galaxies. This project is now extended to 1000 galaxies in Shapely-Ames catalogue. (Watanabe, M., Kodaira, K., and Okamura, S. 1982, Astrophys, J. Suppl., **50**, 1-22(I); Watanabe, M. 1983, Annals Tokyo Astron. Obs., **19**, 121-253(II); Okamura, S., Kodaira, K., and Watanabe, M. 1984, Astrophys. J., **280**, 7-14(III); Hamabe, M., Kodaira, K., Okamura, S., and Takase, B. 1979, Publ. Astron. Soc. Japan, **31**, 431-450(I); 1980, Publ. Astron. Soc. Japan, **32**, 197-212(II); Hamabe, M., and Okamura, S., 1982, Annals Tokyo Obs., **18**, 191-204(III); Hamabe, M. 1982, Publ. Astron. Soc. Japan, **34**, 423-447(IV); Wakamatsu, K., and Hamabe, M. 1984, Astrophys. J. Suppl., **56**, 283-294(V))

2-8. Galaxy Counts

There is cD type supergiant galaxy in some 25% of number of galaxy clusters. It is considered either a product of galaxy cannibalism or a seed galaxy formed before galaxy cluster is formed. In this context, it is interesting that there are cD galaxies which are found not in rich cluster of galaxies. Some 20,000 galaxies were counted in the 16 regions of 1 square degree taking each of those lonely cD galaxies at their center, and a detailed statistical procedure was applied to single out number of member galaxies attached to the central cD galaxy if any, which turn out to be only a few percent of field galaxies. To do that Schmidt plates were measured by PDS micro-densitometer, and image detection, star/galaxy separation, and magnitude calibration were carried out in computer. The member galaxies of the poor clusters shows nearly identical (composite) luminosity function form to that of rich clusters. It seems that the result favors to the adiabatic theory which expects seed galaxy. (Yamagata, T. 1986, Annals Tokyo Astron. Obs., accepted)

3. Conclusions

Astronomy is an international science in nature. Every one who is interested in doing astronomical research with the Kiso Observatory is welcome to write to us, and it will be considered seriously by all staff members and visiting atronomers of the Observatory.

＜研 究 論 文＞

Distance and Radius of the Dwarf Cepheid XX Cygni

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Photometric (BVR) observations of dwarf cepheid XX Cygni are described. The Surface-Brightness method has been combined with new BVR and uvbyβ photometry to derive a distance and radius for XX Cygni by using both $F_v-(V-R)_0$ and $F_v-(b-y)_0$ relationships. It was found that the $F_v-(b-y)_0$ relation is preferred to the $F_v-(V-R)_0$ relation. A radius of 2.8 $R_\odot$ and a distance of 1080 pc have been determined for XX Cygni.

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