

# Status Report: Decays in Flight

January 20, 2009

- PacDKPointInfo, PacDKPointGenerator, PacDKChainInfo, PacDKChainGenerator classes provide desired functionality, but should be cleaned up a bit.
- DK.DEC describes decay modes for long-lived particles. It provides the right functionality, but lacks information for  $K_L^0$  decays. Also, the branching fractions for some of the other decays add up to much more than unity due to typo's.
- Gabrielle has a (private) version of PacMC/PmcSimulate which uses the PacDKPoint and PacDKChain classes to iteratively find the daughters of decays in flight. The code needs to trim the hit lists for the mothers which decay, and needs to be tested more extensively.
- A few more technical details regarding organization of code and bookkeeping for hits are under discussion. Decisions should not affect most consumers.