1. Record Nr. UNINA9910783222603321 Autore Prastaro Agostino Titolo Quantized partial differential equations [[electronic resource] /] / A Prastaro River Edge, NJ,: World Scientific, c2004 Pubbl/distr/stampa 1-281-87247-4 **ISBN** 9786611872472 981-256-251-6 Descrizione fisica 1 online resource (500 p.) Disciplina 515.353 517.383 Soggetti Quantum groups Quantum field theory Lingua di pubblicazione Inglese **Formato** Materiale a stampa Livello bibliografico Monografia Description based upon print version of record. Note generali Includes bibliographical references (p. 461-471) and index. Nota di bibliografia Nota di contenuto Quantized Partial Differential Equations; Preface; CONTENTS; Quantized PDE's I: Noncommutative Manifolds; Quantized PDE's. II: Noncommutative PDE's: Quantized PDE's III: Quantizations of Commutative PDE's: Addendum I: Bordism groups and the (NS)problem; Addendum II: Bordism groups and variational PDE's; References: Index Sommario/riassunto This book presents, for the first time, a systematic formulation of the geometric theory of noncommutative PDE's which is suitable enough to be used for a mathematical description of quantum dynamics and quantum field theory. A geometric theory of supersymmetric quantum PDE's is also considered, in order to describe quantum supergravity. Covariant and canonical quantizations of (super) PDE's are shown to be founded on the geometric theory of PDE's and to produce quantum

(super) PDE's by means of functors from the category of commutative (super) PDE's to the category of quantum (super)PDE's. Global