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Nota di contenuto	Cover; Half-title; Title; Copyright; Contents; Preface; List of Symbols; Introduction; 1 Levy Processes in Lie Groups; 2 Induced Processes; 3 Generator and Stochastic Integral Equation of a Levy Process; 4 Levy Processes in Compact Lie Groups and Fourier Analysis; 5 Semi-simple Lie Groups of Noncompact Type; 6 Limiting Properties of Levy Processes; 7 Rate of Convergence; 8 Levy Processes as Stochastic Flows; Appendix A Lie Groups; Appendix B Stochastic Analysis; Bibliography; Index
Sommario/riassunto	The theory of Levy processes in Lie groups is not merely an extension of the theory of Levy processes in Euclidean spaces. Because of the unique structures possessed by non-commutative Lie groups, these processes exhibit certain interesting limiting properties which are not present for their counterparts in Euclidean spaces. These properties reveal a deep connection between the behaviour of the stochastic

processes and the underlying algebraic and geometric structures of the Lie groups themselves. The purpose of this work is to provide an introduction to Levy processes in general Lie groups, the limiting properties of Levy processes in semi-simple Lie groups of non-compact type and the dynamical behavior of such processes as stochastic flows on certain homogeneous spaces. The reader is assumed to be familiar with Lie groups and stochastic analysis, but no prior knowledge of semi-simple Lie groups is required.
