CMS p-p collisions at 7 TeV per beam Absorbed Dose at 3000 fb⁻¹ 300 1e+08 1e+06 250 Absorbed Dose [Gy 10000 200 100 R [cm] 150 0.01 100 0.0001 50 1e-06 0 1e-08 250 300 350 400 450 500 550 Z [cm] CMS FLUKA Study v.3.7.9.1 **CMS Simulation Preliminary**