SEMPARIS – Séminaires en région parisienne

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Seminar of the theory group of APC

Mardi 8 Fevrier 2022, 13 :45
APC, seminar room 483A, contact roperpol@apc.in2p3.fr for Zoom meeting details
Domaines : gr-qc

Titre : *Dark matter at the crossroads of two standard models*

Orateur : **Gilles Cohen-Tannoudji (CEA)**

Résumé : *In a recent publication (Gilles Cohen-Tannoudji and Jean-Pierre Gazeau https ://www.mdpi.com/2218-1997/7/11/402, ArXiv https ://arxiv.org/abs/2111.01130v2), we have shown that a cosmological standard model consisting of dark matter interpreted as a gluonic Bose-Einstein condensate in anti-de Sitter space-time, and dark energy related to the cosmological constant, is fully compatible with the standard model of particle physics based of quantum field theory, without the need of involving any new ad hoc fields, particles, or hidden variables. In the course of our research, two critical questions have been addressed, the question of time in cosmology and the question of ultra-light scalar bosons required by the Bose-Einstein condensation mechanism.*