SEMPARIS – Séminaires en région parisienne

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Seminar of the theory group of APC

Mardi 18 Avril 2017, 14 :00
APC, 483 A - Malevitch
Domaines : hep-th

Titre : *Stueckelberg massive electromagnetism in de Sitter and anti-de Sitter spacetimes : Two-point functions and renormalized stress-energy tensors*

Orateur : **Andrei Belokogne (APC)**

Résumé : *We discuss Stueckelberg massive electromagnetism on an arbitrary four-dimensional curved spacetime. By considering Hadamard vacuum states, we construct the two-point functions associated with Stueckelberg massive electromagnetism in de Sitter and anti-de Sitter spacetimes. We present the Hadamard renormalization of the expectation value of the stress-energy-tensor operator, and we provide its explicit expression for the Stueckelberg theory. By using this general result, we obtain an exact analytical expression for the renormalized vacuum expectation value of the stress-energy tensor of the massive vector field propagating in de Sitter and anti-de Sitter spacetimes. These results could have interesting implications in cosmology of the very early universe or in the context of the AdS/CFT correspondence.*
