

## mini-lab 1: Tc vs T in PMS models

- download *work\_pms\_minilab1.zip*
- unzip in a good place
- run *./mk*
- edit *inlist* to point to *inlist\_create\_pms*
- edit *inlist\_create\_pms* to create a starting model with a mass of:
  - your birthday date = 1-8, do 0.05M<sub>o</sub>
  - your birthday date = 9-16, do 0.06M<sub>o</sub>
  - your birthday date = 17-24, do 0.07M<sub>o</sub>
  - your birthday date = 25-31, do 0.10M<sub>o</sub>
- you'll need to specify the mass itself, and the output model filename to match the mass, in the obvious places in *inlist\_create\_pms*

## mini-lab 1: Tc vs T in PMS models

- edit *inlist* to point to *inlist\_evolve*
- edit *inlist\_evolve* to point to the starting model you just made
- run *star* via *./rn*
- watch the output whiz by
- the file *LOGS\_pms\_\_minilab1/history.data* contains what you need to plot log Tc vs log age - the header of the file lists the history columns
- Look at your plot. Add horizontal lines at the expected burning temperatures of Li, <sup>2</sup>H, and H.
- Does your model eventually burn Li? <sup>2</sup>H? Hydrogen?
- Send your results as a two-column simple text file (column 1 = age, column 2 = log Tc) to Chris (Chris [cmankovich@ucsc.edu](mailto:cmankovich@ucsc.edu)) who will magically produce a nice plot