PPA DM Activities
and
LSST Opportunities

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Fact Gathering

- Held a mini-review in January of existing PPA activities, asking for predictions for future needs

https://confluence.slac.stanford.edu/display/SCA/SCA+Planning+Meeting+Winter+2012

- We heard about:
  - » LSST Data Management
  - » LSST Camera
  - » Fermi ISOC
  - » CDMS
  - » EXO
  - » LCLS (ok, not PPA)
  - » HPS and LCSim

Findings from the Review

- Recap can be found here:

  https://confluence.slac.stanford.edu/display/SCA/Recap+of+Planning+Meeting

- Highlights of existing effort
  - Fermi, EXO, CDMS using Fermi-inspired tools for pipeline, trending, data quality and various collaboration tools
  - Several SCA folks embedded in Fermi offline
  - Supporting LSST Camera CCS effort with java tools/guis
  - LCLS working on analysis frameworks in python and C++, to be followed by algorithm development on top of the framework

Projections Forward & Issues

- LCLS sees need for 18 months for their development effort

- Fermi renewed through 2016 (so far; hoping for 2018 minimally). Need to look at that toolkit to understand longevity, technology migration etc.

- LCSim in FWP process with Lepton Collider community for 3 year effort to support their DBD, Snowmass etc. Then to see where the community stands

- HPS about to take first data: will get a better understanding of their needs

- EXO stable, but has somewhat open ended call on Tony's time: need to find ways to free him up for the Tech Coord role

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LSST Opportunities

- R&D period scheduled to run through to 2016

- Useful factoids:
  - » Dark Energy DoE Collaboration in process of being formed
  - » Desire to move more Data Management work to SLAC under KT
  - » Camera group is starting I&T real soon now

- Opportunities:
  - » Detailed simulations of the telescope operation wanted to feed into: understanding performance, developing analysis methods and compute model, designing a DE Analysis Center
  - » Camera group needs processing harness, trending and metadata tracking for their various kinds of test data
  - » Data Management to move parts of middleware from NCSA to SLAC (next slide)

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LSST DM Needs

» Science data archive (catalogs, alerts, metadata, image and file archive)

» Data access services (client framework, client services, query services, image and file services, VO catalog interfaces)

» Pipeline execution services (pipeline construction kit, logging services, inter-process messaging services, checkpoint/restart services)

▪ Expect to grow at 1 FTE/yr, starting this year