ATLAS Fast Physics Monitoring: *TADA*

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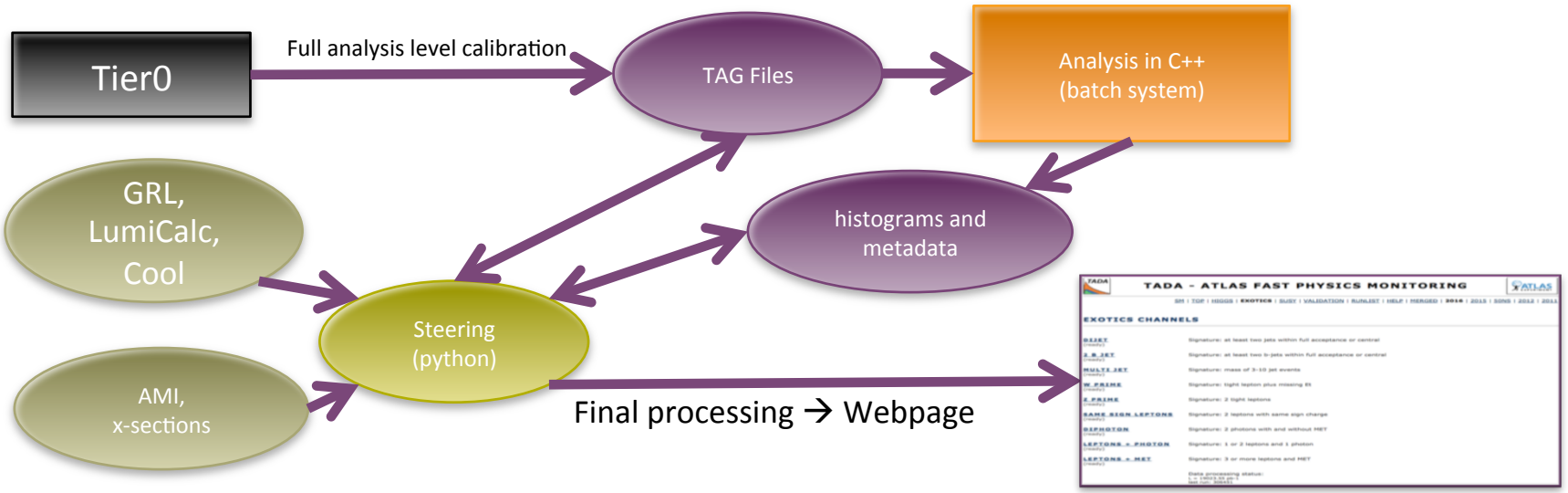
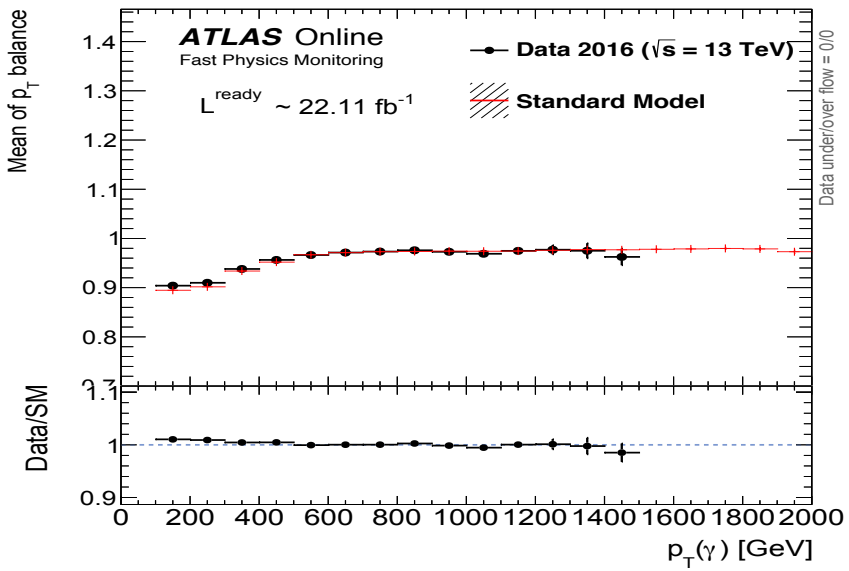
ATLAS Fast Physics Monitoring System: TADA

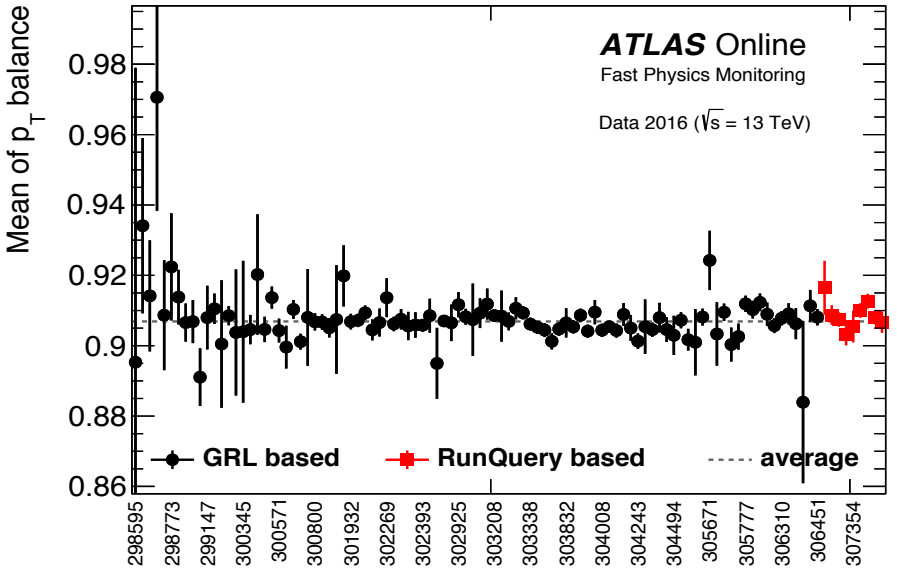
- TADA runs as part of the ATLAS prompt data processing at Tier0
- Analysis level calibration have been applied, such that analysis level data quality can be monitored
- TAG ntuples with condensed informations are analyzed in a hybrid C++/python software approach
- Monitors many signatures for early signs of new physics in the data



Data quality monitoring

- TADA allows to automatically monitor many different aspects of detector calibrations and their stability during the year
- Jet energy calibration:
  - A selection of γ-jet back-to-back events is implemented in TADA to monitor the p_T balance defined as $p_T^{jet}/(p_T^{\gamma} \cos(\Delta\phi))$
- New runs are automatically added to the plots directly after the Tier-0 processing has finished





TADA: Fast search for new physics

- Many channels sensitive to broad spectrum of new physics are implemented in TADA, grouped by:
  - SM, top, Higgs, exotics and SUSY searches
- Distributions, as invariant mass of ee and di-jet events, are displayed on the TADA webpage
- TADA provides as well a built-in event viewer to inspect interesting events