

# SEMPARIS – Séminaires en région parisienne

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## Séminaire de physique des particules et de cosmologie

**Mardi 13 Novembre 2018, 16 :00**  
IPHT, Salle Claude Itzykson, Bât. 774  
Domaines : hep-ph

Titre : *Novel aspects of gauge theories with link models*

Orateur : **Debasish Banerjee ( Humboldt University, Berlin )**

Résumé : *The Wilson formulation of lattice gauge theories provides a first-principles study of many properties of strongly interacting theories, such as quantum chromodynamics (QCD). Certain other properties, such as real-time dynamics, pose insurmountable challenges in this paradigm. Quantum Link Models are generalized lattice gauge theories, which not only offer novel approaches to study dynamics of gauge theories with quantum simulators, but also connect to gauge theory descriptions of certain condensed matter systems (such as frustrated magnetism). In this talk, we explore some novel properties of gauge theories using quantum link models on classical computers, and explain how to realize them on quantum simulators.*

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