N25a The brightness increase of the Be stars viewed in the infrared

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Massive stars are one of the important test lab on how the material behave in extreme physical situations. As fast rotators, the material in their equator may be ejected from the surface of the star to interstellar medium, forming a so-called decretion disk. Current models shows that the star, when developing a decretion disk, would be brighter in a time span of a year in the optical and infrared when the disk is seen face-on, but be fainter in the optical and brighter in the infrared when seen edge-on. Long term optical and IR photometry on fast-rotating massive stars are useful for modeling the decretion disks, determining their inclination and understanding the mechanism which trigger the creation of the disks. However, most of the previous studies only focused on one optical band, and usually on one star. Here we report the long-term variation of $\sim$200 massive stars in the infrared, using the epoch photometry from the WISE satellite. Combining the IR photometry with optical ones such as ASAS-SN, we find that there are three main classes of long-term variations, and one of them corresponds to the creation of decretion disk. We also confirm that the W1-W2 color is a key parameter for separating the stars with and without decretion disk, and we expect that the sample of massive stars with decretion disk will be more complete after using W1-W2 as a searching criteria.