STATISTICS OF PULSATING VARIABLES

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Abstract. Classification of pulsating variables is based on a number of properties but the most important of them are the period and amplitude of the light variation. These quantities also play an important role in understanding the evolutionary status of the pulsating stars since the pulsation period is related to the mass and radius through the period--mean density relation while the amplitude of the light curve characterizes the efficiency of the mechanism responsible for the pulsational instability. In the present study we considered the period--frequency and light amplitude--frequency distributions for ten types of the most numerous pulsating variables from the fourth edition of the General Catalogue of Variable Stars. The following types of pulsating variables were considered: DSCT, DSCTC, DCEP, RR, RRAB, RRC, CWA, CWB, RV and M. Using these distributions we estimated the upper and lower limits of the period and light amplitude within which 95% and 99% of the pulsating stars of a given type are contained.