Subject: Bremsstrahlung treatment in GEANE: how to go back to the original code.
Posted by Lia Lavezzi on Mon, 06 Feb 2012 16:51:38 GMT
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Hi all,
as promised this morning during the EVO meeting, here are the instructions to go back to the original code of GEANE, removing the changes made to treat the Bremsstrahlung. A detailed and complete treatment of the Bremsstrahlung is under development and will be delivered when ready.

Instructions:
the modifications are in external_packages/transport/geant3/erdecks/erland.F. The following lines should be all commented out (L. 171-188):

```
C
C  inclusion of bremsstrahlung fluctuations DEDXB for electrons
C  22.09.2008 by Alberto Rotondi
C
      IF(XMASS.LT.0.6E-3) THEN
        LX = 1.442695*STEP/RADL
c        EMB=E/(2**LX)
        DEDXB = 0.
c     correction by A. Rotondi and L. Lavezzi to prevent FPE (15/03/2010)
        IF(LX.LT.25) THEN
          S2B=E*E*(1/3**LX - 1/4**LX)
          SB=SQRT(ABS(S2B))
          DEDXB = 1.2*SB
        ENDIF
c     end

        DEDX2 = DEDX2 + DEDXB**2
      ENDIF
```

After this, you just have to do "make" in external_packages/transport/geant3 to recompile geant3.

This should allow you to work with the original code, if you want to test it. If you encounter any problem, please let me know.

Cheers,
Lia.

P.S.: in attachment you can find the file erland.F with the lines already commented out: if you prefer, you can just take it and put it in external_packages/transport/geant3/erdecks/ instead of editing the file yourself. Please, remember to recompile geant3 after this.

File Attachments

1) erland.F, downloaded 577 times