1. Record Nr.   UNINA9910154753703321

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   Titolo   Functional Integration and Partial Differential Equations. (AM-109), Volume 109 / / Mark Iosifovich Freidlin

   Pubbl/distr/stampa Princeton, NJ : , : Princeton University Press, , [2016]
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   ISBN   1-4008-8159-5

   Descrizione fisica 1 online resource (557 pages)

   Collana   Annals of Mathematics Studies ; ; 260

   Disciplina   515.3/53

   Soggetti   Differential equations, Partial
                       Probabilities
                       Integration, Functional

   Lingua di pubblicazione   Inglese

   Formato   Materiale a stampa

   Livello bibliografico   Monografia

   Note generali   Bibliographic Level Mode of Issuance: Monograph

   Nota di bibliografia   Includes bibliographical references.

   Nota di contenuto   Frontmatter -- CONTENTS -- PREFACE -- INTRODUCTION -- I. STOCHASTIC DIFFERENTIAL EQUATIONS AND RELATED TOPICS -- II. REPRESENTATION OF SOLUTIONS OF DIFFERENTIAL EQUATIONS AS FUNCTIONAL INTEGRALS AND THE STATEMENT OF BOUNDARY V A LU E PROBLEMS -- III. BOUNDARY VALUE PROBLEMS FOR EQUATIONS WITH NON-NEGATIVE CHARACTERISTIC FORM -- IV. SMALL PARAMETER IN SECOND-ORDER ELLIPTIC DIFFERENTIAL EQUATIONS -- V. QUASI-LINEAR PARABOLIC EQUATIONS WITH NON-NEGATIVE CHARACTERISTIC FORM -- VI. QUASI-LINEAR PARABOLIC EQUATIONS WITH SMALL PARAMETER. WAVE FRONTS PROPAGATION -- VII. WAVE FRONT PROPAGATION IN PERIODIC AND RANDOM MEDIA -- LIST OF NOTATIONS -- REFERENCES -- Backmatter

   Sommario/riassunto This book discusses some aspects of the theory of partial differential equations from the viewpoint of probability theory. It is intended not only for specialists in partial differential equations or probability theory but also for specialists in asymptotic methods and in functional analysis. It is also of interest to physicists who use functional integrals in their research. The work contains results that have not previously appeared in book form, including research contributions of the author.