Summary of lecture 21

- Spectral energy density for a photon gas (<u>Planck Formula</u>):

$$u(\omega) = \frac{\hbar\omega^3}{\pi^2 c^3 (\exp(\hbar\omega/k_B T) - 1)}$$

- Entropy of a photon gas:

$$S = \frac{4U}{3T}$$

- Pressure exherted ("equation of state"):

$$PV = \frac{U}{3}$$

- Cosmic Microwave Background Radiation