Recent Geant4 Developments

M. Verderi¹

¹Laboratoire Leprince-Ringuet, Ecole polytechnique, CNRS/IN2P3, Université Paris-Saclay, 91128, Palaiseau, France

Geant4 [1] has been in production since 1999 and is constantly evolving since then. In this keynote lectures, we will give on overview of the recent developments, with a focus on these since the last major release 11.0 in December 2021. In the software kernel, the new tasking model will be presented, as well as upgrades in the geometry. A quick overview on the new or improved physics capabilities will be made, and an update on the Geant4 infrastructure will be presented, underlying the validation aspect. R&D developments, in particular regarding the tentative of Geant4 porting onto GPU architecture, will be mentioned too. Finally some collaboration evolution will be noted.

[1] https://geant4.web.cern.ch/