1. Record Nr. UNINA9910437876803321

Autore	Jost Jürgen
Titolo	Partial Differential Equations / / by Jürgen Jost
Pubbl/distr/stampa	New York, NY : , : Springer New York : , : Imprint : Springer, , 2013
ISBN	1-4614-4809-3
Edizione	[3rd ed. 2013.]
Descrizione fisica	1 online resource (415 p.)
Collana	Graduate Texts in Mathematics, , 0072-5285 ; ; 214
Disciplina	515.353
Soggetti	Differential equations, Partial Mathematical physics Partial Differential Equations Theoretical, Mathematical and Computational Physics
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	Preface -- Introduction: What are Partial Differential Equations? -- 1 The Laplace equation as the Prototype of an Elliptic Partial Differential Equation of Second Order -- 2 The Maximum Principle -- 3 Existence Techniques I: Methods Based on the Maximum Principle -- 4 Existence Techniques II: Parabolic Methods. The Heat Equation -- 5 Reaction-Diffusion Equations and Systems -- 6 Hyperbolic Equations -- 7 The Heat Equation, Semigroups, and Brownian Motion -- 8 Relationships between Different Partial Differential Equations -- 9 The Dirichlet Principle. Variational Methods for the Solutions of PDEs (Existence Techniques III) -- 10 Sobolev Spaces and L^2 Regularity theory -- 11 Strong solutions -- 12 The Regularity Theory of Schauder and the Continuity Method (Existence Techniques IV) -- 13The Moser Iteration Method and the Regularity Theorem of de Giorgi and Nash -- Appendix: Banach and Hilbert spaces. The L^p-Spaces -- References -- Index of Notation -- Index.
Sommario/riassunto	This book offers an ideal graduate-level introduction to the theory of partial differential equations. The first part of the book describes the basic mathematical problems and structures associated with elliptic, parabolic, and hyperbolic partial differential equations, and explores the connections between these fundamental types. Aspects of Brownian motion or pattern formation processes are also presented. The second

	part focuses on existence schemes and develops estimates for solutions of elliptic equations, such as Sobolev space theory, weak and strong solutions, Schauder estimates, and Moser iteration. In particular, the reader will learn the basic techniques underlying current research in elliptic partial differential equations. This revised and expanded third edition is enhanced with many additional examples that will help motivate the reader. New features include a reorganized and extended chapter on hyperbolic equations, as well as a new chapter on the relations between different types of partial differential equations, including first-order hyperbolic systems, Langevin and Fokker-Planck equations, viscosity solutions for elliptic PDEs, and much more. Also, the new edition contains additional material on systems of elliptic partial differential equations, and it explains in more detail how the Harnack inequality can be used for the regularity of solutions.

2.

Record Nr.	UNINA9911026139103321
Autore	Ohrstrom Lars
Titolo	The Rhubarb Connection and Other Revelations : The Everyday World of Metal Ions / / Lars Ohrstrom and Jacques Coves
Pubbl/distr/stampa	London, England : , : Royal Society of Chemistry, , [2019] ©2019
ISBN	9781839168505 1839168501
Edizione	[First edition.]
Descrizione fisica	1 online resource (212 p.)
Disciplina	540.9
Soggetti	Chemistry - History Metal ions Discoveries in science
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Nota di bibliografia	Includes bibliographical references.
Sommario/riassunto	Pink warships that vanish at dusk, urinary maladies of an emperor, and a gold test for cocaine - behold the chemistry of metal ions as never

before.