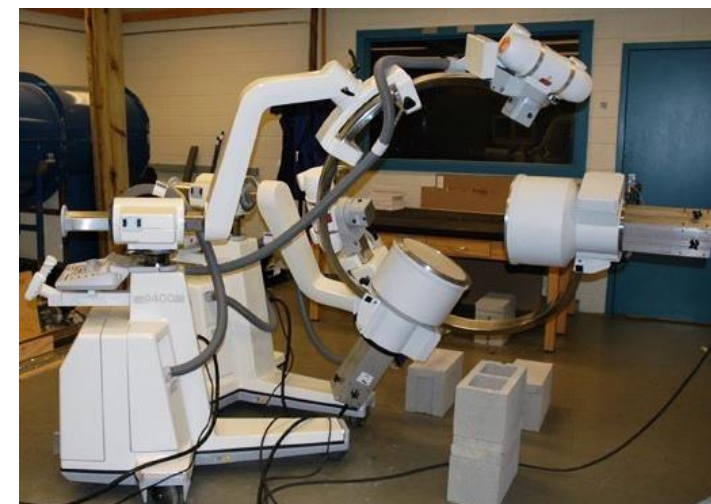


## NSF MRI project: Data Lifecycle Instrument (DaLI)

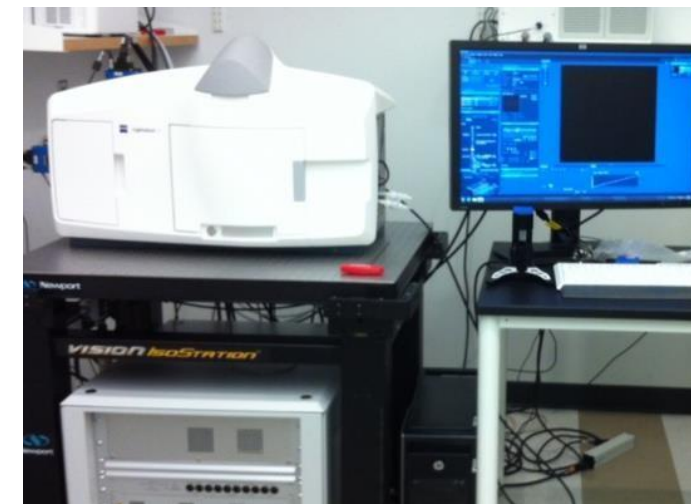
The Data Lifecycle Instrument (**DaLI**) project enables scientists to acquire, transfer, process, visualize, store, and share large and complex research data, in a unified workflow for various experiments and observations from remote instruments such as telescopes, astronomical arrays, ecological field station sensors, sequencing machines and multidisciplinary research.



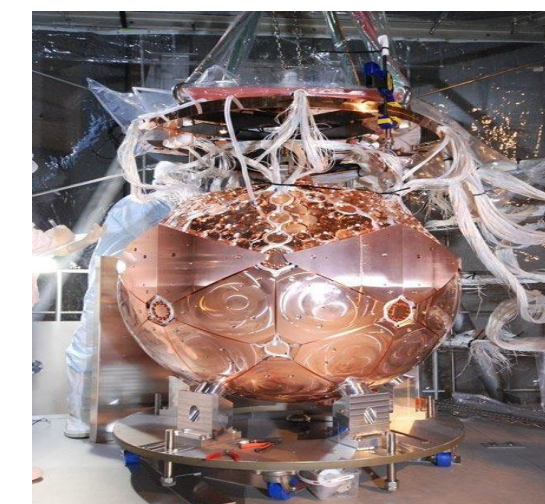
South Pole Telescope



XROMM Project at UChicago



Light Sheet Microscope



Dark Matter Detector



Gene sequencing

Figure. 1. Types of projects supported by DaLI

### Storage

- 3 Petabyte High Performance Pool
- 1 Petabyte Cost Effective Pool
- 1.5 Petabyte Tape Backup Pool

