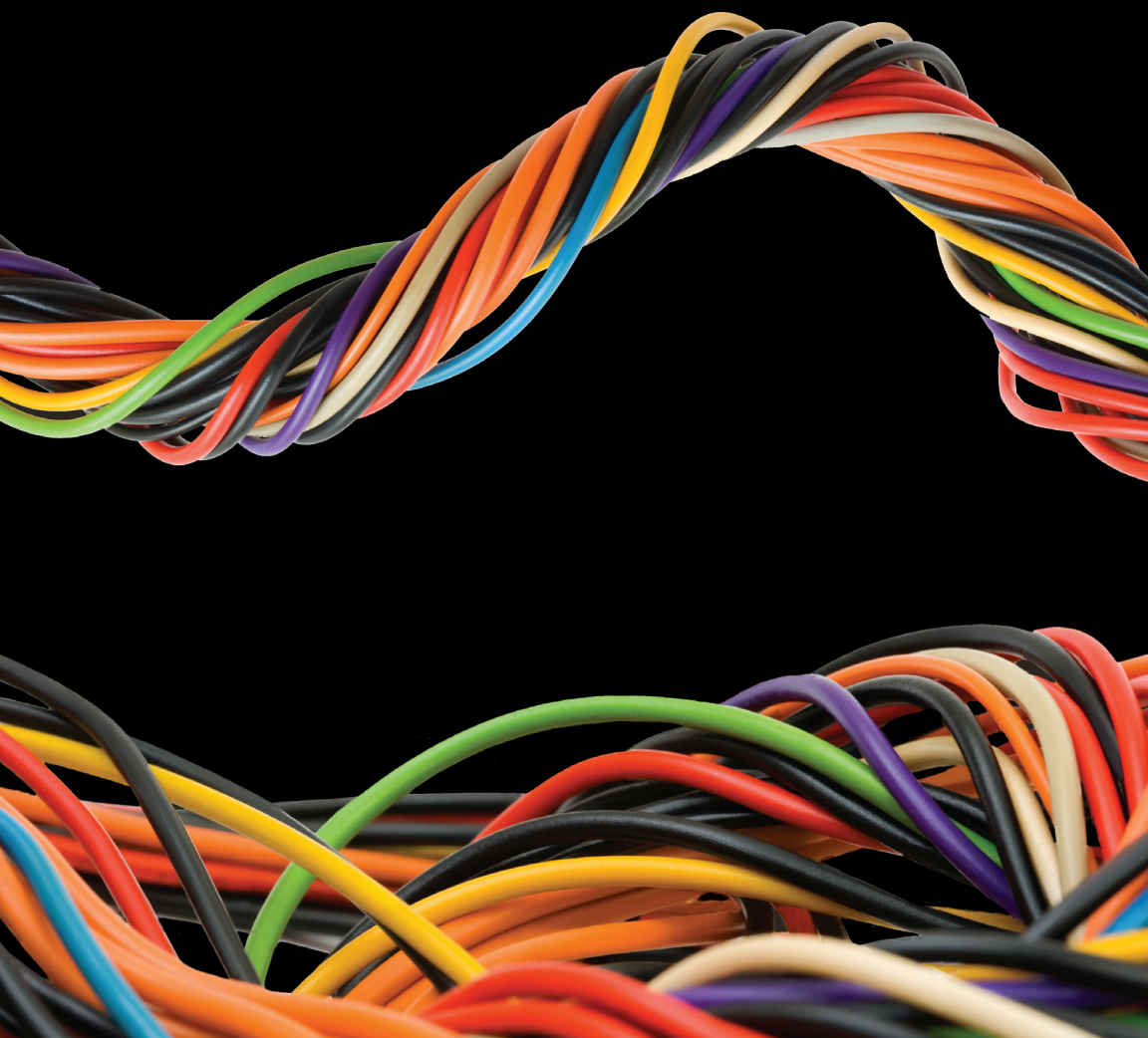


Physics & Astrophysics
2012



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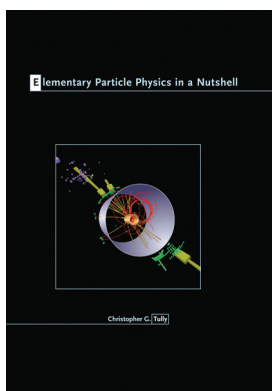
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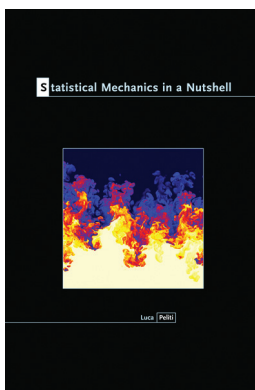
Christopher G. Tully is professor of physics at Princeton University.

