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Nota di bibliografia	Includes bibliographical references and index.
Nota di contenuto	Introduction -- Literature Review -- Theory -- Research Methodology -- Results and Discussion -- Conclusion.
Sommario/riassunto	This book introduces optical soliton control in micro- and nanoring resonator systems. It describes how the ring resonator systems can be optimized as optical tweezers for photodetection by controlling the input power, ring radii and coupling coefficients of the systems. Numerous arrangements and configurations of micro and nanoring resonator systems are explained. The analytical formulation and optical transfer function for each model and the interaction of the optical signals in the systems are discussed. This book shows that the models designed are able to control the dynamical behaviour of generated signals.