

Vita of Victor Klee

Personal:

Born in San Francisco, 1925

Education:

B.A. (with high honors), Pomona College, 1945 (majors in Mathematics and Chemistry)

Ph.D. (Mathematics), University of Virginia, 1949

Honorary Degrees:

D.Sc., Universität Trier, 1995

D.Sc., Université de Liège, 1984

D.Sc., Pomona College, 1965

Awards:

American Academy of Arts and Sciences

Fellow, 1997-

American Association for the Advancement of Science

Fellow, 1976-

Mathematical Association of America:

Annual Award for Distinguished Service to Mathematics, 1977

C.B. Allendoerfer Award, 1980, 1999

L.R. Ford Award, 1972

Max-Planck-Gesellschaft:

Max-Planck-Forschungspreis, 1992

Alexander von Humboldt Stiftung:

Preisträger, 1980-81

Pomona College:

David Prescott Barrows Award for Distinguished Achievement, 1988

Reed College:

Vollum Award for Distinguished Accomplishment in Science and Technology, 1982

University of Virginia:

President's and Visitor's Research Prize, 1952

Full-Time Employment:

University of Washington:

Professor of Mathematics, 1957-98, then Professor Emeritus;
Associate Professor, 1954-57;
Assistant Professor, 1953-54;
Adjunct Professor of Computer Science, 1974-present;
Professor or Adjunct Professor of Applied Mathematics, 1976-84;

University of Western Australia:

Visiting Professor, 1979.

University of Victoria:

Visiting Professor, 1975.

T.J. Watson Research Center, IBM:

Full-Time Consultant, 1972.

University of Colorado:

Visiting Professor, 1971.

University of California, Los Angeles:

Visiting Associate Professor, 1955-56.

University of Virginia:

Assistant Professor, 1949-53;

Instructor, 1947-48.

Fellowships:

Fulbright Research Scholar, University of Trier, 1992

Senior Fellow, Institute for Mathematics and its Applications, Minneapolis, 1987.

Mathematical Sciences Research Institute, Berkeley, 1985-86.

Guggenheim Fellow, University of Erlangen-Nürnberg, 1980-81.

Center for Advanced Study in the Behavioral Sciences, Stanford, 1975-76.

Sloan Foundation Fellow, University of Copenhagen, 1959-60.

National Science Foundation Senior Postdoctoral Fellow, University of Copenhagen, 1958-59.

Research Fellow of the Alfred P. Sloan Foundation, 1956–58.

National Research Council, Institute for Advanced Study, 1951–52.

A.E.C. Predoctoral, University of Virginia, 1948–49.

Du Pont Predoctoral, University of Virginia, 1945–47.

Part-Time Consultant:

W.H. Freeman and Co., 1976–1995

Holt, Rinehart and Winston, Inc., 1966–76.

E.I. du Pont de Nemours, Inc., 1968–72.

The RAND Corporation, 1966–70.

Boeing Scientific Research Laboratories, 1963–69.

Professional Societies (and offices):

Mathematical Association of America:

Board of Governors, 1967–78;

First Vice-President, 1968–70;

President, 1971–73.

American Mathematical Society:

Associate Secretary, 1955–58;

Symposium on Convexity, Chairman, Organizing Committee, 1961;

Council, 1964–66, 1969–71;

Executive Committee, 1969–70.

American Association for the Advancement of Science:

Chairman of Section A, 1975;

Fellow, 1976–present.

Sigma Xi:

National Lecturer, 1969.

Society for Industrial and Applied Mathematics:

Council, 1966–68.

Also member of Association for Computing Machinery, International Linear Algebra Society, Mathematical Programming Society, and Phi Beta Kappa.

Invited Lectures:

International Congress of Mathematicians, Vancouver, 1974.

Eighth International Symposium on Mathematical Programming, Stanford, 1973 (plenary speaker).

Invited lectures at various annual meetings of American Mathematical Society, Mathematical Association of America, Society for Industrial and Applied Mathematics, American Association for the Advancement of Science, Canadian Mathematical Congress, Deutsche Mathematiker Vereinigung, Deutsche Gesellschaft für Mathematik, Ökonomie und Operations Research.

