### A Test of LaTeX

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#### 1 Abstract

This analysis combined data collected from multiple photmetric and spectroscopic observations and tecniques from decades of scientific papers[2][1] to create code that estimates the distance to the SN1987a-like supernova, SN2018hna. The analysis concludes that the derived distance, between 13-15 Mpcs, is within acceptable range of other estimates and confirms the accuracy of the data and method.

#### 2 Introduction

test ref [2]

# 3 Equations

#### 4 References

## References

- [1] Thomas A. Matthews and Allan R. Sandage. Optical Identification of 3C 48, 3C 196, and 3C 286 with Stellar Objects. *The Astrophysical Journal*, 138:30, July 1963. ADS Bibcode: 1963ApJ...138...30M.
- [2] R. C. Mitchell, B. Didier, S. Ganesh, K. Acharya, R. Khadka, and B. Silwal. Locating Type II-P Supernovae Using the Expanding Photosphere Method. I. Comparing Distances from Different Line Velocities. *The Astrophysical Journal*, 942:38, January 2023. ADS Bibcode: 2023ApJ...942...38M.