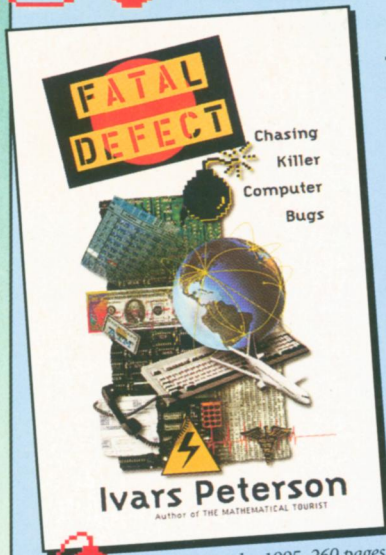


All books
signed by
Peterson



Times Books, 1995, 260 pages,
6 1/4" x 9 1/2", hardcover, \$25.00

A plane crashes, killing all passengers aboard. The telephone system goes down, cutting off millions of customers. A cancer patient receives a massive radiation overdose, ending his life. A hotly promoted new computer chip fails, sending consumers into a tailspin. An automated teller machine incorrectly debits a customer's account, jeopardizing his credit line.

More than ever, our society depends on the reliable—if not always correct—functioning of computers. Computers amplify not only our genius but our flaws, sometimes to intolerable extremes. Author Ivars Peterson traces the lurching history of software development and describes how misconceptions and mistakes have become an inextricable part of computer programs and systems. He creates fascinating and colorful profiles of the people who hunt down these elusive computer bugs and struggle to make an inherently fallible system less treacherous. He also offers dozens of detailed examples of how computer failures occur—some amusing, some annoying, others terrifying, even fatal.

Each computer failure is a reminder that we all pay a price for sloppy thinking in software development, for making the rush to market a more important consideration than safety and reliability. No software can ever be guaranteed 100 percent bug-free, but if we analyze our past mistakes and rethink our approach to computers, we can defuse some ticking time bombs and create a more trustworthy next generation of computers.

Peterson's fascinating accounts of computer failure and deft portraits of the people working to chase down bugs make *Fatal Defect* relevant reading.

—from Times Books

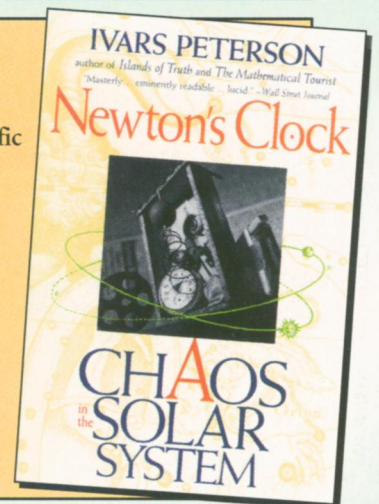
Newton's Clock—Now Available in Paperback!

In the late 1600's, Sir Isaac Newton provided a seemingly reliable way of calculating planetary orbits and positions. Newton's law of motion and his mathematical view of the universe dominated scientific discourse for centuries.

Today, scientists use supercomputers to simulate the dynamics of the solar system. Modern astronomers are learning more about the motions they observe and uncovering some astonishing examples of chaotic behavior in the heavens. Nonetheless, the long-term stability of the solar system remains a perplexing, unsolved issue.

To show how our view of the solar system has changed from clocklike precision to chaos and complexity, *Newton's Clock* describes the development of celestial mechanics through the ages—from the star charts of ancient navigators to the seminal discoveries of the 17th century; from the crucial work of Poincaré to the startling, sometimes controversial findings and theories made possible by modern mathematics and computer simulations.

—from W.H. Freeman and Company
W.H. Freeman and Company, 1993, 317 pages, 6 1/4" x 9 1/2", paperback, \$15.95



Order by phone for faster service!
1-800-544-4565 (Visa or MasterCard only)
In D.C. area: 202-331-9653

Science News Books, 1719 N Street, NW
Washington, DC 20036

FatalDefectH
NewtonsClock
MathTour
IslandsTruth
SetPeterson

Please send me the book(s) marked below. I enclose a check payable to Science News Books for the price of the book(s) plus \$2.00 postage and handling for each book (maximum \$4.00 charge). Domestic orders only.

___ Fatal Defect, \$25.00 ___ The Mathematical
___ Newton's Clock, \$15.95 Tourist, \$14.95
___ Islands of Truth, \$12.95 ___ Buy all four, \$57.95

Name _____

Address _____

City _____

State _____ Zip _____

Daytime Phone _____

(used only for problems with order)

RB2338

Also available, Peterson's first two bestselling books:

Islands of Truth

Do you know of a mathematical formula that can transform circles into squares? Can you turn a beach ball inside out without letting out the air? Do you want to know how a rubber band may help a traveling salesman? Peterson introduces you to strange vibrations in the shadows of chaos, new twists in knot physics, and the straight side of circles. From astonishing applications of number theory to new developments in fractal geometry and the power of computer graphics, *Islands of Truth* is an interesting investigation into the dynamic world of modern mathematics.

—from W.H. Freeman and Company

W.H. Freeman and Company, 1990, 325 pages, 5 1/4" x 9", paperback, \$12.95

The Mathematical Tourist

The Mathematical Tourist takes you on an unforgettable tour through a fascinating land of chaos and order; of cryptology and code breaking; of higher dimensions and soaring fractal towers. You'll visit some rather fantastic (yet very real) regions, including:

- *Compumania*, where the search for the highest prime number yields clues for the creation of impenetrable computer security systems
 - *Topology*, where the minimal surfaces of soap bubbles and soap films are being replicated in the construction of tentlike domes
 - *Statland*, where one party can toss a coin by phone, fully confident that the other party isn't cheating
- from W.H. Freeman and Company

W.H. Freeman and Company, 1988, 240 pages, 6" x 9 1/4", paperback, \$14.95