Invited addresses at national or international conferences devoted to the following subjects:

- Algorithmic and Applied Combinatorics (1986, 1983, 1971, 1969);
- Applications of Combinatorics in the Biological and Social Sciences (1988);
- Applied and Computational Convexity (1999, 1995, 1992, 1990, 1999);
- Applied Linear Algebra (1988);
- Calculus of Variations and Control Theory (1968);
- Combinatorial and Graph-Theoretic Aspects of Matrix Theory (1991);
- Combinatorial Mathematics (1990, 1978, 1969, 1969, 1968, 1968, 1963);
- Combinatorics and Geometry (1989);
- Computational Geometry (1999, 1992);
- Computing in Algebra and Number Theory (1975);
- Convexity (1994, 1980, 1975, 1965, 1961);
- Convex Analysis (1999);
- Counting Issues in Complexity Theory, Combinatorial Optimization, and Computational Convexity (1993);
- Discrete Geometry (1981, 1966, 1962);
- Discrete and Computational Geometry (1996);
- Discrete Optimization (1981, 1980, 1977);
- Functional Analysis (1992, 1964, 1960, 1960);
- Graph Theory and its Applications (1983, 1972, 1969);
- Information Linkage between Applied Mathematics and Industry (1978);

Linear Algebra (1994, 1993, 1992, 1988);
Mathematical Programming (1991, 1988, 1982, 1973, 1967);
Mathematical Methods of Economics (1972);
Mathematics of the Decision Sciences (1967);
Operations Research (1995, 1991, 1990, 1989, 1987, 1983, 1983, 1980);
Polytopes and Convex Sets (1990);
Polytopes: Convex, Abstract, and Computational (1993);
Scientific Computing (1964);
Set-Theoretic Topology (1973, 1961, 1955);
Teaching of Geometry (1990, 1988, 1969, 1967).

Current Editorships:

Discrete Mathematics
Discrete Applied Mathematics
Journal of Combinatorial Theory
Linear Algebra and Applications
Discrete and Computational Geometry

Senior-level courses taught in the past few years:

Discrete Optimization
Combinatorics
Mathematical Modeling

Graduate-level courses taught in the last few years:

Algorithmic Combinatorics
Combinatorial Optimization
Computational Complexity of Optimization Problems
Convex Polytopes
Computational Geometry
Unsolved Problems in Convex Geometry
Unsolved Problems in Graph Theory and Combinatorics

Ph.D. Students:

- 31 in Mathematics
- 3 more in Mathematics to finish in the year 2000
- 1 in Applied Mathematics
- 1 in Computer Science

Special Activities in 1998-2000

- (April 2000) Series of three lectures at the Technion (Israel Institute of Technology) in Haifa
- (April 2000) Honoree (and invited lecturer) at week-long “Klee-Grünbaum Festival of Convexity” at a conference center on the Sea of Galilee
- (June 2000) Invited lecturer at International Conference on Global Optimization, on Greek island of SAMOS
- Editor of volume of Discrete and Computational Mathematics in honor of the seventieth birthday of Branko Grünbaum
- Committee of one to decide on awards of the Richard Rado Prize by the Deutsche Mathematiker Vereinigung (DMV)
- Invited lecture at DMV-sponsored Symposium on Combinatorics in Berlin, and subsequent lecture at DMV-sponsored summer school for graduate students
- Member of organizing committee for Oberwolfach conference on Applied and Computational Convexity
- Annual Leonardo da Vinci lecture at the University of Milan
- Opening lecture at international symposium on Convex Analysis in Cortona, Italy
- Invited hour lecture at Canadian Symposium on Computational Geometry
- Annual Linear Algebra lecture at University of Wisconsin

Some other activities of the last fifteen years:

- Institute for Mathematics and its Applications
 - Chairman of Organizing Committee for Year-Long Program in Applied Combinatorics
 - Coordinator, Program in Discrete and Computational Geometry
 - Advisory Committee, Program in Applied Linear Algebra

