

1. Record Nr.	UNINA9910338245403321
Autore	Rataj Jan <1962->
Titolo	Curvature Measures of Singular Sets // by Jan Rataj, Martina Zähle
Pubbl/distr/stampa	Cham : , : Springer International Publishing : , : Imprint : Springer, , 2019
ISBN	3-030-18183-9
Edizione	[1st ed. 2019.]
Descrizione fisica	1 online resource (XI, 256 p. 13 illus., 7 illus. in color.)
Collana	Springer Monographs in Mathematics, , 1439-7382
Disciplina	514.74
Soggetti	Global analysis (Mathematics) Manifolds (Mathematics) Measure theory Convex geometry Discrete geometry Geometry, Differential Global Analysis and Analysis on Manifolds Measure and Integration Convex and Discrete Geometry Differential Geometry
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Sommario/riassunto	The book describes how curvature measures can be introduced for certain classes of sets with singularities in Euclidean spaces. Its focus lies on sets with positive reach and some extensions, which include the classical polyconvex sets and piecewise smooth submanifolds as special cases. The measures under consideration form a complete system of certain Euclidean invariants. Techniques of geometric measure theory, in particular, rectifiable currents are applied, and some important integral-geometric formulas are derived. Moreover, an approach to curvatures for a class of fractals is presented, which uses approximation by the rescaled curvature measures of small neighborhoods. The book collects results published during the last few decades in a nearly comprehensive way.

