

the Editors came from the Observatory staff. And now for the future. Well, there is now a fine museum at Greenwich but of the ‘real’ Observatory, just read Ian Robson’s fascinating account of the ‘Observatory Wars’ in this issue to see that the shambles that is British science has lost one of its great institutions. — DAVID STICKLAND.

Discovering Quarks: Remembering Feynman, Gell-Mann, and Tollestrup, by George Zweig (Cambridge University Press), 2025. Pp. 201, 26 × 21 cm. Price £39.99 (hardbound; ISBN 978 1 009 47350 7).

This is a fascinating book that charts the history of the discovery of quarks, written by one of their co-discoverers. It is a rich and multi-faceted work, approaching the subject from many different angles. Part autobiography and part a history of the field, it offers numerous insights into the main characters in the story, illuminated by a fair bit of physics along the way. Zweig studied with Richard Feynman and Alvin Tollestrup, and the book includes chapters devoted to each of them, along with a chapter on Murray Gell-Mann. Richly adorned with quotations, personal reminiscences, and anecdotes, it provides a vivid sense of their personalities, the very different ways in which they worked, and how the community viewed the emerging ideas at the time. The book also touches on questions of recognition and whether some of the less-well-known figures received the credit they deserved. Zweig himself, although now widely regarded as a co-discoverer of quarks alongside Gell-Mann, has not received the same level of recognition. I would not say that that issue is the main focus of the book, as its scope is much broader, but it does offer some insight into possible reasons. Among those are the fact that Zweig’s work initially appeared as a CERN report (reproduced helpfully in an appendix) rather than in a regular journal, the apparent lack of support from some senior figures at the time, and perhaps also the simple fact that the term ‘quark’ caught on, whereas Zweig’s ‘aces’ did not. The book also contains a substantial amount of physics, which helps the reader appreciate how particle physics developed during the 1960s and 1970s, with some false starts, and it offers insights into the ways of thinking and influence of some of the field’s major personalities. Students of physics, as well as readers interested in the history of science, will find it a fascinating and rewarding read. — ALAN HEAVENS.

Probability Theory for Quantitative Scientists, by L. Leuzzi, E. Marinari & G. Parisi (Cambridge University Press), 2025. Pp. 412, 26 × 18.5 cm. Price £54.99 (hardbound; ISBN 978 1 009 58069 4).

This book grows out of a long-running course on probability theory at the University of Rome La Sapienza. It is readable, accessible, and sufficiently deep to satisfy a scientist who wants to understand the mathematical foundations of probability without going all the way to measure theory. In that sense, the title is an accurate description of what the book delivers.

The treatment is grounded in mathematics, but enriched with many examples and perspectives drawn from physics. In particular, it highlights connections with statistical mechanics and introduces topics that are rarely encountered in standard texts. Large-deviation theory, for example, appears surprisingly early and serves as a good illustration of the book’s willingness to explore less conventional but important ideas.

One of the strengths of the book is the way it interweaves applications with fundamental theory, and mathematical development with physical insight. The scope is quite varied: some topics are treated in considerable depth, while others are covered more briefly, giving a sense of a guided tour through the subject. The final chapter provides a useful synthesis, drawing together themes introduced earlier.

Overall, it is clearly written and engaging, and will reward both students and researchers in the quantitative sciences. For readers who want to move beyond simply applying probabilistic techniques to understanding where they come from and how they connect to broader ideas, this is an excellent and illuminating resource. — ALAN HEAVENS.