1. Record Nr. UNINA9910299778603321

Autore	Canuto Claudio
Titolo	Mathematical Analysis II / / by Claudio Canuto, Anita Tabacco
Pubbl/distr/stampa	Cham : , : Springer International Publishing : , : Imprint : Springer, , 2015
ISBN	3-319-12757-8
Edizione	[2nd ed. 2015.]
Descrizione fisica	1 online resource (XIII, 559 p.)
Collana	La Matematica per il 3+2, , 2038-5722 ; ; 85
Disciplina	515
Soggetti	Partial differential equations Integral equations Partial Differential Equations Integral Equations
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Note generali	Includes index.
Nota di contenuto	1 Numerical series -- 2 Series of functions and power series -- 3 Fourier series -- 4 Functions between Euclidean spaces -- 5 Differential calculus for scalar functions -- 6 Differential calculus for vector-valued functions -- 7 Applying differential calculus -- 8 Integral calculus in several variables -- 9 Integral calculus on curves and surfaces -- 10 Ordinary differential equations -- 11 A.1 Complements on differential calculus -- 12 A.2 Complements on integral calculus -- 13 Basic definitions and formulas.
Sommario/riassunto	The purpose of the volume is to provide a support textbook for a second lecture course on Mathematical Analysis. The contents are organised to suit, in particular, students of Engineering, Computer Science and Physics, all areas in which mathematical tools play a crucial role. The basic notions and methods concerning integral and differential calculus for multivariable functions, series of functions and ordinary differential equations are presented in a manner that elicits critical reading and prompts a hands-on approach to concrete applications. The pedagogical layout echoes the one used in the companion text Mathematical Analysis I. The book’s structure has a specifically-designed modular nature, which allows for great flexibility in the preparation of a lecture course on Mathematical Analysis. The

style privileges clarity in the exposition and a linear progression through the theory. The material is organised on two levels. The first, reflected in this book, allows students to grasp the essential ideas, familiarise with the corresponding key techniques and find the proofs of the main results. The second level enables the strongly motivated reader to explore further into the subject, by studying also the material contained in the appendices. Definitions are enriched by many examples, which illustrate the properties discussed. A host of solved exercises complete the text, at least half of which guide the reader to the solution. This new edition features additional material with the aim of matching the widest range of educational choices for a second course of Mathematical Analysis.