EVOLUTIONARY ASPECTS OF THE CMD OF NGC 6553

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We have investigated the V, $B-V$ "clump" morphology of the globular cluster NGC 6553 (Ortolani *et al.* 1990, OBB90) through synthetic horizontal branch (SHB) models. Catelan's (1993) computations were extended to more metal-rich compositions, following Sweigart (1987) and Castellani *et al.* (1991), and transposed to the observational plane on the basis of VandenBerg's (1992) colour transformations and bolometric corrections. Observational scatter has also been added. In general, the SHB models are very clumpy, unlike the observed feature, which seems extended and peculiarly tilted. However, for particular combinations of helium abundance, metallicity, and mean mass on the HB, tilted models result, being however significantly less sloped and wider than observed. The NGC 6553 field is differentially reddened by $\Delta E(B-V) \approx 0.06$ (OBB90), which has been modelled, but which implies a CMD scatter which is *smaller than the one originating from evolution away from the zero-age HB alone.* We have also investigated the age of the cluster (ΔV method) and location of the red giant branch "bump," in comparison with 47 Tuc. Since the helium and α-elements abundances are not known for NGC 6553, three chemical evolution scenarios have been considered, following the method of de Freitas Pacheco (1993). Details can be found elsewhere (Catelan *et al.* 1994).

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