Board of Governors

Mathematical Sciences Research Institute

Board of Trustees

Invited member for program in Convexity and Functional Analysis

Invited member for program in Combinatorics

Centre de Recherche de Mathématiques Appliquées, Université de Montréal

Steering Committee

Mittag-Leffler Institute (Sweden)

Three months as invited participant in program in Combinatorics

Cornell University

Advisory Panel, Center for Research in Discrete Optimization

University of Florida

Scientific Board, Center for Optimization and Combinatorics

American Mathematical Society

Nominating Committee

Centennial Fellowship Committee

Organizing Committee, Summer workshop on mathematical developments related to linear programming

Invited speaker at special sessions on following topics: differential equations, functional analysis, convex sets, combinatorics, discrete geometry

Committee on Summer Research Workshops

Society for Industrial and Applied Mathematics

Chairman, Committee on Award of the Polya Prize

Mathematical Association of America

Committee on the Annual Award for Distinguished Service

Ad Hoc Committee on Awards

Mathematical Programming Society

International Advisory Committee

International Program Committee

Association for Computing Machinery

Program Committee for a symposium on computational geometry

Operations Research Society of America

Arranged special session of papers on mathematical aspects of linear programming

DIMACS (NSF Science and Technology Center in Discrete Mathematics and Theoretical Computer Science)

External Advisory Board

BIBLIOGRAPHY

of

VICTOR KLEE

1946

1. "On the Equation, $\phi(x) = 2m$," *American Mathematical Monthly* **53**, 327-328. 1946.

1947

2. "On a Conjecture of Carmichael," *Bulletin of the American Mathematical Society*, **53**, 1183-1186. 1947.
3. "On completing a Determinant," *American Mathematical Monthly*, **54**, 96-97. 1947.
4. "Some Remarks on Euler's Totient," *American Mathematical Monthly*, **54**, 332. 1947.

1948

5. "A Generalization of Euler's ϕ -function," *American Mathematical Monthly*, **55**, 358-359. 1948.
6. "The Support Property of a Convex Set in a Linear Normed Space," *Duke Mathematical Journal*, **15**, 767-772. 1948.

1949

7. "On a Problem of Erdős," *American Mathematical Monthly*, **56**, 21-22. 1949.
8. "A Note on Fermat's Congruence," *American Mathematical Monthly*, **56**, 626-628. 1949.
9. "A Characterization of Convex Sets," *American Mathematical Monthly*, **56**, 247-249. 1949.
10. "Dense Convex Sets," *Duke Mathematical Journal*, **16**, 351-354. 1949.

1950

11. "Some Characterizations of Reflexivity," *Revista de Ciencias (Lima)*, **52**, 15-23. 1950.

12. "Decomposition of an Infinite-Dimensional Linear System into Ubiquitous Convex Sets," *American Mathematical Monthly*, **57**, 540–541. 1950.

1951

13. "Some Characterizations of Compactness," *American Mathematical Monthly*, **58**, 389–393. 1951.
14. "On Certain Intersection Properties of Convex Sets," *Canadian Journal of Mathematics*, **3**, 272–275. 1951.
15. "Convex Sets in Linear Spaces," *Duke Mathematical Journal*, **18**, 443–466. 1951.
16. "Convex Sets in Linear Spaces. II," *Duke Mathematical Journal*, **18**, 877–883. 1951.

1952

17. "Invariant Metrics in Groups (Solution of a Problem of Banach)," *Proceedings of the American Mathematical Society*, **3**, 484–487. 1952.
18. "Convex Functions and Upper Semi-Continuous Collections" (with R.D. Anderson), *Duke Mathematical Journal*, **19**, 349–357. 1952.

1953

19. "The Critical Set of a Convex Body," *American Journal of Mathematics*, **75**, 178–188. 1953.
20. "Convex Sets in Linear Spaces. III," *Duke Mathematical Journal*, **20**, 105–112. 1953.
21. "Convex Bodies and Periodic Homeomorphisms in Hilbert Space," *Transactions of the American Mathematical Society*, **74**, 10–43. 1953.
22. "On a Theorem of Bela Sz.-Nagy," *American Mathematical Monthly*, **60**, 618–619. 1953.

