1.	Record Nr.	UNINA9910300429603321
	Autore	Bongaarts Peter
	Titolo	Quantum Theory : A Mathematical Approach / / by Peter Bongaarts
	Pubbl/distr/stampa	Cham : , : Springer International Publishing : , : Imprint : Springer, , 2015
	ISBN	3-319-09561-7
	Edizione	[1st ed. 2015.]
	Descrizione fisica	1 online resource (XXXII, 445 p. 8 illus.)
	Disciplina	530.12
	Soggetti	Quantum theory Mathematical physics Statistical physics Dynamics Quantum Physics Mathematical Physics Complex Systems Mathematical Applications in the Physical Sciences Statistical Physics and Dynamical Systems
	Lingua di pubblicazione	Inglese
	Formato	Materiale a stampa
	Livello bibliografico	Monografia
	Note generali	Bibliographic Level Mode of Issuance: Monograph
	Nota di contenuto	From the Contents: Introductory remarks -- Classical Mechanics -- Quantum Theory: General Principles -- Quantum Mechanics of a Single Particle I -- Quantum Mechanics of a Single Particle II -- The Harmonic Oscillator -- The Hydrogen Atom -- Spin -- Many-Particle Systems -- Quantum Statistical Physics -- Physical Theories as Algebraic Systems -- Quantization. The Classical Limit -- Towards Relativistic Quantum Theory -- An Introduction to Quantum Field Theory -- What is Not Treated in This Book.
	Sommario/riassunto	This book was inspired by the general observation that the great theories of modern physics are based on simple and transparent underlying mathematical structures – a fact not usually emphasized in standard physics textbooks – which makes it easy for mathematicians to understand their basic features. It is a textbook on quantum theory intended for advanced undergraduate or graduate students:

mathematics students interested in modern physics, and physics students who are interested in the mathematical background of physics and are dissatisfied with the level of rigor in standard physics courses. More generally, it offers a valuable resource for all mathematicians interested in modern physics, and all physicists looking for a higher degree of mathematical precision with regard to the basic concepts in their field.