

Project 12/2014: "**Observational Cosmological Studies of the Dark Universe Using Multi-wavelength Surveys**"

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Abstract:

We propose to continue our use of the C2PAP cluster and our collaboration with the C2PAP staff to further our observational cosmology studies. Our proposed work will focus on (1) the processing and calibration of multiband ground based survey datasets from DES and PS1 and (2) the cosmological analysis of cluster samples extracted from SPT, Planck and existing X-ray archives. These projects prepare us for the cosmological analysis of the eROSITA and MegaCam RED datasets. Specific goals for the coming year include: (1) processing and calibration of the DES 1st season data for release to collaborators, (2) preparation of PS1 datasets around targets of interest, (3) preparation of the optical survey data for XMM-XXL and release to collaborators and (4) development, installation and operation of an astronomical data archive interface that would allow us to share our data with collaborators. This archive interface would also be useful for simulation data.