Phys 295

Lab report template

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Abstract

This LaTeXdocument sets out the basic structure of a report. We will post the full sample report file after allowing time for the editing exercise. The full file includes examples of equation typesetting, figure placement, and sub-sectioning.

1. Introduction

Here are some citations to previous work [1] and other work [2].

2. Background/Theory

A simple equation to calculate mean is given by:

$$\overline{x} = \frac{\sum_{i=i}^{n} x_i}{n} \tag{1}$$

When introducing an equation, it is important to define the variables used. For example, it is unclear what n stands for in Eq. 1 (note: a reference to the above equation is made here).

3. Experimental Details

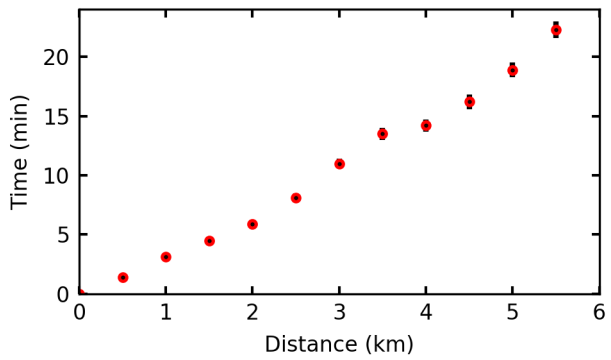

Figure 1. Measured time vs. distance for Lindsay's bike ride home one evening. Red points indicate measured times, with error bars indicating the estimated measurement uncertainty of each point (some error bars are smaller than marker size).

The apparatus used in the CVGT experiment is the remnant of a mercury manometer equipped with an air-filled glass bulb placed inside a copper canister (see Fig. 1).

4. Results and Analysis

Data is included in Table 1 provided in the Appendix section.

5. Discussion

6. Conclusion

7. Acknowledgements

References

[1] F. W. Dyson, A. S. Eddington, and C. Davidson, "Ix. a determination of the deflection of light by the sun's gravitational field, from observations made at the total eclipse of may 29, 1919," *Philosophical Transactions of the Royal Society of London. Series A, Containing Papers of a Mathematical or Physical Character*, vol. 220, no. 571-581, pp. 291–333, 1920. DOI: 10.1098/rsta.1920.0009. eprint: https://royalsocietypublishing.org/doi/pdf/10.1098/rsta.1920.0009. [Online]. Available: https://royalsocietypublishing.org/doi/abs/10.1098/rsta.1920.0009.

[2] B. P. Abbott et al., "Observation of gravitational waves from a binary black hole merger," *Phys. Rev. Lett.*, vol. 116, p. 061 102, 6 Feb. 2016. DOI: 10.1103/PhysRevLett.116.061102. [Online]. Available: https://link.aps.org/doi/10.1103/PhysRevLett.116.061102.

Appendix

Voltage (V)	Current (A)	Resistance (Ω)
V1	A1	R1
V2	A2	R2
V3	A3	R3

Table 1: Data table

For more help with Equations, Figures, and Tables, see:

- https://www.overleaf.com/learn/latex/Mathematical_expressions (accessed 04 Sept 2023)
- https://www.overleaf.com/learn/latex/Inserting_Images(accessed 04 Sept 2023)
- https://www.overleaf.com/learn/latex/Tables (accessed 04 Sept 2023).