1. Record Nr. UNINA9910338257503321 Autore Cobza tefan Titolo Lipschitz Functions / / by tefan Cobza, Radu Miculescu, Adriana Nicolae Pubbl/distr/stampa Cham:,: Springer International Publishing:,: Imprint: Springer,, 2019 **ISBN** 3-030-16489-6 Edizione [1st ed. 2019.] Descrizione fisica 1 online resource (XIV, 593 p. 2 illus.) Collana Lecture Notes in Mathematics, , 0075-8434;; 2241 Disciplina 515.7 Soggetti Functional analysis Functions of real variables Approximation theory Operator theory Convex geometry Discrete geometry **Functional Analysis** Real Functions Approximations and Expansions **Operator Theory** Convex and Discrete Geometry Lingua di pubblicazione Inglese **Formato** Materiale a stampa Livello bibliografico Monografia Nota di bibliografia Includes bibliographical references and index. Sommario/riassunto The aim of this book is to present various facets of the theory and applications of Lipschitz functions, starting with classical and culminating with some recent results. Among the included topics we mention: characterizations of Lipschitz functions and relations with other classes of functions, extension results for Lipschitz functions and Lipschitz partitions of unity, Lipschitz free Banach spaces and their applications, compactness properties of Lipschitz operators, Bishop-

Phelps type results for Lipschitz functionals, applications to best approximation in metric and in metric linear spaces, Kantorovich-Rubinstein norm and applications to duality in the optimal transport

problem, Lipschitz mappings on geodesic spaces. The prerequisites are basic results in real analysis, functional analysis, measure theory (including vector measures) and topology, which, for reader's convenience, are surveyed in the first chapter of the book.