

PHYS3220 – Spring 11 – Homeworks

by Andreas Becker (Dep. of Physics, University of Colorado)

I have taught PHYS3220 in Fall 09 and Spring 11. I reused much of the material from Fall 09, below I give some comments about changes.

HW1: Standard CU-Intro HW. I added problem 2b) (calculation of determinant), 3 (basis of vector space) as well as in 5b the part about the limits.

HW2: Topics of all problems have been used before. But, in particular, in problems 1 and 2 more emphasis is now put on the physical interpretation than the previous versions.

HW3: All problems have been used before (slightly reformulated)

HW4: All topics/problems have been used before (slightly reformulated), but problems 2a) and 3b) are added.

HW5: Problems 1 and 3 are new (special emphasis on Fourier's trick, general treatment in 1), example in 3)). The rest has been used before.

HW6: All problems have been used before. The way of derivation between problems 2 and 3 is reversed as in previous versions.

HW7: Except for problem 1a), the rest is new. Special emphasis on current density, which usually is a difficult concept for the students. Also, I did a quick intro on WKB this time.

HW8: Problem 2 is new. In problem 3 parts d) and e) are added. Problem 4 is taken from an earlier semester at CU.

HW9: Problems 2 c) and d) as well as problem 3 are new.

HW10: All problems have been used before.

HW11: All problems have been used before.

HW12: I have not used this problem before, but it is taken from an earlier semester at CU.