1954

23. "Invariant Extension of Linear Functionals," *Pacific Journal of Mathematics*, **4**, 37–46. 1954.
24. "Some Remarks on Continuous Transformations" (with W.R. Utz), *Proceedings of the American Mathematical Society*, **5**, 182–184. 1954.

25. "A Characterization of Reflexivity by the Lattice of Closed Subspaces" (with E.E. Floyd), *Proceedings of the American Mathematical Society*, **5**, 655–661. 1954.
26. "Common Secants for Plane Convex Sets," *Proceedings of the American Mathematical Society*, **5**, 639–641. 1954.

1955

27. "A Note on Extreme Points," *American Mathematical Monthly*, **62**, 30–32. 1955.
28. "Some Topological Properties of Convex Sets," *Transactions of the American Mathematical Society*, **78**, 30–45. 1955.
29. "Separation Properties of Convex Cones," *Proceedings of the American Mathematical Society*, **6**, 313–318. 1955.
30. "Boundedness and Continuity of Linear Functionals," *Duke Mathematical Journal*, **22**, 263–270. 1955.
31. "Some Finite-Dimensional Affine Topological Spaces," *Portugaliae Mathematicae*, **14**, 27–30. 1955.
32. "On Metric Independence and Linear Independence" (with L.M. Blumenthal), *Proceedings of the American Mathematical Society*, **6**, 732–734. 1955.
33. "Topological Structure of Normed Linear Spaces," *Summary of Lectures and Seminars, American Mathematical Society's Summer Institute on Set Theoretic Topology*, Madison, Wisconsin. **1955**, 132–134. 1955.

1956

34. "Solution of a Problem of E.M. Wright on Convex Functions," *American Mathematical Monthly*, **63**, 106–107. 1956.
35. "A Note on Topological Properties of Normed Linear Spaces," *Proceedings of the American Mathematical Society*, **7**, 673–674. 1956.
36. "Strict Separation of Convex Sets," *Proceedings of the American Mathematical Society*, **7**, 735–737. 1956.
37. "The Structure of Semispaces," *Mathematica Scandinavica*, **4**, 54–64. 1956.
38. "An Example in the Theory of Topological Linear Spaces," *Archiv der Mathematik*, **3**, 362–366. 1956.

39. "Iteration of the 'Lin' Operation for Convex Sets," *Mathematica Scandinavica*, 4, 231-238. 1956.
40. "A Note on Certain Function Spaces" (with M.E. Rudin), *Archiv der Mathematik*, 7, 469-470. 1956.
41. "Fixed-Point Sets of Periodic Homeomorphisms of Hilbert Space," *Annals of Mathematics*, 64, 393-395. 1956.

1957

42. "Extremal Structure of Convex Sets," *Archiv der Mathematik*, 8, 234-240. 1957.
43. "On a Method of Mapping Due to Kadec and Berstein" (with R.G. Long), *Archiv der Mathematik*, 8, 280-285. 1957.
44. "On a Problem of Banach," *Colloquium Mathematicum*, 5, 78. 1957.
45. "Homogeneity of Infinite-Dimensional Parallelotopes," *Annals of Mathematics*, 66, 454-460. 1957.

1958

46. "Extremal Structure of Convex Sets. II," *Mathematische Zeitschrift*, 69, 90-104. 1958.
47. "The Borelian and Projective Types of Linear Subspaces," *Mathematica Scandinavica*, 6, 189-199. 1958.

1959

48. "Some Characterizations of Convex Polyhedra," *Acta Mathematica*, 102, 79-107. 1959.
49. "Some New Results on Smoothness and Rotundity in Normed Linear Spaces," *Mathematische Annalen*, 139, 51-63. 1959.
50. "Continuous Convex Sets" (with D. Gale), *Mathematica Scandinavica*, 7, 379-391. 1959.

