

Notices

of the American Mathematical Society

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Who Cares About Expository Articles?

Our experience in the acquisition of expository articles has been much like that of an editor of a proceedings of a conference. Prospective authors easily agree to contribute but have great difficulty in actually making and completing the commitment. In contrast to other sciences where periodic reports, followed by writing *about* the research, are the norm, mathematicians write for the record. Indeed, we love to talk about our work; we are ready to provide details for any eager listener, but we are reluctant to write in such a way. Thus, although all would say that exposition is a good thing, it is not integral to our tradition. Research mathematical articles are written so that those who have interest or need may read a complete and finished presentation. This tradition is what we know and expect and to which we eagerly contribute. We are not used to writing to target audiences in order to kindle interest and provide a glimpse into our insights and ideas. This task is difficult: to explain how certain ideas came about and the role they have in mathematics, this we first have to work out for ourselves. And the deeper understanding of the work which results may be the only personal benefit the author enjoys. However, the benefit to the discipline is immense: readers of good expository articles feel—and indeed are—enriched by this expansion of their knowledge. So we all care about exposition; in principle it is good, but, alas, in practice it is hard.

Changes in the nature of mathematics over the past few decades have raised the level of importance of expository writing from that of “a good thing” to that of an essential thing. The techniques and ideas of mathematical research have become so interrelated that to succeed in research it is now necessary to understand the themes and methods in many areas of mathematics. I would guess that everyone in my generation has had the experience of breaking through on a problem as a result of listening to an idea or technique presented in a colloquium on some other subject. Now this is no longer an isolated serendipity: breakthroughs in one's problems—often even the understanding of the problem—require the versatility that one acquires only by grasping and using techniques and programs in a wide range of subjects. Researchers today feel a real need to understand mathematics in a very broad way and to listen to and try to understand the work of mathematicians working in other areas, often not even close to their own. The device of the colloquium has served this purpose, but it has become insufficient due to the great expansion of mathematical activity. “Written colloquia” have to replace the oral. We have already seen some of this: a few years ago, the impact of the Seiberg-Witten theory on low-dimensional topology and mathematical physics was quickly realized, thanks to those who made the effort to broadcast those ideas *colloquially* over the Internet. The *Notices* helped too, by publishing shortly after the Seiberg-Witten news came out an expository piece by Dieter Kotschick.

My perception, based on my experience as editor of these *Notices*, is that younger mathematicians more readily appreciate the essentiality of exposition more than those of, say, my generation. This may be because they see expository writing simply as an extension of Internet discussions of mathematics, which formed part of their training. Whatever the reason, it appears that expository—colloquial—writing about research mathematics is going to become a natural part of our tradition.

—Hugo Rossi

Hugo Rossi of the University of Utah has finished his term as editor of the *Notices*. On August 1, he took the position of deputy director of the Mathematical Sciences Research Institute in Berkeley. Anthony W. Knapp of the State University of New York, Stony Brook, has been selected as the next editor. He will begin his term in January 1998. *Notices* Editorial Board member Andy Magid, University of Oklahoma, is serving as acting editor in the interim.