Record Nr. UNINA9910450437303321 50 years of Yang-Mills theory [[electronic resource] /] / edited by **Titolo** Gerardus 't Hooft Pubbl/distr/stampa Hackensack, NJ,: World Scientific, 2005 **ISBN** 1-281-34783-3 9786611347833 981-256-714-3 Descrizione fisica 1 online resource (498 p.) Altri autori (Persone) HooftG. 't Disciplina 530.14/35 Soggetti Yang-Mills theory Quantum field theory 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. Preface: CONTENTS: Introduction: Quantizing Gauge Field Theories: Nota di contenuto Ghosts for Physicists; Breaking the Symmetry; Towards the Standard Model; Renormalization; Anomalies; Asymptotic Freedom; Magnetic Monopoles; Quark Confinement and Strings; Fixing in Gauge Condition Non-Perturbatively; The Lattice; Fermions on the Lattice; Confrontation with Experiment; Supersymmetry and Supergravity; Physics of the 21st Century Sommario/riassunto On the 50th anniversary of Yang-Mills theory, this invaluable volume looks back at the developments and achievements in elementary particle physics that ensued from that beautiful idea. During the last five decades, Yang-Mills theory, which is undeniably the most important cornerstone of theoretical physics, has expanded widely. It has been investigated from many perspectives, and many new and unexpected features have been uncovered from this theory. In recent decades, apart from high energy physics, the theory has been actively applied in other branches of physics, such as statistical physics