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AST

- Argue for the relative merits of using a star cluster or a random star field to carry out a study of stellar properties from digital images.

Star cluster relatively have the similar distance from earth, they also appear to have similar age. Since they potentially related to each other, they are good to observing for stellar revolution. While for random field, we can see some far-distanced star. We can also locate the relative distance between all the stars appeared on the digital image.

- When two filters are used to image the same region, what new information do you see? Are there differences in this information between the cluster RGC 224 and the random star field? Do you see any patterns?

 $B(\sim450 \text{ nm})$ has slightly more intensity in luminosity than $V(\sim550 \text{ nm})$ for both images. There are some difference between the cluster RGC 224 and the random star field. The difference in cluster is more obvious than in random star field. Moreover, the number of stars in B is slightly more than in V for both images.