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Calculating Redshifts for Planck Discovered Galaxy Clusters HILLARY HEAD, Austin Peay State Univ, SHANTANU DESAI, University Strenwarte-Muenchen, AUSTIN PEAY STATE UNIVERSITY COLLABORATION, UNIVERSITY STERNWARTE-MUENCHEN COLLABORATION — One of the outcomes from the Planck mission was the discovery of new galaxy cluster candidates using the Sunyaev-Zel'dovich effect. Working with collaborators at USM, my project involved confirming which detections were clusters and which were false positives, and then finding the redshifts of the newly discovered clusters using Pan-STARRS optical data photometrically calibrated using SLR techniques on SExtractor cataloged images. The redshifts were determined using the greatest likelihood from a red-sequencing technique. The results from this method were the finding of redshifts for seven new clusters. Future work will include creating a bootstrapping method from redshifts gained on known clusters to their correct values and applying this to the new clusters, as well as tweaking the red-sequencing code to be better at determining redshifts for these clusters.

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