

A proposal to validate the SDHCAL simulation in iLCSoft

SDHCAL collaboration meeting

Camilo Carrillo, Mary-Cruz Fouz and Héctor García

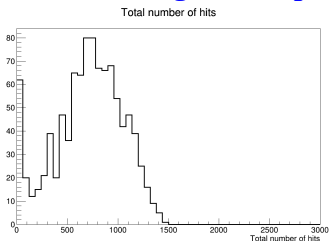
Ciemat

Centro de Investigaciones
Energéticas, Medioambientales
y Tecnológicas

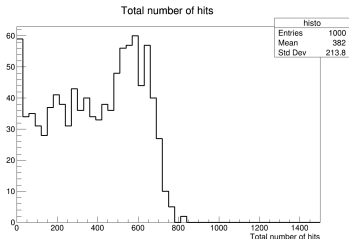
03/04/2020

random flat gun, fixed energy Number of hits π^+ (updated)

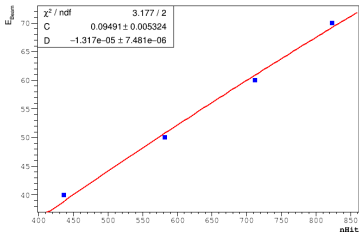
π^+ 40 GeV SIM.gun.multiplicity = 2



π^+ 40 GeV SIM.gun.multiplicity = 1



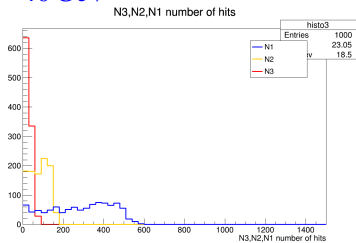
π^+ TB2018 (I2)?



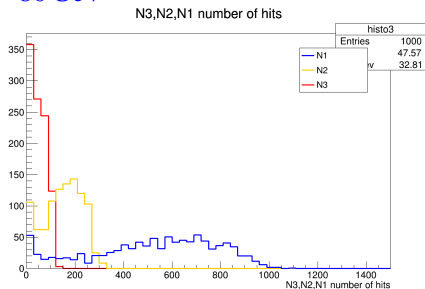
The agreement is better, but still some offset.

random flat gun, fixed energy Number of hits by thershold, 1 particle

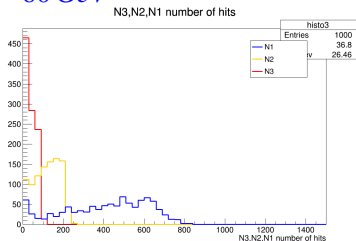
$\pi^+ 40 GeV$



$\pi^+ 80 GeV$



$\pi^+ 60 GeV$



- Distributions behaving as expectedd

- We find a priority better agreement after the correction of the multiplicity / antiparticle.
- Still some discrepancy.
- There are several options for the distribution that a random gun can follow in ilcSoft. For these studies the uniform option was chosen.

Backup

