

ROLF SCHNEIDER

Publications

BOOKS

R. Schneider, *Convex Bodies: The Brunn-Minkowski Theory*. Second expanded edition. Encyclopedia of Mathematics and Its Applications 151, xvii+736 pp, Cambridge University Press, Cambridge, 2014.

R. Schneider, W. Weil, *Stochastic and Integral Geometry*. xii+694 pp, Springer, Berlin-Heidelberg, 2008.

A. Baddeley, I. Bárány, R. Schneider, W. Weil, *Stochastic Geometry*, Martina Franca, Italy, 2004, Editor: W. Weil, Lecture Notes in Math. 1892, xii+292 pp, Springer, Berlin, 2007.

R. Schneider, W. Weil, *Stochastische Geometrie*. Teubner Skripten zur Math. Stochastik, viii+359 pp, B. G. Teubner, Stuttgart-Leipzig, 2000.

Polytopes: Abstract, Convex and Computational (Scarborough 1993; T. Bisztriczky, P. McMullen, R. Schneider, A. Ivić Weiss, eds.), *NATO ASI Series C*, vol. 440, Kluwer, Dordrecht, 1994.

R. Schneider, *Convex Bodies: The Brunn-Minkowski Theory*. Encyclopedia of Mathematics and Its Applications 44, xiii+490 pp, Cambridge University Press, Cambridge, 1993.

R. Schneider, W. Weil, *Integralgeometrie*. Teubner Skripten zur Math. Stochastik, viii+222 pp, B. G. Teubner, Stuttgart, 1992.

J. Mecke, R. Schneider, D. Stoyan, W. Weil, *Stochastische Geometrie*. DMV-Seminar 16, 216 pp, Birkhäuser, Basel, 1990.

ARTICLES

205. Polyhedral Gauss–Bonnet theorems and valuations. *Beiträge Algebra Geom.* (2017), DOI 10.1007/s13366-017-0364-4.

204. A Brunn–Minkowski theory for coconvex sets of finite volume. (submitted).

203. Intersection probabilities and kinematic formulas for polyhedral cones. *Periodica Math. Hungar.* (accepted), arXiv:1706.03571 (2017).

202. The typical irregularity of virtual convex bodies. *J. Convex Anal.* (accepted), arXiv:1610.07911 (2016).

- 201.** (with M. Reitzner) On the cells in a stationary Poisson hyperplane mosaic. *Adv. Geom.* (accepted), arXiv:1609.04230 (2016).
- 200.** Combinatorial identities for polyhedral cones. *St. Petersburg Math. J.* (accepted).
- 199.** The middle hedgehog of a planar convex body. *Beitr. Algebra Geom.* (accepted), arXiv:1607.03014 (2016).
- 198.** (with D. Hug) Rotation covariant local tensor valuations on convex bodies. *Commun. Contemp. Math.* (accepted), arXiv:1606.06028 (2016).
- 197.** (with D. Hug) $SO(n)$ -covariant local tensor valuations on polytopes. *Michigan Math. J.* **66** (2017), 637–659.
- 196.** (with J. P. Moreno) Multiplication of convex sets in $C(K)$ spaces. *Studia Math.* 232 (2016), 173–187.
- 195.** Discrete aspects of stochastic geometry. (Handbook article, 3rd updated version) (to appear).
- 194.** (with D. Hug) Random conical tessellations. *Discrete Comput. Geom.* 56 (2016), 395–426.
- 193.** (with D. Hug) Tensor valuations and their local versions. In: *Tensor Valuations and Their Applications in Stochastic Geometry and Imaging* (E.B. Vedel Jensen, M. Kiderlen, eds), pp. 27–65, Lecture Notes in Math., vol. **2177**, Springer, 2017.
- 192.** Valuations on convex bodies—the classical basic facts. In: *Tensor Valuations and Their Applications in Stochastic Geometry and Imaging* (E.B. Vedel Jensen, M. Kiderlen, eds), pp. 1–25, Lecture Notes in Math., vol. **2177**, Springer, 2017.
- 191.** (with I. Bárány, D. Hug and M. Reitzner) Random points in halfspheres. *Random Structures Algorithms* **50** (2017), 3–22.
- 190.** Second moments related to Poisson hyperplane tessellations. *J. Math. Anal. Appl.* 434 (2016), 1365–1375.
- 189.** Reflections of planar convex bodies. In *Convexity and Discrete Geometry Including Graph Theory*, Mulhouse, France, September 2014 (K. Adiprasito, I. Bárány, C. Vilcu, eds), pp. 69–76, Springer, 2016.
- 188.** (with I. Bárány) Typical curvature behaviour of bodies of constant width. *Adv. Math.* 272 (2015), 308–329.
- 187.** (with I. Bárány and D. Hug) Affine diameters of convex bodies. *Proc. Amer. Math. Soc.* 144, no. 2 (2016), 797–812.
- 186.** A formula for mixed volumes. In *Geometric Aspects of Functional Analysis* (Israel Seminar 2011–2013), pp. 423–426, Lecture Notes Math. 2116, Springer, 2014.
- 185.** (with J. P. Moreno) Some geometry of convex bodies in $C(K)$ spaces. *J. Math. Pures Appl.* 103 (2015), 352–373.
- 184.** (with D. Hug) Hölder continuity for support measures of convex bodies. *Arch. Math.* 104 (2015), 83–92.

