

LSST-GalSim Meeting May 19-20, 2016

Location: SLAC

Participants:

George Angeli

Andrew Connolly

Mike Jarvis

Rachel Mandelbaum (by phone)

Josh Meyers

Aaron Roodman

Michael Schenider

Chris Walter

Bo Xin

Andy Rasmussen

Presentations:

[LSST Overview: Actuators, Perturbations, Controls, and Metrics](#)

[Linear optical model for a large ground based telescope](#)

[GalSim Plans](#)

[LSST Integrated Model with Phosim \(Bo Xin\)](#)

[Modeling optics perturbations with GalSim](#)

[Simulation needs for Data Management](#)

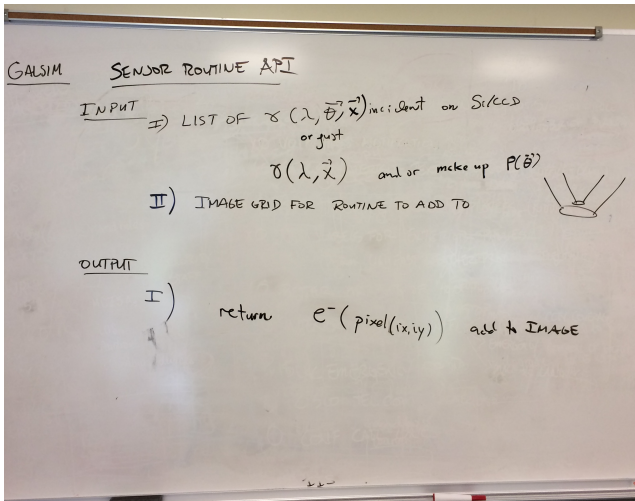
[Sensor Models and Validation](#)

[GalSim Overview](#)

Action items:

- Aberration modeling
 - Check the accuracy of the assumption of linearity in the sensitivity matrix
 - Bo will give Aaron and Michael the sensitivity matrices he has derive
 - Michael will interpolate to a new position see if his predicted values are "better" (better means doesnt impact the PSSN by more than 10^{-3})
 - Compare the Galsim wavefront sensor simulations
 - Michael will compare the wavefront images using the LSST Zemax model (from Aaron)
 - Once this comparison is complete Bo will provide Michael zemax images and the zernicke coefficients and Michael will compare
- Optical model
 - Provide GalSim with spider description (either from phosim or the latest model) and post on confluence page
- Atmospheric modeling
 - Josh validate his model comparing against Arroyo, looking at structure function, dependence on screen size
 - Provide Josh with the distributions for the wind velocities and directions, CN2 (either from phosim or somewhere else)
 - Possible to use Josh's work to validate effects of assuming photon based approach for the atmosphere (after it is validated) but recognizing that phosim has done many of these tests

- Galsim sensor API



- Whiteboard photo of Michael's atmospheric effects implementation comparison

