

Paper *Notices* Shot Down?

A major party candidate for State Superintendent of Public Instruction last fall here in Oklahoma generated a certain amount of local comment with a campaign proposal to have students in public schools trained to use textbooks as bullet shields in the event of a school shooting incident. The campaign even released a video, which was played on local television news, of the candidate and aides shooting a variety of books with a variety of weapons, including an “AK-47 Kalashnikov” shooting at and through a calculus book. The proposal, which in an Associated Press story the candidate acknowledged could be thought of as “weird, crazy”, and the video, generated some light-hearted press coverage, especially about the bullets making it all the way through the calculus book, not many journalists having gone that far. In the candidate’s defense, it should be pointed out that the apparent source of the proposal was a child in a school shooting who had been protected by text books in his backpack acting as body armor. Anyway the candidate, who did get 344,000 votes, was soundly defeated.

But naturally I wondered how many math books would be required to stop “AK-47” bullets and decided to experiment, with the help of a local gun club. First a technical point: an AK-47 is a machine gun. It was obvious in the candidate’s video that the weapon being used was not a machine gun, but a semi-automatic version of the AK-47. So that’s what was used in the experiment. Also, even though expendable calculus books should be easy to come by, and some no doubt deserve blasting, I decided to use another resource. I have accumulated a certain number of surplus copies of the *Notices* for various reasons, and decided to use those instead. For the record, the copies employed had partially water damaged covers. No archival copies of the *Notices* were harmed in this experiment.

Here’s the results: at a distance of 20 yards, (military surplus, full metal jacket) bullets from an “AK-47” penetrated to a maximum depth of 4 and 5/32 inches in a stack of *Notices*. I can vouch for the experimental results, but of course the *Notices* are not intended for use as protection against bullets and nothing in this report should be regarded as suggesting or implying such usage.

Target practice or other extreme use aside, deciding what to do with one’s *Notices* back issues is not a trivial problem. I’ve always kept mine, a collection which now runs from January 1969 to the present. Others discard them according to various formulae, for example after a fixed time such as a few years, or a few months. Automatic pre-discarding is apparently not an option, at least according to a friend, an applied mathematician who travels a lot. He was unhappy enough about receiving the *Notices* at all (“filling up his mailbox”) that he let his membership in the Society lapse. When contacted by membership services about rejoining, he agreed on the condition that he would

not receive any *Notices*, even though his dues included a subscription. And then upon reinstatement we (automatically, I trust) promptly shipped him all the back issues of the *Notices* he missed! Despite this, he remains a Society member, and a friend.

I see my *Notices* collection, like my parallel *Bulletin* collection, sort of like tree rings, visually marking linearly my years as a mathematician. Whenever I actually need to look up something in an old *Notices*, like the rest of the world I turn to the *Notices* area on the AMS website. Here one finds a portable document format file of every *Notices* article. These pdf files are produced from the same files sent to the printer from which the paper *Notices* is produced. So they look exactly the same as the printed article. An issue of the *Notices* is, however, more than just the set of the pdf files of the articles and related editorial matter that appear in it (there are the advertisements, for example). Because the *Notices* is the “journal of record” of the Society, and the Society’s bylaws require such a journal, the printed *Notices* has a certain official status.

That status may be about to change. The Society plans to make complete issues of the *Notices*, exact replicas of the printed version, available online as pdf files. Such files then could become the Society’s journal of record. Of course there are no plans to discontinue the printed *Notices* online. For example, occasionally we have some color images which we print in black and white because cost and other issues limit the number of color pages. In the official pdf *Notices* online, could those be kept in color? Or what about url references in articles: those could be active links in the online *Notices*. And if minor enhancements like color and active links are reasonable, what about taking serious advantage of having the journal of record *Notices* online, such as animations and hyperlinks? There are technical questions here about what can be done, and financial ones about who is going to do it and what it would cost, but also policy questions, about how things are to be preserved and made accessible to all members. The *Notices* Editorial Board started this discussion at its January 2007 meeting. Although final decisions will properly be made by Society leadership and governance, reader comments to the *Notices* are welcome.

