Comparisons between Observed and Computed Visible and Near-UV Spectra of Vega

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By using the Synspec program with different LTE and NLTE atmospheric models of Alpha Lyrae (Vega, spectral type A0V), we obtain different emitted fluxes. Taking into account the distance from Hipparcos, it is obtained the spectrum that would be observed from Earth for each model. This spectrum is compared with UV calibrations from the IUE and UARS satellites and visible ground-based observations. Absolute fluxes from the SOLSTICE experiment onboard UARS provide an independent source to assess the quality of the available data. The main goal of this work is to better understand and solve the controversy about the missing opacity problem in the UV. This is just the first step in that direction.