

# **LSST Dark Energy Science Collaboration Meeting**

## **Report of Contributions**

Contribution ID: 0

Type: **not specified**

# Welcome from U. Pittsburgh

*Thursday, 5 December 2013 09:30 (5 minutes)*

**Session Classification:** Plenary 1

Contribution ID: 1

Type: **not specified**

## Welcome from CMU

*Thursday, 5 December 2013 09:35 (5 minutes)*

**Session Classification:** Plenary 1

Contribution ID: 2

Type: **not specified**

## Practical information

*Thursday, 5 December 2013 09:40 (5 minutes)*

**Session Classification:** Plenary 1

Contribution ID: 3

Type: **not specified**

## State of the Collaboration

*Thursday, 5 December 2013 09:45 (10 minutes)*

**Presenter:** JAIN, B

**Session Classification:** Plenary 1

Contribution ID: 4

Type: **not specified**

## **Proposed Governance Plan and Membership Policy; Timeline for Future Elections**

*Thursday, 5 December 2013 09:55 (20 minutes)*

**Presenters:** GILMAN, F; BURCHAT, P

**Session Classification:** Plenary 1

Contribution ID: 5

Type: **not specified**

## Governance Feedback

**Presenter:** BURCHAT, B

Contribution ID: 6

Type: **not specified**

## **Governance: Open Time for Feedback**

*Thursday, 5 December 2013 10:15 (20 minutes)*

**Presenter:** BURCHAT, P

**Session Classification:** Plenary 1



Contribution ID: 7

Type: **not specified**

## Highlight Projects: Analysis

*Thursday, 5 December 2013 11:40 (45 minutes)*

**Presenter:** NEWMAN, J

**Session Classification:** Plenary 1

Contribution ID: 8

Type: **not specified**

## Highlight Projects: Computing

*Thursday, 5 December 2013 11:30 (10 minutes)*

**Session Classification:** Plenary 1

Contribution ID: 9

Type: **not specified**

## Highlight Projects: Technical

Contribution ID: **10**

Type: **not specified**

## Parallel Plans

*Thursday, 5 December 2013 12:25 (5 minutes)*

**Session Classification:** Plenary 1

Contribution ID: 11

Type: **not specified**

## Computing resources & models

*Thursday, 5 December 2013 10:35 (10 minutes)*

**Presenter:** DUBOIS, R

**Session Classification:** Plenary 1

Contribution ID: 12

Type: **not specified**

## Software Framework

*Thursday, 5 December 2013 11:10 (20 minutes)*

**Presenter:** DODELSON, S

**Session Classification:** Plenary 1

Contribution ID: 13

Type: **not specified**

## Governance vote

*Friday, 6 December 2013 13:35 (10 minutes)*

**Presenter:** PAIN, R

**Session Classification:** Plenary 2

Contribution ID: 14

Type: **not specified**

## **Report of the LSST Director / FDR Feedback**

*Friday, 6 December 2013 15:45 (20 minutes)*

**Presenter:** KAHN, S

**Session Classification:** Plenary 2



Contribution ID: 15

Type: **not specified**

## Updates from the Technical Coordinator

*Friday, 6 December 2013 15:30 (15 minutes)*

**Presenter:** STUBBS, C

**Session Classification:** Plenary 2

Contribution ID: 16

Type: **not specified**

## Updates on DM, PhoSim, and Catsim

*Friday, 6 December 2013 14:00 (15 minutes)*

**Presenter:** KRUGHOFF, S

**Session Classification:** Plenary 2

Contribution ID: 17

Type: **not specified**

## Updates on OpSim

*Friday, 6 December 2013 14:15 (10 minutes)*

**Presenter:** RIDGEWAY, S

**Session Classification:** Plenary 2

Contribution ID: **18**

Type: **not specified**

## **Update on CosmoSims & WG report**

*Friday, 6 December 2013 14:25 (15 minutes)*

**Presenter:** HEITMANN, K

**Session Classification:** Plenary 2

Contribution ID: **19**

Type: **not specified**

## **Weak Lensing report**

*Friday, 6 December 2013 14:40 (5 minutes)*

**Session Classification:** Plenary 2

Contribution ID: 20