—Andy Magid

A First Course in Operations Research

The lead March feature article about George Dantzig, on page 351, lists early courses in Operation Research. But in January–March 1956, I took a course in OR at Caltech, given by Samuel Karlin. He told us on the first day (January 4) that he thought it was probably the first-ever undergraduate course in OR.

Linear programming was one of the topics covered.

It is peculiar that Karlin's name never appears in the article—for one thing, he left Caltech for Stanford in 1956, ten years before Dantzig (and Cottle) went to Stanford. I suppose that they knew one another, and I wonder why Karlin was omitted.

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Is JAMS Area-blind?

Ordinarily the solution to an important long-open problem is an occasion for celebration. One of the most famous problems in lattice theory is Dilworth's half-century-old Congruence Lattice Problem, whether the congruence lattices of lattices are exactly the distributive algebraic lattices. In January 2006 Friedrich Wehrung submitted his 14-page solution to the *Journal of the AMS*. At a recent meeting of the full board the editors acknowledged the referees' highest praise but rejected the paper for lack of "interaction with other areas of mathematics".

Lattices arise naturally in many areas of mathematics and have been widely applied in computer science and elsewhere. The congruence lattices of algebras are algebraic (Birkhoff-Frink 1948), and all algebraic lattices so arise (Grätzer-Schmidt 1963). The congruence lattices of lattices are furthermore distributive (Funayama-Nakayama 1942); Dilworth showed in the 1940s that all finite distributive lattices so arise, subsequently extended by Huhn in 1985 to distributive algebraic lattices with \aleph_1 compact generators.

Wehrung refuted the general case with an application of Kuratowski's little-known Free Set Theorem. In earlier work he had applied it to measure theory and K-theory, reminiscent of the versatility of Cohen's forcing counterexamples in logic.

Judging from this rejection and the areas represented in recent *JAMS* volumes, the flagship journal of the AMS would appear to specialize in some areas at the expense of others. Whereas fully a quarter of its papers since its 1988 inception have been in algebraic geometry and number theory, some areas including lattice theory aren't even on *JAMS*'s radar.

Yet *JAMS*'s masthead mission statement, "This journal is devoted to research articles of the highest quality in all areas of pure and applied mathematics," implies that it is area-blind. *JAMS* could change the statement, but then what would the AMS be without a journal in which the leading results in all areas can compete on a level playing field?

On behalf of the area of lattice theory, the undersigned therefore petition the AMS to encourage *JAMS* to live up to its mission statement.

More information about the Congruence Lattice Problem and its solution can be found at <http://clp.stanford.edu>.

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Reply to Davey, Henriksen, Marković and Pratt

Submissions to *JAMS* are initially handled by individual editors, and only about 15 percent of the most

promising manuscripts go to the full editorial board for a final decision. Wehrung's paper was one of these, and the board—consisting at the time of the undersigned—certainly recognized the importance of his work. However we had to make some hard choices, even involving short papers like Wehrung's. After considering the matter quite carefully, we finally decided not to accept the paper.

We would caution against trying to read too much into a single editorial decision. *JAMS* gets substantially more first-rate submissions than we are able to accept, and we end up declining many top-notch papers (often with glowing referee reports) in all areas of mathematics. We appreciate that there can be disagreement about the decisions involved in selecting among outstanding manuscripts. But we reaffirm that *JAMS* is committed to publishing highest-quality research across the full spectrum of mathematics.

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Correction

In the feature article on Oswald Veblen (*Notices*, May 2007), lines 4, 5, and 6 on page 617, column one, should read "Over the summer the Carnegie Corporation and Rockefeller Foundation awarded grants of US\$60,000 and US\$12,000, respectively", not "Rockefeller Foundation and Carnegie Corporation" as printed.

—Steve Batterson