

Problem Set 5

Due date: Friday, February 20, 6PM.

You may bring your homeworks to class or drop them in my mailbox in front of the Physics Department office by 6PM. No late homework will be considered.

1) Jackson Problem 10.2

This problem can be solved in a lengthy way using the methods of Ch. 10.1, or in a more elegant, fast manner using Ch.10.4.

2) Problem 10.3

3) Problem 10.8

4) Problem 10.9a

This is a nice exercise on the Born approximation, providing also some insight into the behavior of media near the critical point (see critical opalescence).