

Grading Rubric for Papers in Physics 480W

The Matrix

Title of reviewed paper: Pulsed NMR in Mineral Oil and Glycerin

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)		⊗			6
error analysis (w=2)		⊗			4
completeness (w=1)			⊗		1
Grammar & Composition, 9 pts. possible					
level of prose composition (w=1)		⊗			2
level of sentence syntax (w=1)		⊗			2
diction (w=1/2)		⊗			1
“Math as Prose” (w=1/2)		⊗			1.0
Formatting, 3 pts. possible					
L ^A T _E X formatting (w=1/2)		⊗			1
AIP formatting (w=1/2)			⊗		0.5

Comments: Total pts: $\frac{18.5}{30} = 61.66\%$

Where is your abstract?!? Thats huge!
Using Pulsed NMR will bring the protons of each sample out of thermal equilibrium by using pulses of RF to observe different quantum properties of each sample.
Is an awkward sentence. Make sure your sentences make sense.
Equation 3 should have a comma. This is illustrated by BLAH, where...
You mention π and $\frac{\pi}{2}$ pulses in the T_1 section but I do not remember you defining what these pulses are. You define them later when describing the FID and T_2 but you should really define it before. And even then you dont really define what the π pulse is. You didnt mention the frequency or time necessary to make it a pi pulse.
Figure 5 looks to be your block diagram, however there are many components missing.
The second paragraph in experimental design has a lot of simple sentences that makes it difficult to read.
Did you define T_2^* ? You mention it in results but I didnt see the equation in the paper
In results T_{upper} needs to be T_{upper} . Contain upper within curly brackets in order to adjust the whole word.
When you do fractions, you might want to use the fraction command rather than `as` it can get a little messy. Get your data and put down the error you get. It was nice how you outlined how you got your uncertainty. Make sure you define all of your concepts. Explanations for the T times and pi pulse are a little lacking. Explain how exactly they are defined. Also explain how you got your results from the data. What do the graphs mean?