

We consider the use of conditional entropy methods to detect the periods of variable stars. We apply this method to the almost 20,000 Cepheids and RR Lyrae stars in the OGLE III database. Such pulsating stars are very important for establishing the size and age scales in the Universe and the accurate detection of the period is a crucial step. The Conditional Entropy method produces results in very good agreement with existing methods such as Lomb-Scargle, but there are some differences, particularly at short periods. We discuss these differences, mostly in multimodal stars and comment on avenues for future research.