

**Title:** The Search Beyond the SM Physics

**Lecturer:** Dr Albert De Roeck

**Date and Times:**

- 30<sup>th</sup> July at 11:15
- 31<sup>st</sup> July at 9:15

**Summary of the proposed talk:**

These lectures will discuss the hunt for physics beyond the Standard Model (BSM) at high energy accelerator, in particular the LHC, from the perspective of the experimental measurements. Typical BSM topics such as supersymmetry, extra spatial dimensions, black holes and some more conventional Standard Model extensions will be discussed. In addition a number of very recent new ideas on exotic BSM models suggests that the signatures could be rather weird, including the production of new heavy stable particles and even pairs of particles connected by an (invisible) string.

**Prerequisite knowledge and references:**

The summer student lectures on detectors, Standard Model and Beyond the Standard Model should be sufficient

**Biography-  
Brief CV:**

25 years of High Energy experimental physics at experiments such as the NA22/EHS (CERN), H1(DESY), OPAL(CERN). Since 2000 a member of CMS, presently convener of the "Exotica" physics search group in CMS.

**Publications:**

See SPIRES