Record Nr. UNINA9910828918703321 Nonlinear optical systems: principles, phenomena, and advanced signal **Titolo** processing / / edited by Le Nguyen Binh and Dang Van Liet Pubbl/distr/stampa Boca Raton, FL:,: CRC Press, an imprint of Taylor and Francis,, 2012 **ISBN** 0-429-08801-9 1-138-07276-1 1-4665-5612-9 1-4398-4547-6 1-4665-5496-7 Edizione [1st edition] Descrizione fisica 1 online resource (447 p.) **Optics and Photonics** Collana Disciplina 621.36/94 Soggetti Nonlinear optics **Photonics** Wave-motion, Theory of Light - Transmission 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 at the end of each chapters. Nota di contenuto Front Cover; Contents; Preface; Contributors; Chapter 1: Introduction; Chapter 2: Nonlinear Systems and Mathematical Representations; Chapter 3: Soliton Fiber Lasers; Chapter 4: Multibound Solitons; Chapter 5: Transmission of Multibound Solitons; Chapter 6: Deterministic Dynamics of Solitons in Passive Mode-Locked Fiber Lasers; Chapter 7: Bistability, Bifurcation, and Chaos in Nonlinear Loop Fiber Lasers; Chapter 8: Nonlinear Fiber Ring Lasers; Chapter 9: Nonlinear Photonic Signal Processing Using Third-Order Nonlinearity Chapter 10: Volterra Series Transfer Function in Optical Transmission and Nonlinear CompensationAppendix A: Derivation of the Generalized Nonlinear Schrodinger Equation; Appendix B: Calculation Procedures of Triple Correlation, Bispectrum, and Examples; Appendix C: Simulink® Models: Back Cover Sommario/riassunto Nonlinear Optical Systems: Principles, Phenomena, and Advanced Signal Processing is a simplified overview of the evolution of technology

associated with nonlinear systems and advanced signal processing.

This book's coverage ranges from fundamentals to phenomena to the most cutting-edge aspects of systems for next-generation biomedical monitoring and nonlinear optical transmission.