In stellar atmosphere modeling, the effect of rotation is often implemented as rotational broadening applied on top of a non-rotating synthetic spectrum. However, this approach does not work for fast rotators (\(v_\text{rot} > 200 \text{ km/s}\)), where gravity darkening starts to be prominent. The need for this correction is significant for the main-sequence stars hotter than F7-type. We currently work on a new model atmosphere grid for A- and B-type main sequence stars. The parameter space is extended for equatorial velocity and inclination to provide synthetic spectra and colors corrected for gravity darkening. The model atmosphere grid is calculated using an innovative HPC pipeline developed on top of Red Hat® OpenShift® Container Platform.

The gravity-darkening effect alters not only the spectral energy distribution in the continuum but also the shape of spectral line profiles, as shown by Maeder & Peytremann (1970). The gravity-darkening effect alters not only the spectral energy distribution in the continuum but also the shape of spectral line profiles, as shown by Maeder & Peytremann (1970). The gravity-darkening effect alters not only the spectral energy distribution in the continuum but also the shape of spectral line profiles, as shown by Maeder & Peytremann (1970). The gravity-darkening effect alters not only the spectral energy distribution in the continuum but also the shape of spectral line profiles, as shown by Maeder & Peytremann (1970). The gravity-darkening effect alters not only the spectral energy distribution in the continuum but also the shape of spectral line profiles, as shown by Maeder & Peytremann (1970). The gravity-darkening effect alters not only the spectral energy distribution in the continuum but also the shape of spectral line profiles, as shown by Maeder & Peytremann (1970). The gravity-darkening effect alters not only the spectral energy distribution in the continuum but also the shape of spectral line profiles, as shown by Maeder & Peytremann (1970). The gravity-darkening effect alters not only the spectral energy distribution in the continuum but also the shape of spectral line profiles, as shown by Maeder & Peytremann (1970). The gravity-darkening effect alters not only the spectral energy distribution in the continuum but also the shape of spectral line profiles, as shown by Maeder & Peytremann (1970). The gravity-darkening effect alters not only the spectral energy distribution in the continuum but also the shape of spectral line profiles, as shown by Maeder & Peytremann (1970). The gravity-darkening effect alters not only the spectral energy distribution in the continuum but also the shape of spectral line profiles, as shown by Maeder & Peytremann (1970). The gravity-darkening effect alters not only the spectral energy distribution in the continuum but also the shape of spectral line profiles, as shown by Maeder & Peytremann (1970). The gravity-darkening effect alters not only the spectral energy distribution in the continuum but also the shape of spectral line profiles, as shown by Maeder & Peytremann (1970). The gravity-darkening effect alters not only the spectral energy distribution in the continuum but also the shape of spectral line profiles, as shown by Maeder & Peytremann (1970). The gravity-darkening effect alters not only the spectral energy distribution in the continuum but also the shape of spectral line profiles, as shown by Maeder & Peytremann (1970). The gravity-darkening effect alters not only the spectral energy distribution in the continuum but also the shape of spectral line profiles, as shown by Maeder & Peytremann (1970). The gravity-darkening effect alters not only the spectral energy distribution in the continuum but also the shape of spectral line profiles, as shown by Maeder & Peytremann (1970). The gravity-darkening effect alters not only the spectral energy distribution in the continuum but also the shape of spectral line profiles, as shown by Maeder & Peytremann (1970). The gravity-darkening effect alters not only the spectral energy distribution in the continuum but also the shape of spectral line profiles, as shown by Maeder & Peytremann (1970). The gravity-darkening effect alters not only the spectral energy distribution in the continuum but also the shape of spectral line profiles, as shown by Maeder & Peytremann (1970).