

Bonus Homework

Phys 139A, Spring 2008, UCSC

Due June 6, 1 pm (no late submissions)

Feel free to submit your solutions to these problems, or any part thereof. Scores that you earn on these problems will be bonuses on top of your normal scores on homeworks and quizzes. However, your total score on quizzes and homeworks, including this bonus homework, will not be greater than the sum of perfect scores on normal homeworks and quizzes.

This bonus homework is intended to serve as a practice exam (1, 3), get across essential physics (2), and give you a chance to make up for any anomaly in the past history of your homework or quiz scores.

Please note that the due date, June 6, 1 pm, will be *strictly enforced* for this homework, and no later submissions will be accepted.

1. [20 points; Angular Momentum, Addition, Wavefunctions in 3d] Problem 4.55
2. [20 points; Separation of Variable for Two Interacting Bodies] Problem 5.1
3. [10 points; Wav Function for Fermions and Bosons] Problem 5.4