Analog Gravity ( <u>Ralf Schuetzhold</u> , <u>Clovis Maia</u> )	IHP2
<b>COM2b</b>	Dark Energy and Universe Acceleration ( <u>Alexei Starobinsky</u> , <u>David Polarski</u> )	OP1
<b>COT4</b>	Quantum Cosmology and Quantum Effects in the Early Universe ( <u>Paulo Moniz</u> )	ENS2
<b>EG1</b>	Tests of Local Lorentz Invariance ( <u>Claus Laemmerzahl</u> )	U3
<b>GRB1/2</b>	Supernovae and GRBs ( <u>Alicia Soderberg</u> ) High Energy and GRBs, the Fermi Mission ( <u>Peter Michelson</u> , <u>Isabelle Grenier</u> )	U13
<b>GRB4</b>	Models for GRBs ( <u>Tsvi Piran</u> , <u>Shiho Kobayashi</u> )	U16
<b>GW3</b>	Space and Third Generation GW Detectors ( <u>Albrecht Ruediger</u> , <u>Sheila Rowan</u> )	U5
<b>MGAT3</b>	Theoretical Issues in GR ( <u>Dieter Brill</u> )	U1
<b>MGAT6a</b>	Higher Derivative Theories ( <u>Salvatore Capozziello</u> )	ENS3
<b>MGAT10</b>	Chaos in gravitating systems ( <u>Thierry Dauxois</u> , <u>Vahe Gurzadyan</u> )	AL
<b>OC1/2/3b</b>	Primordial Gravitational Waves and the CMB ( <u>Leonid Grishchuk</u> ) CMB Experiments ( <u>Silvia Masi</u> ) The Planck Mission and the CMB ( <u>Martin Bucher</u> )	U8
<b>SQG6</b>	Quantum Gravity Phenomenology ( <u>Giovanni Camalino-Amelia</u> )	IHP1

Wednesday evening, July 15 2009  
UNESCO

19:30-20:30 Aperitif in front of Hall 1

20:30-22:30 Banquet



Thursday morning, July 16, 2009  
UNESCO room I

Plenary Session Chair: Kerr Roy

9:00-9:30 David Smith

*5 minutes discussion*

9:35-10:05 Massimo Della Valle

*5 minutes discussion*

10:10- 10:30 Coffee Break

10:30—11:00 Tsvi Piran

*5 minutes discussion*

11:05—11:35 Remo Ruffini

*5 minutes discussion*

11:40-12:10 Felix Aharonian

*5 minutes discussion*

LUNCH BREAK



Thursday afternoon, July 16 2009 Parallel Sessions  
UNESCO 14:00—17:30, others 14:30—18:30

<b>ANM2/3</b>	Compact Binary Simulations: Spins and Gravitational Recoil, Comparisons with Post-Newtonian Results ( <u>Pablo Laguna</u> ) Interfacing analytical and numerical relativity ( <u>Alessandra Buonanno</u> )	IAP1
<b>ANM5</b>	Supernova Explosions and Neutron Star Oscillations ( <u>Kostas Kokkotas</u> , <u>Harald Dimmelmeier</u> )	U5
<b>AP4</b>	Active Galactic Nuclei and gamma rays ( <u>Felix Aharonian</u> , <u>Helene Sol</u> and <u>Berrie Giebels</u> )	U9
<b>APT4</b>	Astrophysical Black Holes: from Quasars to Nano-Quasars ( <u>Sandip Chakrabarti</u> )	U1
<b>BHT2a</b>	Black Holes in Higher Dimensions (Black Rings and Black Strings) ( <u>Jutta Kunz</u> )	IAP2
<b>BHT4b</b>	Black Hole Thermodynamics ( <u>Iosif Khriplovich</u> )	ENS1
<b>COM2c</b>	Dark Energy and Universe Acceleration ( <u>Alexei Starobinsky</u> , <u>David Polarski</u> )	AL
<b>COT2a</b>	Inhomogeneous Cosmologies, Averaging and Back Reaction ( <u>Alan Coley</u> , <u>David Wiltshire</u> )	U7
<b>EG4</b>	Astrometric Tests ( <u>Sergei Klioner</u> , <u>Francois Mignard</u> )	U16
<b>EG6</b>	Compact Binaries and Strong-Field Tests of Gravity ( <u>Michael Kramer</u> )	U8
<b>GRB3a</b>	Observations vs. theory in the Swift era ( <u>Filippo Frontera</u> , <u>Sergio Campana</u> )	U3
<b>GW1</b>	Sources of Gravitational Waves ( <u>Andrew Melatos</u> )	U14
<b>HR1</b>	Recent Advances in the History of General Relativity ( <u>Jean Eisenstaedt</u> )	IHP1
<b>MGAT1</b>	Integrability and Solution Generating Methods for Einstein's Field Equations in Four and Higher Dimensions ( <u>Georgy Alekseev</u> )	U13
<b>MGAT4b</b>	Exact Solutions (Physical Aspects) ( <u>Susan Scott</u> )	OP1
<b>MGAT3b</b>	Theoretical Issues in GR ( <u>Dieter Brill</u> )	
<b>MGAT6b</b>	Higher Derivative Theories ( <u>Salvatore Capozziello</u> )	ENS2
<b>SQG1a</b>	Strings/Brane Motivated Gravity ( <u>Dmitri Galtsov</u> )	ENS4
<b>SQG2a</b>	Loop Quantum Gravity, Quantum Geometry, Spin Foams ( <u>Jerzy Lewandowski</u> )	IHP2
<b>SQG4</b>	Perturbative and Non-Perturbative Aspects of String Theory and Supergravity ( <u>Jan-Willem van Holten</u> , <u>Pierre Vanhove</u> )	ENS3