Type: **not specified**

## Theory / Joint Probes Report

*Friday, 6 December 2013 14:45 (5 minutes)*

**Session Classification:** Plenary 2

Contribution ID: **21**

Type: **not specified**

# Supernovae Report

*Friday, 6 December 2013 14:50 (5 minutes)*

**Session Classification:** Plenary 2

Contribution ID: 22

Type: **not specified**

## **Strong Lensing Report**

*Friday, 6 December 2013 15:10 (5 minutes)*

**Session Classification:** Plenary 2



Contribution ID: 23

Type: **not specified**

## Photo-z Report

*Friday, 6 December 2013 15:15 (5 minutes)*

**Session Classification:** Plenary 2

Contribution ID: 24

Type: **not specified**

## **LSS Report**

*Friday, 6 December 2013 15:20 (5 minutes)*

**Session Classification:** Plenary 2

Contribution ID: 25

Type: **not specified**

## Clusters Report

*Friday, 6 December 2013 15:25 (5 minutes)*

**Session Classification:** Plenary 2

Contribution ID: 26

Type: **not specified**

## Closing

*Friday, 6 December 2013 16:05 (1 minute)*

**Session Classification:** Plenary 2

Contribution ID: 27

Type: **not specified**

## **Report from Workshop on Precision Astronomy with Fully Depleted CCDs**

*Friday, 6 December 2013 13:45 (15 minutes)*

**Presenter:** NOMEROTSKI, A

**Session Classification:** Plenary 2

Contribution ID: 28

Type: **not specified**

## Recent Progress in Non-Canonical WL Statistics

*Wednesday, 4 December 2013 09:30 (25 minutes)*

**Presenter:** MAY, Morgan

**Session Classification:** Weak Lensing

Contribution ID: 29

Type: **not specified**

## **Can we use galaxies to improve our knowledge of the PSF?**

*Wednesday, 4 December 2013 09:55 (25 minutes)*

**Presenter:** BARD, Debbie

**Session Classification:** Weak Lensing

Contribution ID: **30**

Type: **not specified**

## **Data management updates**

*Wednesday, 4 December 2013 10:20 (30 minutes)*

**Presenter:** BOSCH, Jim

**Session Classification:** Weak Lensing



Contribution ID: **31**

Type: **not specified**

## **More about using the wavefront information**

*Wednesday, 4 December 2013 11:10 (30 minutes)*

**Presenter:** SCHNEIDER, Michael

**Session Classification:** Weak Lensing

Contribution ID: 32

Type: **not specified**

## **Bayesian Shear Estimation with the Bernstein-Armstrong method**

*Wednesday, 4 December 2013 11:40 (30 minutes)*

**Presenter:** SHELDON, Erin

**Session Classification:** Weak Lensing

Contribution ID: 33

Type: **not specified**

## **Update on GREAT3 and its relevance for LSST DESC**

*Wednesday, 4 December 2013 12:10 (20 minutes)*

**Presenter:** MANDELBAUM, Rachel

**Session Classification:** Weak Lensing

Contribution ID: 34

Type: **not specified**

## **N\_eff estimate from comparison of ground / space data**

*Wednesday, 4 December 2013 13:30 (40 minutes)*

**Presenter:** DAWSON, Will

**Session Classification:** Weak Lensing

Contribution ID: 35

Type: **not specified**

## **Update on studies of chromatic effects on weak lensing**

*Wednesday, 4 December 2013 14:10 (40 minutes)*

**Presenter:** MEYERS, Josh

**Session Classification:** Weak Lensing

Contribution ID: 36

Type: **not specified**

## **To shoot or not to shoot. In-depth comparison between RTM and FTM**

*Wednesday, 4 December 2013 16:00 (30 minutes)*

**Presenter:** JEE, James

**Session Classification:** Weak Lensing

Contribution ID: 37

Type: **not specified**

## Update on deblending studies

*Wednesday, 4 December 2013 15:30 (30 minutes)*

**Presenter:** KIRKBY, David

**Session Classification:** Weak Lensing

Contribution ID: **38**

Type: **not specified**

## **Dan Matthews: The cross-correlation technique and lensing magnification**

*Friday, 6 December 2013 09:30 (20 minutes)*

