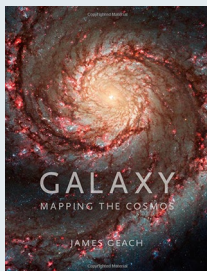


### The Atlas of Mars: Mapping its Geography and Geology

By Kenneth S. Coles, Kenneth L. Tanaka and Philip R. Christensen

CAMBRIDGE UNIVERSITY PRESS: 2019. 300PP. £39.99

After Earth, Mars is probably the most well-studied planet in our Solar System. Starting with Mariner 4, which reached Mars in 1965 and surveyed roughly 1% of its surface at a resolution of >1 km per pixel, the planet has now been studied in its entirety by multiple missions, reaching resolutions of 30 cm per pixel. This book provides a compilation of geographical and geological maps of Mars that are the product of this legacy. This atlas is meant to provide a reference for Mars researchers but also a synthesis of our current knowledge of the 'red planet' for non-experts and the public.

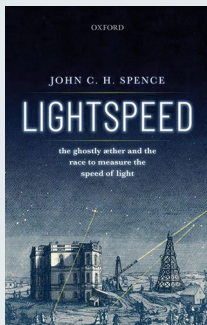


### Galaxy: Mapping the Cosmos

By James Geach

REAKTION BOOKS: 2019. 272PP. £25.00

First published five years ago, James Geach's book offers a simplified but complete view of the properties and evolution of galaxies. After setting the scene of what a galaxy actually is (a 'city' of stars), chapters two and three cover the zoology of galaxies, their building blocks and their properties. The final two chapters describe our current understanding of galaxy evolution and how we use computers to simulate our cosmos. This is a richly illustrated book, written in an accessible language that should appeal to anyone interested in knowing more about the Milky Way's galactic 'siblings'.

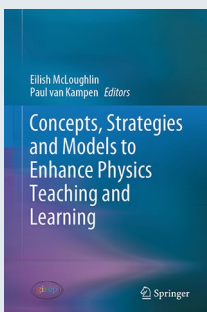


### Lightspeed: The Ghostly Aether and the Race to Measure the Speed of Light

By John C. H. Spence

OXFORD UNIVERSITY PRESS: 2019. 256PP. £25.00

Light permeates our world, shaping in a fundamental way how we experience (and interact) with the Universe. Our understanding of what light is and what its properties are has radically changed since the first experiments to define its speed by Ole Roemer (in the 1670s). From Faraday and Maxwell describing how light propagates to Einstein showing the constancy of the speed of light and all else entailed in his theories of special and general relativity, John Spence recounts this history with a focus on the key personalities that helped it move forward, the science they did and the legacy they left behind.



### Concepts, Strategies and Models to Enhance Physics Teaching and Learning

Edited by Eilish McLoughlin and Paul van Kampen

SPRINGER INTERNATIONAL PUBLISHING: 2019. XXVI, 238PP. £109.99

Physics as a discipline is perhaps one of the thorniest subjects to teach children and young adults as it includes many complex ideas, often described by complex mathematics. This tome, a result of a 2017 conference on 'Bridging research and practice in physics training and learning', includes twenty articles that present current research on learning and teaching physics. The articles also discuss ways to increase motivation and engagement of students with physics by combining traditional and non-traditional learning environments.

Published online: 8 November 2019

<https://doi.org/10.1038/s41550-019-0935-4>