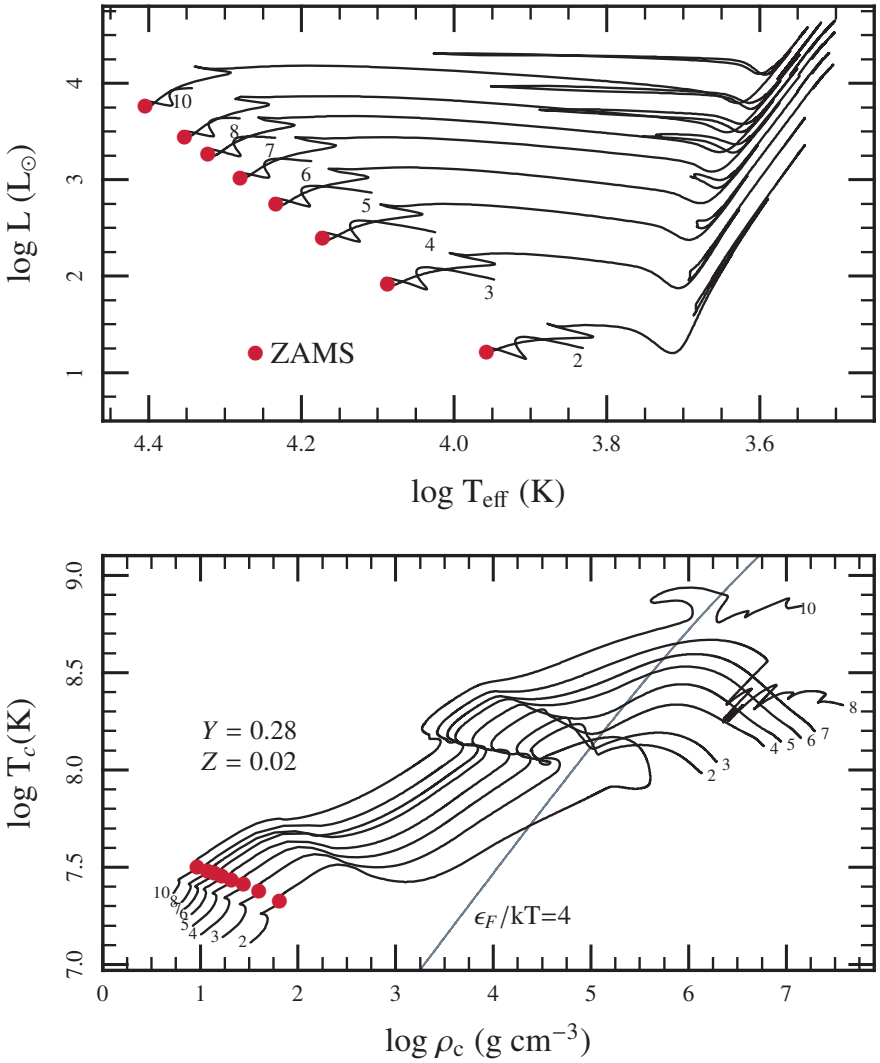

Fig. 21.— Top: `MESA star` H-R diagram for 2-10 $M_\odot$ models from the pre-main sequence to the end of the thermally pulsating AGB. Bottom: trajectories of the central conditions. The filled red points show the ZAMS.

We start by showing in Figure 21 a grid of `MESA star` evolutionary tracks with masses ranging from 2 to $10M_\odot$ with $Z = 0.02$. The top panel shows the evolution in the H-R diagram while the bottom panel shows the evolution in the $T_c - \rho_c$ diagram. The 8 and $10M_\odot$ models start to ignite carbon burning off center, whereas the $2-7M_\odot$ models produce C/O white dwarfs. The lack of a complete treatment in `MESA star` of liquid diffusion inhibits our ability to verify the resulting white dwarf cooling sequences from `MESA star` at this time.