

A massive young cluster in the Outer Galaxy

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Abstract

We present the results of our investigation of the reddened open cluster Berkeley 51. We find an important population of yellow and red supergiant stars. Multi-object spectroscopy with GTC/OSIRIS reveals a population of B-type stars, with a main-sequence extending up to B3 V. With a combination of spectroscopy and photometry, we determine an age around 35 Ma and a distance probably compatible with the Perseus Arm in this direction. The large population of supergiants suggests a rather massive cluster, confirming that this kind of young massive clusters are much more frequent in the Milky Way than envisaged only a few years ago.