2011. 320 pages. 6 halftones. 129 line illus.
Cl: 978-0-691-13116-0 \$75.00 | £52.00

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Luca Peliti



"This book provides a clear, no-nonsense approach to the basic ideas of the subject as well as an introduction to some of its modern applications. The main ideas are well illustrated by examples and exercises. There are important sections on numerical

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Luca Peliti is professor of statistical mechanics at the University of Naples Federico II in Italy.

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in a nutshell

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Anupam Garg

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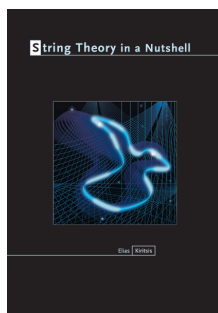
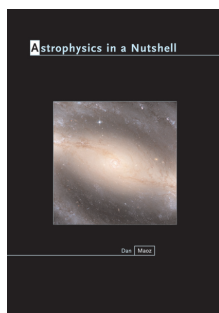
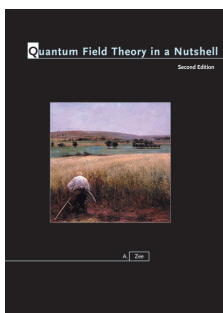
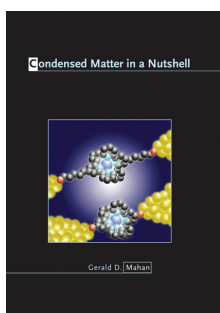
This graduate-level physics textbook provides a comprehensive treatment of the basic principles and phenomena of classical electromagnetism. While many electromagnetism texts use the subject to teach mathematical methods of physics, here the emphasis is on the physical ideas themselves.

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Anupam Garg is professor of physics and astronomy at Northwestern University.

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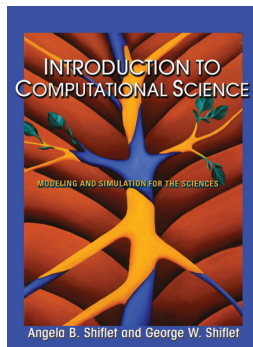
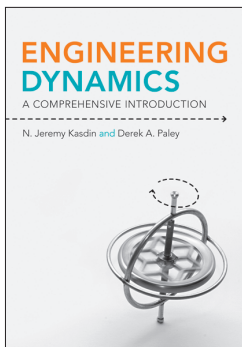
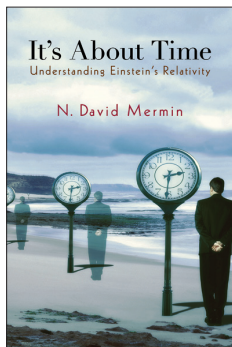
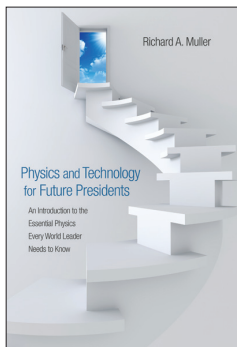
How Did the Universe Begin?

Paul Steinhardt



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Anne Greenbaum is professor of applied mathematics at the University of Washington. Timothy P. Chartier is associate professor of mathematics at Davidson College.

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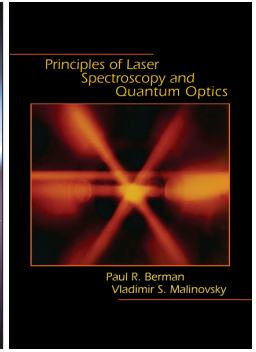
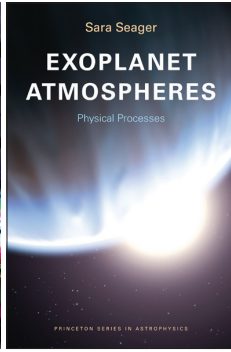
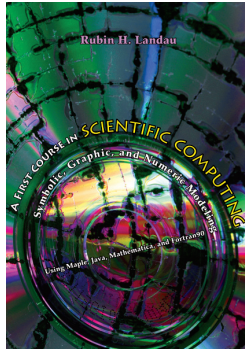
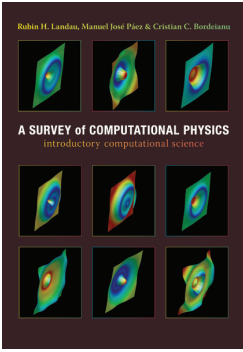
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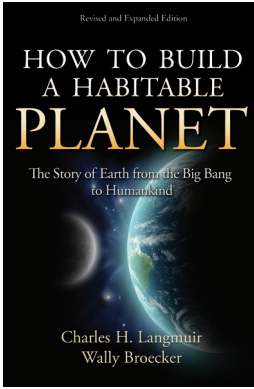
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The Story of Earth from the Big Bang to Humankind

