

Guidelines for PHY 6371 Project Report:

The Report is meant to approximate a full research paper on a research topic of your choice. The report can be arranged as you think appropriate, but the material should include coverage of the broad categories described below.

Initial Assignment: 5th week of semester

Abstract:

- ~300 words, 1 paragraph
- state the problem
- describe briefly motivation, unique experimental aspects of study
- 1-2 sentences on results

Motivation/Introduction/Theory:

- theory and experiment review, particularly of recent literature
- description of current state-of-the-art problem/question
- Why is it important?
- What is entailed in its study?
- How is the research of this paper going to address the problem
- Generally ~2 paragraphs for each component (eg. theory, experimental review, projected topic of paper)
- 3-4 pages double spaced, 2 pages single spaced. LaTeX preferred but not required
- format: 12 point, 1" margins

Optional: Methodology/Experiment/Apparatus/Experimental Technique:

- experimental design
- description of detectors, electronics, inputs to experiment
- anything that will contribute to the resultant data of the project
- either here or separate section
- Data selection
- data reduction
- additional 2 pages or more pages double spaced, 1 page single spaced

2nd Assignment: Mid-Term week

Variable Stars or Supernovae:

- # of sources to analyze – a table of known characteristics
- availability of data and readiness to analyze
- initial analysis step for 1 or more objects
- delta Scu – initial phasing 1 variable

- SNe – initial SNID and SYN++ analyses of 1 or more SN

3rd Assignment: week of Nov. 13th

Complete draft of paper, including:

Data:

- description of data relevant to the project
- what are biases/strengths of the data?
- What are the properties of the data? (eg. RA/dec, magnitude range, time coverage, etc.)

Results:

- describe analysis methods and results
- plots and tables to support or present results
- organize into logical steps – there are usually multiple elements to a research project analysis

Discussion: