

Five Photons: Remarkable Journeys of Light Across Space and Time

By James Geach

REAKTION BOOKS: 2018. 184 PP. £14.95

Light permeates almost everything around us. It is the primary way in which we communicate and with which we try to understand the Universe. Light is the central theme of James Geach's book. After an introductory chapter on what light is, the book identifies five different sources of light that are key probes of the cosmos. This framework allows Geach to cover everything from the cosmic microwave background, to stars, dark energy, black holes and the epoch of reionization. No equations are to be seen and the style is conversational, making this book a perfect entryway to anyone interested in learning a bit more about the inner workings of the Universe.



Accessory to War: The Unspoken Alliance Between Astrophysics and the Military

By Neil deGrasse Tyson and Avis Lang

W. W. NORTON & COMPANY: 2018. 576 PP. £19.99

In the closing statement of this book, deGrasse Tyson and Lang call astrophysics "the handmaiden of human conflict". For some readers, this statement might perhaps be counter-intuitive but in this thorough book of almost 600 pages (150 of which are extensive notes and bibliography) the authors present an elaborate exposé of the myriad of ways astrophysics intertwines with military R&D. From the first use of constellations to navigate warships to pitching Galileo's spyglass as a means to detect enemies from afar to Northrop Grumman applying military know-how to the deployment of the James Webb Space Telescope into space, the two-way interaction between our discipline and the military is self-evident.



Astrochemistry VII: Through the Cosmos from Galaxies to Planets

Edited by Maria Cunningham, Tom Millar and Yuri Aikawa

CAMBRIDGE UNIVERSITY PRESS: 2018. 462 PP. £95.00

With increasingly sensitive spectrographs at our disposal, the chemical properties of the interstellar medium, the atmospheres of planets, of stars and everything in between have come to the forefront of astrophysics. This tome of proceedings from the recent IAU symposium on astrochemistry in Puerto Varas, Chile, collects reviews as well as contributed talks that span not only all physical scales but also the full electromagnetic spectrum. Starting with an overarching review of the status of the field (by Ewine van Dishoeck), the book provides a good overview of what is happening in the field of astrochemistry.



The Race to the Moon Chronicled in Stamps, Postcards, and Postmarks: A Story of Puffery vs. the Pragmatic

By Umberto Cavallaro

SPRINGER PUBLISHING INTERNATIONAL: 2018. XI, 338 PP. £24.99

The 20th of July 2019 will be the 50th anniversary of the first humans (Neil Armstrong and Buzz Aldrin) landing on the Moon. The story of how the Cold War and the space race between the USA and the Soviet Union led to major advancements — leaps — in space technology, culminating in putting humans in space is known to most. Umberto Cavallaro retells this story, focusing on the differences between the two space programs. He showcases in particular a rich collection of stamps, postcards and postmarks of that era. A powerful tool of marketing (or propaganda), the imagery presented in the book allows a complementary view of how the space race was framed by both sides of the Iron Curtain.

Published online: 3 December 2018 https://doi.org/10.1038/s41550-018-0646-2