## Sample Paper Using LaTeX

Maricella Velita

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#### Abstract

This is a sample template of an Academic Paper using LaTeX. In this paper, I will include sections, references, tables, figures, math expressions, and math equations. The purpose of this document is to demonstrate proper formatting.

## 1 Introduction

This introduction provides an overview of the academic paper. It outlines the structure of the paper, which includes various components.

At the end of this introduction, a roadmap is provided. Section 2 covers the Methods, Section 3 presents the results, and Section 4 concludes the paper with a discussion.

## 2 Methods

In this section, the main methods used in this research will be presented including two mathematical expressions and two mathematical equations.

### 2.1 Equations

$$\frac{d}{dx}\left(x^3 + 3x^2 + 2x\right) = 3x^2 + 6x + 2\tag{1}$$

Equation ?? represents the differentiation of a cubic function.

Here is an example of an integral equation:

$$\int_0^1 x^2 \, dx = \frac{1}{3} \tag{2}$$

Equation ?? shows the evaluation of the integral of  $x^2$  from 0 to 1.

## 2.2 Expressions

In-line math expressions are used within a sentence. Here are some examples: - The sum of two variables a + b. - A quadratic expression  $ax^2 + bx + c$ .

## 3 Results

This section demonstrates how to present the results in a LaTeX document. In this section, a table and figure will be presented to show the results of the research.

#### 3.1 Table

Statistic	Variable 1	Variable 2
Mean	10.5	7.8
Standard Deviation	2.3	1.5

Table 1: Summary Statistics for Variable 1 and Variable 2

As shown in Table ??, the mean and standard deviation for both variables are shown.

### 3.2 Figure

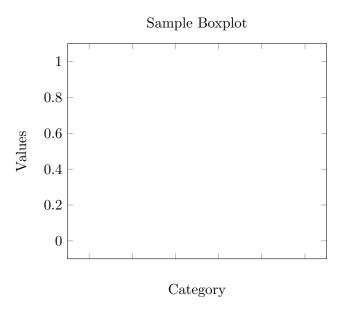


Figure 1: Boxplot for Sample Data

As shown in Figure ??, this boxplot shows the distribution of the sample data.

## 4 Conclusion

This paper went over how to write an Academic Statistics Paper using LaTeX.

# A Appendix

This is the appendix section of the paper.