PHYS304 HW0

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This

1. ONE EQUATION

One of my favorite equations is

$$\hat{H} = \frac{\hat{\mathbf{p}}}{2m} + \frac{k}{2}\hat{\mathbf{x}}^2 \tag{1}$$

This is a Hamiltonian for a particle moving in a one-dimensional harmonic oscillator. The first term includes the momentum operator $\hat{\mathbf{p}}$, while the second term represents the potential of a symmetric harmonic oscillator $V(x) = (k/2)x^2$, where k is some spring constant and $\hat{\mathbf{x}}$ the position operator.

[Put introduction here.] We will cite one reference[1] and use one equation.

$$e^{i\pi} - 1 = 0 \tag{2}$$

What's not to love about Eq. 2.

2. EXPERIMENT

[Put experiment section with figure here.] Figure **??** shows an experimental figure.

3. RESULTS

[Put results here.] Table I shows a table.

TABLE I: [Put table caption here.]

	r_c (Å)	r_0 (Å)	κr_0		r_c (Å)	r_0 (Å)	κr_0
Cu	0.800	14.10	2.550	Sn[a]	0.680	1.870	3.700
Ag	0.990	15.90	2.710	Pb[a]	0.450	1.930	3.760
Tl	0.480	18.90	3.550				

[a]Here's the first, from Ref. [2].

4. CONCLUSIONS

[Put conclusions here.]

[1] J. P. Leslie C. Perelman and E. Barrett, *The Mayfield Handbook of Technical and Scientific Writing* (Mayfield, 1998), URL https://web.mit.edu/21.guide/www/home.htm.

[2] P. Bevington and D. Robinson, *Data Reduction and Error Analysis for the Physical Sciences* (McGraw-Hill, 2003).

[Don't forget you'll need to create a .bib file for your citations.

Appendix A: Comprehension Questions

[Put answers to comprehension questions here.]