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Seminar of the theory group of APC

Mardi 12 Juin 2018, 14 :00
APC, 483 A - Malevitch
Domaines : hep-th

Titre : *Constructing degenerate higher-order theories*

Orateur : **Hayato Motohashi (Yukawa Institute for Theoretical Physics, Kyoto University)**

Résumé : *Scalar-tensor theories serve models for inflation and dark energy. Many efforts have been made recently for constructing the most general scalar-tensor theories with higher-order derivatives in their Lagrangian. Since higher-derivative theories are typically associated with Ostrogradsky ghost which causes unbounded Hamiltonian, it is important to clarify how to evade it. In this talk, I will explain construction of healthy degenerate theories with higher-order derivatives which circumvent Ostrogradsky ghost. The method also allows us to construct ghost-free theories with derivatives higher than second order in Lagrangian.*