





# EM VALIDATION RESULTS FOR GEANT4 10.5REF09

V. Ivanchenko

CERN & Tomsk State University 8 October 2019

## EM physics in 10.5ref09

#### Utils

- «General process» is disabled by default
- Two new parameters for multiple scattering are given to users:
  - FactorSafety and LambdaLimit
  - G4VMscModel is changed to allow common way for msc parameter definition

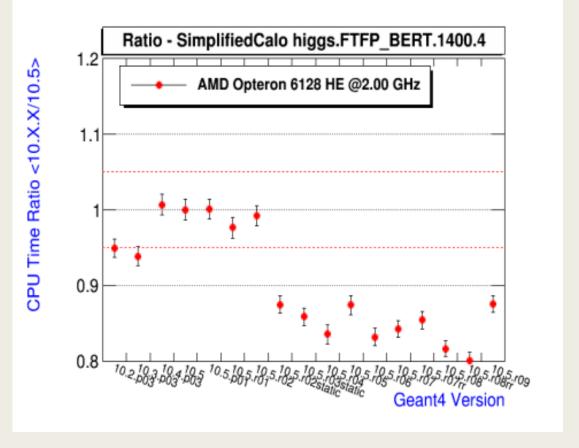
#### Standard

- FactorSafety and LambdaLimit parameters are defined by default to values of 10.5
- Urban, GS and WVI model modified according to G4VMscModel modifications
- M.Novak updated G4PairProductionRelModel extending low limit to productin threshold
  - 5D model now inherit of this class having by product LPM effect implementation
  - The old G4BetheHeitlerModel become out of use

10/8/2019 V.lvanchenko, 2

### Results of EM tests

- https://test-geant4-tools.web.cern.ch/test-geant4-tools/emtesting/
- Global gamma process demonstrated, that it is working
  - Is now again disabled but may be recommended as an option for users



10/8/2019 V.lvanchenko, 3