Subject: Re: New external package release sep12 (GEANE patch)
Posted by Lia Lavezzi on Fri, 07 Sep 2012 09:06:46 GMT
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Hi pandarooters,
    in the sep12 release of the external packages a patch has been applied to GEANE (as written by Florian on http://fairroot.gsi.de).

Just a few remarks on the patch: it contains the following two improvements in the routine which handles the propagation to the point of closest approach.

Change 1, in the actual poca finding procedure piece of code:
- PREVIOUSLY: an extrapolation to a very large track length was performed and, during the propagation, the poca was found, BUT the extrapolation was not stopped and used to go on till the final track length was reached;
- NOW: the particle is stopped after finding the point of closest approach;

Change 2, in the propagation type handling:
- PREVIOUSLY: the poca finding procedure was performed also when propagating to the plane after having found the poca, due to a missing reset of a variable;
- NOW: the poca finding procedure is accessed only when requested.

These two changes improve the time performances of the extrapolation and thus of the Kalman filter. We tested the macro/pid/run_reco_sttcombi.C on 1000 events without and with the patch and the kalman time is roughly halved.

The changes are still inside a "patch" since we would like some massive testing before inserting them as "official". For this reason, if you notice any strange behaviour in the propagation and/or in the reconstruction results, please let us know!

        Have fun,
    Lia and Alberto.