

# Quantum scale invariance, hierarchy generation and inflation

*Wednesday 3 July 2019 09:30 (45 minutes)*

Global and local Weyl invariant theories can solve the hierarchy problem and generate all mass scales spontaneously, initiated by a dynamical process of “inertial spontaneous symmetry breaking” that does not involve a potential. I will discuss how inflation readily occurs in a scale invariant version of Starobinsky (R<sup>2</sup>) inflation and how an hierarchy of mass scales may be generated, stable against both Standard Model and gravitational quantum corrections.

**Presenter:** Prof. ROSS, Graham (Oxford University)

**Session Classification:** Beyond III