

1. Record Nr.	UNINA9910819308103321
Autore	Melnikov Yu. A
Titolo	Green's functions : construction and applications // Yuri A. Melnikov, Max Y. Melnikov
Pubbl/distr/stampa	Berlin ; ; Boston, : De Gruyter, c2012
ISBN	1-280-59764-X 9786613627476 3-11-025339-9
Edizione	[1st ed.]
Descrizione fisica	1 online resource (448 p.)
Collana	De Gruyter studies in mathematics, , 0179-0986 ; ; 42
Classificazione	SK 470
Altri autori (Persone)	MelnikovMax Y
Disciplina	515/.353
Soggetti	Green's functions
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Note generali	Description based upon print version of record.
Nota di bibliografia	Includes bibliographical references and index.
Nota di contenuto	Green's functions for ODE -- Laplace equation -- Static Klein-Gordon equation -- Higher order equations -- Multi point-posed problems -- PDE matrices of Green's type -- Diffusion equation -- Black-Scholes equation.
Sommario/riassunto	Green's functions represent one of the classical and widely used issues in the area of differential equations. This monograph is looking at applied elliptic and parabolic type partial differential equations in two variables. The elliptic type includes the Laplace, static Klein-Gordon and biharmonic equation. The parabolic type is represented by the classical heat equation and the Black-Scholes equation which has emerged as a mathematical model in financial mathematics. The book is attractive for practical needs: It contains many easily computable or computer friendly representations of Green's functions, includes all the standard Green's functions and many novel ones, and provides innovative and new approaches that might lead to Green's functions. The book is a useful source for everyone who is studying or working in the fields of science, finance, or engineering that involve practical solution of partial differential equations.