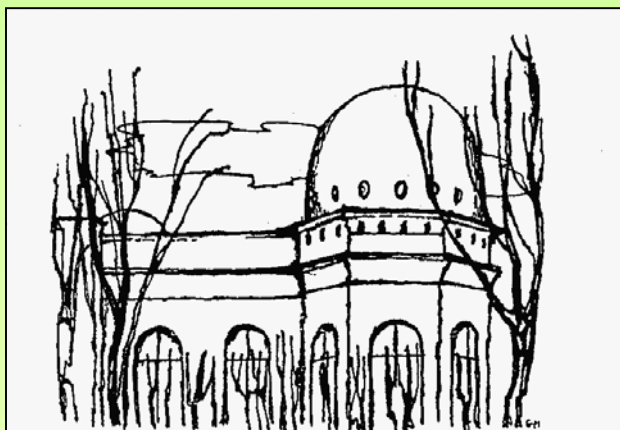


## **9th Paris Cosmology Colloquium**

**"PHYSICS OF THE EARLY UNIVERSE  
CONFRONTS OBSERVATIONS"**

**OBSERVATOIRE DE PARIS 30 JUNE, 1-2 JULY 2005**



**ALL SESSIONS take place at "SALLE DU CONSEIL "  
(COUNCIL ROOM)**

**in the historic PERRAULT building  
("Bâtiment PERRAULT")**

**Observatoire de Paris ENTRY :  
77, Avenue Denfert Rochereau, 75014 Paris.**

**Sessions start at the indicated times sharp**

**1 HOUR = 50 minutes lecture + 10 minutes discussions**

**Observatoire de Paris, Ecole Daniel Chalonge**

**Tel: 01 40 51 22 21.**

**Fax: 01 40 51 20 02**

**<http://www.obspm.fr/chalonge>**

**Chalonge.Ecole@obspm.fr**

# THURSDAY 30 JUNE MORNING SESSION

8.15 - 9.10 **GRANDE GALERIE:** *Registration and sale of lunch tickets for the Observatoire Restaurant*

## SALLE DU CONSEIL

9.15 - 9.30 Welcome Address

9.30 - 10.30 Anthony N. LASENBY (*Cavendish Laboratory, Cambridge, UK*) *CMB Observations. Anisotropies and Polarization.*

10.30 - 11.30 Hector J. DE VEGA (*LPTHE, Univ de Paris VI, France*) *Slow Roll Inflation and Fundamental Physics from the WMAP data*

11.30 - 12.00 **COFFEE BREAK** at **GRANDE GALERIE**. *Lunch tickets for the Observatoire Restaurant will be on sale during this break.*

12.00 - 13.00 Nicola BARTOLO (*ICTP, Trieste, Italy*) *Primordial Non-Gaussianity in the CMB Anisotropies*

13.00 - 14.30 **LUNCH** at the **Observatoire Restaurant** (*Building B, ground floor*)

**THURSDAY 30 JUNE**

**AFTERNOON SESSION**  
**SALLE DU CONSEIL**

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**14.30-15.30 Stephan MEYER (University of Chicago and Fermilab, USA)**

*WMAP Results and Implications.*

**15.30-16.30 Paul S. SHELLARD (DAMTP, Univ., Cambridge, UK)**

*Primordial Non Gaussianity from Inflation and Strings*

**16.30-17.00 COFFEE BREAK at GRANDE GALERIE.**

**17.00-18.00 Richard HOLMAN (Carnegie Mellon Univ., Pittsburgh, USA)**

*The Initial-Time Problem of Inflation: Can Trans-Planckian Physics be Seen in the CMB ?*

FRIDAY 1<sup>st</sup> JULY  
MORNING SESSION

« SALLE DU CONSEIL »

9.30-10.30 Daniel EISENSTEIN (Univ. of Arizona, Tucson, USA)

*Dark Energy and Cosmic Sound*

10.30-11.30 Daniel BOYANOVSKY (Univ. of Pittsburgh, USA)

*Quantum Corrections to Slow Roll Inflation and New Scaling of Superhorizon Fluctuations*

11.30 – 12.00 COFFEE BREAK at Grande Galerie

12.00-13.00 Olivier DORE (Univ. of Princeton, USA)

*Cosmology as enlightened by WMAP: two years after*

13.00 - 14.30 LUNCH BREAK at the Observatoire de Paris Restaurant, (building B, ground floor)

FRIDAY 1<sup>st</sup> JULY  
AFTERNOON SESSION

« SALLE DU CONSEIL »

14.30 - 15.30 Marc KAMIONKOWSKI (CALTECH  
Astrophysics, USA)  
*Cosmic Microwave Background Fluctuations from  
Gravitational Waves.*

15.30 - 16.30 Francisco CAO (Univ.Compl.Madrid  
and LERMA, Obs.de Paris)  
*The Quantum Inflaton and CMB Fluctuations*

16.30-17.00 COFFEE BREAK  
*at GRANDE GALERIE*

17.00-18.00 Alessandro MELCHIORRI (Univ of  
Rome "La Sapienza", Italy)  
*Constraining Neutrino Physics from Cosmology*

# SATURDAY 2nd JULY

## MORNING SESSION. “SALLE DU CONSEIL”

9.30-10.30 Massimo GIOVANNINI (CERN-TH, Switzerland)

*Magnetized Initial Conditions for CMB anisotropies*

10.30-11.30 Hiranya PEIRIS (KICP, Univ of Chicago, USA)

*Detectability of B-mode Polarization and its Implications for Fundamental Physics*

11.30 – 12.00 COFFEE BREAK at  
GRANDE GALERIE

12.00-13.00 Sabino MATARRESE (Univ. di Padova, Italy)

*Cosmic Acceleration without Dark Energy*

13.00 - 14.30 LUNCH BREAK at the  
Observatoire de Paris Restaurant,  
(building B, ground floor)

# SATURDAY 2th JULY

**AFTERNOON SESSION. SALLE DU CONSEIL**

**14.30 - 15.30 Marc KAMIONKOWSKI (CALTECH Astrophysics, USA**      *Particle Decay and their influence on the Primordial Power.*

**15.30 - 16.30 George SMOOT (LBL, Univ of California, Berkeley, USA)**  
*Observational limits on Cosmic Strings and the implications for Inflation and Superstring Theory*

**16.30-17.00 COFFEE BREAK , GRANDE GALERIE**

**17.00-18.00 Norma G. SANCHEZ (LERMA, Observatoire de Paris, France)**  
*Inflation as an Effective Field and String Theory from the WMAP data*

**18.00 - 18.30 Tour to the historic Bâtiment Perrault:**  
*“Laplace, Roemer, Arago, Foucault,...in the OP”*  
guided by Prof. Suzanne DEBARBAT

**18.30 - 20.30 APERITIF/COCKTAIL , SALLE CASSINI , for all participants and accompanying persons.**  
End of the Conference

