US ATLAS and IRIS-HEP

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Analysis Systems

Areas of collaboration*:

- US ATLAS Analysis Facilities recent focus on “modern” analysis workflows (e.g. JupyterLab/swan, analysis containers,...)
  - provide production resources for IRIS-HEP/Diana workflows
- ATLAS analysis model and its impact on the computing model

** include but are not limited to*

DOMA

Areas of collaboration:

- iDDS~~/Service~~_X Accelerated delivery
- Modeling/study of LHC usage patterns

Potential to leverage more US ATLAS expertise in xrootd/xcache and R&D in event streaming

- Expertise @BNL, SLAC, UC, ...
  - Find means to fund collaboration with US ATLAS experts

Innovative Algorithms

Areas of collaboration:

- Pretty much everything presented. In particular ACTS contribution 100% aligned to US ATLAS HL-LHC plans
  - collaboration with US ATLAS Tracking experts
  - potential collaboration with Tracking pilot projects from CCE and ECP
  - potential collaboration with ExaLearn and HEP.TrkX successor

Personal Observation:

- Parallel ATLAS/CMS/LHCb tracking efforts in IRIS-HEP
  - Algorithms (and code) should be actively shared
    - helping other groups adopt/adapt
      - would shared datasets and metrics help comparing ideas?
  - PIs should push subprojects to share technical expertise
    - share platform (e.g. GPU) experts?

OSG

Areas of collaboration:

- New automated deployment model for OSG software (i.e. SSL)
  - ATLAS teams @ Chicago, Michigan…
- Technology replacement (i.e. gridFTP)
  - Prepare document with requirements, plans, steps etc
- Networking
  - PerfSonar, monitoring, analytics
- Security
  - Very instructive discussion yesterday, following up

Training

Areas of collaboration:

- Modernize (US) ATLAS Documentation & Training
  - Our new (TBD) Training coordinator will reach out once they become familiar with current ATLAS material
  - Looking forward to an analysis tutorial based on the SSL/AS suite