

FLUX CALIBRATION AND BALMER LINE SHAPES

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Flux calibration of common photometric systems such as *SDSS* & *Pan-STARRS* depends on synthetic white dwarf photometry and fits to Balmer lines of white dwarf standards. However, fundamental parameters ($\log g$ & T_{eff}) of white dwarf stars derived from Balmer line fits show systematic discrepancies from those derived from fits to broadband photometry and *Gaia* parallax, and the results differ depending on the survey and photometric bands used. Motivated by these inconsistencies, we demonstrate a method for recalibrating photometric systems that is independent of Balmer line fits and discuss how we can use these results to better understand model discrepancies. Furthermore, we discuss these results in the context of our measurements of Balmer lines in the laboratory.