Charles H. Langmuir & Wally Broecker



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Since its first publication more than twenty-five years ago, *How to Build a Habitable Planet* has established a legendary reputation as an accessible yet scientifically impeccable introduction to the origin and evolution of Earth, from the Big Bang through the rise of human civilization. This classic account of how our habitable planet was assembled from the stuff of stars introduced readers to planetary, Earth, and climate science by way of a fascinating narrative. Now this great book has been made even better. Harvard geochemist Charles Langmuir has worked closely with the original author, Wally Broecker, one of the world’s leading Earth scientists, to revise and expand the book for a new generation of readers for whom active planetary stewardship is becoming imperative.

Charles H. Langmuir is the Higgins Professor of Geochemistry at Harvard University. Wally Broecker is the Newberry Professor of Earth and Environmental Sciences at Columbia University.

May 2012. 720 pages. 16 color plates. 62 halftones. 220 line illus. 18 tables.

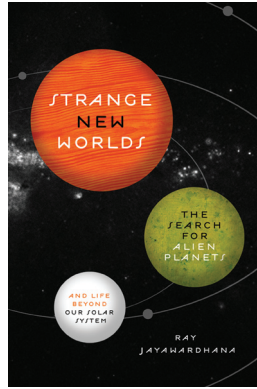
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Ray Jayawardhana



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In *Strange New Worlds*, renowned astronomer Ray Jayawardhana brings news from the front lines of the epic quest to find planets—and alien life—beyond our solar system.

Only in the past fifteen years, after millennia of speculation, have astronomers begun to discover planets around other stars—hundreds in fact. But the hunt to find a true Earth-like world goes on. In this book, Jayawardhana vividly recounts the stories of the scientists and the remarkable breakthroughs that have ushered in this extraordinary age of exploration. He describes the latest findings—including his own—that are challenging our view of the cosmos and casting new light on the origins and evolution of planets and planetary systems. He reveals how technology is rapidly advancing to support direct observations of Jupiter-like gas giants and super-Earths—rocky planets with several times the mass of our own planet—and how astronomers use biomarkers to seek possible life on other worlds.

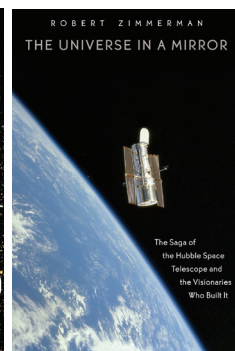
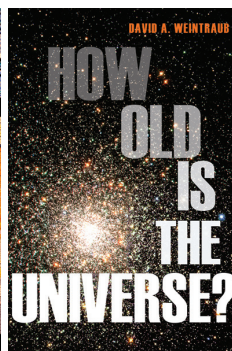
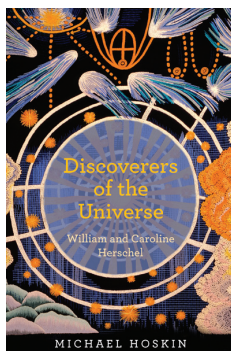
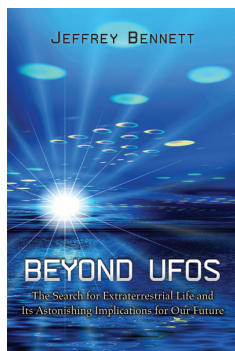
Ray Jayawardhana is professor and Canada Research Chair in Observational Astrophysics at the University of Toronto, as well as an award-winning science writer.

