

Interacting binary stars

Problem 3.

How much mass per time must a main sequence star of $1M_{sun}$ accrete in order for its luminosity to equal that of the Sun? Compare it with the accretion rate onto a WD with the same mass.

Problem 4.

Write down the accretion disk's relative thickness as a function of the accretor's mass, the mass flow rate, and the disk's inner and outer radii (assuming that an average effective temperature applies everywhere in the disk), and discuss the influences of the different quantities onto the relative thickness.