Extracting diffuse interstellar bands from cool star spectra

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Diffuse interstellar bands (DIBs) are usually extracted from early-type star spectra because of the smooth continua. However this limits not only the number of the available targets but also the potential of the use of interstellar absorptions for cloud mapping. We have developed an automated fitting method to interstellar absorptions in cool star spectra. Most stellar spectra could be reproduced well by the composite stellar, atmospheric, and interstellar models. We have applied this method to the extraction of a few DIBs, including the 8620 Å "GAIA" DIB, in different fields. The results demonstrate the feasibility of the method of DIB extraction in cool star spectra, based on synthetic stellar spectra. DIB measurements and local DIB-extinction calibration can provide rough, first-order estimates of the extinction towards distant targets.