

SEMPARIS – Séminaires en région parisienne

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Colloquium de l'APC

Vendredi 7 Juin 2019, 13 :45

APC, Amphitheatre Pierre Gilles de Gennes

Domaines : astro-ph

Titre : *Inflation and Neutrinos : Searching for New Physics with the Cosmic Microwave Background*

Orateur : **Christian Reichardt (University of Melbourne)**

Résumé : *Measurements of the polarisation of the cosmic microwave background (CMB) are rapidly becoming an important tool to test our understanding of the Universe. In particular, searches for the faint CMB B-mode signals offer the prospect of detecting inflationary gravitational waves on large angular scales and mapping out the large scale distribution of matter in the Universe through CMB lensing on smaller angular scales. SPTpol is a CMB polarisation experiment located at the South Pole that has been pursuing both goals since 2012. I will show E-mode, B-mode and lensing power spectrum measurements from the SPTpol 500 degree survey and discuss their cosmological implications. I will also say a few words about the new and dramatically improved CMB polarisation experiment on the South Pole Telescope, SPT-3G, and what we can expect to learn from SPT-3G and other CMB experiments over the next decade.*
