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## **Validation of Geant4 simulation and digitisation of a SiPM-on-tile system**

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The increase of transverse segmentation is a trend in developments of modern calorimeter systems based on different technologies. The scintillator calorimeters assembled from SiPM-on-tile elements are now under development for future experiments at both lepton and hadron colliders. The study presents a validation of simulation of the response of a single SiPM-on-tile element. The experimental measurements are compared with the simulation using Geant4 framework followed by the digitisation procedure that takes into account photodetector characteristics. The dependence on simulated optical properties is discussed and parameters are presented, which help to achieve a good agreement between data and simulation.

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