Talk at Splinter Meeting

Splinter I

Spectral energy distributions of binary sdB stars

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We analysed a sample of 142 short-period binary sdB stars using photometric measurements. For the entire sample atmospheric parameters, distances, mass functions and radial velocity curves of the sdB are available from a previous study (Kupfer et al.) Since the inclination of most of the systems is unknown the nature of the companion remained unclear.

In order to set further constrains to the nature of the companion, we constructed spectral energy distributions (SED) from the UV to the thermal infrared and matched them to synthetic ones from model atmospheres to look for excesses in the infrared, which might indicate the presence a cool main-sequence companion. In addition, the SEDs allow a consistency check of atmospheric parameters from quantitative spectroscopy and to derive distances and interstellar reddening.