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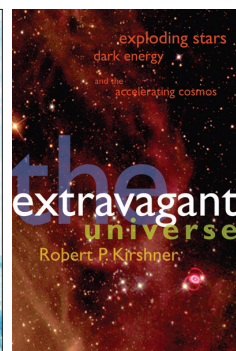
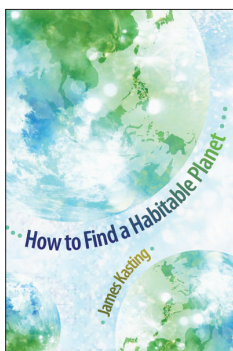
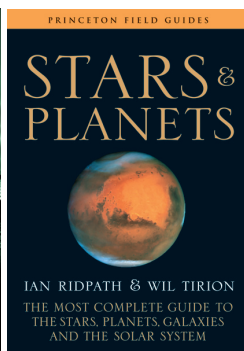
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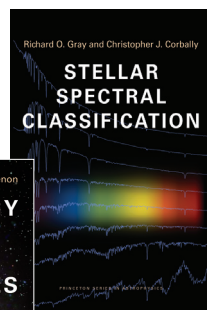
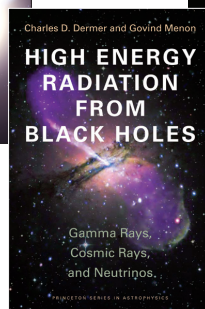
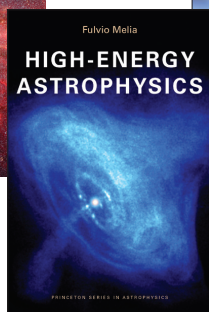
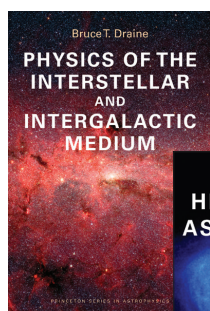
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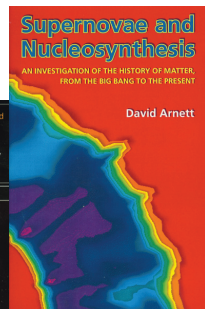
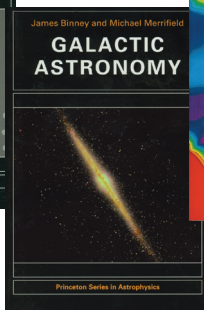
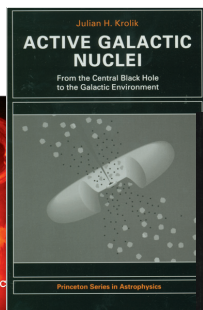
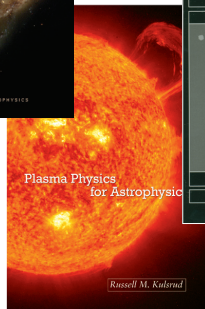
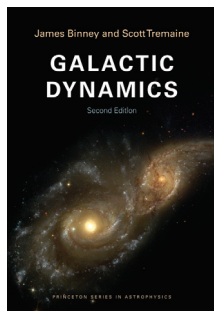
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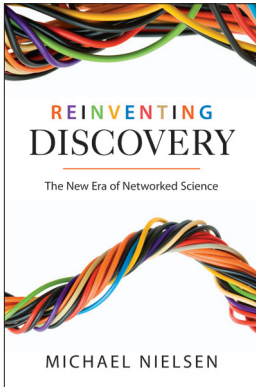
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Michael Nielsen is one of the pioneers of quantum computing. He is an essayist, speaker, and advocate of open science.

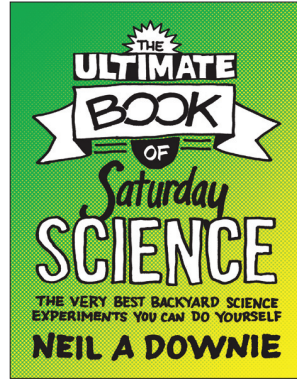
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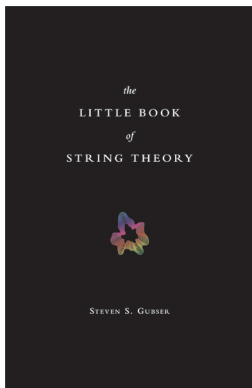
Neil A. Downie is a lead scientist with Air Products and Chemicals, Inc., and visiting professor of multidisciplinary engineering at the University of Surrey.

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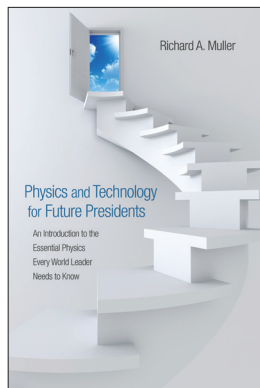
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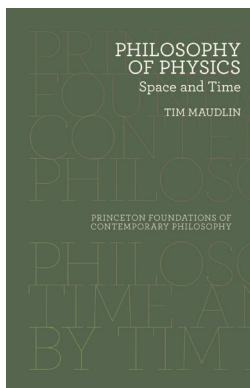
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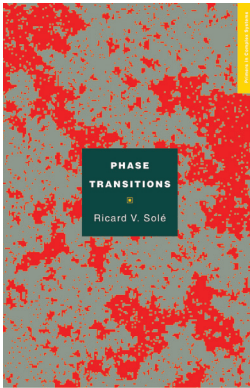


