

Hot-star wind models with magnetically split line blanketing

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Fraction of hot stars possess strong magnetic fields that channel their radiatively driven outflows. We study the influence of line splitting in the magnetic field (Zeeman effect) on the wind properties. We use our own global wind code with radiative transfer in the comoving frame to understand the influence of the Zeeman splitting on the line force. We show that the Zeeman splitting has a negligible influence on the line force for magnetic fields that are weaker than about 100-kG. This means that the wind mass-loss rates and terminal velocities are not affected by the magnetic line splitting for magnetic fields as are typically found on the surface of nondegenerate stars. Neither have we found any strong flux variability that would be due to the magnetically split line blanketing.

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Comments:

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