



### Revisions for PrOpacEOS 10.0.0

- Several significant changes in physics modules have been implemented. For more information on the models please refer to an appendix in the documentation titled "Physics Models Improvements April 2024"
  - Photon energy grid refinement for both photo-absorption and spectral modeling.
  - Continuum lowering model avoids destroying transitions just below the ionization threshold.
  - Including more line wings in bound-bound emissivities.
  - Extrapolation of photo-ionization cross sections below depressed ionization potential.
  - Automatic adjustment of time steps for non-local time dependent population solver.
- Improved binning algorithms for computing Planck and Rosseland averages at high values of  $h\nu/kT$ .