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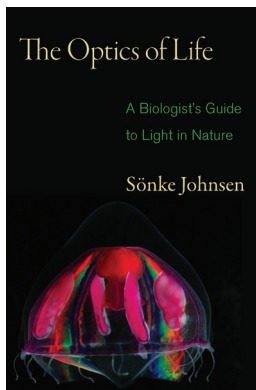
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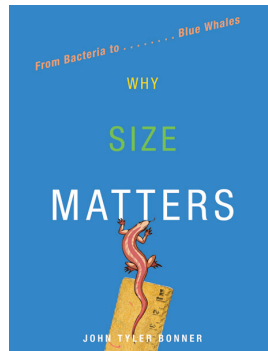
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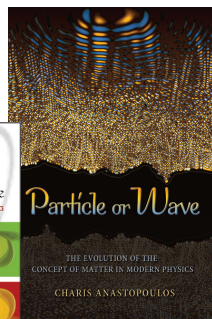
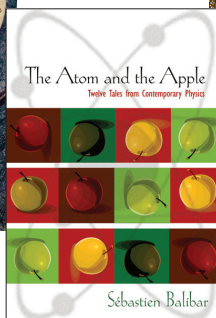
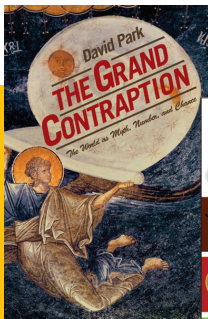
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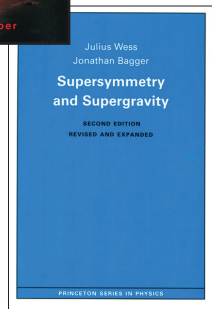
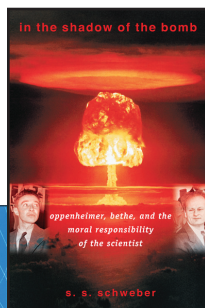
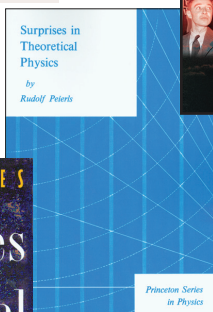
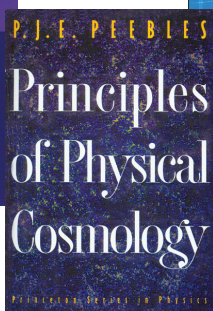
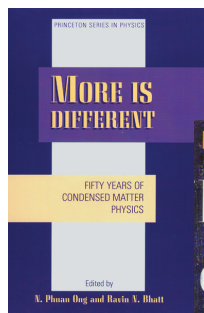
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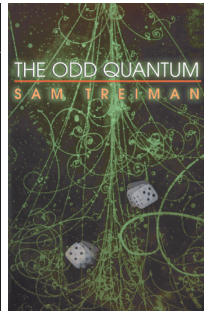
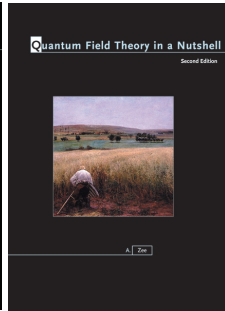
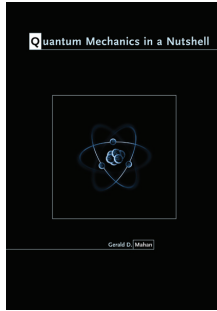
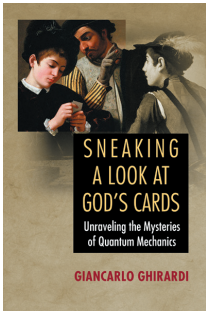
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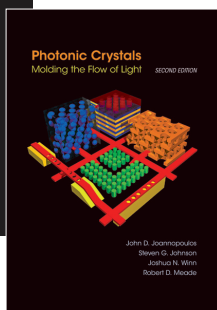
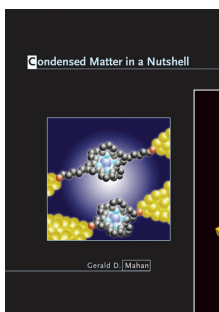
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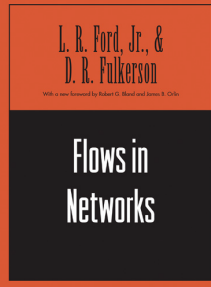
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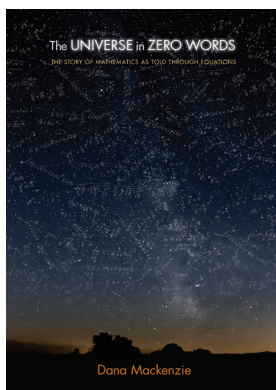
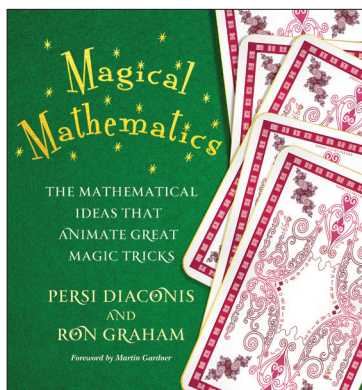
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Persi Diaconis is professor of mathematics and statistics at Stanford University and a professional magician. Ron Graham is professor of mathematics and computer science at the University of California, San Diego, and a professional juggler.

