The WR population predicted by massive single star and by massive binary evolution

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We discuss differences between massive single star and massive close binary population number synthesis predictions of WR stars. We show that the WC/WN number ratio as function of metallicity depends significantly on whether or not binaries are included. Furthermore, the observed WC(+OB)/WN(+OB) number ratio in the Solar neighborhood seems to indicate that the WR mass loss rates are lower by another factor two compared to recently proposed clumping corrected formalisms. We then demonstrate that the observed lower luminosity distribution of single WN stars can be explained in a satisfactory way by massive single star evolutionary computations where the red supergiant phase is calculated using a stellar wind mass loss rate formalism that is based on recent observations.

Status: Manuscript has been accepted

Weblink: astro-ph/0703796

Comments:

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