The Journal of The Math3ma Institute

AUTHOR GUIDELINES

www.math3ma.institute/journal

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ABOUT

The Journal of The Math3ma Institute is a home for expository articles on original research in science, technology, engineering, and mathematics (STEM) written for the ambitious lay person with interests in these fields of study. Unlike traditional academic outlets, a primary aim of this journal is to draw wide audiences to STEM by demystifying exciting, yet complex, topics and sharing them with clarity.

Prospective authors include faculty members of The Master's University along with scholars and research scientists from other institutions who are passionate about their work and wish to make the excitement of their field accessible to a broad audience.

Our articles appear in Google Scholar, and the journal is registered with both the Library of Congress and CrossRef:

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JOURNAL SCOPE

We accept articles from a wide range of STEM fields whose primary intention is to explain or "demystify" complex scientific research and related ideas (preferably existing, peer-reviewed work) to the interested public.

Consistent with the missions of both The Math3ma Institute (<u>link</u>) and The Master's University (<u>link</u>), we may occasionally accept articles on theology pertaining to STEM. Such articles are to conform to — or not contradict — the TMU <u>doctrinal statement</u> and will be considered on a case-by-case basis.

AUDIENCE

Because the journal's topic portfolio is broad, the journal's readership is likewise broad. Accordingly, the audience for the Math3ma journal is the ambitious lay person with interests in STEM, which we define as follows:

The **ambitious lay person with interests in STEM** is one who is not familiar with the specialized language and primary contributors in a domain of STEM (that is, they are a "lay person") but who is motivated to — and can easily understand and — follow a clear and simplified discussion (that is, they are "ambitious").

ARTICLE TYPES

We have accepted a variety of articles on STEM topics, including the following:

- Articles that seek to explain previously published, peer-reviewed work:
 - For example, see "A New Perspective of Entropy" and "Imitation Learning."
- Articles that seek to explain previously published, peer-reviewed work, written explicitly for a Christian audience:
 - o For example, see "Imitation Learning."
- On occasion, articles primarily on biblical theology with some connections to STEM
 - o For example, see "The Queen of the Sciences" and "Christ in Creation."

WHAT WE LOOK FOR

Our editors look for **clarity** in writing, **accessibility** in tone, and **substance** of content, with each playing a key role in explanatory writing.

In more detail, the intent of our expositional or "explanatory" articles is to explain an idea for the benefit of non-experts, rather than to (solely) report one's findings to peers who are experts in the same field. From this perspective, an explanation does not necessarily refer to the *amount* of information conveyed, but rather to the *manner* in which that information is conveyed.

When assessing articles, we look for authors who are mindful of using **specialized language** and who take a "**less is more**" approach. For instance, details of a computation can often be omitted, as our target audience may be more interested in why a result is *interesting*, rather than why it is *true*. Similarly, we look for authors who use specialized language sparingly and who provide definitions or intuitive explanations in those instances. This writing style seeks to reduce the reader's cognitive load as much as possible, while simultaneously educating the reader. It also bears in mind that what is obvious to experts may not be obvious to novices.

In a similar way, on the rare instance that we may review **theological** articles, we look for authors whose writing is geared toward lay congregation members rather than other theologians or seminarians and, as such, is pastoral in tone.

Suggested Framework

On the surface, one might wonder whether a layperson would have much interest in a technical result or incremental scientific advancement. One might ask the reasonable question, "Why would this audience care about my work?" A helpful approach to sharing work with a non-technical audience is to devote most of the manuscript on *background* and *motivation*.

In more detail, we look for manuscripts that address questions along the lines of the following:

- <u>Background:</u> Your work fits into a larger context that our audience likely knows little or nothing about. What is that larger narrative? What approaches failed or succeeded that led you to your particular approach? What has already been done in this space? What is the historical context in which your work fits?
- <u>Motivation</u>: Why is this result interesting to you or others in your field? What can people do with your work? Why do you find it fascinating? What drew you to this particular problem? Does it have any applications or implications in other fields? If it is a stepping stone to solving a larger problem, what is that larger problem?
- Your work: After providing ample background and motivation, what is your work, specifically? What is the main thesis, "punchline", or contribution of the manuscript explained at a high level? (It is helpful to express this explicitly and even repeat it often.)

For a more detailed description of what we look for in articles, please see our reviewers' Writing Rubric.

SUBMISSION PROCESS

Because the Math3ma journal is not a traditional journal, our current submission process differs significantly from most academic journals. In particular, our editors are committed to putting in considerable time and effort to work with authors to achieve high quality exposition that is accessible to our unique target audience. Based on past learnings — from here at the Math3ma journal and those from the editors of the expository journal Distill — we recognize the challenges that may come from inviting an author to write a manuscript with the possibility of rejecting the article in the end.

To best manage this issue, please read the following carefully.

If a prospective author is interested in contributing an article, we ask that they first submit the following items to journal@math3ma.institute:

- 1. proposed outline
- 2. **one page writing sample** (an excerpt from the proposed article)
- 3. an **answer** to the following question: How does your article engage and interest the Math3ma Journal's audience of ambitious laypeople with a passion for STEM who may not have a background in your area of expertise? Please explain.

After review, the editors will give recommendations on how best to flesh out the full manuscript. If the author is in agreement with this early editorial feedback, then we recommend proceeding to write the article. Otherwise, the author may choose to withdraw before having committed too much time and effort in writing.

After this preliminary review step, the editorial process is more traditional:

- All manuscripts will be reviewed by the editorial staff following the <u>Writing Rubric</u> and will be subject to their discretion. After review, an article may be accepted for publication as is, accepted with minor or major revisions, or not accepted.
- Any changes made by the editorial staff will be submitted to the author for approval, including reformatting for our style guide.

SUBMISSION REQUIREMENTS

- There is no word limit, but our recommended article length is **roughly 4,000 words**, not including references.
- Each manuscript should be accompanied by a short **abstract**, and should include a **bibliography** with complete bibliographic references, preferably no more than 20 references. Please also provide full DOI links when applicable.
- We accept manuscripts in PDF, Word, Google document, or LaTeX format. LaTeX is preferred, and a template will be provided upon request.
- The manuscript should neither be published elsewhere nor be submitted to another journal for simultaneous consideration.
- Theological articles are to conform to, or not contradict, the <u>doctrinal statement</u> of The Master's University.

PUBLICATION TIMELINE

As of July 2024, submissions are accepted on a **rolling basis**. We follow a continuous publication model and release articles individually, when they are ready. This model allows authors and editors to work together at a pace that works best for each individual project.