- 183.** (with D. Hug) Local tensor valuations. *Geom. Funct. Anal.* 24 (2014), 1516–1564.
- 182.** (with D. Florentin and V. D. Milman) A characterization of the mixed discriminant. *Proc. Amer. Math. Soc.* 144, no. 5 (2016), 2197–2204.
- 181.** Curvatures of typical convex bodies—the complete picture. *Proc. Amer. Math. Soc.* 143 (2015), 387–393.
- 180.** Affine surface area and convex bodies of elliptic type. *Periodica Math. Hungar.* 69 (2014), 120–125.
- 179.** (with J. P. Moreno) Lipschitz selections of the diametric completion mapping in Minkowski spaces. *Adv. Math.* 233 (2013), 248–267.
- 178.** (with D. Hug) Approximation properties of random polytopes associated with Poisson hyperplane processes. *Adv. Appl. Prob. (SGSA)* 46 (2014), 919–936.
- 177.** (with I. Bárány) Universal points of convex bodies and bisectors in Minkowski spaces. *Adv. Geom.* 14 (2014), 427–445.
- 176.** Local tensor valuations on convex polytopes. *Monatsh. Math.* 171 (2013), 459 – 479.
- 175.** (with J. P. Moreno) Structure of the space of diametrically complete sets in a Minkowski space. *Discrete Comput. Geom.* 48 (2012), 467 – 486.
- 174.** (with D. Hug) Reverse inequalities for zonoids and their application. *Adv. Math.* 228 (2011), 2634 – 2646.
- 173.** (with J. P. Moreno) Diametrically complete sets in Minkowski spaces. *Israel J. Math.* 191 (2012), 701 – 720.
- 172.** (with V. D. Milman) Characterizing the mixed volume. *Adv. Geom.* 11 (2011), 669 – 689.
- 171.** (with D. Hug) Faces with given directions in anisotropic Poisson hyperplane mosaics. *Adv. Appl. Prob. (SGSA)* 43 (2011), 308–321.
- 170.** (with J. P. Moreno) Local Lipschitz continuity of the diametric completion mapping. *Houston J. Math.* 38 (2012), 1207 – 1223.
- 169.** Stability for some extremal properties of the simplex. *J. Geom.* 96 (2009), 135 – 148.
- 168.** (with D. Hug) Faces of Poisson–Voronoi mosaics. *Probab. Theory Related Fields* 151 (2011), 125 – 151.
- 167.** (with D. Hug) Large faces in Poisson hyperplane mosaics. *Ann. Probab.* 38 (2010), 1320 – 1344.
- 166.** (with K. Bezdek) Covering large balls with convex sets in spherical space. *Beiträge Algebra Geom.* 51 (2010), 229 – 235.
- 165.** Vertex numbers of weighted faces in Poisson hyperplane mosaics. *Discrete Comput. Geom.* 44 (2010), 599 – 607.

