

CD/SCP/EAG FY12 Budget

Stephen Kent & Liz Buckley
(D. Holmgren)
(P. Lebrun)
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Introduction

- Activities
 - SDSS II
 - DES
 - CDMS/COUPP
 - AUGER
- Opportunities
 - Holometer
 - LSST
 - Bigboss
 - DESpec

Bottom line: Flat funding from FY11 should almost meet our needs for FY12 (0.5 FTE short for DES, possible 0.5 FTE for LSST)

External Constraints

- Projects (not 51)
 - 40B - DES Field Work Proposal
 - R6A214 - SDSS II Archive
 - CDMS, Auger - M&S from projects
- Terminated projects
 - JDEM
 - 431 (Ring of fire)

High Level Goals

- SDSS II -
 - Maintain archive
 - Provide analysis computing
 - return DAQ from APO
- CDMS
 - Support DAQ and data analysis
- Auger
 - Support archiving/data mirroring of Auger South
- DES
 - Work with collaboration to deliver DECam
 - Conduct mock data challenges and survey planning
 - Provide secondary archive of database and flat files
- Scientific Research
 - Science analyses of SDSS and DES data
 - Contribute to Holometer
 - LSST, BigBOSS, DESpec

ASTRO/SDSS-II

- Support SDSS archive for next 2 years
- Support processing of data from other facilities (APO, HST, Magellan)
- Support astronomy tools needed for processing
- Blue Arc maintenance
- Replace out-of-warranty CAS servers
- Retire out-of-warranty SDSS/DES cluster servers
- Return retired SDSS DAQ from APO
- Staffing
 - Small amount of EAG time
 - DB expert paid by ARC
 - Admin support provided by other groups

ASTRO/DES

- Support computing for SISPI/CCD testing
- Augment pipeline calib. modules
- Evaluate DC6
- Create simulated data for DC7
- Complete ObsTac for survey strategy
- Support installation of DECcam
- Procure/install Oracle database system
- Procure/install archive file system
- Procure/install analysis computing nodes
- Collect & process test data/calibration data in advance of survey observations
 - PreCam
 - Other APO/CTIO instruments

DES Milestones

- Deliver code for DC7 simulation - Apr 2012
- Deliver DC7 simulated images - Ongoing through June 2012
- Deliver ObsTac - June 2012
- Deliver Oracle/Compute nodes - ?? (driven by overall DES schedule)

DES Assumptions/Risks

- Main expense is travel - collaboration meetings, other working meetings, travel to CTIO for collection of test data, reviews, etc.
- Hardware is funded by FWP (40B)
- It is assumed that all hardware for analysis will be absorbed into common CD infrastructure such as the GPCF, and that the existing DES computing cluster will be retired. RISK?
- RISK: DECam installation schedule has been stretched due to (non-FNAL) delays in the project.
- Resources:
 - 1.9 CP FTEs from EAG
 - 0.55 CP from other depts
 - Will require 0.5 additional DB support for Oracle system

Astro/CDMS

- Maintain software for “tapeless movement” from Soudan to FNAL
- Administer CDMS analysis cluster
- Administer DAQ cluster at Soudan
- Contribute to DAQ design to support new detector electronics for SuperCDMS at Soudan

Astro/Auger

- Maintain Augerd1
- Augment Blue Arc (3 TB)
- Debate plan to construct new surface detector calibration system

Scientific Research

- Maximimize science analysis ability from SDSS/DES data
- Develop science analysis capability for DES data
- Contribute to success of Holometer project
- Investigate new opportunities in LSST, DESpec, BigBOSS

Scientific Research

- SDSS-II
 - followup strong lens candidates; publish
 - Finish analysis and publish data for SN years 2 & 3
 - Analysis of weak lensing, clusters with southern coadd
- DES
 - Science leadership in SN, Strong Lensing, Milky Way, and Photo-Z working groups
- Holometer - Finish construction of 2 interferometers & operate
- LSST - Evaluate level 3 strategies. May allocate 0.5 FTE to this activity
- DESpec & BigBOSS - Planning activities only.

Budget

BUDGET	FY11 Budgeted	FY11 Actual	FY12 Request (\$1K)	Off-project
DES				
Travel		36.2	41	26.5
Hardware (Data Magement)		0	0	362.8
Consultant		31	32	
Other		2.1	5	
SDSS-II				
Travel			7	
Other				17.6
Science Research				
Travel		7.3	22.9	
Other		22.4	29.5	
CDMS		0	0	
Auger		0	0	
Infrastructure (laptops)			10	
	145	99	137.4	406.9
In system (not clear where)		~10		

Notes: 2011 we had additional \$30K travel on Ring of Fire code
 2012 will move 0.5 FTE from Project 51 to Project 40B