1. Record Nr. UNINA9910451919203321 Autore Jacob Niels Titolo Generators and their potential theory [[electronic resource] /] / N. Jacob London, : Imperial College Press, c2002 Pubbl/distr/stampa **ISBN** 1-86094-956-8 Descrizione fisica 1 online resource (476 p.) Collana Pseudo differential operators & Markov processes;; v. 2 519.233 Disciplina Soggetti Semigroups of operators Pseudodifferential operators Potential theory (Mathematics) Electronic books. Lingua di pubblicazione Inglese **Formato** Materiale a stampa Livello bibliografico Monografia Description based upon print version of record. Note generali Nota di bibliografia Includes bibliographical references and index. "": ""Preface ""Contents ""; ""Notation Nota di contenuto ""General Notation ""; ""Functions and Distributions "": ""Measures and Integrals ""; ""Spaces of Functions ""; ""Some Measures and Distributions Families of Functions ""; ""Norms Scalar Products and Seminorms ""Notation from Functional Analysis Operators """Notations related to Pseudo-Differential Operators "": ""Notations related to Potential Theory and Harmonic Analysis ""; ""Introduction: Pseudo-Differential Operators and Markov Processes ""; ""II Generators and Their Potential Theory """2 Generators of Feller and Sub-""1 Introduction Markovian Semigroups Second Order Elliptic Differential Operators as Generators of Feller and Sub-Markovian Semigroups ""2.2 Some Second Order Differential Operators with Non-Negative Characteristic Form as Generators of Sub-Markovian Semigroups """"2.3 Some Properties of Pseudo-Differential Operators with Negative

Definite Symbols

""2.4 Hoh's Symbolic Calculus for Pseudo-Differential Operators with Negative Definite Symbols

"""2.5 Estimates for Pseudo-Differential Operators with Negative Definite Symbols Using the Symbolic Calculus

""2.6 Feller Semigroups and Sub-Markovian Semigroups Generated by Pseudo-Differential Operators

Sommario/riassunto

In this volume two topics are discussed: the construction of Feller and Lp-sub-Markovian semigroups by starting with a pseudo-differential operator, and the potential theory of these semigroups and their generators. The first part of the text essentially discusses the analysis of pseudo-differential operators with negative definite symbols and develops a symbolic calculus; in addition, it deals with special approaches, such as subordination in the sense of Bochner. The second part handles capacities, function spaces associated with continuous negative definite functions, Lp -sub-Markovian sem