Upgrade simulations of VELO and SciFi saturations in PbPb collisions at $\sqrt{s_{NN}} = 5$ TeV

LHCb collaboration

Abstract

This document presents performance plots from private simulation samples based on upgrade settings. It aims to show the saturation of the detector with occupancy. A total number of 5000 PbPb events using minimum bias EPOS generator are produced for 30%-100% centrality range.

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1 Figures

Figure 1: VELO cluster distribution versus the Ecal total energy deposit from simulated PbPb collisions at $\sqrt{s_{NN}} = 5$ TeV using an upgrade setting. The black lines represent the centrality percentile limits. A total number of 5000 PbPb events using minimum bias EPOS generator are produced for 30%-100% centrality range.
Figure 2: SciFi cluster distribution versus the Ecal total energy deposit from simulated PbPb collisions at $\sqrt{s_{NN}} = 5$ TeV using an upgrade setting. The black lines represent the centrality percentile limits. A total number of 5000 PbPb events using minimum bias EPOS [1] generator are produced for 30%-100% centrality range.
References