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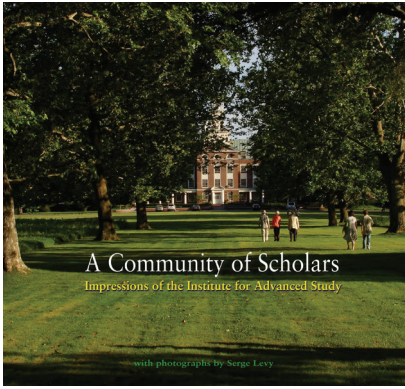
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Dana Mackenzie has a PhD in mathematics from Princeton and was a mathematics professor for thirteen years before becoming a full-time writer.

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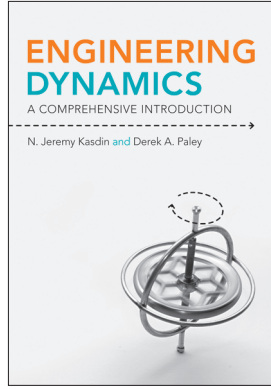
This beautifully illustrated anthology celebrates eighty years of history and intellectual inquiry at the Institute for Advanced Study, one of the world's leading centers for theoretical research. Featuring essays by current and former members and faculty along with photographs by Serge J-F. Levy, the book captures the spirit of curiosity, freedom, and comradeship that is a hallmark of this unique community of scholars.

Founded in 1930 in Princeton, New Jersey, the institute encourages and supports fundamental research in the sciences and humanities—the original, often speculative thinking that can transform how we understand our world. Albert Einstein was among the first in a long line of brilliant thinkers to be affiliated with the institute. They include Kurt Gödel, George Kennan, J. Robert Oppenheimer, Erwin Panofsky, Homer A. Thompson, John von Neumann, and Hermann Weyl. This volume offers an intimate portrait in words and images of a storied institution that might best be described as a true academic village. The personal reflections collected here—written by leading figures from across the disciplines—bring this exceptional academic institution and its history vibrantly to life.

The contributors to this anthology are Sir Michael Atiyah, Chantal David, Freeman Dyson, Jane F. Fulcher, Peter Goddard, Barbara Kowalzig, Wolf Lepenies, Paul Moravec, Joan Wallach Scott, and David H. Weinberg.

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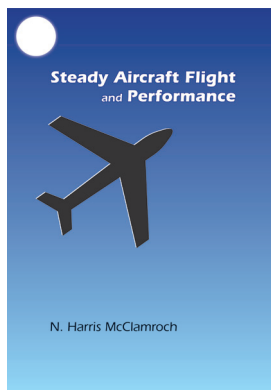
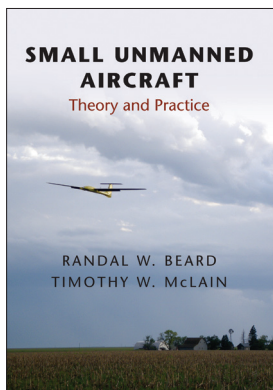
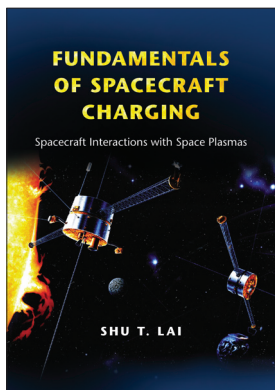
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N. Jeremy Kasdin is professor of mechanical and aerospace engineering and lead investigator for the Terrestrial Planet Finder project at Princeton University. Derek A. Paley is assistant professor of aerospace engineering and director of the Collective Dynamics and Control Laboratory at the University of Maryland.

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Shu T. Lai is currently a visiting scientist at the Space Propulsion Laboratory, Department of Aeronautics and Astronautics, Massachusetts Institute of Technology and a senior editor for *IEEE Transactions on Plasma Science*. He is a fellow of the Institute of Electrical and Electronics Engineers.

