AMS American Mathematical Society

Advancing research. Creating connections.

Topic: **Open Access**

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The mathematical sciences and embargo periods

1. **Embargo periods of shorter than 12 months represent a risk to the American Mathematical Society (AMS).** 70% of AMS revenues come from publishing activities, including subscription revenues from books, journals, and the database MathSciNet®. AMS revenues are currently just over $30 million, and surplus funds go directly back into our programs. If subscription revenues were to evaporate, the ability of the AMS to provide services and programs that fortify the US mathematical sciences community would likely also evaporate.

2. **The culture of mathematics is very different from other scientific fields.**
   a. Approximately 25% of AMS authors receive research funding from a federal agency, with the result that there are limited funds available for Gold Open Access (article processing charge model) publishing.
   b. The intellectual property of a mathematics article lies in the article itself, rather than the article being a report of an experimental study, and these articles are as valid today as they will be in 30 and even 300 years.
   c. The article of record published in a journal of record is important for a mathematician's progress in the field, for example in securing tenure and further grant funding. The article of record coexists with preprints in progress hosted on arXiv[1], and mathematicians value the complete ecosystem of preprint-to-published-article-of-record.
   d. Advances in mathematics occur more slowly than in many other science fields. According to a recent study on journal usage[2], mathematics is at the extreme for the life of journal articles. Across all subject disciplines, journal half-lives peaked between two and four years[3]. However, 17% of all journals had usage half-lives that exceeded six years, with mathematics journals at the extreme—36% of the mathematics journals examined had usage half-lives exceeding six years.

3. **The AMS suggests a differentiated approach to embargo periods.** Varied embargo periods that acknowledge the valuable activities of non-profit societies, as well as the diversity of cultures among fields, will best suit a range of communities and types of business.

[1] https://arxiv.org/help/general

[2] http://www.publishers.org/usagestudy/

[3] Usage half-life is defined as the time taken for a group of articles to reach half of their total number of downloads.

About the American Mathematical Society

Founded in 1888, the American Mathematical Society is dedicated to advancing research and connecting the diverse global mathematical community through our publications, meetings and conferences, MathSciNet, professional services, advocacy, and awareness programs.

The AMS has 30,000 individual members worldwide and supports mathematical scientists at every career stage.

The AMS publishes almost 100 books each year, including groundbreaking monographs, graduate and undergraduate textbooks, conference proceedings, translations, and works of popular mathematics, including children's books. AMS peer-reviewed journals are top-ranked and of the highest quality in mathematical research.

Our facilities

Providence, Rhode Island is home to AMS headquarters. Approximately 125 staff are based at headquarters. **Associate Executive Director Robert Harington** heads up Publishing and is based in Providence.

Pawtucket, Rhode Island is home to our Printing and Distribution Department. The AMS is one of very few remaining publishers that operate manufacturing in the US. The Printing and Distribution operations have been located in the current facility in Pawtucket since 1993 when they were relocated from the Providence facility. The 25,000 sq. feet facility sits on 67,700 sq. feet of land. The AMS has ten staff based in Pawtucket.

Ann Arbor, Michigan is home to MathSciNet, the authoritative gateway to the scholarly literature of mathematics. MathSciNet contains information on over 3 million articles and books, with direct links to almost 2 million articles in over 1,800 journals. MathSciNet includes expert reviews, personalizable author profiles, and citation information on articles, books, journals, and authors. Over 80 staff members are based in Ann Arbor.

Washington, DC is home to our Office of Government Relations. **Associate Executive Director Karen Saxe** is the Director of this office. Three staff members work in Washington.