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	ISBN	9789819775149
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	Edizione	[1st ed. 2025.]
	Descrizione fisica	1 online resource (288 pages)
	Collana	University Texts in the Mathematical Sciences, , 2731-9326
	Disciplina	515.45
	Soggetti	Integral equations
		Mathematical analysis
		Integral Equations
		Integral Transforms and Operational Calculus
		Equacions integrals
		Anàlisi matemàtica
		Llibres electrònics
	Lingua di pubblicazione	Inglese
	Formato	Materiale a stampa
	Livello bibliografico	Monografia
	Nota di contenuto	Binomial Series -- Trigonometrical Series -- Special Integrals -- Pseudo-Exponential Functions -- Series Sums using Special Integrals -- Solutions to Binomial Series -- Solutions to Trigonometrical Series.
	Sommario/riassunto	Targeted to upper-undergraduate and graduate students of mathematics, this book discusses special integrals and their applications in finding certain series sums. It starts with the differentiation and the integration methods for summing a series that is applied to find the sum of various binomial and trigonometrical series. It also discusses methods to find the sum of series involving the variables having exponents in integral or fractional powers of 2. Complex variables are freely used to derive several theorems, which result in several special integrals and series sums. Bessel coefficients, Bessel functions, and their various generalizations are also discussed in the book. As a particular case of generalized Bessel functions, pseudo-exponential functions are defined, and their properties are studied in the book. Broadly divided into two parts—Part 1 and Part 2—the book

has six chapters in Part 1, whereas Part 2 has six chapters on solutions to the problems in Part 1. To understand the topics in the book, the minimum prerequisites are the knowledge of calculus, complex analysis, and Fourier series.