**Session Classification:** LSS



Contribution ID: 39

Type: **not specified**

## **Mubdi Rahman: Unleashing the power of clustering redshifts**

*Friday, 6 December 2013 09:50 (10 minutes)*

**Session Classification:** LSS

Contribution ID: 40

Type: **not specified**

## **Sam Schmidt: The CIB from Planck using cross-correlations**

*Friday, 6 December 2013 10:00 (10 minutes)*

**Session Classification:** LSS

Contribution ID: 41

Type: **not specified**

## **Anthony Pullen: Interloper bias in emission line surveys**

*Friday, 6 December 2013 10:10 (10 minutes)*

**Session Classification:** LSS

Contribution ID: 42

Type: **not specified**

# Cosmology Dependent Covariances with Cosmic Emulators

*Friday, 6 December 2013 11:10 (20 minutes)*

**Presenter:** KWAN, Juliana (ANL)

**Session Classification:** Covariance Matrices

Contribution ID: 43

Type: **not specified**

## **Dynamics Driving non-Gaussian Covariance & ALPT Mocks**

*Friday, 6 December 2013 11:30 (20 minutes)*

**Presenter:** NEYRINCK, Mark (JHU)

**Session Classification:** Covariance Matrices

Contribution ID: 44

Type: **not specified**

## **Cosmology-dependent covariances**

*Friday, 6 December 2013 12:10 (20 minutes)*

**Presenter:** SCHNEIDER, Michael (LLNL)

**Session Classification:** Covariance Matrices

Contribution ID: 45

Type: **not specified**

## Welcome

*Wednesday, 4 December 2013 09:30 (5 minutes)*

**Presenter:** NEWMAN, Jeff

**Session Classification:** Photo-z

Contribution ID: 46

Type: **not specified**

## **Photo-z PDF multi-technique estimation, storage and applications**

*Wednesday, 4 December 2013 09:35 (20 minutes)*

**Presenter:** CARRASCO-KIND, Matias

**Session Classification:** Photo-z



Contribution ID: 47

Type: **not specified**

## The Likelihood Ratio Method

*Wednesday, 4 December 2013 09:55 (15 minutes)*

**Presenter:** RICOL, Jean-Stephane

**Session Classification:** Photo-z

Contribution ID: 48

Type: **not specified**

## **Filter shape effects in photo-z estimation**

*Wednesday, 4 December 2013 10:10 (15 minutes)*

**Presenter:** CHOYER, Adeline

**Session Classification:** Photo-z

Contribution ID: 49

Type: **not specified**

## Summary of current simulation tools

*Wednesday, 4 December 2013 11:10 (10 minutes)*

**Presenters:** ABATE, Alex; SCHIMDT, Sam

**Session Classification:** Photo-z

Contribution ID: **50**

Type: **not specified**

## Simulations

*Wednesday, 4 December 2013 11:20 (20 minutes)*

**Presenter:** GJERGO, Eda

**Session Classification:** Photo-z

Contribution ID: 51

Type: **not specified**

## Microtasking

*Wednesday, 4 December 2013 11:40 (50 minutes)*

**Presenters:** CUNHA, Carlos; NEWMAN, Jeff

**Session Classification:** Photo-z

Contribution ID: 52

Type: **not specified**

## **Photo-zs' needs: short and long term**

*Wednesday, 4 December 2013 16:30 (10 minutes)*

**Presenter:** CUNHA, Carlos

**Session Classification:** Cosmo Sims

Contribution ID: 53

Type: **not specified**

## **Impact of SED uncertainty in cosmological constraints**

*Wednesday, 4 December 2013 16:40 (15 minutes)*

**Presenter:** SCHIMDT, Sam

**Session Classification:** Cosmo Sims

Contribution ID: 54

Type: **not specified**

## **Simulations: present and future**

*Wednesday, 4 December 2013 16:55 (15 minutes)*

**Presenter:** HEITMANN, Katrin

**Session Classification:** Cosmo Sims



Contribution ID: 55

Type: **not specified**

## Photo-z simulations

*Thursday, 5 December 2013 13:30 (10 minutes)*

**Presenter:** GJERGO, Eda

**Session Classification:** Supernovae/Photo-z's: Simulations and Synergies

Contribution ID: 56

