Interest and Plans of the Rice University Group on TDAQ

- 6 faculty in the particle and nuclear group (+ electronics support staff)
  - D.Acosta, K.Ecklund, F.Geurts, W.Li, P.Padley, P.Yepes
- Group expertise
  - Electronics, high bandwidth links, FPGA firmware
- Current activities
  - CMS (including HL-LHC)
    - L1 (muon) trigger
      - Machine learning (BDTs and NNs in FPGAs - deployed), HLS
    - DAQ
    - Muon electronics
    - Pixel Detector (links, back-end firmware, front-end electronics)
    - Timing Detector

- Current activities, cont'd
  - RHIC
  - EIC
    - Timing Detector

- TDAQ Interests
  - Fast ML applications
  - Fast timing usage in TDAQ
  - Triggerless ("data scouting") solutions, particularly toward future facilities with "edge" computing
  - Back-end electronics