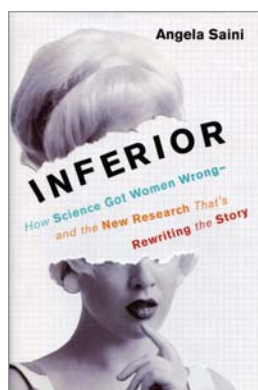


NEW BOOKS & MEDIA



Inferior

How Science Got Women Wrong—and the New Research That's Rewriting the Story

Angela Saini

Beacon Press, 2017. \$25.95

Numerous scientific studies over the years, in fields ranging from biology to psychology to economics, have claimed to demonstrate that men are intellectually superior to women. In *Inferior*, science journalist Angela Saini tackles those controversial conclusions head-on and shows how a combination of gender

stereotyping and a male-dominated scientific community has skewed findings in favor of men. But Saini offers some hope: She interviews both male and female scientists and concludes that the tide is turning. Scientists are challenging negative research about women, and women's contributions and potential are finally being acknowledged in the scientific community. —CC

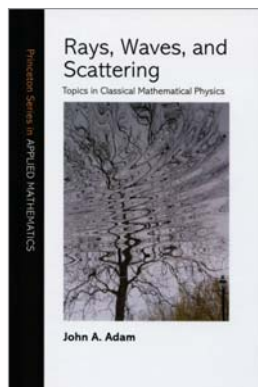
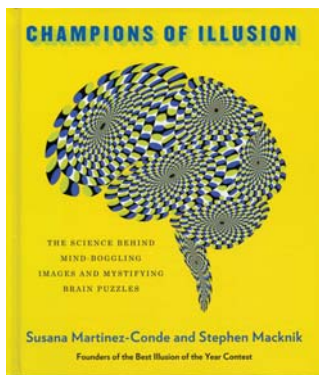
Champions of Illusion

The Science Behind Mind-Boggling Images and Mystifying Brain Puzzles

Susana Martinez-Conde and Stephen Macknik

Scientific American/Farrar, Straus and Giroux, 2017. \$26.00

The curious way the human brain processes images is the subject of this entertaining compilation by Susana Martinez-Conde and Stephen Macknik, neuroscientists and professors at SUNY Downstate Medical Center. The book includes more than 50 photos, drawings, and diagrams culled from the first decade of the Best Illusion of the Year Contest, which the authors founded in 2005. The images, which combine science and art, are grouped in chapters according to type of illusion—such as color, shape, or perspective—and each is accompanied by an explanation of how it was created and what it reveals about how our brains operate. Readers will find the visual puzzles positively addictive. —CC



Rays, Waves, and Scattering

Topics in Classical Mathematical Physics

John A. Adam

Princeton U. Press, 2017. \$85.00

Old Dominion University mathematician John Adam tackles the physics of waves in this textbook, looking at such phenomena as light, atmospheric waves, and acoustic scattering. Adam writes that the book is aimed at advanced undergraduates or beginning graduate students hoping to learn more about wave theory. Students and professors should be aware that this is a mathematically ambitious book requiring experience with differential equations.

Given the diverse subject matter, it's hard not to feel there was a missed opportunity for more varied images, but the book's graphs and diagrams are well-drawn and clearly labeled. —MB



Dr. Felix Rohde, Product Management

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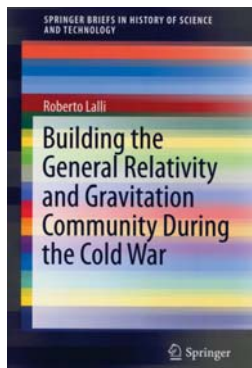


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Building the General Relativity and Gravitation Community During the Cold War

Roberto Lalli

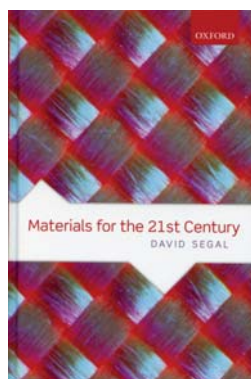
Springer, 2017. \$54.99 (paper)



Historian of physics Roberto Lalli gives a rigorous, scholarly account of how Einstein's theory of gravitation returned to the mainstream of physics research in the mid 20th century. Lalli argues that an inter-

national community of researchers coalesced around a newly named field they called "general relativity and gravitation," and that the formation of new institutions supported this field despite its controversy within the physics community at large. The helpful appendices include a list of all general relativity research centers around the mid 1950s, with information about major figures and work done in each location. The book will be of interest to scholars of Cold War physics or the history of cosmology.

