Multipassband photometric mapping of three fast rotating stars: HII 1883, AP 86 and AP 226

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Abstract

© 2014 COSPAR. The analysis of multipassband photometry was carried out for three rapidly rotating stars: HII 1883, AP 86 and AP 226. Two different approaches were used for starspot mapping. In the first approach the stellar spottedness is approximated by set of circular spots. Spot parameters (coordinates of the spot center, radius and temperature) are searched by fitting of observed light curves. The idea of the second approach is consisted in partition of the stellar surface into small areas. Searching of the temperature distribution is carried out by the fitting of the observed light curves. Stellar atmosphere theory was used for modeling of the theoretical light curves in both techniques.

Keywords

Light curve modeling, Spotted stars, Stellar activity