1960

51. "Polyhedral Sections of Convex Bodies," *Acta Mathematica*, 103, 243-267. 1960.

52. "An Example Related to the Fixed-Point Property," *Nieuw Archief voor Wiskunde*, 8, 81–82. 1960.
53. "Shrinkable Neighborhoods in Hausdorff Linear Spaces," *Mathematische Annalen*, 141, 281–285. 1960.
54. "Leray-Schauder Theory without Local Convexity," *Mathematische Annalen*, 141, 286–296. 1960. (Corrections 145, 464–465. 1962.)
55. "Asymptotes and Projections of Convex Sets," *Mathematica Scandinavica*, 8, 356–362. 1960.
56. "Mappings into Normed Linear Spaces," *Fundamenta Mathematicae*, 49, 25–34. 1960.
57. "Circumspheres and Inner Products," *Mathematica Scandinavica*, 8, 363–370. 1960.

1961

58. "Stability of the Fixed-Point Property," *Colloquium Mathematicum*, 8, 43–46. 1961.
59. "Convexity of Chebyshev Sets," *Mathematische Annalen*, 142, 292–304. 1961.
60. "Topological Equivalence of a Banach Space with its Unit Cell," *Bulletin of the American Mathematical Society*, 67, 286–290. 1961.
61. "Relative Extreme Points," *Proceedings of the International Symposium on Linear Spaces*, Jerusalem, Israel, 1960. 1961, 286–290. 1961.
62. "A Question of Katětov concerning the Hilbert Parallelotope," *Proceedings of the American Mathematical Society*, 12, 900–903. 1961.

1962

63. "A Conjecture on Weak Compactness," *Transactions of the American Mathematical Society*, 104, 394–402. 1962.
64. "Exotic Topologies for Linear Spaces," *Proceedings of the International Symposium on Topology*, Prague, Czechoslovakia, 1961. 1962, 238–249, 1962.

Reviewed: *Die innere Geometrie der Metrischen Raume* by W. Rinow, Springer, Berlin, 1961, 520 pp. In *American Mathematical Monthly*, 69, 932–933. 1962.

1963

65. "Topological Structure of Infinite-Dimensional Linear Spaces: the Classification Problem," *Studia Mathematica* (special volume devoted to the International Conference on Functional Analysis, Warsaw, Poland, 1960), 69–71. 1963.

66. "Barycentric Calculus," *Encyclopedia Britannica*, 1963, vol. 1, p. 211. 1963.
67. "The Finite Topology of a Linear Space" (with S. Kakutani), *Archiv der Mathematik*, 14, 55-58. 1963.
68. "Idempotency of the Hull-Formation H^γ ," *Zeitschrift für Wahrscheinlichkeitstheorie*, 1, 258-262. 1963.
69. "The Euler Characteristic in Combinatorial Geometry," *American Mathematical Monthly*, 70, 119-127. 1963.
70. "On a Problem of Hirschfeld," *Nieuw Archief voor Wiskunde*, 11, 22-26. 1963.
71. "Rearrangements of Series of Vectors," *Mathematische Zeitschrift*, 81, 46-51. 1963.
72. "On a Question of Bishop and Phelps," *American Journal of Mathematics*, 85, 95-98. 1963.
73. "On a Conjecture of Lindenstrauss," *Israel Journal of Mathematics*, 1, 1-4. 1963.
74. "Helly's theorem and its Relatives" (with L. Danzer and B. Grünbaum), *American Mathematical Society Proceedings of Symposia in Pure Mathematics* (V. Klee, ed.), 7, 101-180. 1963.
75. "Topological Classification of Convex Sets" (with H. Corson), *American Mathematical Society Proceedings of Symposia in Pure Mathematics* (V. Klee, ed.), 7, 37-51. 1963.
76. "Infinite-Dimensional Intersection Theorems," *American Mathematical Society Proceedings of Symposia in Pure Mathematics* (V. Klee, ed.) 7, 349-360. 1963.
77. "The Generation of Affine Hulls," *Acta Scientiarum Mathematicarum* (Szeged), 24, 60-81. 1963.
78. "The Generation of Convex Hulls" (with W. Bonnice), *Mathematische Annalen*, 152, 1-29. 1963.
79. "On a Theorem of Dubins," *Journal of Mathematical Analysis and Applications*, 7, 425-427. 1963.
80. **American Mathematical Society Proceedings of Symposia in Pure Mathematics*, 7, Convexity. 516 + xv pages. 1963. (Editor of this.)

