

Intro to Galaxies & AGN

Examples 8 : due Friday April 18, 12noon to Kuang-Han Huang's mailbox

1. Starting from the steepest and shallowest density profiles possible, show that one usually expects that the angular frequency of gas in circular orbits does NOT increase with radius.
2. Express the relation in CO equation (25.11) as a power-law relationship of the form $L_B \propto R_{25}^n$ and derive a value for the power-law index n . Is it a good approximation to say that all galaxies have the same mean (or central, as on page 955) surface brightness?