

i. Facilities, Equipment and Other Resources

The only facilities and equipment we require are computational and relatively modest, and in fact *the computing power and storage we need are already available to us at KIPAC and SLAC*. The calculations we propose to perform in Stage 1 of this program depend only on the lowest modes of the CMB temperature and polarization maps: initial experiments with data provided by the Planck collaboration suggest that our computational needs in this early phase will be minimal. At Stage 2, we anticipate working with a relatively small CMB lensing dataset, and a somewhat larger galaxy catalog - however, even then we will still be working with relatively small numbers of modes ($l \sim \text{few tens}$) and so should be able to work with highly compressed versions of the survey data. The same will hold for the simulated futuristic wide field survey datasets we expect to investigate in Stage 3 of our program. At each stage we will be producing high quality visualizations of our data products including 3D renditions of our gravitational potential maps, supported by KIPAC computing staff, but again, these will not present any challenging facilities requirements.