Notices

of the American Mathematical Society

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[*Notices of the American Mathematical Society* is published monthly by the American Mathematical Society at 201 Charles Street, Providence, RI 02904-2213. Second class postage paid at Providence, RI and additional mailing offices. POSTMASTER: Send address change notices to *Notices of the American Mathematical Society,* P.O.Box 6248, Providence, RI 02940-6248.] Publication here of the Society's street address, and the other information in brackets above, is a technical requirement of the U.S. Postal Service. All correspondence should be mailed to the Post Office box, not the street address. Tel: 401-455-4000. e-mail: `ams@math.org`.

ABOUT THE COVER

Located in San Francisco, California, site of the 101st Annual Meeting of the Society, the Golden Gate Bridge has become a familiar symbol of that city. Photograph by Mark Lewis, Tony Stone Images.

From the Editor

One of the central concerns of the new *Notices* is to communicate contemporary research to its readership. That is not to say that the *Notices* is to become, even in part, a research journal. The *Notices* shall continue to publish information about the profession and the mathematics community along with articles of general interest. But we shall also begin to regularly publish informal, discursive articles about mathematical research: new developments, trends, assessment, history; the analog for these articles is that of the discussion in the tearoom preceding the colloquium lecture (not the lecture!) Our goal is to convey current developments in the discipline itself.

An unfortunate consequence of the very beauty and coherence of our research writing is that we do an abysmal job of communicating our science to students, other scientists, funders of science, and the general public. Recently, while sitting in my departmental lounge, I overheard an analyst describing his work to some algebraic geometers. I told him that that was just the kind of discussion I was looking for in the *Notices*. He protested. "But,...I can't put *that* in print!" It is extremely hard for mathematicians to do expository writing. It is not in our nature. In fact, the very nature of mathematical meaning and grammar militates against it. However, this puts us at a distinct disadvantage relative to other sciences. The evidence is stark at the NSF, in academia, and in the popular press. An article appears in the *New York Times Magazine* section about a breakthrough in physics written by a physicist, but the article on Fermat's Last Theorem is written by a science writer! Our project may lead to others, where we, and not writers we've hired for the purpose, speak and write to broader audiences in ways which can be understood at their level of mathematical sophistication.

There are many mathematicians hungry to learn what is going on in areas outside their own expertise, even if what is learned is considered superficial by the experts. From talks on Fermat's Last Theorem I—and many like me—have gotten a sense of the significance of geometric thinking and methods in number theory, something that is surely obvious and trivial to the experts. But my increased understanding of this problem is neither obvious nor trivial, and I prefer it to the suggestion made (implicitly by silence) that there is no way I can grasp these connections. We must work at communication with one another, and that is the objective of the expository articles in the *Notices*. That will be the measure of our success.

Do mathematicians covet this kind of success? Do we write and talk to each other the way we do because we don't know better or because it is the easy thing to do—or is it because that's the way we want it: *sauve qui peut*! One of this month's letters speaks to this question, offering four necessary conditions for a successful colloquium lecture. It is required reading. Good exposition should be valued, not only for the success in communication but also as evidence of real mathematical insight. It is no accident that among our greatest mathematicians are our greatest teachers and expositors.

Hugo Rossi
Editor, the AMS Notices