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Journal Club

Lundi 27 Fevrier 2017, 10 :30
IMPMC, Université Pierre et Marie Curie-Paris 6, tower 23-22, 4th floor, room 401
Domaines : physics

Titre : *Unweaving the fabric of the Universe*

Orateur : **Mairi Sakellariadou (King's College, London)**

Résumé : *Our conventional understanding of space-time, as well as our notion of geometry, break down once we attempt to describe the very early stages of the evolution of our universe. The extreme physical conditions near the Big Bang necessitate an intimate interplay between physics and mathematics. The main challenge is the construction of a theory of quantum gravity, the long-sought unification of Einstein's general relativity with quantum mechanics. There are several attempts to formulate such a theory ; they can be tested against experimental and observational results coming from high energy physics and astrophysics, leading to a remarkable interplay between gravity, particle physics and cosmology.*