Type: **not specified**

## Photo-z simulations

*Thursday, 5 December 2013 13:40 (10 minutes)*

**Presenter:** ABATE, A

**Session Classification:** Supernovae/Photo-z's: Simulations and Synergies

Contribution ID: 57

Type: **not specified**

## Synergies Discussion

*Thursday, 5 December 2013 14:10 (40 minutes)*

**Presenter:** WOOD-VASEY, Michael

**Session Classification:** Supernovae/Photo-z's: Simulations and Synergies

Contribution ID: 58

Type: **not specified**

## Discussion

*Wednesday, 4 December 2013 10:25 (25 minutes)*

**Session Classification:** Photo-z

Contribution ID: 59

Type: **not specified**

## Survey Depth and Randoms

*Wednesday, 4 December 2013 15:30 (15 minutes)*

**Presenter:** ROZO, Eduardo (KIPAC)

**Session Classification:** LSS

Contribution ID: **60**

Type: **not specified**

## **Mode-projection Tests for LSST**

*Wednesday, 4 December 2013 15:45 (15 minutes)*

**Presenter:** PULLEN, Anthony (JPL)

**Session Classification:** LSS

Contribution ID: **61**

Type: **not specified**

## **Machine Learning, Systematics, and LSS**

*Wednesday, 4 December 2013 16:00 (15 minutes)*

**Presenter:** CARRASCO-KIND, Matias (Illinois)

**Session Classification:** LSS

Contribution ID: 62

Type: **not specified**

## **Probing the Early Universe using Large Scale Structure**

*Wednesday, 4 December 2013 16:15 (15 minutes)*

**Presenter:** AGARWAL, Nishant (CMU)

**Session Classification:** LSS



Contribution ID: 63

Type: **not specified**

## **Big Dithers are Crucial for LSST Survey Uniformity**

*Wednesday, 4 December 2013 16:45 (15 minutes)*

**Presenter:** GAWISER, Eric (Rutgers)

**Session Classification:** LSS

Contribution ID: **64**

Type: **not specified**

## **Intrinsic alignment simulations**

*Thursday, 5 December 2013 13:30 (20 minutes)*

**Presenter:** SCHNEIDER, Michael

**Session Classification:** Intrinsic Alignments

Contribution ID: 65

Type: **not specified**

## **Intrinsic alignments in hydro simulations**

*Thursday, 5 December 2013 13:50 (20 minutes)*

**Presenter:** TENNETI, Ananth

**Session Classification:** Intrinsic Alignments

Contribution ID: 66

Type: **not specified**

## **Self-calibrating the intrinsic alignment signal: methods for indirect measurement**

*Thursday, 5 December 2013 14:10 (20 minutes)*

**Presenter:** TROXEL, Michael

**Session Classification:** Intrinsic Alignments

Contribution ID: 67

Type: **not specified**

## **Intrinsic alignments observations with SDSS-III**

*Thursday, 5 December 2013 14:30 (20 minutes)*

**Presenter:** SINGH, Sukhdeep

**Session Classification:** Intrinsic Alignments

Contribution ID: **68**

Type: **not specified**

## **Combining photometric surveys with spectroscopic ones**

*Wednesday, 4 December 2013 13:30 (10 minutes)*

**Presenter:** BRIDLE, Sarah

**Session Classification:** Theory/Joint Probes

Contribution ID: **69**

Type: **not specified**

## **Magnification estimator**

*Wednesday, 4 December 2013 13:40 (20 minutes)*

**Presenter:** SCHNEIDER, Michael

**Session Classification:** Theory/Joint Probes

Contribution ID: 70

Type: **not specified**

## Updates from members

*Wednesday, 4 December 2013 14:00 (15 minutes)*

**Session Classification:** Theory/Joint Probes



Contribution ID: 71

Type: **not specified**

## Discussion on software tools

*Wednesday, 4 December 2013 14:15 (20 minutes)*

**Session Classification:** Theory/Joint Probes

Contribution ID: 72

Type: **not specified**

## Discussion on combining probes

*Wednesday, 4 December 2013 14:35 (20 minutes)*

