

1. Record Nr.	UNINA9910787619903321
Autore	Schneider Rolf <1940->
Titolo	Convex bodies : the Brunn-Minkowski theory // Rolf Schneider, Albert-Ludwigs-Universitat Freiburg, Germany [[electronic resource]]
Pubbl/distr/stampa	Cambridge : , : Cambridge University Press, , 2014
ISBN	1-107-45500-6 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.
Sommario/riassunto	At the heart of this monograph is the Brunn-Minkowski theory, which 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  $L_p$  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.

---