

1. Record Nr.	UNINA9910453611203321
Titolo	Strong light-matter coupling : from atoms to solid-state systems // editors, Alexia Auffeves, Institut Neel-CNRS, France [and six others]
Pubbl/distr/stampa	New Jersey : , : World Scientific, , [2014] ©2014
ISBN	981-4460-35-4
Descrizione fisica	1 online resource (303 p.)
Altri autori (Persone)	AuffevesAlexia
Disciplina	535/.15
Soggetti	Quantum optics Quantum electrodynamics Electronic books.
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	Cavity QED in atomic physics / Serge Haroche and Jean-Michel Raimond -- Exciton-polaritons in bulk semiconductors and in confined electron and photon systems / Lucio Claudio Andreani -- Experimental circuit QED / Patrice Bertet -- Quantum open systems / H.J. Carmichael -- Basic concepts in quantum information / Steven M. Girvin -- Cavity polaritons : crossroad between non-linear optics and atomic condensates / Alberto Amo and Jacqueline Bloch -- Quantum plasmonics / Darrick Chang -- Quantum polaritonics / S. Portolan, O. Di Stefano and S. Savasta -- Optical signal processing with enhanced nonlinearity in photonic crystals / A. De Rossi and S. Combri.
Sommario/riassunto	The physics of strong light-matter coupling has been addressed in different scientific communities over the last three decades. Since the early eighties, atoms coupled to optical and microwave cavities have led to pioneering demonstrations of cavity quantum electrodynamics, Gedanken experiments, and building blocks for quantum information processing, for which the Nobel Prize in Physics was awarded in 2012. In the framework of semiconducting devices, strong coupling has allowed investigations into the physics of Bose gases in solid-state environments, and the latter holds promise for exploitin

