Population Synthesis Models for the Sextans and Carina Dwarf Spheroidal Galaxies

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Dwarf galaxies are the most common type of galaxy in the universe and believed to be basic building blocks of the large scale structures. In order to understand the formation history of these galaxies, we selected two well-observed galaxies in the Local Group and constructed the stellar population models including HB stars. We employed Y^2 Isochrones (Yi et al. 2001) and HB tracks (Yi et al. 1997) for stellar population synthesis. Our models show that (1) the Carina dSph has several distinct populations with age of ~ 10.5 , 5.8, 4.1, 2.8 and 1.0 Gyrs, and (2) stellar populations of the Sextans dSph are constructed in terms of the two populations with age of ~ 11 and ~ 2.5 Gyrs. Observational data were kindly provided by Lee et al. (2003, in preparation) and Monelli et al. (2003) for Sextans and Carina dsphs, respectively.