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Nota di contenuto	ABSTRACT -- 1 INTRODUCTION -- 2 MATHEMATICAL FORMULATION -- 3 PROOF OF EXISTENCE AND UNIQUENESS -- 4 PROOF OF LOCAL CONVERGENCE OF PICARD METHOD -- 5 NUMERICAL TESTS -- 6 CONCLUSIONS -- ACKNOWLEDGEMENT -- CONFLICT OF INTEREST -- REFERENCES.
Sommario/riassunto	This book includes the seven papers that contributed to the Special Issue of Mathematics entitled "Mathematical Methods in Applied Sciences". The papers are authored by eminent specialists and aim at presenting to a broad audience some mathematical models which appear in different aspects of modern life. New results in Computational Mathematics are given as well. Emphasis is on Medicine and Public Health, in relation also with Social Sciences. The models in this collection apply in particular to the study of brain cells during a stroke, training management efficiency for elite athletes, and optimal surgical operation scheduling. Other models concern Industry and Economy, as well as Biology and Chemistry. Numerical Methods are represented in particular by scattered data interpolation, spectral collocation, and the use of eigenvalues and eigenvectors of the Laplacian matrix. This book will appeal to scientists, teachers, and graduate students in Mathematics, in particular Numerical Analysis, and will be of interest for scholars in Applied Sciences, particularly in Medicine and Public Health.