Rivet monthly dev meeting

7 January 2019

Discussion topics

- News, releases etc.

  - **2.6.2 released!** 👍 Mid Dec, before MPI@LHC & ATLAS UK, YETI, etc.

  - Coverage script update — over 50% for ATLAS non-search/HI: forwarded to expts

  - 2.7.0 alpha for Heavy Ion released — also in time for MPI@LHC 👍

  - 3.0.0 release: strange & reproducible validation feature… ideas?
    Consistent deviations only for specific beam energies?

  - Rivet repo on BitBucket — allows merge requests (unlike Phab). Good experience with CMS

  - HepData consistency/sync: Holger & Christian?

Discussion topics

- Technical developments
  - On 2.6.x:
    - New DressedLeptons option to use FastJet clustering rather than fixed photon cone
    - PartonicTops can use "first top" as an alternative to the more robust "last top" mode
    - PromptFinalState/Particle::isDirect now immediately vetos hadrons, and caches
  - Next steps:
    - Beam energy: comparison rationalisation for 2.7, and EnergyPerNucleon for HI
    - Remove Particle -> GenParticle* in HepMC3/Rivet2.7
    - Report that a projection cast via uint is sometimes necessary: to be checked
    - Adding trimmer & soft-drop as a built-in FastJets feature
    - James Monk working on HepMC3 dev and Rivet compatibility ⇒ version 2.7.0?

Discussion topics

- Plans
  - Releases:
    - v2.7.0: polishing of HI + a few features + test: mid/late Jan? Analyses from workshop?
    - v.3.0.0: requires time and effort to understand/fix validation inconsistencies
  - Papers:
    - smearing: Andy + Deepak Kar & Karl Nordstrom — substructure fit nearly done
    - v3/multiweight: requires release, Jon coordinating
    - heavy ion: after 2.7.0 release… when? Christian B
    - 10y/annual status: would be nice… but as-and-when, according to capacity
  - Lunga dev workshop 27-30 May: funding?
  - DESY ep workshop 18-21 Feb 2018