Subject: Secondary neutron production threshold
Posted by Sergey Kononov on Wed, 31 Jan 2018 12:15:01 GMT
View Forum Message <> Reply to Message

Dear colleagues,

Some time ago we simulated neutrons produced in detector materials using PandaRoot with the Geant4 engine to study expected radiation background. From the attached neutron integral spectrum one can see that particles with kinetic energy below 1 MeV are not produced at all, although according to independent toy simulations (FLUKA) there should be as much neutrons below 1 MeV as there are above. Does anyone has any idea how the production threshlod for secondaries can be changed in VMC/Geant4?

Thanks in advance.

Best regards,
Sergey

File Attachments
1) neutrons-g4.pdf, downloaded 572 times

Subject: Re: Secondary neutron production threshold
Posted by Mohammad Al-Turany on Wed, 31 Jan 2018 12:40:26 GMT
View Forum Message <> Reply to Message

Dear Sergey,

You can change the production cuts for Geant4 in the macro "pandaroot/gconfig/SetCut.C".

best,

Mohammad

Subject: Re: Secondary neutron production threshold
Posted by Sergey Kononov on Wed, 31 Jan 2018 12:45:24 GMT
View Forum Message <> Reply to Message

Mohammad Al-Turany wrote on Wed, 31 January 2018 13:40Dear Sergey,

You can change the production cuts for Geant4 in the macro "pandaroot/gconfig/SetCut.C".

best,

Mohammad

Thank you, Mohammad! We will try.

Subject: Re: Secondary neutron production threshold
Posted by Sergey Kononov on Wed, 11 Apr 2018 04:20:37 GMT
View Forum Message <> Reply to Message

Just to confirm. It works.