# OPEN TALK ANNOUNCEMENT
# SUMMER RESEARCH PROGRAMME 2015
# VASP, EVLP

**13 July 2015**      **11:00 a.m.**      **Fermion**

Speaker:
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Title:

**An introduction to Noncommutative geometry: Reformulating the very structure of spacetime**

Abstract:

Theories that look to go beyond the standard model and seek a unification of the theory of gravity(General relativity) with the other fundamental forces are forced to ask and answer very fundamental questions about the structure of spacetime. The theory of Noncommutative geometry, mainly developed by Fields medalist Alain Connes, reformulates spacetime as the product of Riemannian manifolds with finite spaces, giving rise to a unified description of nature. In this talk, we shall consider some of the guiding principles of this reformulation. Specifically, we shall focus on the structure of these finite spaces and show how they naturally give rise to gauge groups and gauge fields.

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