Record Nr. UNINA9910451084303321 Autore Baudoin Fabrice **Titolo** An introduction to the geometry of stochastic flows [[electronic resource] /] / Fabrice Baudoin London, : Imperial College Press, c2004 Pubbl/distr/stampa **ISBN** 1-281-86681-4 9786611866815 1-86094-726-3 Descrizione fisica 1 online resource (152 p.) Disciplina 519.2 519.23 Soggetti Stochastic geometry Flows (Differentiable dynamical systems) Stochastic differential equations Electronic books. Lingua di pubblicazione Inglese **Formato** Materiale a stampa Livello bibliografico Monografia Note generali Description based upon print version of record. Nota di bibliografia Includes bibliographical references and index. Nota di contenuto Preface; Contents; Chapter 1 Formal Stochastic Differential Equations; Chapter 2 Stochastic Differential Equations and Carnot Groups; Chapter 3 Hypoelliptic Flows; Appendix A Basic Stochastic Calculus; Appendix B Vector Fields, Lie Groups and Lie Algebras; Bibliography; Index Sommario/riassunto This book aims to provide a self-contained introduction to the local geometry of the stochastic flows. It studies the hypoelliptic operators, which are written in Hormander's form, by using the connection between stochastic flows and partial differential equations. The book stresses the author's view that the local geometry of any stochastic flow is determined very precisely and explicitly by a universal formula referred to as the Chen-Strichartz formula. The natural geometry

associated with the Chen-Strichartz formula is the sub-Riemannian

geometry, and its main tools are introduced throughou