## SEMPARIS – Séminaires en région parisienne

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## Seminar of the theory group of APC

Mardi 12 Juin 2018, 14:00

APC, 483 A - Malevitch Domaines : hep-th

 ${\bf Titre}: Constructing\ degenerate\ higher-order\ theories$ 

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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.