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Nota di contenuto	Preface -- Introduction -- Overview on the Mittag-Leffler funtion -- Classical Mittag-Laffler function -- Two-parametric Mittag-Leffler functions with three parameters -- Multi-index and multi-variable Mittag-Leffler functions. - The Classical Wright function. - Applications to solution of fractional order equations. - Applications to deterministic models -- Applications to stochastic models. - Appendix A. The Eulerian functions -- Appendix B. Basic of Entire Functions -- Appendix C. Integral transforms -- Appendix D. Mellin-Barnes integral. - Appendix E. Elements of Fractional Calculus -- Appendix F. Higher transcendental functions -- References -- Index.
Sommario/riassunto	The 2nd edition of this book is essentially an extended version of the 1st and provides a very sound overview of the most important special functions of Fractional Calculus. It has been updated with material from many recent papers and includes several surveys of important results known before the publication of the 1st edition, but not covered there. As a result of researchers' and scientists' increasing interest in pure as well as applied mathematics in non-conventional models, particularly those using fractional calculus, Mittag-Leffler functions have caught the interest of the scientific community. Focusing on the theory of Mittag-Leffler functions, this volume offers a self-contained,

comprehensive treatment, ranging from rather elementary matters to the latest research results. In addition to the theory the authors devote some sections of the work to applications, treating various situations and processes in viscoelasticity, physics, hydrodynamics, diffusion and wave phenomena, as well as stochastics. In particular, the Mittag-Leffler functions make it possible to describe phenomena in processes that progress or decay too slowly to be represented by classical functions like the exponential function and related special functions. The book is intended for a broad audience, comprising graduate students, university instructors and scientists in the field of pure and applied mathematics, as well as researchers in applied sciences like mathematical physics, theoretical chemistry, bio-mathematics, control theory and several other related areas.