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| Sommario/riassunto | This book provides a historical presentation of Old Quantum Theory and early Quantum Mechanics integrated with comments and examples that help contextualize and understand the physics discussed. It consists in a detailed analysis of the usual topics that have most contributed to the birth and the development of Quantum Mechanics (black-body spectrum, atomic models, EPR paradox, etc.), but also dealing with ideas, concepts and results that are not usually treated (vortex atoms, discussion on the meaning of the term "electron", non-quantum models of the Compton effect, etc.). The time span taken into consideration goes mainly from the 1880s to the 1940s; but some brief notes on more recent results are also presented in the appendixes. The |

work is based on nearly 800 original documents – books, papers, letters, newspapers – whose content is not only partially reported, but also explained, and inserted in the historical, social and disciplinary context of the time. Together with a rigorous historical framework, the book offers also an educational discussion of the physical aspects presented. Indeed, there are some specific sections and subsections with pedagogical observations. This book is intended for students pursuing STEM degrees, particularly those seeking an understanding of the genesis and rationale behind quantum mechanics. But it is surely also addressed to professional physicists who are eager to reconsider the cultural foundations underlying the quantum view of the world. We are thus thinking of inquiring minds, people who teach quantum physics, and individuals involved in quantum technologies. .