—MB



Materials for the 21st Century

David Segal

Oxford U. Press, 2017. \$75.00

Scientist and inventor David Segal opens his textbook on materials science by referencing the movie *The Graduate* (1967), writing that in a modern remake, "Benjamin may well be advised to seek a career in 'materials.'" The interdisciplinary study of materials, says Segal, underpins everything from consumer goods to medical treatments. *Materials for the 21st Century* tackles the daunting task of introducing the reader to this varied field of study, and Segal discusses everything from nuclear power and LEDs to candy floss (better known to American readers as cotton candy). The 190-page

glossary describing 500 areas of current materials research is a bit puzzling; it's hard to imagine how the average reader could begin to grapple with such a long list. But providing an overview of materials science is a worthy goal, and Segal's writing is clear and engaging.

—MB

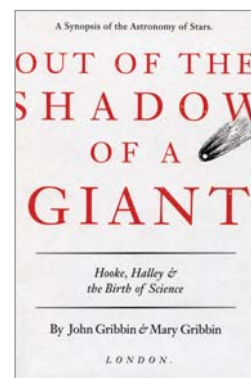
Out of the Shadow of a Giant Hooke, Halley, and the Birth of Science

John Gribbin and Mary Gribbin

Yale U. Press, 2017. \$32.50

Although Isaac Newton dominated 17th-century science and is widely regarded as the father of the English scientific revolution, two of his contemporaries and fellow countrymen, natural philosopher and architect Robert Hooke and astronomer Edmond Halley, were pioneering scientists in their own right, say husband-and-wife science writers John Gribbin and Mary Gribbin. In this dual biography, the authors focus on the lives and scientific achievements of Hooke and Halley, the ways in which Newton benefited from their research, and the often-contentious relationship among the three men. The authors provocatively argue that Hooke, Halley, and Newton formed a trinity of knowledge and learning on which much of modern science is based.

—CC

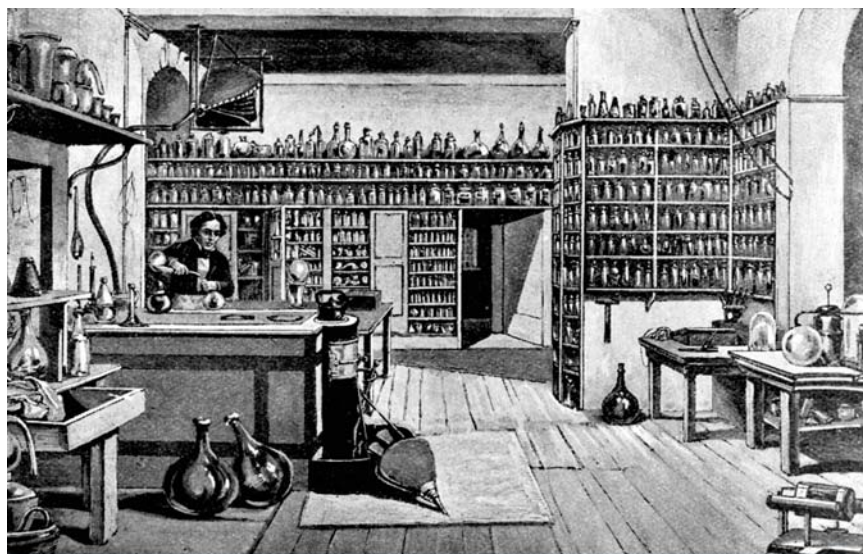


The Oxford Illustrated History of Science

Iwan Rhys Morus, ed.

Oxford U. Press, 2017. \$39.95

This excellent volume covers the history of science from the ancient Mediterranean to the *Hubble Space Telescope* in 12 accessible chapters. Editor Iwan Rhys Morus and his contributors highlight how ideas about the proper methods for scientific inquiry have changed over time. Some practices and subjects that we now consider unscientific, such as alchemy or astrology, were once central to the study of nature; other things we now consider crucial to proper science, such as peer review, are relatively recent innovations. By the end of the book, the reader will gain a new appreciation for the richness and diversity of the history of science. As the title suggests, beautiful color images of books, instru-



OXFORD UNIVERSITY PRESS

ments, and people are woven throughout the text. The book belongs on the shelf of everyone interested in the subject matter, and the

reasonable price makes it an attractive option for students in history of science survey courses.

—MB **IT**