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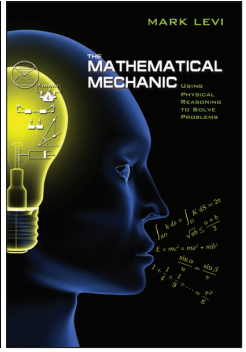
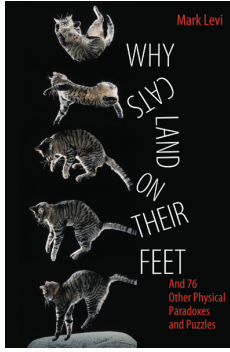
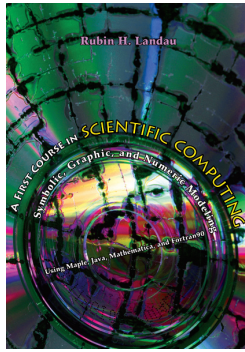
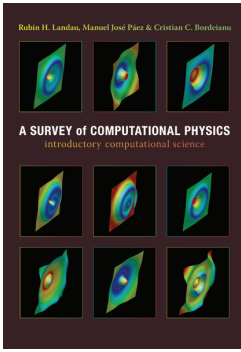
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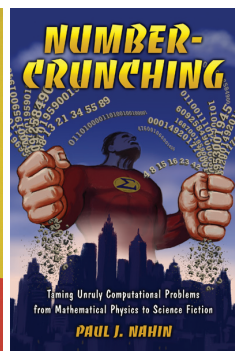
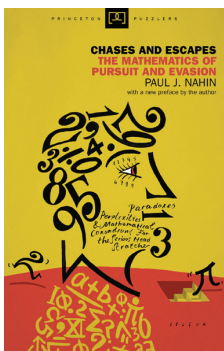
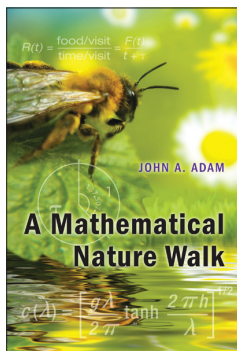
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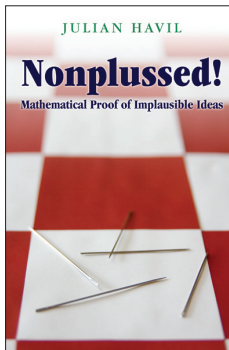
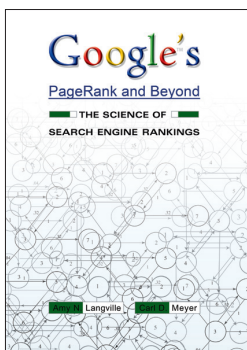
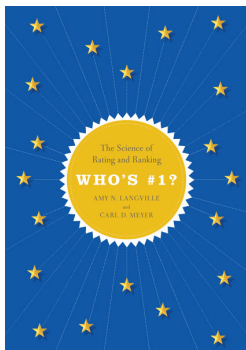
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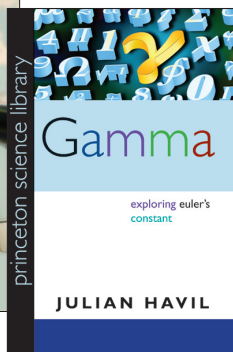
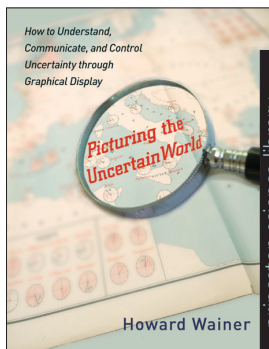
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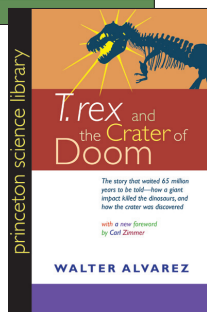
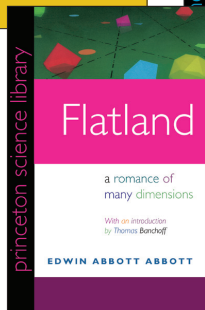
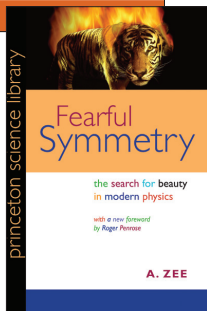
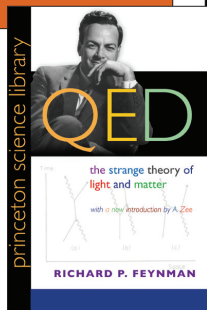
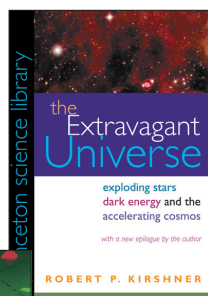
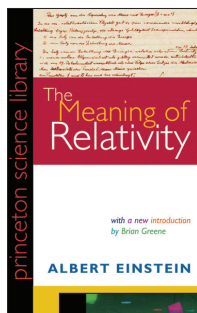
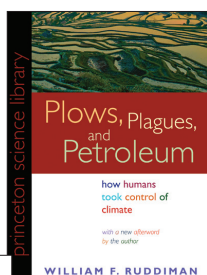
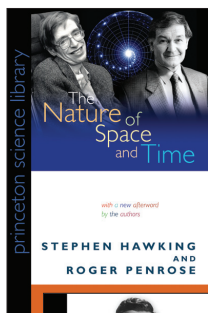
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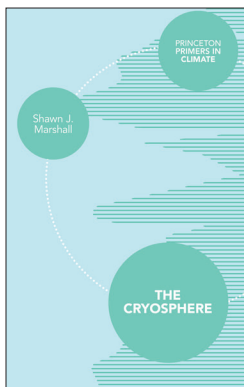
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Accessible and authoritative, this primer also features a glossary of key terms, suggestions for further reading, explanations of equations, and a discussion of open research questions in the field.