- 164.** Extremal properties of random mosaics. In *Geometry – Intuitive, Discrete, and Convex. A Tribute to László Fejes Tóth* (I. Bárány, K. J. Böröczky, G. Fejes Tóth, J. Pach, eds), Bolyai Soc. Math. Studies 24, pp. 301–330, Springer, Berlin, 2013.
- 163.** Weighted faces of Poisson hyperplane tessellations. *Adv. Appl. Prob. (SGSA)* 41 (2009), 682 – 694.
- 162.** Verification of polytopes by brightness functions. *Proc. Amer. Math. Soc.* 137 (2009), 3899 – 3903.
- 161.** (with W. Weil) Classical stochastic geometry. In: *New Perspectives in Stochastic Geometry* (eds. W. S. Kendall, I. Molchanov), pp. 1 – 42, Oxford University Press, Oxford, 2010.
- 160.** (with K. J. Böröczky) The mean width of circumscribed random polytopes. *Canad. Math. Bull.* 53 (2010), 614 – 628.
- 159.** Recent results on random polytopes. *Boll. Un. Mat. Ital., Ser. (9)*, 1 (2008), 17 – 39.
- 158.** The endomorphisms of the lattice of closed convex cones. *Beiträge Algebra Geom.* 49 (2008), 541 – 547.
- 157.** (with D. Hug and R. Schuster) Integral geometry of tensor valuations. *Adv. in Appl. Math.* 41 (2008), 482 – 509.
- 156.** (with K. J. Böröczky) A characterization of the duality mapping for convex bodies. *Geom. Funct. Anal.* 18 (2008), 657 – 667.
- 155.** (with K. J. Böröczky) Stable determination of convex bodies from sections. *Studia Sci. Math. Hungar.* 46 (2009), 367 – 376.
- 154.** (with F. E. Schuster) Rotation invariant Minkowski classes of convex bodies. *Mathematika* 54 (2007), 1 – 13.
- 153.** (with F. E. Schuster) Rotation equivariant Minkowski valuations. *Int. Math. Res. Notices*, Volume 2006, Article ID 72894, Pages 1 – 20.
- 152.** (with D. Hug and R. Schuster) The space of isometry covariant tensor valuations. *St. Petersburg Math. J.* 19 (2008), 137 – 158.
- 151.** (with K. Böröczky jr) Circumscribed simplices of minimal mean width. *Beiträge Algebra Geom.* 48 (2007), 217 – 224.
- 150.** (with D. Hug) Typical cells in Poisson hyperplane tessellations. *Discrete Comput. Geom.* 38 (2007), 305 – 319.
- 149.** (with J. P. Moreno) Intersection properties of polyhedral norms. *Adv. Geom.* 7 (2007), 391 – 402.
- 148.** (with J. P. Moreno) Continuity properties of the ball hull mapping. *Nonlinear Anal.* 66 (2007), 914 – 925.
- 147.** Stable determination of convex bodies from projections. *Monatsh. Math.* 150 (2007), 241–247.

- 146.** Crofton measures in polytopal Hilbert geometries. *Beiträge Algebra Geom.* 47 (2006), 479 – 488.
- 145.** (with D. Hug) A stability result for a volume ratio. *Israel J. Math.* 161 (2007), 209 – 219.
- 144.** Crofton measures in projective Finsler spaces. In: *Integral Geometry and Convexity* (Proc. Int. Conf., Wuhan, China, Oct. 2004; eds. E. L. Grinberg, S. Li, G. Zhang, J. Zhou), World Scientific, New Jersey, 2006, pp. 67 – 98.
- 143.** (with D. Hug) Asymptotic shapes of large cells in random tessellations. *Geom. Funct. Anal.* 17 (2007), 156 – 191.
- 142.** (with D. Hug) Large typical cells in Poisson–Delaunay mosaics. *Rev. Roumaine Math. Pures Appl.* 50 (2005), 657 – 670.
- 141.** (with R. Schuster) Particle orientation from section stereology. *Rend. Circ. Mat. Palermo (2) Suppl.* 77 (2006), 623 – 633.
- 140.** (with J. Gates and D. Hug) Valuations on convex sets of oriented hyperplanes. *Discrete Comput. Geom.* 33 (2005), 57 – 65.
- 139.** (with D. Hug and M. Reitzner) Large Poisson–Voronoi cells and Crofton cells. *Adv. Appl. Prob. (SGSA)* 36 (2004), 667 – 690.
- 138.** (with Fuchang Gao and D. Hug) Intrinsic volumes and polar sets in spherical space. *Math. Notae* 41 (2001/02), 159 – 176 (2003).
- 137.** (with D. Hug) Large cells in Poisson–Delaunay tessellations. *Discrete Comput. Geom.* 31 (2004), 503 – 514.
- 136.** (with D. Hug and M. Reitzner) The limit shape of the zero cell in a stationary Poisson hyperplane tessellation. *Ann. Probab.* 32 (2004), 1140 – 1167.
- 135.** An integral geometric theorem for simple valuations. *Beiträge Algebra Geom.* 44 (2003), 487 – 492.
- 134.** (with D. Hug) Kinematic and Crofton formulae of integral geometry: recent variants and extensions. In *Homenatge al professor Lluís Santaló i Sors* (C. Barceló i Vidal, ed.), Universitat de Girona, 2002, pp. 51 – 80.
- 133.** On integral geometry in projective Finsler spaces. *Izv. Nats. Akad. Armenii Mat.* 37 (2002), 34 – 51; translation in *J. Contemp. Math. Anal.* **37** (2002), 30 – 46.
- 132.** Mixed polytopes. *Discrete Comput. Geom.* 29 (2003), 575 – 593.
- 131.** Discrete aspects of stochastic geometry. In *Handbook of Discrete and Computational Geometry* (J. E. Goodman, J. O’Rourke, eds.), 2nd ed., Chapman & Hall/CRC, Boca Raton, 2004, pp. 255 – 278.
- 130.** (with R. Schuster) Tensor valuations on convex bodies and integral geometry, II. *Rend. Circ. Mat. Palermo (2) Suppl.* 70 (2002), vol. II, 295 – 314.
- 129.** (with D. Hug) Stability results involving surface area measures of convex bodies. *Rend. Circ. Mat. Palermo (2) Suppl.* 70 (2002), vol. II, 21 – 51.

