Proposal for Merit Use: Instrumental Info

- **Background**
  - SVAC asked to include 14 variables’ worth of GEM info in Merit
  - Flagged during F2F Managers’ meeting for resolution
  - Arbitration with Steve last Thursday afternoon
    - Steve to send out summary shortly
    - To be further discussed here
  - Luis has been asking where to put Trigger-checking code
  - SVAC has instrumentation ntuple for instrument diagnostics

- **TriggerAlg**
  - Currently calculates Trigger from digis
  - Not correct since Trigger uses different threshold from readout
  - In the fullness of time we should fix this

- **Checking Trigger**
  - Will be essential check of real trigger to see if we can reproduce it as much as possible
Proposal

1. Make the SVAC instrumentation ntuple a “feature”
   - Get experience from it over this coming year
   - Put all instrument diagnostics in there
   - Tree-friend it with Merit
     - Ensure they stay in lock-step
   - Add GEM summary word to Merit; the rest to SVAC
     - Don’t need to change analysis code between data/MC

2. Add Trigger Check code
   - Run for data and MC
   - Output into instrumentation ntuple

3. Update TriggerAlg to better mimic trigger
   - Give access to trigger thresholded data
   - Have it output GEM formatted summary word