Shawn J. Marshall is the Canada Research Chair in Climate Change at the University of Calgary.

2011. 304 pages. 34 line illus. 8 tables.

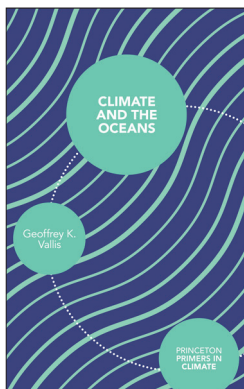
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Geoffrey K. Vallis is professor and senior scientist in the Atmospheric and Oceanic Sciences Program and the Geophysical Fluid Dynamics Laboratory, Princeton University.

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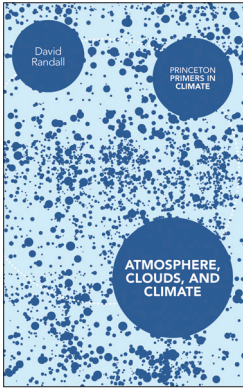
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David Randall is professor of atmospheric science at Colorado State University.

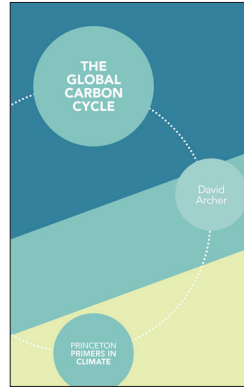
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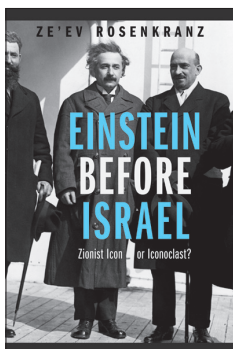
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Ze'ev Rosenkranz is senior editor at the Einstein Papers Project at the California Institute of Technology and a former curator of the Albert Einstein Archives at the Hebrew University of Jerusalem.

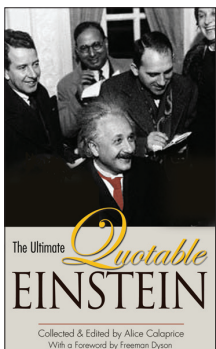
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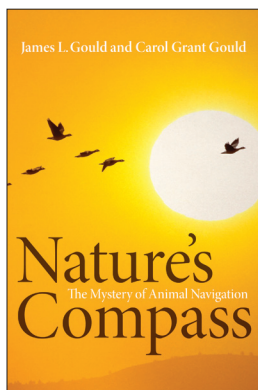
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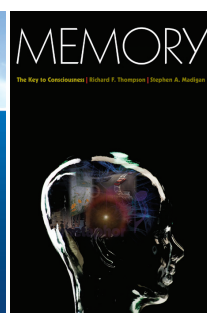
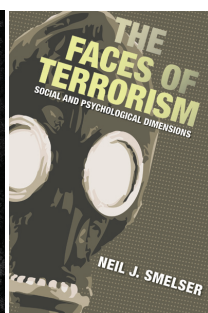
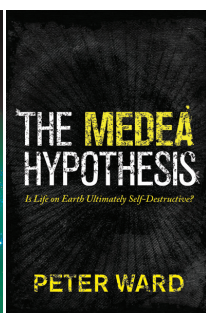
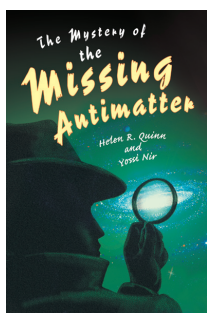
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