

## **Lab Reports**

### **Phys 375**

1. Please remember to include
  - a. name
  - b. course section
2. In general the lab report has two parts:
  - 2a) The record of what you did in the lab, including notes on the apparatus, how you acquired data, and the raw data.
  - 2b) The second part is data analysis, including plots, extraction of the actual quantities to be measured, and uncertainty analysis. It should end with a discussion of ways to improve the measurement.
3. For each experiment include these items:
  - a. record of experiment (notes that you took in the lab, sketches, thoughts, etc.)
  - b. diagram of equipment and how it was used
  - c. notes on experiments tried
  - d. raw data
  - e. comments about experimental conditions/ discoveries
  - f. names of data files where data is stored
  - g. data analysis
  - h. plots of data
  - i. formulae used to extract measured quantities
  - j. uncertainty analysis
  - k. sources of error
  - l. methods of error assignment
  - m. uncertainty propagation
  - n. discussion of systematic vs. statistical errors
  - o. discussion of results
  - p. final results presented with uncertainty
  - q. identification of predominant source of uncertainty
  - r. discussion of ways to improve measurement
  - s. discussion of other possible measurements