Highly granular calorimeters: from linear collider developments to LHC upgrades and beyond

Dr. Felix Sefkow DESY, Hamburg

Advances in particle detection technology and micro-electronics integration have led to the development of highly granular calorimeters, able to produce detailed images of electromagnetic and hadronic showers. While these developments have originally been driven by the quest for utmost jet energy precision in the clean environment of proposed future electron positron linear colliders (LC), the concepts are now also bearing fruit in the upgrades of the ATLAS and CMS detectors at the Large Hadron Colluder LHC. The talk will present the status of LC driven research and discuss the challenges specific to applications at the LHC and beyond.