PROBLEM SET 5

Oct. 25 Colloquium: “Imaging the Embryonic Universe”

Prof. Andrew Lange, California Institute of Technology

3:30 pm, 101 Rowland Hall


5. Eisberg and Resnick problem 12.22(a).

6. How does the transition temperature $T_C$ depend on the number of particles $N$ if $E = pc$ for Bose condensation? (Hint: You don’t have to evaluate any integrals. Just try scaling, i.e., make the variables in the integral dimensionless. Your answer should be of the form $T_C \sim N^\alpha$. Find $\alpha$.)