

STRUCTURE AND COLORS OF DWARF ELLIPTICAL GALAXIES IN THE FORNAX CLUSTER

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CCD photometry in the Washington system [3] for a sample of dwarf elliptical galaxies in the Fornax cluster is presented. The observations were done in October 1989 with the CTIO 0.9 and 1.5m telescopes; the galaxies being selected from the Fornax Cluster Catalogue [4].

As for other samples of dEs [1,2,6,7], the surface brightness profiles, although roughly exponential, show a variety of shapes. Analytical fits of the form

$$SB = SB_0 + 1.086 \cdot (R/a)^N,$$

were done, where SB is the surface brightness in elliptical annuli and R is the equivalent radius. In a few cases, a "shoulder" is evident in the outskirts of the nucleus.

The color profiles show no meaningful gradients, but in most cases the nuclei are marginally bluer, as it would be expected if they are the result of the last star forming event.

Integrated ($C-T1$) colors of these dwarfs fall within the range covered by the globular clusters around the Fornax cluster galaxy NGC 1399 [5].

FCC	T1(tot)	(C-T1)	So(T1)	b/a
82	16.12	1.54	21.88	0.83
118	17.10	1.43	22.77	0.85
135	15.73	1.46	20.73	0.51
188	15.33	1.56	21.46	0.93
195	16.44	1.50	21.69	0.59
203	15.23	1.59	20.83	0.54
314	15.62	1.49	22.63	0.92

Columns 1: Fornax Cluster Catalogue number (see [4]). 2: T1 integrated magnitude. 3: (C-T1) integrated color. 4: Extrapolated central surface brightness, in mag/sqarsec 5: semiaxial ratio.

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