ATLAS feedback

Christian Gütschow

Lunga workshop
Craobh Haven

28 May 2019

Overview

➜ a Rivet routine is **the best way to document the analysis logic**

  ➜ needs involvement from the analysis team

  ➜ level of support depends on convenors

  ➜ ATLAS 'formally committed' to HEPData and Rivet for analysis preservation

  ➜ this **policy is useless if it is not actually enforced**

➜ 58 % of all LHC routines provided by ATLAS

  ➜ of that, 71 % (13 %) come from the Standard Model (Top) working group

  ➜ SM and Top currently only working groups who **ask for** a Rivet routine as part of their group approval

  ➜ (asking $\neq$ requiring, again: a policy is useless if not actually enforced . . .)

  ➜ Exotics group considering options to improve preservation efforts, future policy could involve Rivet

Usage review

→ validation work

  → Physics Modelling Group relies on Rivet for **generator and physics validation**

  → previous validation framework being reworked to be based on Rivet

  → truth-level studies when commissioning new MC setups

  → **tuning** (Rivet+Professor)

→ analysis work

  → **analysis preservation**, but needs frequent reminders

  → often used to estimated **generator uncertainties** when multiweights not available

  → analysis prototyping (depends on user experience, some interest by Exotics)

Common issues

➜ code too complicated

    ➜ routine code meant to document analysis logic

➜ code tries to re-invent the wheel

    ➜ built-in methods coded up from scratch

➜ routine submission delayed because preparation of **HEPData entry takes ages**

➜ 'Rivet not working'

    ➜ AFS phase-out, SLC6 vs Centos7, missing TeX, Python3 upgrades

Main feedback

Where is **Rivet 3???**