Record Nr. UNINA9910825016003321 Autore Schneider Rolf <1940-> Titolo Convex bodies: the Brunn-Minkowski theory / / Rolf Schneider, Albert-Ludwigs-Universitat Freiburg, Germany [[electronic resource]] Cambridge:,: Cambridge University Press,, 2014 Pubbl/distr/stampa 1-107-45500-6 **ISBN** 1-107-46205-3 1-107-45983-4 1-107-46906-6 1-107-46552-4 1-107-47267-9 1-139-00385-2 Edizione [Second edition.] Descrizione fisica 1 online resource (xxii, 736 pages) : digital, PDF file(s) Collana Encyclopedia of mathematics and its applications;; volume 151 Disciplina 516.3/74 Soggetti Convex bodies Lingua di pubblicazione Inglese **Formato** Materiale a stampa Livello bibliografico Monografia Note generali Title from publisher's bibliographic system (viewed on 05 Oct 2015). Nota di bibliografia Includes bibliographical references and indexes. Nota di contenuto Basic convexity -- Boundary structure -- Minkowski addition --Support measures and intrinsic volumes -- Mixed volumes and related concepts -- Valuations on convex bodies -- Inequalities for mixed volumes -- Determination by area measures and curvatures --Extensions and analogues of the Brunn--Minkowski theory -- Affine constructions and inequalities. At the heart of this monograph is the Brunn-Minkowski theory, which Sommario/riassunto can be used to great effect in studying such ideas as volume and surface area and their generalizations. In particular, the notions of mixed volume and mixed area measure arise naturally and the fundamental inequalities that are satisfied by mixed volumes are considered here in detail. The author presents a comprehensive introduction to convex bodies, including full proofs for some deeper theorems. The book provides hints and pointers to connections with other fields and an exhaustive reference list. This second edition has been considerably expanded to reflect the rapid developments of the

past two decades. It includes new chapters on valuations on convex

bodies, on extensions like the Lp Brunn-Minkowski theory, and on affine constructions and inequalities. There are also many supplements and updates to the original chapters, and a substantial expansion of chapter notes and references.