Jim Peebles, Albert Einstein Professor of Science at Princeton University, is the world’s principal theoretical cosmologist. His research has served to explain the physics of how the energy and matter that make up the universe evolved from a nearly uniform state just after the Big Bang into the rich patterns, clusters of galaxies, and radiation backgrounds now observed by astronomers. Peebles’s theoretical contributions and the powerful statistical methods he developed to test his theories of structure formation ushered in a whole new era in observational and theoretical cosmology, motivating new three-dimensional surveys of up to a million galaxies and inspiring the development of sophisticated computer simulations to compare competing theoretical models.

In this rapidly developing discipline, Peebles’s books, particularly *Physical Cosmology* (1971) and *The Large-Scale Structure of the Universe* (1980), have endured as the standards of reference. Then in 1993, Princeton published *Principles of Physical Cosmology*, a successor to Peebles’s 1971 volume on the subject. Serving as a comprehensive overview of today’s physical cosmology, Peebles’s book shows how observation has combined with theoretical elements to establish physical cosmology as a mature science. He also discusses the most significant recent attempts to understand the origin and structure of the universe. The book is, fundamentally, a guide to well-established and notable results, which have stood the test of time, and which form the real foundation for this rapidly moving field’s evolution.

Peebles’s books abide as classic volumes for students and scientists.