**Session Classification:** Theory/Joint Probes

Contribution ID: 73

Type: **not specified**

## **How many simulations do we need to generate covariance matrices for LSST?**

*Friday, 6 December 2013 11:50 (20 minutes)*

**Presenter:** ALINA, Kiessling (JPL)

**Session Classification:** Covariance Matrices

Contribution ID: 74

Type: **not specified**

# Fast, Accurate Galaxy Power Spectra with Cosmic Emulation

*Wednesday, 4 December 2013 16:30 (15 minutes)*

**Presenter:** KWAN, Juliana (Argonne)

**Session Classification:** LSS

Contribution ID: 75

Type: **not specified**

## Simulations Discussion

*Thursday, 5 December 2013 13:50 (20 minutes)*

**Presenter:** ABATE, A

**Session Classification:** Supernovae/Photo-z's: Simulations and Synergies

Contribution ID: 76

Type: **not specified**

## **Task H-2-cluster lensing simulations**

*Wednesday, 4 December 2013 09:30 (20 minutes)*

**Presenter:** DELL'ANTONIO, Ian (Brown)

**Session Classification:** Clusters

Contribution ID: 77

Type: **not specified**

## **Building mock catalogs using machine learning techniques**

*Wednesday, 4 December 2013 09:30 (20 minutes)*

**Presenter:** HO, Shirley

**Session Classification:** Cosmo Sims

Contribution ID: 78

Type: **not specified**

## Simulated Galaxy Catalogs

*Wednesday, 4 December 2013 09:50 (20 minutes)*

**Presenter:** WECHSLER, Risa

**Session Classification:** Cosmo Sims



Contribution ID: 79

Type: **not specified**

## SUNGLASS

*Wednesday, 4 December 2013 10:10 (20 minutes)*

**Presenter:** KIESSLING, Alina

**Session Classification:** Cosmo Sims

Contribution ID: **80**

Type: **not specified**

## **ABC mock catalogs**

*Wednesday, 4 December 2013 10:30 (20 minutes)*

**Presenter:** HABIB, Salman

**Session Classification:** Cosmo Sims

Contribution ID: **81**

Type: **not specified**

## Validation

*Wednesday, 4 December 2013 11:10 (20 minutes)*

**Presenter:** COHN, Joanne

**Session Classification:** Cosmo Sims

Contribution ID: **82**

Type: **not specified**

## **ImSim Inputs**

*Wednesday, 4 December 2013 11:30 (20 minutes)*

**Presenter:** KRUGHOFF, Simon

**Session Classification:** Cosmo Sims

Contribution ID: **83**

Type: **not specified**

## **Working Group Requests**

*Wednesday, 4 December 2013 11:50 (20 minutes)*

**Presenter:** BARD, Debbie

**Session Classification:** Cosmo Sims

Contribution ID: **84**

Type: **not specified**

## **Current status of simulations**

*Wednesday, 4 December 2013 13:30 (20 minutes)*

**Session Classification:** Clusters

Contribution ID: **85**

Type: **not specified**

## **CatSim/PhoSim**

*Wednesday, 4 December 2013 13:30 (20 minutes)*

**Presenter:** BARD, Debbie

**Session Classification:** Cosmo Sims

Contribution ID: **86**

Type: **not specified**

## **Illinois**

*Wednesday, 4 December 2013 16:00 (1 minute)*

**Session Classification:** Photo-z



Contribution ID: **87**

Type: **not specified**

## Arizona

*Wednesday, 4 December 2013 16:01 (1 minute)*

**Session Classification:** Photo-z

Contribution ID: **88**

Type: **not specified**

## **ImSim on Demand Concept**

*Thursday, 5 December 2013 15:30 (15 minutes)*

**Session Classification:** Computing

Contribution ID: **89**

Type: **not specified**

## **PanDA status**

*Thursday, 5 December 2013 15:45 (10 minutes)*

**Session Classification:** Computing

Contribution ID: **90**

Type: **not specified**

## **LSST & DES data**

*Thursday, 5 December 2013 15:55 (15 minutes)*

**Session Classification:** Computing

Contribution ID: **91**

Type: **not specified**

## OpsSim

*Thursday, 5 December 2013 16:10 (15 minutes)*

**Session Classification:** Computing

Contribution ID: 92

