



Press release from the German Mathematical Society (DMV) and the International Mathematical Union (IMU)

## Systematic fraud uncovered in mathematics publications

Berlin, Sept. 15, 2025. An international team of authors led by Ilka Agricola, professor of mathematics at the University of Marburg, Germany, has investigated fraudulent practices in the publication of research results in mathematics on behalf of the German Mathematical Society (DMV) and the International Mathematical Union (IMU), documenting systematic fraud over many years. The results of the study were recently published on the preprint server arxive.org and in the Notices of the American Mathematical Society (AMS) and have since caused a stir among mathematicians. To solve the problem, the study also provides recommendations for the publication of research results in mathematics.

Nowadays, research quality is often no longer measured directly by the content of publications, but increasingly by commercial indicators such as the number of publications/citations by authors or the "reputation" (impact factor) of journals. These indicators are calculated in a non-transparent manner and without the involvement of the scientific community by commercial providers, who use them to boost sales of their databases worldwide. Fraudulent companies offer their services specifically to optimize these metrics. This is worthwhile for both individuals and institutions, because a higher ranking, e.g., in a university ranking, means better access to funding and (in an international context) the possibility of charging higher tuition fees and attracting more applicants. The collateral damage is a high percentage of publications whose sole purpose is to boost the indicators, but which no one reads because they contain no new scientific findings or are even flawed.

The study cites some striking examples. For example, based on its database, the market leader for metrics, Clarivate Inc., calculated in 2019 that the university with the most world-class researchers in mathematics is a university in Taiwan – where mathematics is not even offered as a subject. Megajournals, which print anything as long as the authors pay for it, now publish more articles per year than all reputable mathematics journals (which do not require payment) combined. Fraudsters anonymously offer everything that influences key figures for sale, from articles to citations, in exchange for payment.

",Fake science' is not only annoying, it is a danger to science and society," emphasizes IMU Secretary General Prof. Christoph Sorger. "Because you don't know what is valid and what is not. Targeted disinformation undermines trust in science and also makes it difficult for us mathematicians to decide which results can be used as a basis for further research." DMV President Prof. Jürg Kramer added: "The recommendations developed by the commission are a call to all of us to work toward a system change."

## **Publications**

Preprint on arxive.org: <a href="https://arxiv.org/pdf/2509.07257">https://arxiv.org/pdf/2509.07257</a>

Recommendations: https://arxiv.org/abs/2509.09877

Published version in the Notices of the American Mathematical Society (pdf):

https://www.ams.org/journals/notices/202509/202509FullIssue-optimized.pdf?adat=October%202025&trk=&cat=none&type=.pdf

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