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	Sommario/riassunto	This book is a product of an emerging interdisciplinary field that is bringing photonic communications to address many of the challenges associated with scaling computing systems performance. In addressing this cross-disciplinary topic the book bridges the gap among the devices, tools, and architectures for realizing photonic interconnection networks in future computing. This book provides: A comprehensive discussion on the usage and integration of silicon photonics interconnect technologies, including distinct properties of key photonic devices and recent engineering breakthroughs. Design methodologies for photonic links and the three main classes of photonic network-on-chip architectures applicable to future computing systems. A presentation of the design tools and simulation environment used to characterize photonic interconnection network architectures and evaluate the impact on computing performance. .