Reviewed: *Combinatorial Mathematics* by H.J. Ryser, No. 14 Carus Mathematical Monographs, Mathematical Association of America, 1963, 154 pp. In *Science*, 142, 658. 1963.

81. **Combinatorial Geometry in the Plane* (with H. Hadwiger and H. Debrunner), Holt-Rinehart-Winston 113 + v pages. 1964. (Translator and author of one chapter.)
82. "Extreme Points of Convex Sets without Completeness of the Scalar Field," *Mathematika*, **10**, 59–63. 1964.
83. "Every Simple Closed Curve in E^3 is Unknotted in E^4 " (with R.H. Bing), *Journal of the London Mathematical Society*, **39**, 86–94. 1964.
84. "On the Angle between two Lines in a Minkowski Plane" (with P. Katz), *Nieuw Archief voor Wiskunde*, **12**, 102–105. 1964.
85. "Connectedness in Topological Linear Spaces," *Israel Journal of Mathematics*, **2**, 127–131. 1964.
86. "Some Semicontinuity Theorems for Convex Polytopes and Cell-Complexes" (with H.G. Eggleston and B. Grünbaum), *Commentarii Mathematici Helvetici*, **39**, 165–188. 1964.
87. "A 'String Algorithm' for Shortest Paths in Directed Networks," *Operations Research*, **12**, 428–432. 1964.
88. "A Combinatorial Analogue of Poincaré's Duality Theorem," *Canadian Journal of Mathematics*, **16**, 517–531. 1964.
89. "Diameters of Polyhedral Graphs," *Canadian Journal of Mathematics*, **16**, 602–614. 1964.
90. "The Number of Vertices of a Convex Polytope," *Canadian Journal of Mathematics*, **16**, 701–720. 1964.
91. "A Property of Polyhedral Graphs," *Journal of Mathematics and Mechanics*, **13**, 1039–1042. 1964.
92. "Utility Functions and the 'lin' Operation for Convex Sets," *Israel Journal of Mathematics*, **2**, 191–197. 1964.
93. "Two Topological Properties of Topological Linear Spaces" (with C. Bessaga), *Israel Journal of Mathematics*, **2**, 211–220. 1964.

Reviewed: *Linear Programming and Extensions* by G.B. Dantzig, Princeton University Press, 1963, 621 pp. In *Science*, **146**, 1572. 1964.

1965

94. "A Theorem on Convex Kernels," *Mathematika*, **12**, 89–93. 1965.
95. "Summability in $\ell(p_1, p_2, \dots)$ Spaces," *Studia Mathematica*, **25**, 277–280. 1965.
96. "Two Examples in the Theory of Topological Linear Spaces," *Studia Mathematica*, **25**, 385–390. 1965.
97. "Problem in Barycentric Coordinates," *Journal of Applied Physics*, **36**, 1854–1856. 1965.
98. "A Class of Linear Programming Problems Requiring a Large Number of Iterations," *Numerische Mathematik*, **7**, 313–321. 1965.
99. "Heights of Convex Polytopes," *Journal of Mathematical Analysis and Applications*, **11**, 176–190. 1965.
100. "Paths on Polyhedra. I," *Journal of the Society for Industrial and Applied Mathematics*, **13**, 946–956. 1965.

Translation: Russian translation of Hadwiger-Debrunner (Izdat. "Nauka," Moscow, 1965) includes translation of part of my added chapter. (See No. 81.)

Reviewed: *Espaces Vectoriels Pseudotopologiques et Theorie des Distributions* by G. Marinescu, VEB Deutscher Verlag der Wissenschaften, 1963, 232 pp. In *Mathematical Reviews*, **29**, 743–744. 1965.

