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Nota di contenuto	1. Different formulations of quantum mechanics -- 2. Resonance phenomena in nature -- 3. Resonances from Hermitian quantum mechanics calculations -- 4. Resonances from non-Hermitian quantum mechanics calculations -- 5. Square integrable resonance wavefunctions -- 6. Bi-orthogonal product (C-product) -- 7. The properties of the non-Hermitian Hamiltonian -- 8. Non-Hermitian scattering theory -- 9. The self-orthogonality phenomenon -- 10. The point where QM branches into two formalisms.
Sommario/riassunto	Non-Hermitian quantum mechanics (NHQM) is an important alternative to the standard (Hermitian) formalism of quantum mechanics, enabling the solution of otherwise difficult problems. The first book to present

this theory, it is useful to advanced graduate students and researchers in physics, chemistry and engineering. NHQM provides powerful numerical and analytical tools for the study of resonance phenomena - perhaps one of the most striking events in nature. It is especially useful for problems whose solutions cause extreme difficulties within the structure of a conventional Hermitian framework. NHQM has applications in a variety of fields, including optics, where the refractive index is complex; quantum field theory, where the parity-time (PT) symmetry properties of the Hamiltonian are investigated; and atomic and molecular physics and electrical engineering, where complex potentials are introduced to simplify numerical calculations.

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