Secondary to Muon Track Length Ratio (10m no spill in/out, n=1600 per muon, 34-68% error) 0.5 muloni muBrems muonNuclear muPairProd Median with 34-68% percentiles tania Sec Track Length / Muon Track Length ວິ່ 0.1 0.0 10<sup>3</sup> 10<sup>5</sup> 10<sup>2</sup>  $10^{0}$  $10^{1}$  $10^{4}$  $10^{6}$ Energy (GeV)