with the actual measured data; and such a comparison is sorely lacking in this book.

In the last chapter the authors present mostly computed performances of chiral STFs for use in such applications as optical filters, optical sensors, optical emitters, and tuning and bandwidth control. Use of porosity in chiral STFs for such optical devices as sensors, emitters, or tuning and bandwidth control is far too speculative at this stage of development.

The scope of the book, per its title and preface, is far too broad and ambitious to handle. The authors suggest that it is targeted for graduate students in optics, practicing engineers in industry, or expert researchers. I would not, however, consider *Sculptured Thin Films* as a graduate text because of the shortcomings listed above. Practicing engineers in industry will find little use for the book as they look for workable recipes that are soundly tested against actual products.

Lakhtakia and Messier's book could be a good compendium and reference to students and researchers studying chiral-STF materials, properties, and potential applications. It includes an extensive bibliography—almost 450 references, with 122 being literature published by Lakhtakia and his colleagues—which could be useful for researchers in the field. But for understanding the controlled nanoengineering of optical-device-quality STFs and useful devices, readers will have to dig deep for other books and journal articles.

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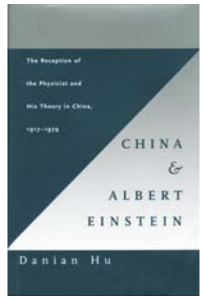
China and Albert Einstein: The Reception of the Physicist and His Theory in China 1917–1979

Danian Hu
Harvard U. Press, Cambridge, MA, 2005. $39.95 (257 pp.).
ISBN 0-674-01538-X

Since the time of biochemist and historian Joseph Needham, many studies on science in East Asia have focused on the traditional science that preceded the introduction of Western science. But as scientific and technological contributions from East Asia become increasingly visible, more studies on modern science and technology will appear. Danian Hu's *China and Albert Einstein: The Reception of the Physicist and His Theory in China 1917–1979* was published while the world celebrated the centennial of relativity's birth and world leaders paid increasingly serious attention to China as a rising global leader. The book makes an important and timely addition to the historical studies of modern science in East Asia. Hu, an assistant professor of history at the City College of New York, demonstrates an impressive familiarity with relevant primary sources, published and unpublished, and illuminates a richness of his subject.



Readers might find the book overly descriptive; in particular, the first chapter, on the introduction of Western science to China, which begins with the Italian Jesuit priest Matteo Ricci arriving in the country during the Ming Dynasty, might seem too lengthy. Nevertheless, Hu attempts to make several thought-provoking arguments. In explaining China's quick and unanimous reception of relativity theory in the years after 1917, he first stresses Japan's influence through translations of writings on relativity theory in Japanese—most notably translations of Ishiwara Jun and through Chinese students who had studied physics in Japan. If Hu is correct, this revelation marks an important revision of the current thrust in Chinese history of science, which emphasizes Japan's negative roles.

Second, Hu argues that the absence of the research and educational traditions of classical physics set the stage for China's positive reception of relativity theory in the late 1910s through the 1930s. Yet, I find this argument less convincing than the first. Certainly, the absence of a tradition in classical physics almost logically entails the lack of opposition against relativity theory based on classical physical ideas. But the book does not historically demonstrate the specific roles that the absence allegedly played. The author could have achieved such a demonstration through a comparative study, which he does not.

I believe a fundamental problem of the book might be its formulation of its central goal: to explain China's quick reception of relativity theory. Hu seems to assume that China passively received the same relativity theory as the one in Europe or in Japan. Today's historians of science who are concerned with the dissemination of scientific ideas would find Hu's approach unacceptable. The author fails to ask what consequences language, culture, institutional differences, or Japan's influence had in the conceptualization and practices of relativity theory in China. This shortcoming is unfortunate because, considering the author's familiarity with the subject, he easily could have theorized how the practices of relativity theory differed in China from those in the West.

One argument that I find potentially fascinating is that the revolutionary atmosphere engendered by the May Fourth Movement in Beijing in 1919 helped the reception and dissemination of relativity theory, which Chinese intellectuals in the late 1910s and early 1920s deemed as revolutionary. Unfortunately, Hu does not fully develop that intriguing theme. His argument does not go much further than pointing out superficial connections between the Zeitgeist and perceptions of relativity theory, and his closer biographical investigations of physicists do not substantiate the link between the politico–cultural environment and relativity theory.

The most interesting and successful part of the book is the discussion of relativity theory during China's Cultural Revolution (1966–1976). The chapter might give a sense of déjà vu to readers familiar with the works of Loren Graham, Mark Walker, and others on science in Soviet Russia and Nazi Germany. Compared with those earlier studies on science and ideology, the picture that Hu's book presents appears to be somewhat simplistic, one in which political pressures distort truthful science while honest and heroic scientists fight against corrupt politicians. In addition, I cannot help but wonder whether China's nuclear program had any relevance in the vindication of relativity theory—a question Hu does not explicitly consider. Nonetheless, the author shows that the study of Chinese science during the Cultural Revolution might lead to an important reexamination of the relation among science, ideology, and politics throughout the world.

