

Problem#5'

Continue with the actual calculation of the double integrals required for calculating the expectation value of a two-body central Yukawa interaction in the Fermi-Gas ground state.

Problem#6

Calculate the specific heat (constant volume) of the homogeneous bose gas and obtain the discontinuity of the slope. Consult Ref.1 of the notes for relevant details.

Problem#7

Obtain the density of states given by Eq.(293).

Problem#8

Check in detail Eq.(352).

We will discuss these calculations (5',6, and 7) during the meeting on Monday, September 25, at 3pm.