- 128.** Nonstationary Poisson hyperplanes and their induced tessellations. *Adv. Appl. Prob. (SGSA)* 35 (2003), 139 – 158.
- 127.** Crofton formulas in hypermetric projective Finsler spaces. *Arch. Math.* 77 (2001), 85 – 97.
- 126.** On the mean normal measures of a particle process. *Adv. Appl. Prob. (SGSA)* 33 (2001), 25 – 38.
- 125.** On the Busemann area in Minkowski spaces. *Beiträge Algebra Geom.* 42 (2001), 263 – 273.
- 124.** Tensor valuations on convex bodies and integral geometry. *Rend. Circ. Mat. Palermo (2) Suppl.* 65 (2000), 295 – 316.
- 123.** Mixed functionals of convex bodies. *Discrete Comput. Geom.* 24 (2000), 527 – 538.
- 122.** A duality for Poisson flats. *Adv. Appl. Prob.* 31 (1999), 63 – 68.
- 121.** On the determination of convex bodies by projection and girth functions. *Results Math.* 33 (1998), 155 – 160.
- 120.** Convex bodies in exceptional relative positions. *J. London Math. Soc.* 60 (1999), 617 – 629.
- 119.** Intrinsic volumes in Minkowski spaces. *Rend. Circ. Mat. Palermo (2) Suppl.* 50 (1997), 355 – 373.
- 118.** On areas and integral geometry in Minkowski spaces. *Beiträge Algebra Geom.* 38 (1997), 73 – 86.
- 117.** (with P. Goodey, W. Weil) Projection functions of convex bodies. In *Intuitive Geometry* (Budapest 1995; I. Bárány, K. Böröczky, eds.), *Bolyai Soc. Math. Stud.* 6, János Bolyai Mathematical Society, Budapest 1997, pp. 23 – 53.
- 116.** Measures in convex geometry. *Rend. Istit. Mat. Univ. Trieste, Suppl.* 29 (1998), 215 – 265.
- 115.** Volumes of projections of polytope pairs. *Rend. Circ. Mat. Palermo (2) Suppl.* 41 (1996), 217 – 225.
- 114.** (with P. Goodey, W. Weil) On the determination of convex bodies by projection functions. *Bull. London Math. Soc.* 29 (1997), 82 – 88.
- 113.** Simple valuations on convex bodies. *Mathematika* 43 (1996), 32 – 39.
- 112.** Discrete aspects of stochastic geometry. In *Handbook of Discrete and Computational Geometry* (J. E. Goodman, J. O'Rourke, eds.) CRC Press, Boca Raton, 1997, pp. 167 – 184.
- 111.** (with J. A. Wieacker) Integral geometry in Minkowski spaces. *Adv. Math.* 129 (1997), 222 – 260.

