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Sommario/riassunto	<p>This book includes up-to-date and detailed information on fundamental principles, measurement, modeling, and forecasting of solar radiation for technologies and applications of photovoltaic (PV) solar energy. The book also presents basic, modern, and contemporary knowledge and techniques of reliability and performance assessment for PV systems. It includes eleven chapters in four sections: "Introduction", "Fundamentals, Measurements and Modeling of Solar Radiation", "Forecasting and Characterization of Solar Radiation", and "Solar Photovoltaic Technologies and Applications". Chapters address such topics as fundamental principles, accurate measurements, and modeling of solar radiation; innovative methods for forecasting and characterization of solar radiation; PV technology and application, from conventional and emerging PV technologies to bifacial PV cells and modules and concentrator PV systems; and recent advances in reliability and performance assessment for PV systems, including outdoor characterization, degradation analysis, and PV power prediction.</p>