Subject: Re: Physics List change
Posted by Jan Mayer on Wed, 24 Oct 2018 12:09:56 GMT
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C. A. Douma wrote on Wed, 24 October 2018 13:38Where is g4Config.C loaded? I do not see how this macro communicates with run_sim.C.
The path & name is hardcoded in FairRoot itself and it will be loaded automatically.

C. A. Douma wrote on Wed, 24 October 2018 13:38Can I also add multiple modules to the PHYISICSLIST environment variable?
For example, my VETO physics list uses both ion_inclxx and qscp_bert (and a few more modules).
This makes no sense to me. Are neutrons with <1GeV energy handled by incl or bert?
Support for custom physics lists has been removed. One of the predefined lists from Geant4 should be able to do everything you want - I recommend just going with the default.

Also see:
https://github.com/Geant4/geant4/blob/master/source/physics_lists/lists/include/QGSP_INCLXX_HP.hh
https://github.com/Geant4/geant4/blob/master/source/physics_lists/lists/include/INCLXXPhysicsListHelper.icc

C. A. Douma wrote on Wed, 24 October 2018 13:38Is your neutron cross section example how you calculated figure 6.4 in your thesis?
If so, do all of the lines in this figure only use one single physics list module?
(For the others: In this figure I compare the Julian's RIKEN efficiency values to simulations with different physics lists.)
The macro to reproduce this Figure is different, but also uses the physis lists environment variable.
While there are 20+ lists avilable in Geant4, this quickly collapses: "The simulated values solely depend on the model for the low energy hadronic interactions,
i.e., QGSP_BERT behaves like FTFP_BERT [...] This reduces the comparison to [...] BERT, BIC, and INCLXX." (Page 52 of my thesis)