$M = 2.0 M_{\odot}$  X = 0.70 Z = 0.03  $\gamma = 1.67$ 4 ×10<sup>30</sup> (a) mass (b) mass density 15000 3  $^{6}$  [kg/m $^{3}$ ]  $^{2}$  5000 M [kg] 1 0 0 0.2 0.6 0.6 0.4 8.0 0.2 0.4 0.8 0 0  $r/R_s$  [-]  $r/R_s[-]$ 3 ×10 15 15 ×10<sup>6</sup> (c) pressure (d) temperature 10 P [Pa] ĭ ∑ 5 0 0 0.2 0 0.4 0.6 8.0 0 0.2 0.4 0.6 0.8  $r/R_s$  [-]  $r/R_s$  [-] (e) luminosity (f) opacity  $\times 10^{27}$ 0 4.7  $\log \kappa \text{ [m}^2/\text{kg]}$ 4.6 <del>-</del> 0 -3 0.2 0.4 0.6 8.0 0.2 0.4 0.6 0.8 1 0  $r/R_s$  [-]  $r/R_s$  [-]