

## Graphical Abstract

### **A Sample Article for Elsevier CAS Template**

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*Sample Figure*

## Highlights

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- MyST Markdown enables reproducible scientific writing
- Seamless export to multiple journal formats
- Support for both single and double column layouts

# A Sample Article for Elsevier CAS Template

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## ARTICLE INFO

Keywords:  
MyST Markdown  
Elsevier  
LaTeX  
CAS Template

## ABSTRACT

This is a sample article demonstrating the use of MyST Markdown with Elsevier’s CAS templates. The template supports both single-column and double-column layouts, making it suitable for various Elsevier journals. We demonstrate the key features including author metadata, affiliations, keywords, and structured content.

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## 1. Introduction

This document demonstrates the integration of MyST Markdown (Cockett, Purvis and others, 2023) with Elsevier’s CAS (Content Acquisition System) templates. MyST provides a powerful authoring experience while maintaining compatibility with traditional LaTeX journal requirements (Lamport, 2004).

### 1.1. Background

Scientific publishing has traditionally relied on LaTeX for high-quality typesetting (Smith and Doe, 2020). However, the learning curve and complexity of LaTeX can be a barrier for many researchers. MyST Markdown bridges this gap by providing:

1. A familiar Markdown syntax based on CommonMark (Gruber, 2004)
2. Rich scientific features (equations, citations, cross-references)
3. Export to multiple formats including PDF via LaTeX

Reproducible research workflows have become increasingly important, with tools like Jupyter Notebooks (Kluyver, Ragan-Kelley and others, 2016) enabling literate programming approaches.

## 2. Methods

We use the standard CAS template structure provided by Elsevier, adapted for use with the `jtex` templating system.

### 2.1. Mathematical Content

The templates support full LaTeX math. For example, the quadratic formula:

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


And inline math like  $E = mc^2$ .

## 3. Results

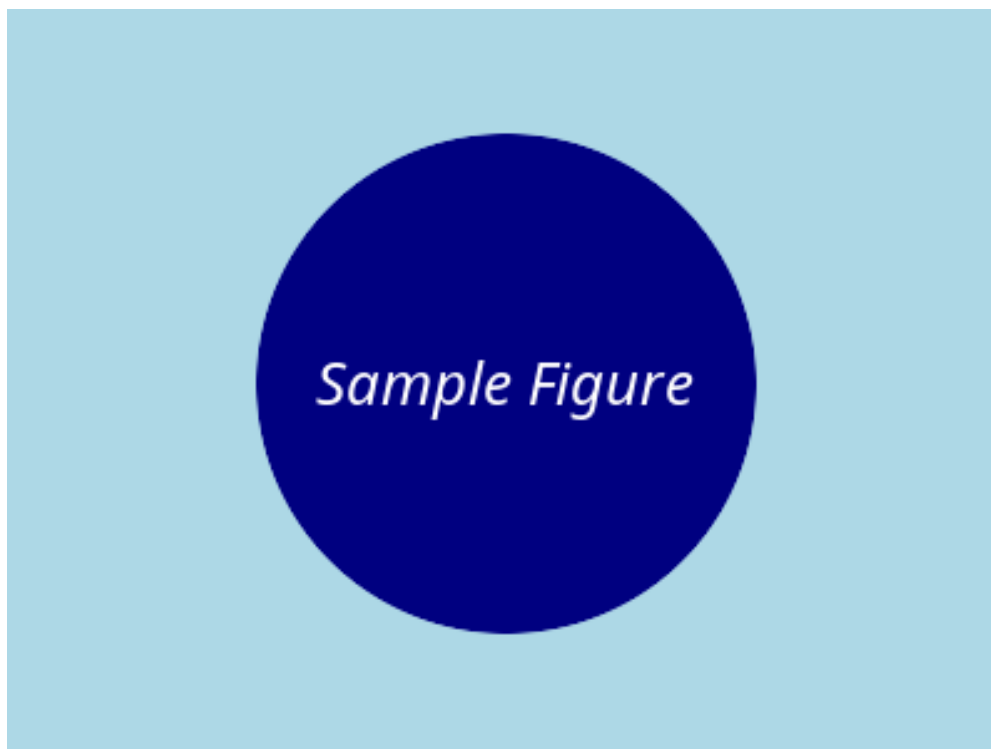
The template successfully renders:

- Author information with ORCID

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- Multiple affiliations
- CRediT author contributions
- Keywords
- Abstract and highlights
- Full document content



**Figure 1:** A sample figure demonstrating image support in the template. This figure shows a placeholder image that would typically contain research results or visualizations.

As shown in Figure 1, the template properly handles figure placement and captions.

## 4. Discussion

This approach enables researchers to write in MyST Markdown while producing publication-ready documents that meet Elsevier's submission requirements.

## 5. Conclusion

The Elsevier CAS MyST template provides a modern workflow for scientific writing while maintaining compatibility with traditional journal submission systems.

### A. Supplementary Methods

This appendix provides additional methodological details that support the main text.

#### A.1. Data Processing

The data was processed using standard procedures as described in the literature.

## B. Additional Tables

Parameter	Value	Unit
Alpha	0.05	-
Beta	1.23	m/s
Gamma	456	kg

## CRediT authorship contribution statement

**Alan Lujan:** Conceptualization, Methodology, Software. **Jane Doe:** Validation, Writing review editing.

## References

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