



ID de Contribution: 49

Type: **Non spécifié**

## **Beyond SM : noncommutative approach**

*dimanche 8 mars 2009 19:45 (20 minutes)*

Alain Connes' noncommutative geometry (NCG) allows to unify the classical Yang-Mills-Higgs theory and General relativity in a single geometrical framework.

This unification implies restrictions for the couplings of the Standard Model (SM) at a given cut-off energy which reduce the degrees of freedom compared to the classical SM.

I will give an introduction to the basic ideas of NCG and present models beyond the SM that are compatible with NCG and produce phenomenologically interesting extensions of the SM.

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**Classification de Session:** SM and beyond at colliders