Science and Technology Facilities Council

Particle Physics

List of PPD seminars

PPD Seminar

Towards BSM with weak scale physics

Christoph Englert (Manchester)

22 Jul 2026, 11:30

R61 CR03 (RAL)

A little over a decade after the discovery of the Higgs boson at the Large Hadron Collider, a microscopic understanding of the nature of the electroweak scale remains elusive. This is particularly puzzling as we know that the Standard Model (SM) of Particle Physics cannot be the final answer, given its apparent shortcomings. In this talk, I will discuss ways to move, with theoretical precision, away from the constraining phenomenological patterns at the electroweak scale predicted by the SM. For concrete scenarios of new physics that address (some of) the SM's shortfalls, this highlights the formidable discovery potential of the FCC-ee or a 10 TeV parton collider, building on the high-luminosity LHC data set. Considering the SM's effective generalisation, I will discuss how approaches inspired by geometry can chart BSM possibilities in particle physics at the TeV scale more generally.

Suggest a Speaker

All Welcome