Overall, the analytical framework of Hu's book is problematic. Thus the author sometimes gives unsatisfactory analyses of rich and fascinating materials and fails to ask potentially important questions. His strength seems to lie in his studious accounts of complex stories. Despite its shortcomings, his meticulously documented study is an important step forward in understanding some aspects of the history of science in 20th-century China.

He successfully narrates stories with a minimum of equations, making *China and Albert Einstein* accessible to a wide audience.

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New Books

Astronomy and Astrophysics

Astronomical Spectroscopy: An Introduction to the Atomic and Molecular Physics of Astronomical Spectra. J. Tennyson. *Imperial College Press Advanced Physics Texts 2*. Imperial College Press, London, 2005. $52.00, $28.00 *paper* (192 pp.). ISBN 1-86094-513-9, ISBN 1-86094-529-5 *paper*

Digital Astrophotography: The State of the Art. D. Ratledge, ed. *Patrick Moore's Practical Astronomy Series*. Springer-Verlag, London, 2005. $34.95 *paper* (177 pp.). ISBN 1-85233-734-6

Dust in the Universe: Similarities and Differences. K. S. K. Swamy. *World Scientific Series in Astronomy and Astrophysics 7*. World Scientific, Hackensack, NJ, 2005. $58.00 (252 pp.). ISBN 981-256-293-1

The Electromagnetic Spectrum of Neutron Stars. A. Baykal, S. K. Yerli, S. C. Inam, S. Grebenev, eds. *NATO Science Series 2: Mathematics, Physics and Chemistry 210*. Springer-Verlag, Dordrecht, the Netherlands, 2005. $179.00 (386 pp.). ISBN 1-4020-3859-3

Evolution of Stars and Stellar Populations. M. Salaris, S. Cassisi. Wiley, Hoboken, NJ, 2005. $150.00, $60.00 *paper* (374 pp.). ISBN 0-470-09219-X, ISBN 0-470-09220-3

The Nature and Evolution of Disks Around Hot Stars. R. Ignace, K. G. Gayley, eds. *Astronomical Society of the Pacific Conference Series 337*. Proc. mtg., Johnson City, TN, July 2004. Astronomical Society of the Pacific, San Francisco, 2005. $77.00 (358 pp.). ISBN 1-58381-203-2

The New Astronomy: Opening the Electromagnetic Window and Expanding Our View of Planet Earth. W. Orchiston, ed. *Astrophysics and Space Science Library 334*. Springer-Verlag, Dordrecht, the Netherlands, 2005. $169.00 (328 pp.). ISBN 1-4020-3723-6

Planetary Nebulae as Astronomical Tools. R. Szczerba, G. Stasińska, S. K. Górny, eds. *AIP Conference Proceedings 804*. Proc. conf., Gdańsk, Poland, June–July 2005. AIP, Melville, NY, 2005. $159.00 *paper* (357 pp.). ISBN 0-7354-0294-9

The Square Kilometre Array: An Engineering Perspective. P. J. Hall, ed. Springer-Verlag, Dordrecht, the Netherlands, 2005. $179.00 (430 pp.). ISBN 1-4020-3797-X

Star Clusters and How to Observe Them. M. Allison. *Astronomers' Observing Guides*. Springer-Verlag, London, 2006. $29.95 *paper* (211 pp.). ISBN 1-84628-190-3

Stardust from Meteorites: An Introduction to Presolar Grains. M. Lugaro. *World Scientific Series in Astronomy and Astrophysics 9*. World Scientific, Hackensack, NJ, 2005. $38.00 (209 pp.). ISBN 981-256-099-8

Tidal Evolution and Oscillations in Binary Stars: Third Granada Workshop on Stellar Structure. A. Claret, A. Giménez, J.-P. Zahn, eds. *Astronomical Society of the Pacific Conference Series 333*. Proc. wksp., Granada, Spain, May 2004. Astronomical Society of the Pacific, San Francisco, 2005. $77.00 (316 pp.). ISBN 1-58381-196-6

Atomic and Molecular Physics

Atomic Spectroscopy: Introduction to the Theory of Hyperfine Structure. A. V. Andreev. Springer-Verlag, New York, 2006. $129.00 (274 pp.). ISBN 0-387-25573-7

Crystalline Molecular Complexes and Compounds: Structures and Principles. Vols. 1 and 2. F. H. Herbstein. Oxford U. Press, New York, 2005. $249.50 *set* (1273 pp. *set*). ISBN 0-19-852660-1

Physics with Ultra Slow Antiproton Beams. Y. Yamazaki, M. Wada, eds. *AIP Conference Proceedings 793*. Proc. wksp., Wako, Japan, Mar. 2005. AIP, Melville,