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DETERMINATION METHODS OF THE DISTANCE TO NOVAE

Abstract

The explosion of NOVAE considers one of the most interesting astronomical events. In the scientific work that is under review, distances to NOVAE were determined by 2 different types, Sct 2017 and Nova Per 2020, it means, by photometric and spectroscopic methods. Part of the spectra of observed stars were obtained at the 2-meter telescope of Shamakhi Astrophysical Observatory, and others were taken from the ESO and ARAS Databases. Photometric observation materials are taken from the AAVSO database. Based on the time, according to the luminosity curve it takes for NOVAE to decrease in apparent magnitude to 2 and 3 magnitudes have been determined the absolute stellar magnitudes of both Novae: $M_V = -7,56m$ for Sct2017, $M_V = -7,47m$ for Nova Per2020. *DI* lines in the spectra of stars are considered distance indicators. The V extension is set to: $E(B-V) = 0.86$ for Sct2017 and $E(B-V) = 0.87$ for Nova Per2020. Based on these are determined the distances: $d = 4.5kps$ for Sct2017, $d = 3.2kps$ for Nova Per2020.