

1. Record Nr.	UNINA9910783724503321
Autore	Cohen-Tannoudji Claude <1933->
Titolo	Atoms in electromagnetic fields [[electronic resource] /] / C. Cohen-Tannoudji
Pubbl/distr/stampa	Hackensack, NJ, : World Scientific, c2004
ISBN	1-281-88088-4 9786611880880 981-256-785-2
Edizione	[2nd ed.]
Descrizione fisica	1 online resource (770 p.)
Collana	World Scientific series on atomic, molecular, and optical physics ; ; vol. 3
Disciplina	539.7
Soggetti	Electromagnetic fields Photonuclear reactions Atoms
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Note generali	Description based upon print version of record.
Nota di bibliografia	Includes bibliographical references.
Nota di contenuto	General Introduction; Contents; Section 1 Atoms in Weak Broadband Quasiresonant Light Fields Light Shifts - Linear Superpositions of Atomic Sublevels; Section 2 Atoms in Strong Radiofrequency Fields The Dressed Atom Approach in the Radiofrequency Domain; Section 3 Atoms in Intense Resonant Laser Beams The Dressed Atom Approach in the Optical Domain; Section 4 Photon Correlations and Quantum Jumps The Radiative Cascade of the Dressed Atom; Section 5 Atoms in High Frequency Fields or in the Vacuum Field Simple Physical Pictures for Radiative Corrections; Section 6 Atomic Motion in Laser Light Section 7 Sisyphus Cooling and Subrecoil Cooling Section 8 Levy Statistics and Laser Cooling; Section 9 Bose-Einstein Condensation; Section 10 A Few Review Papers
Sommario/riassunto	This invaluable book presents papers written during the last 40 years by Claude Cohen-Tannoudji and his collaborators on various physical effects which can be observed on atoms interacting with electromagnetic fields. It consists of a personal selection of review papers, lectures given at schools, as well as original experimental and theoretical papers. Emphasis is placed on physical mechanisms and on

general approaches (such as the dressed atom approach) having a wide range of applications. Various topics are discussed, such as atoms in intense laser fields, photon correlations, quantum jumps
