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Titolo	Symmetries of Integro-Differential Equations [[electronic resource]] : With Applications in Mechanics and Plasma Physics / / by Sergey V. Meleshko, Yurii N. Grigoriev, N. Kh. Ibragimov, Vladimir F. Kovalev
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Disciplina	530.15535
Soggetti	Mathematical physics Mechanics Atoms Physics Plasma (Ionized gases) Continuum physics Theoretical, Mathematical and Computational Physics Classical Mechanics Atoms and Molecules in Strong Fields, Laser Matter Interaction Mathematical Methods in Physics Plasma Physics Classical and Continuum Physics
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Nota di bibliografia	Includes bibliographical references and index.
Nota di contenuto	to Group Analysis of Differential Equations -- to Group Analysis and Invariant Solutions of Integro-Differential Equations -- The Boltzmann Kinetic Equation and Various Models -- Plasma Kinetic Theory: Vlasov–Maxwell and Related Equations -- Symmetries of Stochastic Differential Equations -- Delay Differential Equations.
Sommario/riassunto	This book aims to coherently present applications of group analysis to integro-differential equations in an accessible way. The book will be useful to both physicists and mathematicians interested in general

methods to investigate nonlinear problems using symmetries. Differential and integro-differential equations, especially nonlinear, present the most effective way for describing complex processes. Therefore, methods to obtain exact solutions of differential equations play an important role in physics, applied mathematics and mechanics. This book provides an easy to follow, but comprehensive, description of the application of group analysis to integro-differential equations. The book is primarily designed to present both fundamental theoretical and algorithmic aspects of these methods. It introduces new applications and extensions of the group analysis method. The authors have designed a flexible text for postgraduate courses spanning a variety of topics.