- 110.** (with S. Glasauer) Asymptotic approximation of smooth convex bodies by polytopes. *Forum Math.* 8 (1996), 363 – 377.
- 109.** (with C. Bauer) Extremal problems for geometric inequalities involving convex bodies. *Adv. Appl. Prob.* 27 (1995), 20 – 34.
- 108.** Isoperimetric inequalities for infinite hyperplane systems. In *The László Fejes Tóth Festschrift* (I. Bárány, J. Pach, eds.), *Discrete Comput. Geom.* 13 (1995), 609 – 627.
- 107.** Polytopes and Brunn–Minkowski theory. In: *Polytopes: Abstract, Convex and Computational* (Scarborough 1993; T. Bisztriczky, P. McMullen, R. Schneider, A. Ivić Weiss, eds.), *NATO ASI Series C*, vol. 440, Kluwer, Dordrecht, 1994, pp. 273 – 299.
- 106.** (with G. K. Savvidy) A lower estimate for the modified Steiner functional. *Commun. Math. Phys.* 161 (1994), 283 – 287.
- 105.** An extension of the principal kinematic formula of integral geometry. *Rend. Circ. Mat. Palermo* (2) *Suppl.* 35 (1994), 275 – 290.
- 104.** (with P. Goodey, W. Weil) Projection functions on higher rank Grassmannians. In *Geometric Aspects of Functional Analysis* (J. Lindenstrauss, V. Milman, eds.), *Operator Theory: Adv. and Appl.* 77, Birkhäuser, Basel, 1995, pp. 75 – 90.
- 103.** (with Th. Burger) On convex bodies close to ellipsoids. *J. Geometry* 47 (1993), 16 – 22.
- 102.** On the general Brunn–Minkowski theorem. *Beiträge Algebra Geom.* 34 (1993), 1 – 8.
- 101.** Equality in the Aleksandrov–Fenchel inequality – present state and new results. In *Intuitive Geometry* (Szeged 1991; K. Böröczky, G. Fejes Tóth, eds.) *Colloq. Math. Soc. János Bolyai* 63, North-Holland, Amsterdam, 1994, pp. 425 – 438.
- 100.** (with J.A. Wieacker) Integral geometry. In *Handbook of Convex Geometry*, vol. B (P. M. Gruber, J. M. Wills, eds.), North-Holland, Amsterdam, 1993, pp. 1349 – 1390.
- 99.** Convex surfaces, curvature and surface area measures. In *Handbook of Convex Geometry*, vol. A (P. M. Gruber, J. M. Wills, eds.), North-Holland, Amsterdam, 1993, pp. 273 – 299.
- 98.** A stability estimate for the Aleksandrov–Fenchel inequality, with an application to mean curvature. *Manuscripta Math.* 69 (1990), 291 – 300.
- 97.** (with H. Groemer) Stability estimates for some geometric inequalities. *Bull. London Math. Soc.* 23 (1991), 67 – 74.
- 96.** (with F. Affentranger) Random projections of regular simplices. *Discrete Comput. Geom.* 7 (1992), 219 – 226.
- 95.** On the Aleksandrov–Fenchel inequality for convex bodies, I. *Results Math.* 17 (1990), 287 – 295.
- 94.** Stability in the Aleksandrov–Fenchel–Jessen theorem. *Mathematika* 36 (1989), 50 – 59.

- 93.** Curvature measures and integral geometry of convex bodies, III. *Rend. Sem. Mat. Univers. Politecn. Torino* 46 (1988), 111 – 123.
- 92.** Gemischte Volumina in Kanalscharen. *Geom. Dedicata* 30 (1989), 223 – 234.
- 91.** Random approximation of convex sets. *J. Microscopy* 151 (1988), 211 – 227.
- 90.** On a morphological transformation for convex domains. *J. Geometry* 34 (1989), 172 – 180.
- 89.** Closed convex hypersurfaces with curvature restrictions. *Proc. Amer. Math. Soc.* 103 (1988), 1201 – 1204.
- 88.** On the Aleksandrov–Fenchel inequality involving zonoids. *Geom. Dedicata* 27 (1988), 113 – 126.
- 87.** Approximation of convex bodies by random polytopes. *Aequationes Math.* 32 (1987), 304 – 310.
- 86.** Tessellations generated by hyperplanes. *Discrete Comput. Geom.* 2 (1987), 223 – 232.
- 85.** (with I. Papaderou–Vogiatzaki) A collision probability problem. *J. Appl. Probab.* 25 (1988), 617 – 623.
- 84.** Polyhedral approximation of smooth convex bodies. *J. Math. Anal. Appl.* 128 (1987), 470 – 474.
- 83.** Geometric inequalities for Poisson processes of convex bodies and cylinders. *Results Math.* 11 (1987), 165 – 185.
- 82.** Equidecomposable polyhedra. In *Intuitive Geometry* (Siófok 1985; K. Böröczky, G. Fejes Tóth, eds.) *Colloq. Math. Soc. János Bolyai* 48, North-Holland, Amsterdam 1987, pp. 481 – 501.
- 81.** Curvature measures and integral geometry of convex bodies, II. *Rend. Sem. Mat. Univers. Politecn. Torino* 44 (1986), 263 – 275.
- 80.** (with W. Weil) Translative and kinematic integral formulae for curvature measures. *Math. Nachr.* 129 (1986), 67 – 80.
- 79.** (with J. A. Wieacker) Einschließung ebener Kurven. *Elem. Math.* 40 (1985), 98 – 99.
- 78.** Affine-invariant approximation by convex polytopes. *Studia Sci. Math. Hungar.* 21 (1986), 401 – 408.
- 77.** Inequalities for random flats meeting a convex body. *J. Appl. Probab.* 22 (1985), 710 – 716.
- 76.** Smooth approximation of convex bodies. *Rend. Circ. Mat. Palermo* (2) 33 (1984), 436 – 440.
- 75.** On the Aleksandrov–Fenchel inequality. In *Discrete Geometry and Convexity* (J. E. Goodman, E. Lutwak, J. Malkevitch, R. Pollack, eds.), *Ann. New York Acad. Sci.* 440 (1985), pp. 132 – 141.

