

# Investigate Decay Chains with highest effective Cross Section

For models with several new particles of unknown masses and couplings (like SUSY) a large number of different production processes and decay chains are possible.

This is a python script which extracts the information directly from the decay tables produced by Pythia and lists the top ten decay chains with the highest effective cross section ( = cross section \* branching ratio). No event generation is necessary.

Python parameters that may be changed: Minimal fractional cross section per production process compared to the process with the highest cross section; Minimal branching ratio per particle; Minimal fractional total effective cross section per decay chain compared to the decay chain with the highest effective cross section.

(Go to Tools->Attachments to get the code.)