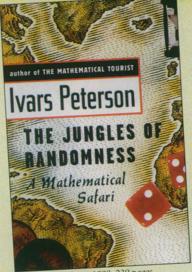
Brand-new from Science News'

Math and Physics Writer Ivars Peterson

Join acclaimed science writer Ivars Peterson on an adventurous trek through an exotic world of weird dice, fractal drums, firefly rhythms and chaotic amusement park rides, as he explores the wilds of randomness. A tricky, intriguing, even elusive concept, randomness affects our lives in an astonishing range of ways-from the fun of games we play and the noise that spoils the music we hear, to the ways viruses grow and atoms combine. Hidden rules and secret patterns lurk within apparently random events and chance encounters.



John Wiley & Sons, 1998, 239 pages, 61/4" x 91/2", hardcover, \$24.95

signed by Ivars An eye-opening discovery awaits at **Peterson** every turn, from the simple secret behind winning a game of Chutes and Ladders, to why any group of six people must include at least three acquaintances or three strangers, and why you can scratch a compact disk and still get flawless sound. We learn how a game of darts can provide a remarkably good estimate of the value of π , how pacemaker cells in the heart begin to beat in synchrony, and how carefully designed chaos translates into the thrilling ride of a Tilt-A-Whirl.

Along the way we also meet a host of characters, both charming and eccentric, who either made striking discoveries about randomness or were profoundly affected by it. Like the case of Williard Longcor, a man gripped with a passion for throwing dice, who meticulously records the outcomes of millions of tosses and helps correct the theory of the distribution of runs.

The Jungles of Randomness offers a delightful journey into the exciting world of mathematical discovery and imparts a rare vision of the fundamental playfulness of mathematics in our lives. —from John Wiley & Sons

Times Books, 1995, 260 61/4" x 91/2", paperback, \$13.00

Also available, Peterson's first four bestselling books: _

Fatal Defect A plane crashes, killing all passengers aboard. The telephone system goes down, cutting off millions of customers. A hotly promoted new computer chip fails, sending consumers into a tailspin.

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. 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. —from Times Books

Newton's Glock 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. 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

W.H. Freeman, 1993, 317 pages, 61/2" x 91/2", paperback, \$15.95

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

W.H. Freeman, 1990, 325 pages, 54" x 9", paperback, \$14.95

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
- · Topologia, 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 -from W.H. Freeman other party isn't cheating

W.H. Freeman, 1988, 240 pages, 6" x 91/4", paperback, \$14.95

	Science News Books, 1719 N Street, NW Washington, DC 20036		JunglesRandH FatalDefect NewtonsClock	MathTour IslandsTruth	
	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 \$3.95 postage and handling for the first book and \$1.00 for each additional one (\$5.95 max). Domestic orders only.				
	The Jungles of Randomness, \$24.95 Fatal Defect, \$13.00	Islands of	Newton's Clock, \$15.95 Islands of Truth , \$14.95 The Mathematical Tourist, \$14.95		
	NameAddressCity				
	State Zip				
	Daytime Phone				
		used only for problems with o	order)	RB2803	

Order by phone for faster service! • 1-800-544-4565

Visa or MasterCard only) • In DC area: 202-331-9653 • E-mail: snbooks@sciserv.org