

a rich open cluster towards the Galactic bulge ($l=13.8^\circ$, $b=-1.3^\circ$), and its associated field at $5'$ north of the cluster centre.

The observations were carried out at the 1.54-m Danish telescope, using ESO CCD # 5 and the Cousins V and I filters. The reductions were done in a standard way using Midas and Daophot packages at ESO-Garching.

In Figure 1 we show the results for this $5'$ north offset field, where the identified stellar components are labelled. As expected from the low latitude of the field, we see a young main-sequence (MS) coming from the disk. The magnitude range suggests an age spread of about 500 Myrs along the blue MS, as can be inferred from a comparison with a series of colour-magnitude diagrams (CMDs) for galactic open clusters of different ages by Mermilliod (1981). A sequence of red giants parallel to the young MS is present, corroborating this age spread possibility, if differential reddening is not affecting much.

The bulge metal-rich component is revealed by a populous red horizontal branch (HB) typical of metal-rich old populations (e.g., Ortolani, Barbuy and Bica, 1990, OBB90). This sequence is elongated and tilted and this effect is caused by differential blanketing and/or

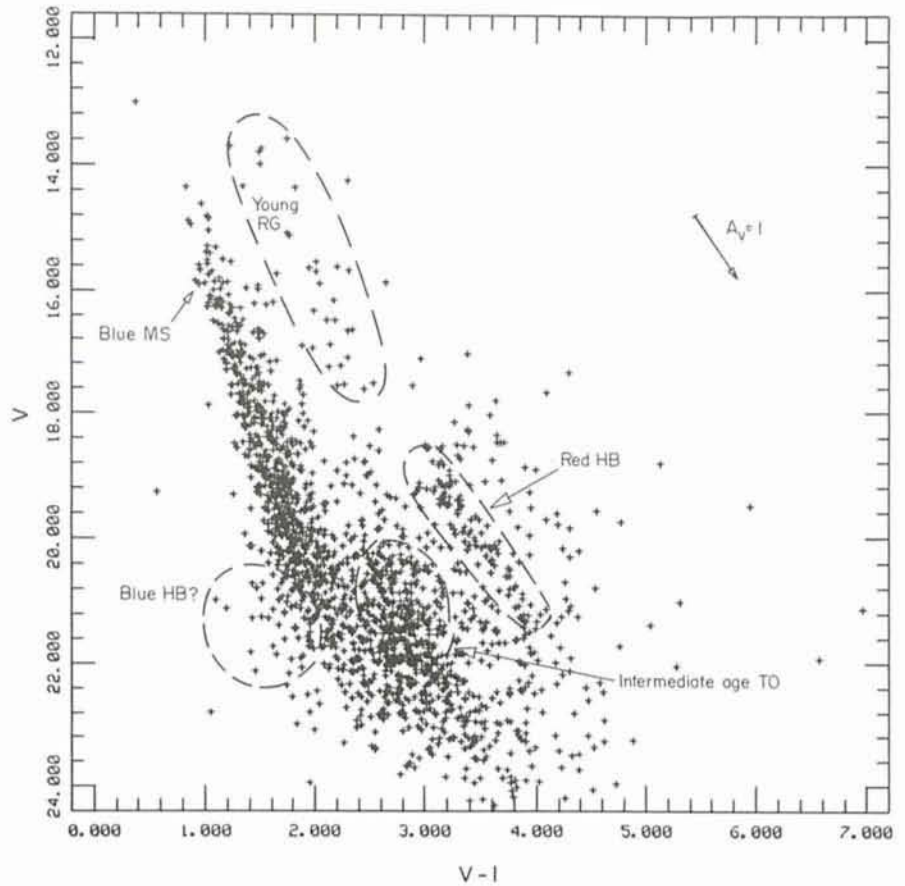


Figure 1: V vs. $(V-I)$ diagram of a field $5'$ north of NGC 6603 ($l=13.8^\circ$, $b=-1.3^\circ$).

VACANCY IN GARCHING

SCIENTIST/ASTRONOMER/PHYSICIST (SOFTWARE)

REF. ESD5A1

A position as Scientist/Astronomer/Physicist (Software) is available in the Science Data and Software Group of the Space Telescope European Coordinating Facility (ST-EFC) at the ESO Headquarters in Garching near Munich, Germany.

The position will be open to a candidate with a University degree in astronomy, physics, or a related field and several years of research experience, including publications in international refereed journals. The research should be based on data obtained with state-of-the-art instrumentation, preferably also with space-based telescopes. Experience with CCD imaging would be an asset. Further requirements are: a strong computer science background, acquired either through formal education or through participation in major computer system development work; a knowledge of relevant computer languages, operating systems, and data analysis systems; ability to work in a team and the willingness to interact with the international HST community. Excellent English language communication skills are mandatory.

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The Science Data and Software Group (SDS) of the ST-EFC provides, in collaboration with the ESO Image Processing Group, a state-of-the-art data analysis environment for the European users of HST. This environment is based on a network of UNIX machines, running MIDAS, STSDAS/IRAF, IDL, and a number of other packages with software required for HST data analysis. It is the task of the SDS Group to identify software needs for such analysis either by importing it from the community, or by developing it, and to assist the user community in applying it.

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differential reddening effects. Some bulge giants are also present in the diagram.

To the left of the MS at $V \sim 21$ mag, a clump of possible blue HB might be associated with a metal-poor component (such as low-metallicity globular clusters) or a hot component of the bulge metal-rich population.

An interesting result is the presence of an intermediate age turn-off (TO) at $(V-I) = 2.7$ and $20.4 < V < 22$, which could be interpreted as an old disk/thick disk population, or a bulge-disk transition component. Another possibility is to associate this intermediate age component to a possible bar system in the central parts of the Galaxy (Blitz and Spergel, 1991). This latter possibility is supported

by the fact that an important fraction of the stellar populations in the LMC bar are of intermediate age (Bica et al., 1992).

More fields at different latitudes and longitudes across the bulge would be of great interest to reveal the spatial distribution and ages of stellar populations, in order to better understand the bulge-disk transition.

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