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	Titolo	Manipulation of Near Field Propagation and Far Field Radiation of Surface Plasmon Polariton / / by Lin Li
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	ISBN	981-10-4663-8
	Edizione	[1st ed. 2017.]
	Descrizione fisica	1 online resource (X, 116 p. 80 illus., 74 illus. in color.)
	Collana	Springer Theses, Recognizing Outstanding Ph.D. Research, , 2190-5053
	Disciplina	530.44
	Soggetti	Optics Electrodynamics Microwaves Optical engineering Optical materials Electronic materials Lasers Photonics Classical Electrodynamics Microwaves, RF and Optical Engineering Optical and Electronic Materials Optics, Lasers, Photonics, Optical Devices
	Lingua di pubblicazione	Inglese
	Formato	Materiale a stampa
	Livello bibliografico	Monografia
	Nota di bibliografia	Includes bibliographical references at the end of each chapters.
	Nota di contenuto	Introduction -- Basic experimental research on surface plasmon polariton -- The principle of non-perfectly-matched Bragg diffraction and the realization of plasmonic Airy beam -- Steering surface plasmon polariton on metal surface with non-perfectly-matched Bragg diffraction -- Modulation far-field radiation with plasmonic structure -- Summary.
	Sommario/riassunto	This book mainly focuses on the study of steering electromagnetic fields in near-field and far-field contexts involving plasmonic structures. It also offers a new approach to achieving full control of optical polarizations and potentially boosting the development in

photonic information processing. A new in-plane phase modulation method is proposed and described, by means of which a series of optical beams were realized with nanostructures in metal surfaces, such as a plasmonic Airy beam, broad band focusing beam, and demultiplexing, collimated beam, as well as an optical orbital angular momentum (OAM) beam. Further, the book presents a plasmonic polarization generator, which can reconfigure an input polarization to all kinds of states simultaneously.