

Oberlin College Physics 110, Fall 2011

## Assignment 12

Wednesday, 30 November

This is the *last problem assignment* of the semester!

*Upcoming events:* The final exam will be held at 2:00–4:00 PM on Saturday, 18 December. There will be four questions concerning “old” topics like kinematics and energy. There will be four questions concerning “new” topics like rotation and relativity. I will distribute a detailed topic list and a sample final exam next Wednesday.

*Workshops:* The Wednesday–Thursday workshop for this week is “Puzzles and paradoxes of special relativity”, section 5.9 of the notes. (Be sure to answer the warm-up questions on pages 130–131 through BlackBoard as usual.) Most lab workshops in this course are “hands-on” as well as “minds-on”. Because of the difficulty of travel near the speed of light, this workshop will be “minds-on” only.

*Informal Friday:* This Friday, 2 December, Dan Stinebring will speak concerning “Detecting Gravity Waves using Pulsars”. The extra credit rule applies.

*Visiting speaker:* Terry Sheridan of Ohio Northern University will speak on Wednesday, 30 November at 4:35 PM in Wright 201, concerning “Symmetry-Breaking Transitions in Small Debye Clusters”. The extra credit rule applies.

*Problems:* Due Wednesday, 7 December. These problems come from the “Notes on Mechanics and Relativity,” pages 148–149.

- Problem 12: *Flushing out an error*
- Problem 13: *Interval*
- Problem 14:  *$K^0$  decay*
- Problem 15: *Velocity addition formula*
- Problem 16: *Relativistic energy and momentum, I*
- Problem 19: *Sticky particles*
- Problem 20: *Sticky particles and the classical limit*