COLOR DISTRIBUTION OF GALAXIES IN THE CORE OF S0400

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September 16, 1991

S0400 is a cluster of galaxies of richness 1 and distance 6, morphologically classified as a regular Abell type. It is an X-ray source (Gioia et al. 1990). In October 1988, we observed S0400 with the ESO 3.6m telescope equipped with EFOSC. Spectroscopy of 4 galaxies yields a cluster redshift $z = 0.32$. *gri* photometry under 1 arcsec seeing conditions allowed us to classify all objects brighter than $m_r = 24$. Of the 224 galaxies detected in the $\sim$ 4x6 arcmin f.o.v., 193 have colors compatible with, or bluer than, the ones expected from synthesis models for E galaxies. These galaxies have been considered cluster members. The Figure shows their $g-r$ vs. $r-i$

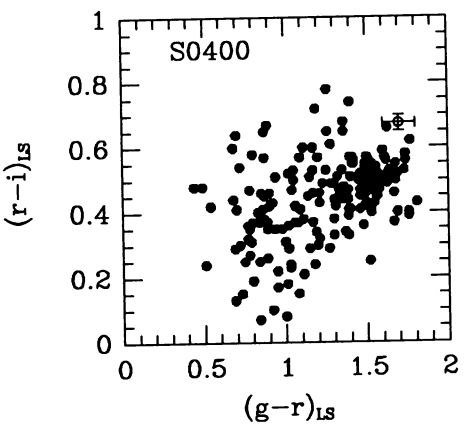

diagram (black dots). The cross represents the BCGs colors k-corrected to S0400 redshift (Schneider, Gunn & Hoessel 1983). Many objects (the cluster Es, including the BCG) clump around specific values of $g - r$ and $r - i$ which are bluer than expected provided the k-corrections are reliable enough. This could be interpreted as a sign of evolution in the E population of S0400.

References

Gioia, I.M. et al. 1990, ApJS, 72, 567
Schneider, D.P., Gunn, J.E., Hoessel, J.G. 1983, ApJ, 264, 337