

Contributed Talk

Splinter HotStars

AN IN-DEPTH LOOK INTO THE EARLIEST O-TYPE GALACTIC BINARY,  
HD 93129A

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Massive stars are the key drivers of the cosmic chemical evolution, their properties and evolution are therefore of great interest. In the Carina Nebula, we find the extremely early-type star system HD 93129A, which acted as the prototype for its own spectral class O2 If\* while it was still considered as a single star. The later revelation as a multiple system overthrows the entire classification of this system. Applying newly obtained high-resolution spectra covering the UV, optical, and NIR, I performed the first spectral analysis of this system that accounts for the binary character consistently across the entire spectral range. The spectral analysis made use of the Potsdam Wolf-Rayet (PoWR) model atmospheres. PoWR is a state-of-the-art code for expanding stellar atmospheres. In my talk I will present the results of this analysis, the synthetically disentangled spectra, and address the consequences and implications of the newly derived stellar parameters, e.g. for the system's stellar feedback and its evolutionary status.