- 74.** (with J. A. Wieacker) Random touching of convex bodies. In *Proc. Conf. Stochastic Geometry, Geometric Statistics, Stereology* (Oberwolfach 1983; R. V. Ambartzumian, W. Weil, eds.), Teubner-Verlag, Leipzig, 1984, pp. 154 – 169.
- 73.** (with W. Weil) Zonoids and related topics. In *Convexity and its Applications* (P. M. Gruber, J. M. Wills, eds.), Birkhäuser, Basel, 1983, pp. 296 – 317.
- 72.** (with P. McMullen) Valuations on convex bodies. In *Convexity and its Applications* (P. M. Gruber, J. M. Wills, eds.), Birkhäuser, Basel, 1983, pp. 170 – 247.
- 71.** Random polytopes generated by anisotropic hyperplanes. *Bull. London Math. Soc.* 14 (1982), 549 – 553.
- 70.** Random hyperplanes meeting a convex body. *Z. Wahrscheinlichkeitsth. verw. Gebiete* 61 (1982), 379 – 387.
- 69.** Curvature measures and integral geometry of convex bodies. *Rend. Sem. Mat. Univers. Politecnic. Torino* 38 (1980), 79 – 98.
- 68.** Pairs of convex bodies with unique joining metric segment. *Bull. Soc. Roy. Liège* 50 (1981), 5 – 7.
- 67.** Zur optimalen Approximation konvexer Hyperflächen durch Polyeder. *Math. Ann.* 256 (1981), 289 – 301.
- 66.** (with J.A. Wieacker) Approximation of convex bodies by polytopes. *Bull. London Math. Soc.* 13 (1981), 149 – 156.
- 65.** A local formula of translative integral geometry. *Arch. Math.* 36 (1981), 466 – 469.
- 64.** Crofton's formula generalized to projected thick sections. *Rend. Circ. Mat. Palermo* 30 (1981), 157 – 160.
- 63.** A uniqueness theorem for finitely additive invariant measures on a compact homogeneous space. *Rend. Circ. Mat. Palermo* 30 (1981), 341 – 344.
- 62.** Convex bodies with congruent sections. *Bull. London Math. Soc.* 12 (1980), 52 – 54.
- 61.** (with J. A. Wieacker) Random polytopes in a convex body. *Z. Wahrscheinlichkeitsth. verw. Geb.* 52 (1980), 69 – 73.
- 60.** (with P. R. Goodey) On the intermediate area functions of convex bodies. *Math. Z.* 173 (1980), 185 – 194.
- 59.** Boundary structure and curvature of convex bodies. In *Contributions to Geometry* (Proc. Geometry Symposium Siegen 1978; J. Tölke, J. M. Wills, eds.), Birkhäuser, Basel, 1979, pp. 13 – 59.
- 58.** On the curvatures of convex bodies. *Math. Ann.* 240 (1979), 177 – 181.
- 57.** Nonparametric convex hypersurfaces with a curvature restriction. *Ann. Polon. Math.* 51 (1983), 57 – 61.

