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Subject: Bremsstrahlung and geant

Posted by [Stefano Spataro](#) on Wed, 06 Oct 2010 10:29:18 GMT

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Dear all,

let's assume that we have an electron moving inside our detector in our geant simulation. It emits a bremsstrahlung electron. In this case, I am wondering what is happening in geant about the particle indexes.

Option 1) It is like a decay, then we have the electron before bremsstrahlung as mother particle, the photon and the electron after bremsstrahlung as daughter particles -> in total 3 objects in our MCTrack

Option 2) The electron is always the same track, it emits a bremsstrahlung photon and lose energy. Then we have a primary electron, one daughter photon with mother id of the incoming electron -> 2 mc tracks

Option 3) The electron loses energy via bremsstrahlung and the photon is not produced -> 1 mc track

Does somebody have an idea on what will happen in Geant, thus in our MCTrack TClonesArray?

Is there a way to see if an electron has lost energy via bremsstrahlung or not?

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