On the treatment of line blanketing in O star atmospheres

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Inclusion of blanketing in non-LTE spherically expanding atmosphere models is crucial to improve our knowledge of massive stars. The treatment of numerous spectral lines and the velocity field renders this a difficult task requiring approximations (e.g. opacity sampling, super-levels).

In the present contribution we examine the importance of various effects that can influence the treatment of blanketing in a comoving frame code (CMFGEN, Hillier & Miller 1998): choice of the frequency grid to resolve each line, line broadening by microturbulence, etc. The influence of the atmospheric structure in the photosphere-wind transition region on the populations and the emergent spectrum are also discussed.

Last, but not least, the CMFGEN models are compared with results from CoStar (Schaerer & de Koter 1997), and other recent O star atmospheres.