

LARGE SYNOPTIC SURVEY TELESCOPE CORPORATION

PREPARING FOR BIG DATA

Pat Eliason, LSSTC Executive Office
Pat Osmer, LSSTC Senior Advisor



- Founded in 2003 as a not-for-profit 501(c)3 Arizona corporation to initiate the LSST project in order to advance the science of astronomy and physics
- More than 35 universities, institutions, corporations, and individuals started designing and building the LSST as a public-private partnership
- LSSTC was instrumental in the success of the Design Development phase of the LSST project contributing over \$50 million
- This early work proceeded in parallel with efforts to secure federal funding for construction that began in 2014



- Operations Partner, one of three (NSF, DOE), 25% of funding
- Focus for International Participation
- Focus for non-federal development for Enabling Science
 - The LSSTC's mission is to now secure and steward private funding to enable the full science potential of the LSST database through the coordination and preparation of our Member Institutions, Science Collaborations, the broader national and international physics & astronomy community
- Our goal is to ensure that LSST is the most scientifically productive ground-based observatory in the world!



- LSST epitomizes the new era of big data in physics and astronomy *but developing new methods and tools to process and analyze the data in innovative ways will be the key to enabling science*
 - Federal funding will deliver the facilities needed to conduct the LSST survey, *but construction money cannot be spent to support the science activities that will enable the full science potential of the LSST database*
 - LSSTC is committed to raise funds that will enable a robust program of science and educational initiatives through LSST's 10-year survey and beyond
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- **lsstcorporation.org/activities**
 - **2016 Call for Proposals**
 - **LSSTC Data Science Fellowship Program**



- With the advent of construction, LSSTC now provides support for the Science Collaborations (SC)
 - General administrative and logistical support
 - Administer/manage web sites and databases
 - Access to tele/video conferencing
 - Computer work space (wiki, Confluence, HipChat)
 - 0.25FTE of multiple skills
- Support for SC science via enabling science initiatives
 - Grant support for meetings, workshops, and travel in connection with science goals and roadmap development

Summary



- LSSTC is a partner in LSST operations and is responsible for obtaining and representing international participation
- LSSTC supports the enabling science initiatives needed for the community to make full use of LSST data
- LSSTC is working to obtain additional private support for science activities with LSST



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- LSST is recognized as a leader in the new astronomical research paradigm of data intensive astronomy and is leading the way to do a new kind of science
 - LSSTC is the national organization for LSST development and advocacy.





- Have been a tremendous resource for LSST
 - Enabled huge community involvement
 - Made vital contributions to the LSST Science Book
 - Reinforced the case for LSST and obtaining construction funding
 - Provided mechanism for convening researchers on key topics in astronomy, astrophysics, and cosmology



- Constitute a tremendous resource going forward
 - Developing and maintaining science activities
 - Facilitating participation of international affiliates
 - Contributing to ‘enabling science’
 - Maintaining and growing community support