"Forward pixels" - on tracking at higher eta in CMS

Frank Meier Aeschbacher
University of Nebraska-Lincoln

Pixel detectors became an important component in high energy physics experiments. The CMS experiment is working on an upgraded pixel detector to prepare for the increasing luminosity the LHC is supposed to deliver in the next years. An essential part of this is the forward pixel, which enables precision tracking in the region of higher pseudorapidity. This talk will present the purpose of the detector and report on the status of the "Phase-I" upgrade project with an emphasis on the pixel endcaps, to be installed in 2016. In addition, I will discuss some studies going on for future forward tracking. This includes possible extensions to even higher pseudorapidities, where optimized pixel shapes help to recover resolution losses due to geometric restrictions in that region of CMS.