# Deep Reinforcement Learning to beat Atari games

### Ivan Bergonzani

June 24, 2018

#### Abstract

In this experiment we studied a very important physical effect by measuring the dependence of a quantity V of the quantity X for two different sample temperatures. Our experimental measurements confirmed the quadratic dependence  $V=kX^2$  predicted by Someone's first law. The value of the mystery parameter  $k=15.4\pm0.5$  s was extracted from the fit. This value is not consistent with the theoretically predicted  $k_{theory}=17.34$  s. We attribute this discrepancy to low efficiency of our V-detector.

# 1 Introduction

The very important physical effect has applications to astronomy, nuclear physics, condensed matter, and more.

## References

- [1] A. C. Melissinos and J. Napolitano, *Experiments in Modern Physics*, (Academic Press, New York, 2003).
- [2] N. Cyr, M. Têtu, and M. Breton, IEEE Trans. Instrum. Meas. 42, 640 (1993).
- [3] Expected value, available at http://en.wikipedia.org/wiki/Expected\_value.