

Poster

The distance to the irregular galaxy Cassiopeia 1

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Based on archival images of the Hubble Space Telescope, stellar photometry of the dwarf irregular galaxy Cassiopeia 1 (Cas1) located in the Milky Way zone was carried out. Measurements of the distance to the galaxy, obtained by other authors showed values from 0.7 to 5.2 Mpc. On the obtained Hertzsprung-Ressel diagram, we identified all types of stars and a branch of red giants, which was used to determine the distance using the TRGB method. The calculated values $D=1.6\pm 0.1$ Mpc and $MV = -14.2$ indicate that Cas1 is located near the Local Group and is isolated from other galaxies. The measurement showed that the red giants of this galaxy have a very low metallicity ($[Fe/H] = -2.8$).