

A Typesetting System to Untangle the Scientific Writing Process

Martin Haug
Co-Founder
Typst GmbH
Berlin, Germany
haug@typst.app

Laurenz Mädje
Co-Founder
Typst GmbH
Berlin, Germany
maedje@typst.app

Abstract—The process of scientific writing is often tangled up with the intricacies of typesetting, leading to frustration and wasted time for researchers. In this paper, we introduce Typst, a new typesetting system designed specifically for scientific writing. Typst untangles the typesetting process, allowing researchers to compose papers faster. In a series of experiments we demonstrate that Typst offers several advantages, including faster document creation, simplified syntax, and increased ease-of-use.

Index Terms—Scientific writing, Typesetting, Document creation, Syntax

I. INTRODUCTION

Scientific writing is a crucial part of the research process, allowing researchers to share their findings with the wider scientific community. However, the process of typesetting scientific documents can often be a frustrating and time-consuming affair, particularly when using outdated tools such as LaTeX. Despite being over 30 years old, it remains a popular choice for scientific writing due to its power and flexibility. However, it also comes with a steep learning curve, complex syntax, and long compile times, leading to frustration and despair for many researchers [1], [2].

A. Paper overview

In this paper we introduce Typst, a new typesetting system designed to streamline the scientific writing process and provide researchers with a fast, efficient, and easy-to-use alternative to existing systems. Our goal is to shake up the status quo and offer researchers a better way to approach scientific writing.

By leveraging advanced algorithms and a user-friendly interface, Typst offers several advantages over existing typesetting systems, including faster document creation, simplified syntax, and increased ease-of-use.

To demonstrate the potential of Typst, we conducted a series of experiments comparing it to other popular typesetting systems, including LaTeX. Our findings suggest that Typst offers several benefits for scientific writing, particularly for novice users who may struggle with the complexities of LaTeX. Additionally, we demonstrate that Typst offers advanced features for experienced users, allowing for greater customization and flexibility in document creation.

Overall, we believe that Typst represents a significant step forward in the field of scientific writing and typesetting, providing researchers with a valuable tool to streamline their

workflow and focus on what really matters: their research. In the following sections, we will introduce Typst in more detail and provide evidence for its superiority over other typesetting systems in a variety of scenarios.

II. METHODS

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$$a + b = \gamma \quad (1)$$

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Fig. 1. A circle representing the Sun.

In Fig. 1 you can see a common representation of the Sun, which is a star that is located at the center of the solar system.

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TABLE I
THE PLANETS OF THE SOLAR SYSTEM AND THEIR AVERAGE DISTANCE FROM
THE SUN

Planet	Distance (million km)
Mercury	57.9
Venus	108.2
Earth	149.6
Mars	227.9
Jupiter	778.6
Saturn	1,433.5
Uranus	2,872.5
Neptune	4,495.1

aut rerum necessitatibus saepe eveniet, ut et voluptates repudiandae sint et molestiae non recusandae. Itaque earum rerum.

In Table I, you see the planets of the solar system and their average distance from the Sun. The distances were calculated with (1) that we presented in Section II.

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REFERENCES

- [1] R. Astley and L. Morris, "At-scale impact of the Net Wok: A culinarily holistic investigation of distributed dumplings," *Armenian Journal of Proceedings*, vol. 61, pp. 192–219, 2020.
- [2] L. Morris and R. Astley, "Net Wok++: Taking distributed dumplings to the cloud," *Armenian Journal of Proceedings*, vol. 65, pp. 101–118, 2022.