

Physics 430 Long Paper Grading Rubric

This is the grading rubric I will use to grade your Long Paper for PHY 430. In each section you will receive a score of zero only if you make no attempt to that thing (i.e. you will receive a score of zero for the description of experiment 6 and its results if you do not describe experiment 6 or present the results of that experiment). Your grade on the assignment will be determined by the number of points you receive as a fraction of the 83 points you could have received.

Name: _____

Description of Experiment and Results (0-3 points for each experiment)

- 3** The setup and results of each experiment are described in sufficient detail so that the reader could easily replicate the experiment and check the results.
- 2** Either the setup or the results are not described in enough detail for the results to be checked.
- 1** Neither the setup nor the results are described in enough detail for the reader to make any sense of the experiment.

Analysis and Interpretation of Results (0-3 points for each experiment)

- 3** A clear interpretation of the results of the experiment is given, along with sufficient justification for that interpretation. All relevant questions have been fully addressed.
- 2** An interpretation for the experiment is stated, but not fully justified. Some questions related to the experiment may not have been properly answered.
- 1** Some attempt was made to interpret the experimental results, but no definite interpretation was given. Statements are made without any justification. Important questions related to the experiment are left unanswered.

Quality of Writing (0-5 points)

- 5** Writing is clear and concise, as well as easy to read.
- 3** Writing is hard to read in places and may ramble a bit. Ultimately the author's meaning comes through, but it takes a bit of effort on the part of the reader.
- 1** Writing is very difficult to comprehend. Sentences may be excessively convoluted or far too terse. Even with effort the reader cannot grasp what the author is trying to say.

Grammar and Spelling (0-5 points)

- 5** The paper is completely free of any errors in grammar or incorrect spelling.
- 3** There are a handful of grammar and spelling errors scattered throughout the paper.
- 1** The paper is filled with errors in spelling and grammar, to the extent that it is difficult to read.

Organization (0-5 points)

- 5** The paper is well organized with a clear introduction to the Stern-Gerlach experiment, paragraphs detailing each experiment and its results, and a conclusion that ties together the results of all of the experiments.
- 3** The paper has an introduction, paragraphs describing each experiment, and a conclusion. However, the introduction does not provide the appropriate background information for the Stern-Gerlach experiment and the conclusion does not effectively tie together the results of all of the experiments.
- 1** The paper is poorly organized with no clear introduction and conclusion. The descriptions of the experiments are jumbled together in a haphazard way.

Creativity (0-5 points)

- 5 The author's experiment 8 was very creative and provided additional insight that went well beyond the results of the first 7 experiments. In addition, the author's interpretation of the experimental results (of any of the experiments) evidenced creative thinking.
- 3 The author's experiment 8 was significantly different from the previous 7 experiments, but not particularly creative or insightful. The interpretation of experimental results shows only modest creativity.
- 1 The author's experiment 8 was only a minor modification of a previous experiment and no new insight is gained by the interpretation of its results. The interpretation of all experimental results hardly goes beyond a statement of the obvious.

Quality of Revisions (0-10 points)

- 10 The author made a significant effort to improve the paper after the first draft. All corrections that were suggested by the reviewers were incorporated unless inappropriate. All weaknesses of the original draft have been noticeably strengthened. In addition, the author has made improvements in the paper that were not directly suggested by the reviewers.
- 8 The author made a significant effort to improve the paper after the first draft. All corrections that were suggested by the reviewers were incorporated unless inappropriate. All weaknesses of the original draft that were noted by the reviewers have been noticeably strengthened.
- 6 The author made some effort to improve the paper after the first draft. Most of the corrections that were suggested by the reviewers were incorporated unless inappropriate. At least some of the weaknesses of the original draft have been strengthened.
- 4 The author made a minor effort to improve the paper after the first draft. Only the simplest of corrections suggested by the reviewers (such as grammar or spelling corrections and the like) were incorporated in the final version. The paper has been improved only on the surface, while the main weaknesses of the original draft remain uncorrected.
- 2 The author made some changes to the paper after the first draft, but these changes have not served to improve the paper and may have made it worse. The suggestions of the reviewers have been almost totally ignored.

Peer Evaluation (0-5 points)

- 5 The peer evaluation the author wrote was both clear and helpful. The suggestions made in the peer evaluation, if followed, will almost certainly improve the paper that was evaluated in a significant way.
- 3 The peer evaluation the author wrote was somewhat helpful. The suggestions should serve to improve the paper, but important weaknesses of the paper were left unmentioned. The suggestions for improving the paper may not have been completely clear.
- 1 The peer evaluation the author wrote was completely unhelpful. The weaknesses that are pointed out in the peer evaluation are not, in fact, weaknesses and no clear suggestions for improving the paper are given. Following the suggestions in the peer evaluation would actually make the paper worse.

Score Score for each item and composite score are listed below.

	Experiment								Total
	1	2	3	4	5	6	7	8	
Description and Results									
Analysis and Interpretation									
	Writing	Grammar	Organization	Creativity	Revisions	Peer Eval.	Overall Total		
Score									

Percentage Grade _____