Subject: Re: Difference of neutral candidate between Geant4 and Geant3
Posted by StefanoSpataro on Fri, 09 Jan 2015 21:21:10 GMT
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Hi,
I did some recent changed triggered by the fact that currently geant4 simulation is faster than geant3.

I simulated the standard psi(2S)->J/psipi+pi- events and compared the emc digi multiplicity with geant3, geant4, and geant4 setting off the "special cuts" and "special controls", i.e. the emulation of geant3 cuts in energy.
This is what I get:

I understand that the lower multiplicity of geant4 comes not from geant itself but from the special cuts in energy that we use by default. If we remove the flag from gconfig/g4Config.C the computing time increases a lot, become a factor 2 slower than g3, and the multiplicity is higher than geant3 as expected.

At the end, I understand this is just a fact of cuts, and only a comparison with experimental data can help to find the better thresholds.

File Attachments

1) emcdigi_mult.gif, downloaded 1907 times

