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	Titolo	Fourier series in several variables with applications to partial differential equations / / Victor L. Shapiro
	Pubbl/distr/stampa	Boca Raton, Fla. : , : CRC Press, , 2011
	ISBN	0-429-10755-2
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	Descrizione fisica	1 online resource (351 p.)
	Collana	Chapman & Hall/CRC applied mathematics and nonlinear science series
	Disciplina	515/.2433
	Soggetti	Fourier series
		Functions of several real variables
		Differential equations, Partial
	Lingua di pubblicazione	Inglese
	Formato	Materiale a stampa
	Livello bibliografico	Monografia
	Note generali	A Chapman & Hall book.
	Nota di bibliografia	Includes bibliographical references (p. 331-334).
	Nota di contenuto	Front Cover; Dedication; Contents; Preface; Chapter 1: Summability of Multiple Fourier Series; Chapter 2: Conjugate Multiple Fourier Series; Chapter 3: Uniqueness of Multiple Trigonometric Series; Chapter 4: Positive Definite Functions; Chapter 5: Nonlinear Partial Differential Equations; Chapter 6: The Stationary Navier-Stokes Equations; Appendix A: Integrals and Identities; Appendix B: Real Analysis; Appendix C: Harmonic and Subharmonic Functions; Bibliography
	Sommario/riassunto	Fourier Series in Several Variables with Applications to Partial Differential Equations illustrates the value of Fourier series methods in solving difficult nonlinear partial differential equations (PDEs). Using these methods, the author presents results for stationary Navier-Stokes equations, nonlinear reaction-diffusion systems, and quasilinear elliptic PDEs and resonance theory. He also establishes the connection between multiple Fourier series and number theory. The book first presents four summability methods used in studying multiple Fourier series: iterated Fejer, Bochner-Riesz, Abel, a