

Research and Pedagogy: A History of Quantum Physics through the Textbooks

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Abstract:

There is the strong tendency to consider a textbook as the depository of the settled and undisputable results of a theory. It is required by its pedagogical function that the subject be presented in an orderly manner and the conclusions follow logically from the premises. But textbooks are not only tools for scientific training, they are also tools for research in 'normal science' and, from time to time, even vehicles for revolutions. These two aspects are significantly intertwined in the history of quantum physics, as a discipline that progressively emerged from classical physics and gained its autonomous status as the result of a collective and interdisciplinary effort.

The paper at the HQ-3 meeting will introduce the first conclusions of a project that started in the Fall 2009, and which was first put together at the HSS meeting in Phoenix, Arizona. In HQ-3, we will present and discuss the first draft of a collective volume containing more than ten different papers devoted to textbooks on quantum physics and early quantum mechanics from its beginnings to the early 1930s.

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