Stellar atmospheric parameters of FGK-type stars from high-resolution optical and near-infrared CARMENES spectra.

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Stellar atmospheric parameters of FGK-type stars from CARMENES spectra

Abstract

With the aim of using classic spectroscopic methods with high resolution and high signal-to-noise ratio in the NIR spectral window, we made a selection of 66 FGK-type stars observed with CARMENES, the brand-new, ultra-stable, double-channel spectrograph at the Spanish-German 3.5m Calar Alto telescope. These spectra are part of a CARMENES stellar library. We applied the equivalent width method to derive the spectroscopic stellar parameters ($T_{\text{eff}}$, log $g$, $\xi_{\text{micro}}$, and [Fe/H]) using the StePar code along with four new iron line lists covering the whole CARMENES spectral range (550 - 1700 nm). [See poster]

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