FEEDBACK RECEIVED BY ATLAS COLLEAGUES

EVTGEN (1)

- We are happy that the discussion to update EVTGEN started!
- Few comments:

1. In ATLAS we're in general more interested on the inclusive BR's (e.g. b → μ, b → c → μ) than on the list of exclusive decays
   - The analyses sensitive to this aspect, usually correct the inclusive BRs with Scale Factors taken from PDG. Similarly for b- and c- fragmentation fractions
   - Having inclusive decay tables updated and mantained would be crucial for us
2. Nevertheless «pure» B-phys analyses use some inclusive sample (e.g. b → μμ+X) → Correct proportion between exclusive decays matters!
   - Currently we are using the Genser distribution → Cannot change decay models, only decay tables
   - Easing the possibility to add models to the ones released «offcially» by EVTGEN would be desirable

EVTGEN (2)

3. A common and updated version of EVTGEN both in terms of BRs and decay models is something we would appreciate a lot
   - Current tables are old and outdated → Synchronisation with PDG values would be appreciated
   - A common area (e.g. gitlab) where the experiments can adapt a common code depending on their framework would be very useful
4. Making EVTGEN threadsafe is absolutely desirable
   - *Tauola* MUST be updated and written in a more modern language
   - Same comment as Tauola holds also for *Photos* (we cannot run it in our framework with EVTGEN)

EVTGEN (3)

5. Replacing Photos with VINCIA or Pythia
   - Not clear which is the better option but surely crucial if Photos will be replaced!
6. We are in favour to exchange information with Belle II
   - Make their decay models available is something to be pursued
7. Common models for important decays would be appreciated
8. Improvement in the Error handling (error messages are cryptic)

COMMON BINNING FOR K*ll ANALYSES

We received one comment: «It is fine but for ATLAS, we would almost need to merge bins to have a reasonable statistics available»