

STELLAR PHYSICS

Homework 9 : due Thursday April 21, 5pm to Alireza Mortazavi's mailbox

1. Satisfy yourself that the conditions in the solar core are such that the $p - p$ chain dominates: write down the typical temperature, and compare to the hand-out showing the rate of energy released by the $p - p$ chain and the CNO cycle.
2. Problem 5.1 of Phillips' textbook.
3. Problem 5.2 of Phillips' textbook, only as far as the derivation of the four scaling relations for $P(r)$, $T(r)$, $L_{rad}(r)$ and $L_{fus}(r)$.