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Nota di contenuto	Front matter -- Preface -- Contents -- 1. Recent progresses on weak-light nonlinear optics -- 2. Polarization coupling and its applications in periodically poled lithium niobate crystal -- 3. Ultrafast nonlinear optics -- 4. Nonlocal spatial optical solitons -- 5. Wave coupling theory and its applications of linear electro-optic (EO) effect -- Index -- Backmatter
Sommario/riassunto	This book presents an overview of the state of the art of the developing topic of nonlinear optics with contributions from leading experts in the field in China, ranging from weak light nonlinear optics, ultrafast nonlinear optics to electro-optical theory and applications. In the past decade, nonlinear optics has evolved into many different branches, depending on the form of the material used for studying the nonlinear phenomena. The growth of research in nonlinear optics is closely linked to the rapid technological advances that have occurred in related fields, such as ultra-fast phenomena and optical communications. Nonlinear-optics activities range from the fundamental studies of the interaction between matter and radiation to the development of devices, components, and systems of tremendous commercial interest for

widespread applications in optical telecommunications, medicine, and biotechnology. This book reviews the development of some nonlinear optics researches in China, not only the discovery of new principles, but also potential applications of nonlinear optics for various industries.

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