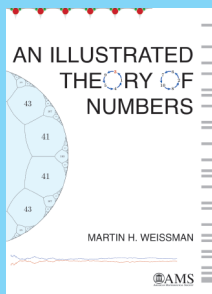


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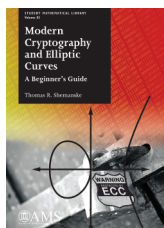
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Martin H. Weissman, *University of California, Santa Cruz, CA*

This is a meticulously written and stunningly laid-out book influenced not only by the classical masters of number theory like Fermat, Euler, and Gauss but also by the work of Edward Tufte on data visualization. Assuming little beyond basic high school mathematics, the author covers a tremendous amount of territory, including topics like Ford circles, Conway's topographs, and Zolotarev's lemma which are rarely seen in introductory courses. All of this is done with a visual and literary flair which very few math books even strive for, let alone accomplish.

—Matthew Baker, *Georgia Institute of Technology*

2017; approximately 321 pages; Hardcover; ISBN: 978-1-4704-3493-9; List US\$69; AMS members US\$55.20; Order code MBK/105



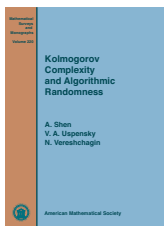
## Modern Cryptography and Elliptic Curves

A Beginner's Guide

Thomas R. Shemanske, *Dartmouth College, Hanover, NH*

This gradual introduction to modern cryptography and elliptic curves offers the beginning undergraduate student some of the vista of modern mathematics and presents the tools needed to gain an understanding of the arithmetic of elliptic curves over finite fields and their applications to modern cryptography.

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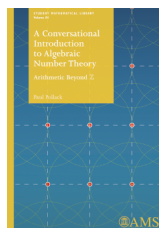
## Kolmogorov Complexity and Algorithmic Randomness

A. Shen, *LIRMM CRNS, Université de Montpellier, France*, V. A. Uspensky, *Lomonosov Moscow State University, Russia*, and N. Vereshchagin, *Lomonosov Moscow State University, Russia*

Aiming to explore algorithmic information theory, the first part of this book is a textbook-style exposition of the basic notions of complexity and

randomness, while the second part covers some recent work done by participants of the "Kolmogorov seminar" in Moscow.  
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◆ = Textbook    ◊ = Applied Mathematics



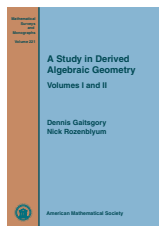
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Arithmetic Beyond  $\mathbb{Z}$

Paul Pollack, *University of Georgia, Athens, GA*

Written in a conversational style, this introduction to algebraic number theory lays out basic results in the form of three classical "fundamental theorems": unique factorization of ideals, finiteness of the class number, and Dirichlet's unit theorem, while also frequently mentioning recent developments within the field.

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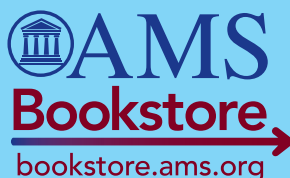
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