Sample LaTeX Paper

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Abstract

This is a sample LaTeX document to demonstrate the functionality of our LaTeX web editor. This paper includes common mathematical notation, sections, and formatting elements typically found in academic papers.

1 Introduction

This is the introduction section. LaTeX is a high-quality typesetting system that is particularly well-suited for technical and scientific documentation.

2 Mathematical Equations

Here are some examples of mathematical notation:

2.1 Inline Math

The famous equation $E = mc^2$ demonstrates the relationship between energy and mass.

2.2 Display Math

The quadratic formula is:

$$x = \frac{-b \pm \sqrt{b^2 - 4ac}}{2a} \tag{1}$$

2.3 Matrix Example

A sample matrix:

$$A = \begin{pmatrix} 1 & 2 & 3 \\ 4 & 5 & 6 \\ 7 & 8 & 9 \end{pmatrix} \tag{2}$$

3 Lists

3.1 Itemized List

- First item

- Second item

- Third item

3.2 Enumerated List

1. First numbered item

2. Second numbered item

3. Third numbered item

4 Conclusion

This sample document demonstrates various LaTeX features. When you edit this file in your IDE, the web interface should automatically recompile and display the updated PDF.