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Nota di contenuto	Chapter 1. Mathematical Preliminaries -- Chapter 2. Classical electrodynamics -- Chapter 3. Hamiltonian formulation of classical mechanics -- Chapter 4. Steps to the correct solution -- Chapter 5. Heisenberg's magical steps -- Chapter 6. Reflections on the quantum mechanics and the path leading to its discovery.
Sommario/riassunto	The book is about the transition from classical to quantum mechanics, covering the historical development of this great leap, and explaining the concepts needed to understand it at a level suitable for undergraduate students. The first part of the book summarizes classical electrodynamics and the Hamiltonian formulation of classical mechanics, the two elements of classical physics which are crucial for understanding the classical to quantum transition. The second part loosely traces the historical development of the classical to quantum transition, starting with Einstein's 1916 derivation of the Planck radiation law, continuing with the Ladenburg-Kramers-Born-Heisenberg dispersion theory and ending with Heisenberg's magical 1925 paper which established quantum mechanics. The purpose of the

book is partly historical, partly philosophical, but mainly pedagogical. It will appeal to a wide audience, from undergraduate students, for whom it can serve as a preparatory or supplementary text to standard textbooks, to physicists and historians interested in the historical development of science.

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