SEMPARIS – Séminaires en région parisienne

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Seminaire exceptionnel

Vendredi 22 Mars 2019, 14 :00
OBSPARIS, Salle de l'atelier, 77 Av. Denfert Rochereau, Paris 14e
Domaines : gr-qc

Titre : *New Planckian quantum phase of the Universe before Inflation : Its present day and Dark Energy implications*

Orateur : **Norma Sanchez (LERMA)**

Résumé : *The physical history of the Universe is completed by including the quantum planckian and super-planckian phase before Inflation in the Standard Model of the Universe in agreement with observations. In the absence of a complete quantum theory of gravity, we start from quantum physics and its foundational milestone : the universal classical-quantum (or wave-particle) duality, which we extend to gravity and the Planck domain. A new quantum precursor phase of the Universe appears beyond the Planck scale. Relevant cosmological examples as the Cosmic Microwave Background, Inflation and Dark Energy have their precursors in this era. A whole unifying picture for the Universe epochs and their quantum precursors emerges with the cosmological constant as the vacuum energy, entropy and temperature of the Universe, clarifying the so called cosmological constant problem which once more in its rich history needed to be revised. The consequences for the deep universe surveys, and missions like Euclid will be outlined.*