Thursday evening, July 16 2009 Public Lecture  
Amphi Richelieu – Université la Sorbonne 19:30 – 21:30

Jean-Pierre Bourguignon

Michael Kramer

Friday evening, Public Lecture  
Amphi Richelieu – Université la Sorbonne 19:30 – 21:30

Jaan Einasto

Christine Jones





Friday morning, July 17, 2009  
UNESCO room I

Plenary Session Chair: Rashid Sunyaev

- 9:00-9:30      Jean Loup Puget  
*5 minutes discussion*
- 9:35-10:05    Eugene Churazov  
*5 minutes discussion*
- 10:10- 10:30   Coffee Break
- 10:30—11:00   William Holzapfel  
*5 minutes discussion*
- 11:05—11:35   Maxime Markevich  
*5 minutes discussion*
- 11:40-12:10   Alexey Vikhlinin  
*5 minutes discussion*

LUNCH BREAK



Friday afternoon, 2009 Parallel Sessions  
UNESCO 14:00—17:30, others 14:30—18:30

<b>ANM8</b>	Collisionless Relativistic Shocks ( <u>Mikhail Medvedev</u> )	U8
<b>AP1</b>	Search for Dark Matter ( <u>Gabriel Chardin</u> )	IAP1
<b>AP3</b>	Perspectives for Cosmic Rays from Space Missions: PAMELA ( <u>Piergiorgio Picozza</u> , <u>Marco Ricci</u> )	U3
<b>APT1</b>	Observations from High Energy Astrophysics Satellites ( <u>Elena Pian</u> , <u>Norbert Schulz</u> )	U9
<b>BHT1</b>	Strong Fields in Physics and Astrophysics ( <u>Hagen Kleinert</u> )	U1
<b>BHT2b</b>	Black Holes in Higher Dimensions (Black Rings and Black Strings) ( <u>Jutta Kunz</u> )	ENS1
<b>BHT3b</b>	Black Holes and Magneto-Hydrodynamics ( <u>G. Bisnovatyi-Kogan</u> )	AL
<b>COT2b</b>	Inhomogeneous Cosmologies, Averaging and Back Reaction ( <u>Alan</u> <u>Coley</u> , <u>David Wiltshire</u> )	ENS4
<b>COT3</b>	Nonsingular Cosmology ( <u>Mario Novello</u> )	U7
<b>EG2</b>	Variation of Fundamental Constants ( <u>Victor Flambaum</u> )	ENS2
<b>EG3</b>	Space Tests ( <u>Serge Reynaud</u> )	IAP2
<b>EG5/7</b>	Short Range Gravity Tests ( <u>Joshua Long</u> ) Equivalence Principle Tests ( <u>Pierre Touboul</u> )	OP1
<b>GRB3b</b>	Observations vs. theory in the Swift era ( <u>Filippo Frontera</u> , <u>Sergio</u> <u>Campana</u> )	U13
<b>GW4</b>	GW Data Analysis ( <u>Fulvio Ricci</u> , <u>Valentin Rudenko</u> )	U16
<b>MGAT2</b>	Cosmological Singularities and Asymptotics ( <u>Spiros Cotsakis</u> )	U5
<b>MGAT5</b>	Higher Dimensional Theories ( <u>Alan Coley</u> )	U14
<b>SQG1b</b>	Strings/Brane Motivated Gravity ( <u>Dmitri Galtsov</u> )	ENS3
<b>SQG2b</b>	Loop Quantum Gravity, Quantum Geometry, Spin Foams ( <u>Jerzy</u> <u>Lewandowski</u> )	IHP1
<b>SQG5</b>	Quantum Fields ( <u>Vladimir Belinski</u> )	IHP2



Saturday morning, July 18, 2009  
UNESCO room I

Plenary Session Chair: Hagen Kleinert

9:00-9:30 Yannick Mellier

*5 minutes discussion*

9:35-10:05 Piero Rosati

*5 minutes discussion*

10:10- 10:30 Coffee Break

10:30—11:00 Andrea Ghez

*5 minutes discussion*

11:05—11:35 James Bergquist

*5 minutes discussion*

11:40-12:10 David Wiltshire

*5 minutes discussion*

Concluding Remarks Remo Ruffini