

Talk at Splinter Meeting

Splinter I

SPECTRAL DECOMPOSITION OF HOT SUBDWARF BINARIES

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We present a status report of our spectroscopic analysis of subdwarf binaries consisting of a subdwarf and a G/F-type main-sequence companion. These systems show significant excess in the infrared. As input, we use data provided by the SDSS and BOSS spectrographs. Standard stellar spectrum model grids as well as a non-LTE subdwarf grid allow us to decompose the spectrum of a binary system and hence find the contribution of each star to the combined flux. In order to obtain the best fitting combination of parameters of both stars we use a standard Chi-square fitting routine. The analysis reveals T_{eff} , $\log g$ and the metal abundance for each single star and the relative radial velocity of both components. The long-term goal is to study technical possibilities in the spectroscopy of multiple-star systems and the development of a fast method for their decomposition, which will then be applied to a large amount of stars.