

PUBLICATIONS *of* CONTINUING INTEREST

Selected Publications of General Interest

Below are some of our bestselling publications of general interest. Written in a lively and engaging style, these books offer relevant topics to a broad mathematical audience, including teachers and students at all levels of study. For more titles of general interest, visit the AMS Bookstore at www.ams.org/bookstore.

Mathematics: Frontiers and Perspectives

V. Arnold, *University of Paris IX, France*, and *Steklov Mathematical Institute, Moscow, Russia*, M. Atiyah, *University of Edinburgh, Scotland*, P. Lax, *New York University-Courant Institute of Mathematical Sciences, NY*, and B. Mazur, *Harvard University, Cambridge, MA*, Editors

You can read this book as if listening to a succession of high-powered old school friends who are passing through ... most tell you about the mathematics that animates them ... you get a good sense of what they do, what's difficult about it, and why it matters ... provocative remarks ... vigorous account of much of the Russian school of mathematics ... thought-provoking reflections about mathematical life and language ... The most pleasing feature of this handsome book is the emphasis on the unity of mathematics ... The connections many people here want to make between mathematics and physics, von Neumann algebras and knot theory, number theory and analysis, are not only fresh and vivid, but oddly coherent. They give a sense not only of mathematics undergoing one of its characteristic contractions around a few organising principles, but how productive this reorganisation can be.

—The LMS Newsletter

One hundred years ago, David Hilbert's famous list of 26 mathematical problems began to catalyze the collective efforts of the world's mathematicians toward a century's worth of new research and achievement. The International Mathematical Union commissioned the current volume to do the same for the century just beginning. Fully half the contributors here own a Fields Medal, mathematics' highest honor (and that does not even count Andrew Wiles). Obviously, simply by dint of the prestige and caliber of the authors, this volume deserves reader attention and a place on every library's shelves. The essays themselves vary from the entirely technical to the purely personal. The sort of reading encounter they offer can set the direction of a whole career, so the undergraduate who picks up this volume now may expect to return here many times in the years to come.

—CHOICE

Among the authors there are many famous pure mathematicians whose contributions constitute a smorgasbord of delicacies sufficient to satisfy every taste. Do sample them!

—CMS Notes

Individual members of mathematical societies of the IMU member countries can purchase this volume at the AMS member price when buying directly from the AMS.

2000; ISBN 0-8218-2697-2; 459 pages; Softcover; All AMS members \$31, List \$39, Order Code MFP.SCT167

Biography

Stephen Smale: The mathematician who broke the dimension barrier

Steve Batterson, *Emory University, Atlanta, GA*

Batterson's book is readable by, and accessible to, high school students ... Smale's life is inspiring; Batterson's book is fascinating.

—The Mathematics Teacher

Steve Batterson's book lays many legends to rest and verifies much chronology and many details ... This fascinating life story makes for compelling reading ... [Batterson] gets not just mathematical details but their relative importance right ... Waiting for history's verdict on Smale's numerical analysis, we might just as well curl up with Batterson's book ... this is a fascinating biography of a fascinating mathematician.

—SIAM Review

This is a comprehensive and frank biography of Stephen Smale, one of the best-known American mathematicians ... I found the book fascinating ... Smale deserved his Fields Medal for his work in topology and his early work (e.g., the horseshoe) in dynamical systems ... he should be seen as an excellent example of how to avoid stagnation in a field one has pioneered and instead to stay active by trying new subjects ... All in all, Steve Smale is a first-rate Fields Medalist who has led a rich and varied life.

—Notices of the AMS

2000; ISBN 0-8218-2045-1; 306 pages; Hardcover; All AMS members \$28, List \$35, Order Code MBDBCT167

Recommended Text

How to Teach Mathematics

Second Edition

Steven G. Krantz, *Washington University, St. Louis, MO*

Praise for the First Edition ...

An original contribution to the educational literature on teaching mathematics at the post-secondary level. The book itself is an explicit proof of the author's claim "teaching can be rewarding, useful, and fun".

—Zentralblatt für Mathematik

[This book] is written in a lively and humorous style, even though the points discussed are entirely serious and sensible. The author succeeds in elucidating the fine points of excellent teaching and offers a lot of important practical advice. The book is strongly recommended to everybody who teaches mathematics.

—European Mathematical Society Newsletter

1999; ISBN 0-8218-1398-6; 307 pages; Softcover; All AMS members \$19, List \$24, Order Code HTM2CT167

The Fermat Diary

C. J. Mozzochi, *Princeton, NJ*

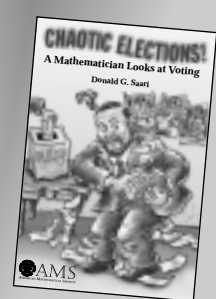
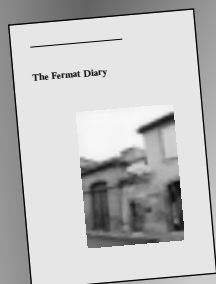
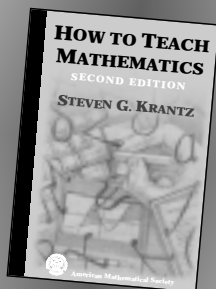
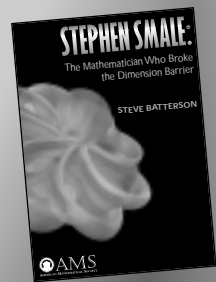
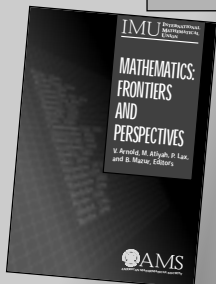
2000; ISBN 0-8218-2670-0; 196 pages; Hardcover; All AMS members \$23, List \$29, Order Code FERMATDCT167

Timely Topic

Chaotic Elections! A Mathematician Looks at Voting

Donald G. Saari, *University of California, Irvine*

2001; ISBN 0-8218-2847-9; 159 pages; Softcover; All AMS members \$18, List \$23, Order Code ELECTCT167



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