Type: **not specified**

## CatSim & DM

*Thursday, 5 December 2013 16:25 (10 minutes)*

**Session Classification:** Computing

Contribution ID: 93

Type: **not specified**

## Mission Computing at NERSC

*Thursday, 5 December 2013 16:35 (15 minutes)*

**Session Classification:** Computing

Contribution ID: 94

Type: **not specified**

## Features of PhoSim You Might Not Know

*Thursday, 5 December 2013 15:30 (20 minutes)*

**Presenter:** CUI, Wei

**Session Classification:** Computing



Contribution ID: 95

Type: **not specified**

# Validation and Predictions of Chromatic Effects in PhoSim

*Thursday, 5 December 2013 15:50 (20 minutes)*

**Presenter:** MYERS, Josh

**Session Classification:** Computing

Contribution ID: 96

Type: **not specified**

## **Star/Galaxy Separation and the PhoSim Recipe Book**

*Thursday, 5 December 2013 16:10 (20 minutes)*

**Presenter:** BARD, Debbie

**Session Classification:** Computing

Contribution ID: 97

Type: **not specified**

## Atmosphere Model Exploration

*Thursday, 5 December 2013 16:30 (20 minutes)*

**Presenter:** SCHNEIDER, Michael

**Session Classification:** Computing

Contribution ID: **98**

Type: **not specified**

## **What do we miss when we ray-trace?**

*Thursday, 5 December 2013 16:50 (20 minutes)*

**Presenter:** JEE, James

**Session Classification:** Computing

Contribution ID: 99

Type: **not specified**

## Validation of Sensor Features in PhoSim

*Thursday, 5 December 2013 17:10 (20 minutes)*

**Presenter:** NOMEROTSKI, Andrei

**Session Classification:** Computing

Contribution ID: **100**

Type: **not specified**

## **Katrin Heitmann: State of the Art with N-Body**

*Friday, 6 December 2013 09:30 (15 minutes)*

**Session Classification:** Baryonic Effects and Dark Energy Cosmology

Contribution ID: **101**

Type: **not specified**

# **Andrew Zentner: Baryonic Effects on Dark Energy Constraints from Lensing & Mitigation Strategies**

*Friday, 6 December 2013 09:50 (20 minutes)*

**Session Classification:** Baryonic Effects and Dark Energy Cosmology

Contribution ID: **102**

Type: **not specified**

## **Tim Eifler: Mitigating Baryonic Effects using Principal Component Analysis**

*Friday, 6 December 2013 10:10 (15 minutes)*

**Session Classification:** Baryonic Effects and Dark Energy Cosmology



Contribution ID: **103**

Type: **not specified**

## Discussion

*Friday, 6 December 2013 10:30 (20 minutes)*

**Session Classification:** Baryonic Effects and Dark Energy Cosmology

Contribution ID: **104**

Type: **not specified**

## **Gravity on Cosmic Scales and LSST**

*Thursday, 5 December 2013 15:30 (30 minutes)*

**Presenter:** LINDER, Eric

**Session Classification:** Theory/Joint Probes

Contribution ID: **105**

Type: **not specified**

## **Effect of massive neutrinos and dynamical dark energy on large scale structure**

*Thursday, 5 December 2013 16:00 (30 minutes)*

**Presenter:** BISWAS, Rahul

**Session Classification:** Theory/Joint Probes

Contribution ID: **106**

Type: **not specified**

## **Discussion on modified gravity requirements for simulations**

*Thursday, 5 December 2013 16:30 (30 minutes)*

**Session Classification:** Theory/Joint Probes

Contribution ID: **107**

Type: **not specified**

## **Governance Comments**

*Friday, 6 December 2013 13:30 (5 minutes)*

**Presenter:** JAIN, B

**Session Classification:** Plenary 2

Contribution ID: **108**

Type: **not specified**

## **Videos from Simon Krughoff, text from Debbie Bard**

*Friday, 6 December 2013 09:30 (20 minutes)*

**Presenter:** KRUGHOFF, S

**Session Classification:** Computing