

Writing for *Mathematical Reviews*[®]

Kelly Jabbusch

Since 1940 *Mathematical Reviews*[®] has provided mathematicians with a comprehensive view of published mathematical articles and books. Beginning as a monthly print publication, it now delivers its content daily on MathSciNet[®], informing the mathematical community of new and interesting publications. More than 100,000 new items are added to the database each year, and as of July 2018 there are more than 3.5 million publications and 908,800 authors indexed. One key component of *Mathematical Reviews*, which distinguishes it from other bibliographic databases, is the individual reviews of each item written by other mathematicians. Lars Ahlfors, Richard Courant, Paul Erdős, Einar Hille, Alston S. Householder, Saunders Mac Lane, John von Neumann, and Oskar Zariski are just a few mathematicians who wrote reviews for Volume 1.¹ Currently there are more than 22,000 mathematicians who actively contribute, writing short reviews that provide a valuable service to readers.

Reading *Mathematical Reviews* can be enlightening, as they often provide more detail than can be found in the abstract or summary. I have on numerous occasions found myself on MathSciNet, looking up a paper, reading its review, and then following a chain of citations and their reviews. A review often guides me towards more background

information, if needed, and places the significance of the result in a broader context. A review may also include citations not found in the original article, but that refer the reader to more recent related developments. In short, a review is a recommendation from an expert.

Since finishing graduate school I've contributed to *Mathematical Reviews* as a reviewer, and have found the work stimulating and rewarding. Reviewers may select fields of interest (by Mathematics Subject Classification) and the maximum number of items assigned at a time. Articles are then sent to reviewers throughout the year, with the hope of a six-week turnaround time. Since these articles are already published, writing a review is less demanding than writing a referee report. As a referee my job is to determine if the result is correct, interesting, and appropriate for the given journal; as a reviewer my task is to provide enough information for a fellow mathematician to decide if they want to read the original article. To that end I try to do a little more than summarize the main results. I may describe a result, example, or technique that could be of independent interest, or mention if the article contains a summary of background material that makes it accessible to a larger audience.

Sometimes I am familiar with the paper sent to me, having perhaps read a preliminary pre-print version. More often, though, the papers I review contain results that are new to me. Taking the time to carefully read the article and summarize the main results and methods enriches my work as a mathematician. I learn of new results, techniques, and questions, which I might not have encountered had I not been sent the article to review. It is not uncommon for reviewers to expand on results from articles they review, opening a sort of dialogue with the paper. In this way, reviewing an article is extremely useful for me as a mathematics researcher.

Kelly Jabbusch is an associate professor of mathematics at the University of Michigan–Dearborn. Her email address is jabbusch@umich.edu.

¹See www.ams.org/publications/math-reviews/reviewersvolume1 for a complete list.

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As mathematicians we're lucky to have MathSciNet and *Mathematical Reviews* providing us with such an invaluable resource. The large community of dedicated reviewers has consistently been a key component in the work of *Mathematical Reviews*. Participating in this community puts you in great company, and can have impact on your future work.



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Credits

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