LSST Community Science Center (CSC) at NOAO

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Why a LSST CSC at NOAO?

NSF asked NOAO to:

- Take the lead in preparing the community for the LSST era
- Develop the concept of an LSST Community Science Center that includes preparation and support of the community to fully utilize LSST

LSST CSC complements LSST Operations:

- LSST Data Management: “photons to data products”
- LSST CSC at NOAO: “data products to science”

Developing the LSST CSC

-> NSF Guidance following OIR System Optimization (Elmegreen report)

-> Internal Task Force

-> Initial Concept

-> Working Group

-> Community Supported Concept

-> LSST CSC

Launch in FY2019

LCSC Internal Task Force

Group of NOAO N&S staff to:

- Assemble a list of 10-15 names of people from the astronomical community for invitation to participate in an LSST CSC Working Group, with the **WG** (not the TF) having the goal of delivering an LSST CSC conceptual design document by the end of FY2017 (i.e Sept. 2017)
- Draw up the a draft charge and initial-concept document to kick-off WG discussion.

TF Members: D. Norman, J. Elias, J. Najita, D. Nidever, S. Ridgway, A. Saha, C. Smith, K. Vivas, A. Walker

Charge to LCSC WG

To engage in a study process and produce a written report to articulate

- the goals, requirements, and aspirations for community science with LSST (and perhaps other contemporary surveys)
- the priorities for support and infrastructure that an LCSC should provide to enable this science to be pursued by all LSST data-rights holders without regard to institutional or collaborative affiliation.

The WG's report will be used as a cornerstone document to guide further planning for an LCSC within NOAO.

Membership of LCSC

Diversity and breadth of members

F. Bianco (NYC)

W. Clarkson (UMI-Dearborn)

S. Gezari (UMD)

M. Graham (UWA)

H. Hsieh (Planetary Sci. Inst.)

G. McSwain (LeHigh U., co-Chair)

B. Miller (Gemini Obs.)

D. Norman (NOAO-N, co-Chair)

T. Rector (UAK)

S. Ridgway (NOAO-N)

A. Saha (NOAO-N)

M. Soare-Santos (Fermi Lab)

L. Strolger (STScI)

K. Vivas (NOAO-S)

External member demographics:
5 women, 5 men, 3 smaller inst, 3 large inst, 4 lab/obs, 4 ExtraGal/Cosmology, 2 Gal, 2,Transient/Variable, 1 Solar Sys, DES, PanSTARRS, JWST, Gemini, Kavli Report, etc.

Initial-concept Document

The LCSC initial concept outlines a plan of support for users in the following ways:

- Opportunities for collaboration and community building around LSST science
- Education in translating scientific questions into efficient LSST data access and use
- The ability to conduct experiments with LSST data (and simulations) tailored to specific scientific problems at both the catalog and image levels
- Tools to assess the quality of and analyze LSST data with respect to specific scientific problems

Initial-concept Document
Cont.

- The ability to compare LSST data (and simulations) with a myriad of external large datasets
- Tools to filter the LSST alert stream
- Online platforms with target and observation management capabilities for coordinating time-domain follow-up
- Classical user support services: e.g., helpdesk, tutorials, and documentation
- Access to telescopes and instruments for photometric and spectroscopic follow-up of LSST observations

Some of these support services are already planned, others would require supplemental funding.