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Sommario/riassunto	The book focuses on the topologies of non-isolated DC-DC converters with a wide voltage gain range for renewable energy systems. Both principles and engineering practice have been addressed, with more weight placed on principles. Each chapter presents a family of non-isolated DC-DC converters with advanced control methods for renewable energies. Modeling and experimental verification are also included to provide in-depth applications in fuel cell vehicles, electric vehicles with multi-sources, and photovoltaic systems. The book will benefit researchers, engineers, and graduate students in the fields of electric vehicles, photovoltaic systems, as well as electrical, and electronic engineering. .