1. Record Nr. UNINA9910822179703321 Autore Li An-Min Titolo Global affine differential geometry of hypersurfaces / / An-Min Li [and three others] Berlin, [Germany];; Boston, [Massachusetts]:,: De Gruyter,, 2015 Pubbl/distr/stampa ©2015 **ISBN** 3-11-039090-6 3-11-026889-2 Edizione [Second revised and extended edition.] Descrizione fisica 1 online resource (378 p.) De Gruyter Expositions in Mathematics, , 0938-6572; ; Volume 11 Collana Disciplina 516.3/62 Soggetti Global differential geometry Hypersurfaces Lingua di pubblicazione Inglese **Formato** Materiale a stampa Livello bibliografico Monografia Note generali Description based upon print version of record. Nota di bibliografia Includes bibliographical references and index. Frontmatter -- Contents -- Introduction -- 1. Preliminaries and basic Nota di contenuto structural aspects -- 2. Local equiaffine hypersurface theory -- 3. Affine hyperspheres -- 4. Rigidity and uniqueness theorems -- 5. Variational problems and affine maximal surfaces -- 6. Hypersurfaces with constant affine Gauß-Kronecker curvature -- 7. Geometric inequalities -- A. Basic concepts from differential geometry -- B. Laplacian comparison theorem -- Bibliography -- Index -- Backmatter This book draws a colorful and widespread picture of global affine Sommario/riassunto hypersurface theory up to the most recent state. Moreover, the recent development revealed that affine differential geometry - as differential geometry in general - has an exciting intersection area with other fields of interest, like partial differential equations, global analysis, convex geometry and Riemann surfaces. The second edition of this monograph leads the reader from introductory concepts to recent research. Since the publication of the first edition in 1993 there appeared important new contributions, like the solutions of two different affine Bernstein conjectures, due to Chern and Calabi, respectively. Moreover, a large subclass of hyperbolic affine spheres were classified in recent years. namely the locally strongly convex Blaschke hypersurfaces that have

parallel cubic form with respect to the Levi-Civita connection of the

Blaschke metric. The authors of this book present such results and new methods of proof.