

- Try it yourself:
 - at what velocity do we find the peak of the MB distribution?
 - what is the root-mean-square velocity of the MB distribution?
 - how do we interpret the difference?
 - estimate the fraction of hydrogen atoms with speeds between 20 and 25 km/s if the temperature of gas is 10,000K.
- The Boltzmann equation
- Try it yourself:
 - at what temperature will a gas of neutral hydrogen atoms have the same number of electrons in ground state(s) and first excited state(s)?
- The Saha equation
- Try it yourself:
 - at what temperature will hydrogen gas be half-ionized?
- Combining the Boltzmann and Saha equations