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Title: L_p-curvature

Abstract: L_p-curvature arises naturally in the L_p extension of the classical Brunn-Minkowski theory. The notion of L_p-curvature has already led directly to the discovery of the dual of the Legendre ellipsoid (Ludwig, Lutwak, Yang, Zhang) as well as L_p extensions of:
1. the John ellipsoid (Lutwak, Yang, Zhang),
2. the Petty projection inequality (Campi, Gronchi, Lutwak, Yang, Zhang),
3. the Busemann-Petty centroid inequality (Campi, Gronchi, Lutwak, Yang, Zhang),
4. the classical Minkowski problem (Chen, Lutwak, Oliker, Stancu, Umanskiy, Yang, Zhang),
5. affine surface area (Hug, Ludwig, Lutwak, Meyer, Schuett, Werner, Yang, Zhang),
6. geominimal surface area (Hug, Lutwak),
7. classical stability results (Hugg, Schneider),
8. the affine Sobolev-Zhang inequality (Lutwak, Yang, Zhang).
After being with us for eight years, L_p-curvature still has more questions surrounding it than answers.