- 56.** Parallelmengen mit Vielfachheit und Steinerformeln. *Geom. Dedicata* 9 (1980), 111 – 127.
- 55.** Bestimmung konvexer Körper durch Krümmungsmaße. *Comment. Math. Helvet.* 54 (1979), 42 – 60.
- 54.** Kinematic measures for sets of colliding convex bodies. *Mathematika* 25 (1978), 1 – 12.
- 53.** Über Tangentialkörper der Kugel. *Manuscripta Math.* 23 (1978), 269 – 278.
- 52.** On the skeletons of convex bodies. *Bull. London Math. Soc.* 10 (1978), 84 – 85.
- 51.** Eine Charakterisierung der Kugel. *Arch. Math.* 29 (1977), 660 – 665.
- 50.** Curvature measures of convex bodies. *Ann. Mat. Pura Appl.* 116 (1978), 101 – 134.
- 49.** Ein kombinatorisches Analogon zum Satz von Gauss–Bonnet. *Elem. Math.* 2 (1977), 105 – 108.
- 48.** (with W. J. Firey) The size of skeletons of convex bodies. *Geom. Dedicata* 8 (1979), 99 – 103.
- 47.** Kritische Punkte und Krümmung für die Mengen des Konvexringes. *L'Enseignement Math.* 23 (1977), 1 – 6.
- 46.** Rekonstruktion eines konvexen Körpers aus seinen Projektionen. *Math. Nachr.* 79 (1977), 325 – 329.
- 45.** Eine kinematische Integralformel für konvexe Körper. *Arch. Math.* 28 (1977), 217 – 220.
- 44.** Das Christoffel-Problem für Polytope. *Geom. Dedicata* 6 (1977), 81 – 85.
- 43.** Kinematische Berührmaße für konvexe Körper und Integralrelationen für Oberflächenmaße. *Math. Ann.* 218 (1975), 253 – 267.
- 42.** Neighbourliness of centrally symmetric polytopes in high dimensions. *Mathematika* 22 (1975), 176 – 181.
- 41.** Kinematische Berührmaße für konvexe Körper. *Abh. Math. Sem. Univ. Hamburg* 44 (1975), 12 – 23.
- 40.** Bestimmung eines konvexen Körpers durch gewisse Berührmaße. *Arch. Math.* 27 (1976), 99 – 105.
- 39.** A measure of convexity for compact sets. *Pacific J. Math.* 58 (1975), 617 – 626.
- 38.** Zonoids whose polars are zonoids. *Proc. Amer. Math. Soc.* 50 (1975), 365 – 368.
- 37.** On asymmetry classes of convex bodies. *Mathematika* 21 (1974), 12 – 18.
- 36.** Additive Transformationen konvexer Körper. *Geom. Dedicata* 3 (1974), 221 – 228.
- 35.** Remark on a conjectured characterization of the sphere. *Ann. Polon. Math.* 31 (1975), 187 – 190.

- 34.** Isometrien des Raumes der konvexen Körper. *Colloq. Math.* 33 (1975), 219 – 224.
- 33.** Bewegungsäquivalente, additive und stetige Transformationen konvexer Bereiche. *Arch. Math.* 25 (1974), 303 – 312.
- 32.** Summanden konvexer Körper. *Arch. Math.* 25 (1974), 83 – 85.
- 31.** Equivariant endomorphisms of the space of convex bodies. *Trans. Amer. Math. Soc.* 194 (1974), 53 – 78.
- 30.** (with P. McMullen, G. C. Shephard) Monotypic polytopes and their intersection properties. *Geom. Dedicata* 3 (1974), 99 – 129.
- 29.** A characteristic extremal property of simplices. *Proc. Amer. Math. Soc.* 40 (1973), 247 – 249.
- 28.** Konvexe Flächen mit langsam abnehmender Krümmung. *Arch. Math.* 23 (1972), 650 – 654.
- 27.** Volumen und Schwerpunkt von Polyedern. *Elem. Math.* 28 (1973), 137 – 141.
- 26.** Closed convex hypersurfaces with second fundamental form of constant curvature. *Proc. Amer. Math. Soc.* 35 (1972), 230 – 233.
- 25.** Krümmungsschwerpunkte konvexer Körper. II. *Abh. Math. Sem. Univ. Hamburg* 37 (1972), 204 – 217.
- 24.** Krümmungsschwerpunkte konvexer Körper. I. *Abh. Math. Sem. Univ. Hamburg* 37 (1972), 112 – 132.
- 23.** (with H. Hadwiger) Vektorielle Integralgeometrie. *Elem. Math.* 26 (1971), 49 – 57.
- 22.** The mean surface area of the boxes circumscribed about a convex body. *Ann. Polon. Math.* 25 (1971), 325 – 328.
- 21.** Functional equations connected with rotations and their geometric applications. *L'Enseignement Math.* 16 (1970), 297 – 305.
- 20.** Zwei Extremalaufgaben für konvexe Bereiche. *Acta Math. Hungar.* 22 (1971), 379 – 383.
- 19.** Gleitkörper in konvexen Polytopen. *J. reine angew. Math.* 248 (1971), 193 – 220.
- 18.** On Steiner points of convex bodies. *Israel J. Math.* 9 (1971), 241 – 249.
- 17.** On the projections of a convex polytope. *Pacific J. Math.* 32 (1970), 799 – 803.
- 16.** (with W. Weil) Über die Bestimmung eines konvexen Körpers durch die Inhalte seiner Projektionen. *Math. Z.* 116 (1970), 338 – 348.
- 15.** Eine Verallgemeinerung des Differenzenkörpers. *Monatsh. Math.* 74 (1970), 258 – 272.
- 14.** Characterization of certain polytopes by intersection properties of their translates. *Mathematika* 16 (1969), 276 – 282.

