Prof. Maxwell Chertok (University of California Davis, Bristol Benjamin Meaker Distinguished Visiting Professor)

'The Compact Muon Solenoid Experiment at 30'

Tuesday 6th June, 3pm, Berry Lecture Theatre

The Large Hadron Collider at CERN, the largest machine ever built, sits at the energy frontier accelerating and focusing intense beams of protons at a Lorentz factor of up to 7500, resulting in head-on collisions at the center of the Compact Muon Solenoid (CMS) experiment. Thus the Higgs Boson was discovered in 2012, hiding in enormous data sets that have subsequently grown by an order of magnitude in recent years. In this talk, I present the status of particle physics and how the LHC collider and CMS experiment have provided major advances to its understanding. Along with overviews of the detector systems and planned state-of-the-art upgrades, I will provide descriptions of some major results (including the Higgs discovery) so far, as well as covering current themes of this research, such as the search for exotic Higgs boson partners. School of PHYSICS

Physics Colloquium Spring/ Summer Term 2023

The Colloquium will be followed by tea and coffee in the staff common room. For further details please contact phys-exec-office@bristol.ac.uk