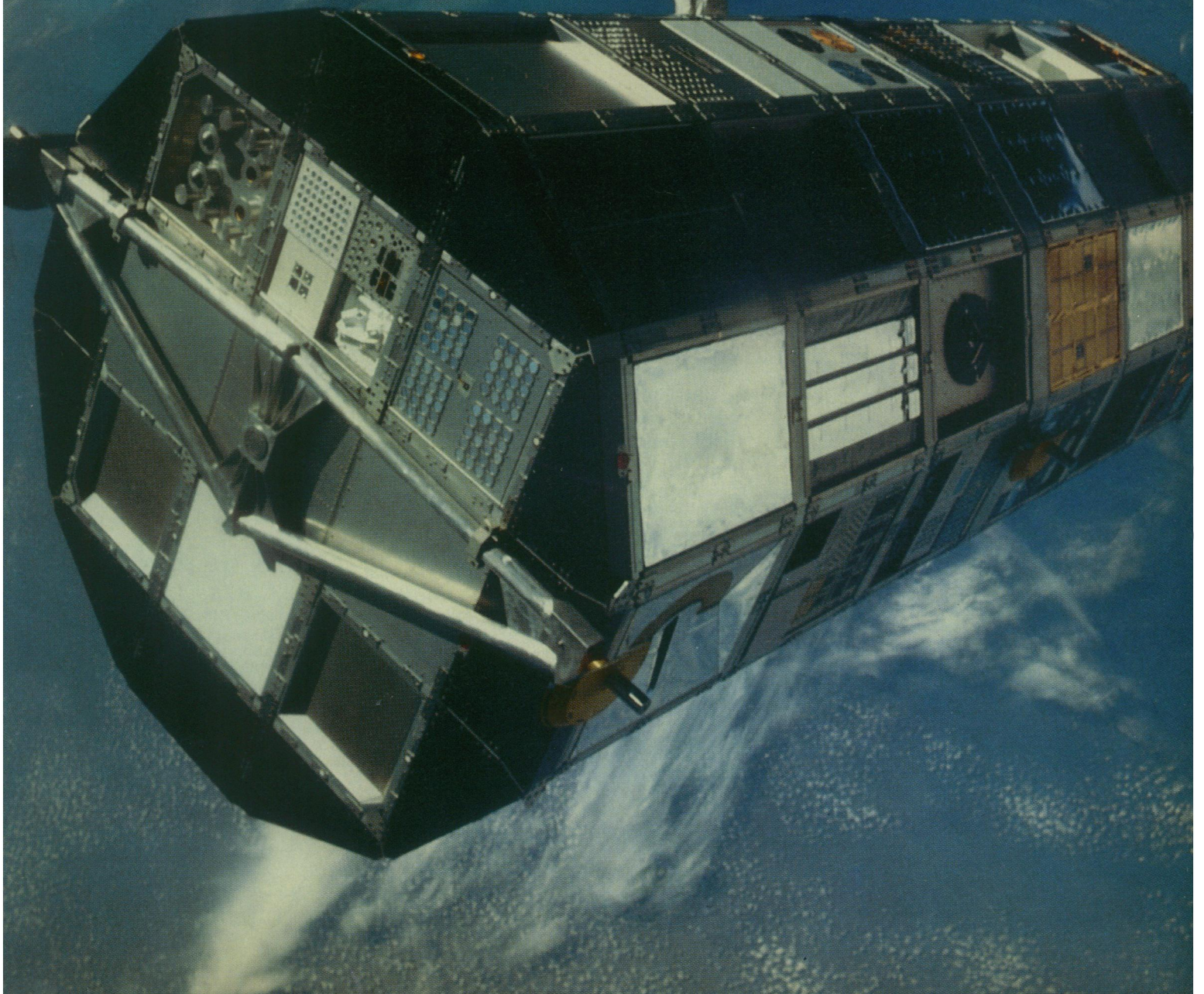


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*To Catch a
Falling Star*



Serendipity



ACCIDENTAL

DISCOVERIES



in SCIENCE

ROYSTON M. ROBERTS

Foreword by Sir Derek H.R. Barton

In *Serendipity*, you'll read about some of the most dramatic and amusing serendipitous discoveries in the annals of science history — from the chance observation that sent an ecstatic Archimedes running naked through the streets of Syracuse, to the accident that led to the discovery of penicillin and earned Alexander Fleming a Nobel Prize. In taut, engaging prose, Roberts tells the stories of lucky strikes, both big and small, that led to everything from the invention of Velcro to the harnessing of nuclear power. Stories range through the fields of physics, chemistry, biology, astronomy, archaeology and more. Scientists will appreciate the technical information and formulas interspersed throughout the text, and everyone will enjoy the many depictions of the discoverers and their discoveries.

— from the publisher

"I recommend that every scientist read accounts of discoveries that have been affected by chance happenings. Dr. Roberts' *Serendipity* is a valuable source . . . I recommend it enthusiastically."

—Roy J. Plunkett
Discoverer of Teflon

Wiley, 1989, 270 pages, 9" x 6", paperback, \$12.95 ISBN 0-471-60203-5

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Scientific Reasoning: The Bayesian Approach

By Colin Howson and Peter Urbach

Open Court, 1989, 312 pages, 9" x 6",
paperback, \$16.95 ISBN 0-8126-9085-0

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This book is designed to explain to the uninitiated the controversial theories it discusses; it can serve as an introduction to the role of statistics and probability in science. Confronting the problems of induction and the confirmation of scientific theories, Howson and Urbach reject the "objectivist ideal" and the fashionable non-probabilistic standard of scientific worth, associated with such writers as Neyman and Pearson, Fisher, Popper, and Lakatos. Howson and Urbach contend that "scientific reasoning is reasoning in accordance with the calculus of probabilities," and (using nothing more advanced than elementary algebra) they give a concise introduction to this calculus. Howson and Urbach examine the way in which scientists actually appeal to probability arguments, and explain the "classical" approach to statistical inference, which they demonstrate to be full of flaws. They then present the Bayesian method, showing that it avoids the difficulties of the classical system. Finally, they reply to all the major criticisms leveled against the Bayesian method, especially the charge that it is "too subjective."

— from the publisher