MULTICOLOR PHOTOMETRY OF GEOSYNCHRONOUS SATELLITES AND APPLICATION ON FEATURE RECOGNITION

X.F. Zhao, H.Y. Zhang, Y. Yu, Y.D. Mao

Shanghai Astronomical Observatory, Chinese Academy of Sciences, Shanghai, China

zhaoxiaofen@shao.ac.cn

Multicolor photometric observations of Geosynchronous Earth Orbit (GEO) cluster have been performed experimentally using the Schmidt telescope at Xing-long Observatory of National Astronomical Observatories, Chinese Academy of Sciences. The data are reduced and the results are analyzed. Compared the 4 satellites, it is concluded that there are significant differences between the intensity curves (color indices) of satellites with different bus types. And the curves of each satellite observed during 2 nights are extremely similar. The correlation coefficients are also evaluated to quantify the differences. The results indicate that multicolor photometric characteristic of GEO satellites may be one possible method of feature recognition.