13. Functions on a sphere with vanishing integrals over certain subspheres. *J. Math. Anal. Appl.* 26 (1969), 381 – 384.
12. Über eine Integralgleichung in der Theorie der konvexen Körper. *Math. Nachr.* 44 (1970), 55 – 75.
11. Über die Finslerräume mit $S_{ijkl} = 0$. *Arch. Math.* 19 (1968), 656 – 658.
10. Zur affinen Differentialgeometrie im Großen. II. Über eine Abschätzung der Pick-schen Invariante auf Affinsphären. *Math. Z.* 102 (1967), 1 – 8. This work is erroneous.
9. Zur affinen Differentialgeometrie im Großen. I. *Math. Z.* 101 (1967), 375 – 406.
8. Zu einem Problem von Shephard über die Projektionen konvexer Körper. *Math. Z.* 101 (1967), 71 – 82.
7. Eine allgemeine Extremaleigenschaft der Kugel. *Monatsh. Math.* 71 (1967), 231 – 237.
6. A note on branch points of minimal surfaces. *Proc. Amer. Math. Soc.* 17 (1966), 1254 – 1257.
5. Über die Durchschnitte translationsgleicher konvexer Körper und eine Klasse konvexer Polyeder. *Abh. Math. Sem. Univ. Hamburg* 30 (1967), 118 – 128.
4. A characteristic property of the ellipsoid. *Amer. Math. Monthly* 74 (1967), 416 – 418.
3. On A. D. Aleksandrov's inequalities for mixed discriminants. *J. Math. Mech.* 15 (1966), 285 – 290. This work is erroneous.
2. Ähnlichkeits- und Translationssätze für Eiflächen. *Arch. Math.* 17 (1966), 267 – 273.
1. Eine Kennzeichnung der Kugel. *Arch. Math.* 16 (1965), 235 – 240.

VARIA (Congress contributions, etc.)

- V1. Zur Approximation konvexer Körper durch Polyeder. (2. Koll. Diskrete Geometrie, Salzburg 1988; A. Florian, ed.), 189 – 195.
- V2. (with P. M. Gruber) Problems in geometric convexity. *Contributions to Geometry* (Proc. Geometry Symposium Siegen 1978; J. Tölke, J. M. Wills, eds.), Birkhäuser Verlag, Basel 1979, pp. 255 - 278.
- V3. Convex geometry applied to geometric probabilities. *Rend. Sem. Mat. Messina* (Ser. II) **13** (1990), 37 – 48.
- V4. Random convex hulls. *Rend. Sem. Mat. Messina* (Ser. II) **13** (1990), 49 – 58.
- V5. Random projections and spherical integral geometry. *Rend. Sem. Mat. Messina* (Ser. II) **13** (1990), 59 – 68.
- V6. Integral geometry – measure theoretic approach and stochastic applications. *Advanced Course on Integral Geometry*, Centre de Recerca Matemàtica, Bellaterra, Quaderns núm. **16** (1999), 159 – 227.
- V7. Comments on Santaló's contributions to convex geometry. In: *Selected Works of Luis Antonio Santaló*. Eds. A. M. Naveira and A. Reventós. Springer, Berlin Heidelberg 2009, pp. 527–532.