A new classification scheme for B-type stars.

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Abstract

The criteria for spectral classification of B-type stars were established almost 80 years ago from low-resolution spectra on photographic plates. Since Hipparcos measured accurate distances for nearby stars, it has been clear that, although sound in general terms, the current set of MK standard stars in the B range has many inconsistencies, with luminosity class not always reflecting the actual intrinsic brightness of an object. As part of the efforts to build the IACOB database of high-quality, high-resolution spectra of OB stars, we have gathered the largest existing collection of spectra of B-type MK standards. We have developed a new classification scheme, based on high-S/N spectra at resolving power $R = 4000$, that solves most of the inconsistencies of the original system. The result is a new list of standard stars that will be used for a catalogue in the Gaia RVS spectral range.

(See poster)