

Grading Rubric for Papers in Physics 480W

The Matrix

Title: Resolving the hyperfine structure of rubidium (manuscript c).

Table 1: grading rubric: each evaluative category (row) is scored on a 3-2-1 basis. Each category is weighted (w , shown next to the category descriptor below) either 2, 1, or 1/2. The total number of points possible per row is then $3 \times w$, (i.e. 6pts are possible for row 1). There are 9 total rows, and 30 total points possible. The grades recorded will be, however, a score out of 100 arrived at by dividing the student's score by the total possible, etc., etc. Note that physics content accounts for 18/30 of the total, or 60% of the total grade. Grammar & composition, and formatting account for 40%.

	Proficient (3pts.)	Intermediate (2pts.)	Developing (1pt.)	total-whiff (0pts.)	Score
Physics Content, 18 pts. possible					
Correctness (w=3)			⊗		3
error analysis (w=2)			⊗		2
completeness (w=1)		⊗			2
Grammar & Composition, 9 pts. possible					
level of prose composition (w=1)			⊗		2
level of sentence syntax (w=1)		⊗			3
diction (w=1/2)		⊗			1
“Math as Prose” (w=1/2)		⊗			1
Formatting, 3 pts. possible					
L ^A T _E X formatting (w=1/2)		⊗			1
AIP formatting (w=1/2)				⊗	1

Comments: A few comments for the paper:

1. In abstract, include results of hyperfine ground state in Rb85 and Rb87
2. Include citations in introduction that explain how atomic spectroscopy is used in astronomy
3. Theory section: can a transition not occur from atomic collisions or from an electron hitting the atom? Clarify plz.
4. Check sentence structure. (Esp in doppler broadening section)
5. When you say 'theory states' or similiar please cite the literature
6. Include more error analysis in the results. Explain more on why error is what it is.
7. References should actually be cited in paper. DO NOT CITE ANY MANUALS OR LAB HANDOUTS!!!