

SEMPARIS – Séminaires en région parisienne

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Séminaires de Physique-Mathématique du LPT-Orsay

Vendredi 17 Novembre 2017, 14 :00

LPT, Salle 114, LPT, 1er etage, Bat 210

Domaines : hep-ph

Titre : *Holographic entanglement entropy from random tensor networks via group field theory*

Orateur : **Goffredo Chirco (Albert Einstein Institute, Potsdam)**

Résumé : *We investigate the use of tensor networks techniques and quantum information theory for the study of the entanglement properties of quantum geometry states. In the language of the group field theory, we describe spin network states as quantum many-body systems. The very connectivity of such states, encoded in the links of the underlying graphs, is associated with the entanglement between the fundamental quanta constituting them. We establish a dictionary between group field theory states and (generalised) random tensor networks. With such a dictionary at hand, we target the calculation of the Ryu-Takayanagi formula for the entanglement entropy in the quantum gravity formalism of group field theory.*
