

- <https://gitlab.nublado.org/cloudy/cloudy/-/wikis/home>
  - (1) Read the above website and Download the cloudy source code (version 23.01)
  - (2) Compile and Install the code
  - (3) Install the stellar atmosphere grids (Atlas, Tlusty, WMbasic)
  - (4) Go to the test suite directory “tsuite/auto.” Copy “h\_otspp.in” and “h\_otssp.in” into your own directories. Run the two models. (The purposes of the test suite models are explained at the end of the input file.)
  - (5) Plot temperature, heating, H density, electron density, H I fraction, and H II fraction as functions of radius or depth. Ensure correct physical units are labeled on the  $x$ - and  $y$ -axes. Please plot radius or depth in units of parsec (pc).
  - (6) Explain the differences between the two models.

To learn about the meanings of the input parameters and output file contents, read “hazy1.pdf” under the directory “docs”