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Nota di contenuto	PART I: Quasilinear equations -- Operators of second order -- The theory of potential -- Elliptic operators -- Operational calculus -- Parabolic equations -- Hyperbolic equations -- Part II: Elements of distributions -- Integral formulas -- Equations of the first order -- Equations of second order -- Harmonic functions -- Weak solutions -- Regularity of the solutions -- Parabolic equations -- Hyperbolic equations. .
Sommario/riassunto	This book offers engineering students an introduction to the theory of partial differential equations and then guiding them through the modern problems in this subject. Divided into two parts, in the first part readers already well-acquainted with problems from the theory of differential and integral equations gain insights into the classical notions and problems, including differential operators, characteristic surfaces, Levi functions, Green’s function, and Green’s formulas. Readers are also instructed in the extended potential theory in its three forms: the volume potential, the surface single-layer potential and the

surface double-layer potential. Furthermore, the book presents the main initial boundary value problems associated with elliptic, parabolic and hyperbolic equations. The second part of the book, which is addressed first and foremost to those who are already acquainted with the notions and the results from the first part, introduces readers to modern aspects of the theory of partial differential equations.