

Rubin Observatory

DM Science F20A Retrospective and F20B Plans

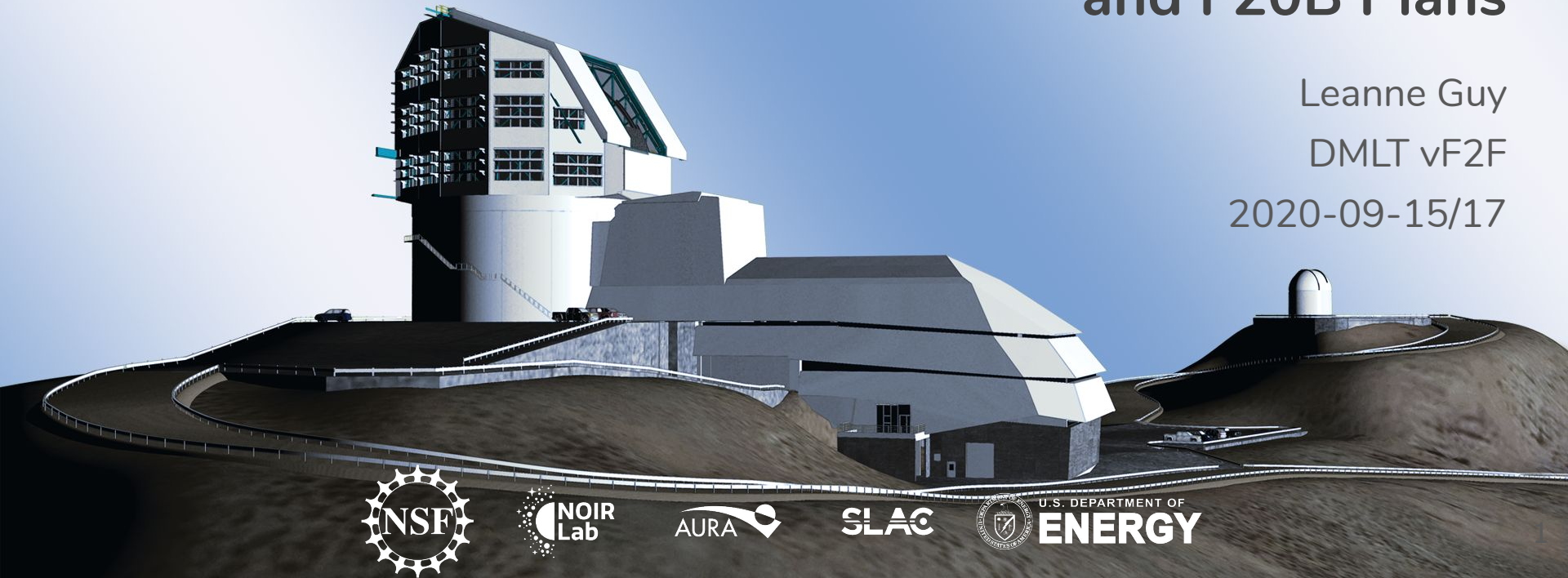
Leanne Guy

DMLT vF2F

2020-09-15/17



U.S. DEPARTMENT OF
ENERGY



- Crowded fields processing – prototyping ongoing – [DM-21313](#)
- Host galaxy associations for DIAObjects – to provide more scientifically useful associations between DIAObjects and Objects in particular between transients and their host galaxies – [DM-23683](#)
- Time series features to compute – ongoing – [DM-19592](#)
- Serving photometric redshifts – ongoing – [DM-6367](#)
- Detection efficiencies for Difference Images – ongoing – [DM-19308](#)

- Rubin PCW 2020:
 - SOC – Melissa Graham (Chair) and Jeff Carlin.
 - Algorithms Workshop follow-up – interactive session with the community answered.
 - Community Alert Brokers session
- Weekly support roster for stack-club and support to the stack-club course
- Supported the DESC summer collaboration meeting
- [LSST Solar System Readiness \(Virtual\) Sprint 3](#).
- [Alert Brokers information page](#) & sample alerts & update on full proposal due date provided to Broker proposing teams
- Liaisons to science collaborations continue to provide support.
 - Two new liaisons: *Active Galactic Nuclei*: Yusra AlSayyad, *Galaxies*: Dan Taranu
- [DMTN-155](#): Interim model for community support

- Significant progress on new framework to compute performance metrics at scale (validate_drp replacement) – [DM-22295](#) (Jeff, Simon, Keith)
 - Several KPMs now implemented
 - Progress on implementing stellar locus metric from pipe_analysis
 - Gen3 early adopter
 - Next demo at DM-SST, end September
- Science Pipelines Version 20.0.0 testing:
 - Characterization Metric Report: [DMTR-251](#). Now on RC2 data
 - Acceptance Test Report : DMTR-261
- Completed test case specifications for priority 1a requirements
- Plan to verify remaining P1a requirements drafted.

- [DMTN-153](#) drafted by Wil and Colin, describes the SDM goals, implementation and procedures, linking the SDM with the DPDD.
- Hsin-Fang Chiang continued with ingesting Hyper Suprime-Cam Object tables (RC2) into Qserv.
- Plans for evolution of DPDD presented to PST.

As of FY21 (1 Oct 2020):

- Leanne : 50%
- Colin: 25%
- Melissa: 50%
- Jeff: 25%
- Hsin-Fang: 25%
- Institutional science leads:
 - 25%: Robert L., Simon K., Jim B., Eric B.
 - 50%: Robert G

- Science Studies

- Issue first version of roadmap for photometric redshifts, circulate to the community hands and start a regular dialogue.
- Continuing work on prototype for single-frame crowded field processing
- Continue study on host galaxy associations for DIAObjects
- Continue review of time series features to compute and to merge work on the public interface for querying time series into [DMTN-118](#)
- Complete work on detection efficiencies and turn into a DMTN

- SDM & DPDD

- Continue work on automation of SDM standardisation through to qserv ingest
- Implement evolution of DPDD plans

- Verification and Validation
 - Release first version of metric measurement framework, implementation of all KPMs.
 - Acceptance testing of science pipelines release 21.0.0
 - Gen3 acceptance test plan (see this meeting)
 - Define the test plan for the RSP service of data resulting from an end-to-end test exercising the flow from data processing to RSP release, LDM-503-14a
- Community
 - Support to the [LSST enabling science 2020 broker workshop](#) (community organized follow on the the Rubin Community Broker workshop)
 - Continue support to the science collaborations and stack-club

- Requirements
 - Complete RSP requirements flowdown.
 - DMSR / DPDD updates (RFC-709, -710)

- Documentation
 - Coordinate first drafts of construction papers.

- Google POC Phase II