### Compute and Network

- 30 SkyLake nodes
- 100Gb/s EDR InfiniBand
- NVM

### Data management software

- GPFS
- Globus
- XROMM DM

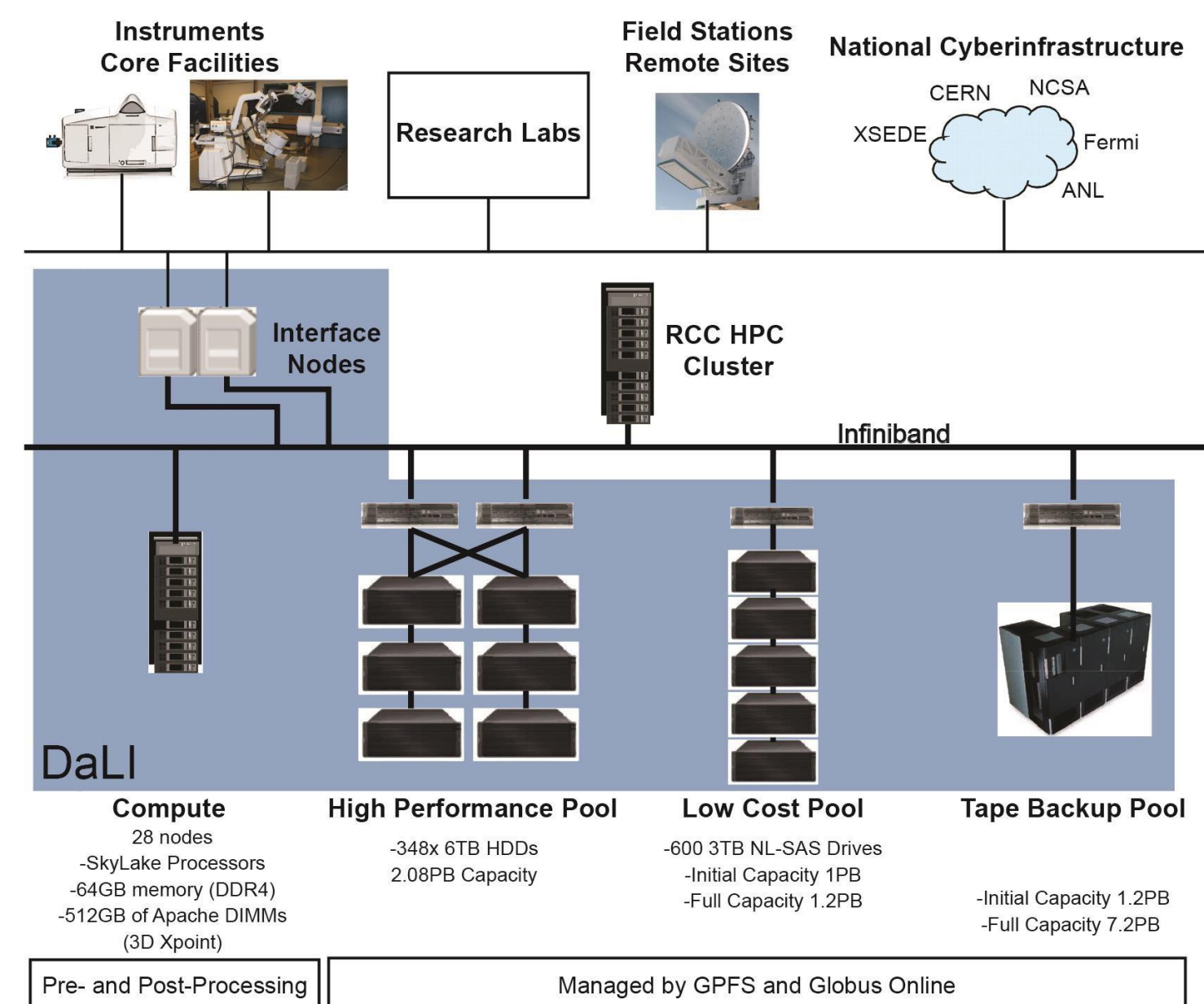


Figure 2. Overview of DaLI Organization

### Timeline

- Hardware delivered
- Installation in progress
- Commission in May, 2018