

1 LRC Lab Report

Your lab exercise was to investigate the response of a series LRC circuit to a sinusoidal driving voltage. You are to report your findings and assess agreement with the model of an ideal of a driven damped oscillator. The form of the report is that of a scientific paper that you might publish in the *American Journal of Physics*.

Due Date: Final polished draft: Monday 4/24 10pm.

Main body should be about 1000-2000 words (excludes abstract, figures, captions, references, appendices).

- There should be good quality figures and tables that illustrate the methods, the observed data, graphs that compare the frequency dependence of the response function with the theoretical model.
- The story must be coherent, well-constructed, and interesting. The story should describe the figures and compare the frequency dependence of the response function with the theoretical model.
- The writing is audience appropriate. The audience is incoming juniors majoring in physics who do not know the experiment or the model, but are trained in introductory physics. The level of detail is enough to explain the most importance steps. You cannot derive the entire model in this paper, but neither can you simply refer them to another reference. Convince your audience that you are an authority.
- The writing is precise and accurate, properly punctuated and grammatically correct. It should be free of idioms and cultural references - you are writing for an international audience. (Please also indicate in an addendum following the paper which language is your native language.)
- The manuscript must contain these elements
 - Title
 - Author
 - Affiliation
 - Date
 - Abstract
 - Introduction
 - Theoretical model
 - Methods
 - Presentation of results Discussion & Assessment:
 - Conclusions/Summary
 - References
 - Acknowledgements

Please see guidelines for more details.