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Titolo	The Supercontinuum Laser Source : The Ultimate White Light / / by Robert R. Alfano
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ISBN	1-4939-3326-4
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Descrizione fisica	1 online resource (452 p.)
Disciplina	530
Soggetti	Lasers Photonics Optics Electrodynamics Atoms Physics Microwaves Optical engineering Optics, Lasers, Photonics, Optical Devices Classical Electrodynamics Atomic, Molecular, Optical and Plasma Physics Microwaves, RF and Optical Engineering
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Formato	Materiale a stampa
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Note generali	"With 259 Illustrations."
Nota di bibliografia	Includes bibliographical references at the end of each chapters and index.
Nota di contenuto	From the Contents: Part I Fundamentals -- Theory of Self Phase Modulation and Spectral Broadening -- Supercontinuum Generation and Condensed Matter -- Ultrashort Pulse Propagation in Nonlinear Dispersive Fibers -- Cross-Phase Modulation: A New Technique for Controlling the Spectral, Temporal, and Spatial Properties of Ultrashort Pulses -- Fiber Based Supercontinuum -- Generation of Ultrashort and Coherent Supercontinuum Light Pulses in all Normal Dispersion Fibers. - Self-Focusing and Continuum Generation in Gases -- Utilization of UV and IR Supercontinuum in Gas-Phase Subpicosecond Kinetic Spectroscopy -- Attosecond Extreme Ultraviolet Supercontinuum --

	Supercontinuum in Telecom Applications -- Current Applications of Supercontinuum Light.
Sommario/riassunto	This is the third edition of a well-known classic on ultrafast nonlinear and linear processes responsible for supercontinuum generation. Part I of the book reviews the progress achieved in experimental and theoretical understanding of the field, and goes over the applications developed since the discovery of the supercontinuum effect. The second part of the book covers recent research activity on supercontinuum phenomena and advances achieved since the publication of the previous edition. The new chapters specifically focus on: normal dispersion photonic band gap fibers; coherence in the supercontinuum; supercontinuum in the UV, NIR, and IR; and supercontinuum in XUV and X-rays for attosecond pulses. The Supercontinuum Laser Source is a definitive work by one of the discoverers of the white light effect. It is indispensable reading for any researcher or student working in the field of ultrafast laser physics.