

Ages of Six Bulge Globular Clusters and their Multiple Stellar Populations from the HST Large Legacy Treasury Program

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The HST Large Legacy Treasury Program (GO-13297, PI Piotto) is a UV-initiative proposal (WFC3/UVIS) to complement the existing optical database of the ACS Globular Cluster (GC) Treasury (GO-10775, PI Sarajedini). This unprecedented photometric database allows accurate and self-consistent determinations of ages, metallicities, distances and reddening values (by the analysis of optical CMDs), as well as a clear characterization of the multiple stellar populations presented in each cluster (using the UV “magic trio”, very sensitive to the differences on the CNO abundances). Among the 57 observed GCs we selected six bulge GCs (NGC6304, NGC6624, NGC6637, NGC6652, NGC6717 and NGC6723) in order to study the formation and evolution of the innermost Galactic structural component. In this work we present our preliminar results from the analysis of multiband CMDs. All physical parameters are determined by applying statistical isochrone fits using recent theoretical stellar evolutionary models.

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