Abell Cluster Catalog for the Purpose of Supernova Discovery

JAMES BOSHART, MICHAEL HIBBS, None — The violent death of a star in the form of a supernova provides much scientific data. However, due to the infrequency of supernova per galaxy per year, there is little known about them. My research was focused around finding possible supernovae by taking images of Abell Clusters (large distant clusters of galaxies). By using a set of criterion that maximized our probability of finding a supernova, I have established a baseline of images by which subsequent images can be compared to so as to find any anomalies that could be a supernova. The primary goal of my research was to establish an image catalogue of various Abell Clusters with Tarleton State University’s 0.8 meter reflecting telescope that can be used in subsequent research by colleagues in the future.