1966

101. "Every Non-Normable F -Space is Homeomorphic with its Closed Convex Bodies" (with C. Bessaga), *Mathematische Annalen*, **163**, 161–166. 1966.
102. "Convex Polytopes and Linear Programming," *Proceedings of the IBM Scientific Computing Symposium on Combinatorial Problems*, March 16–18, 1964. IBM Data Processing Division, pp. 123–158. 1966.
103. "Exposed Points of Convex Sets" (with G. Choquet and H. Corson), *Pacific Journal of Mathematics*, **16**, 33–43. 1966.
104. "Paths on Polyhedra. II," *Pacific Journal of Mathematics*, **16**, 249–262. 1966.
105. "A Comparison of Primal and Dual Methods for Linear Programming," *Numerische Mathematik*, **9**, 227–235. 1966.

Reprinted: No. 101 in *Contributions to Functional Analysis*. Springer, 1966.

1967

106. "Remarks on Nearest Points in Normed Linear Spaces," *Proceedings of the Colloquium on Convexity*, Copenhagen, Denmark, 1965. 1967, 168–176, 1967.
107. "Problem Size in Linear Programming," *Proceedings of the Colloquium on Convexity*, Copenhagen, Denmark, 1965. 1967, 177–184. 1967.
108. "The d -Step Conjecture for Polyhedra of Dimension $d < 6$ " (with D. Walkup), *Acta Mathematica*, **117**, 53–78. 1967.
109. "Lengths of Snakes in Boxes" (with L. Danzer), *Journal of Combinatorial Theory*, **2**, 258–265. 1967.
110. "A Method for Constructing Circuit Codes," *Journal of the Association for Computing Machinery*, **14**, 520–529. 1967.
111. "Diameters of Polytopes," Chapter 16 (pp. 341–355) of *Convex Polytopes* by B. Grünbaum. Wiley, 1967.
112. "Long Paths and Circuits on Polytopes," Chapter 17 (pp. 356–389) of *Convex Polytopes* by B. Grünbaum. Wiley, 1967.
113. "Asymptotes of Convex Bodies," *Mathematica Scandinavica*, **20**, 89–90. 1967.
114. "Characterizations of a Class of Convex Sets" (with C. Olech), *Mathematica Scandinavica*, **20**, 290–296. 1967.
115. "Applications of Geometry," *Proceedings of the CUPM Geometry Conference, Santa Barbara, 1967. Part I: Convexity and Applications* (L. Durst, ed.), pp. 7–42. Mathematical Association of America, Committee on the Undergraduate Program in Mathematics, Berkeley, 1967.

1968

116. "Convex Functions on Convex Polytopes" (with D. Gale and R.T. Rockafellar), *Proceedings of the American Mathematical Society*, **19**, 867–873. 1968.
117. "Behavior of Linear Forms on Extreme Points," *Illinois Journal of Mathematics*, **12**, 254–263. 1968.
118. "Maximal Separation Theorems for Convex Sets," *Transactions of the American Mathematical Society*, **134**, 133–147. 1968.

119. "Facets and Vertices of Transportation Polytopes" (with C. Witzgall), *American Mathematical Society Lectures in Applied Mathematics* (G. Dantzig and A. Veinott, eds.) **11**, 257–282. 1968.

Reprinted: No. 98 in *American Mathematical Society Lectures in Applied Mathematics*, **11**, 65–76. 1968.

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1969

121. "Convexity," *Encyclopedia Britannica*, 436–437. 1969.
122. "Can a Plane Convex Body Have Two Equichordal Points?" *American Mathematical Monthly*, **76**, 54–55. 1969.
123. "Can Nine Tetrahedra Form a Neighboring Family?" *American Mathematical Monthly*, **76**, 178–179. 1969.
124. "Is Every Polygonal Plane Region Illuminable from Some Point?" *American Mathematical Monthly*, **76**, 180. 1969.
125. "What is the Expected Volume of a Simplex Whose Vertices are Chosen at Random from a Convex Body?" *American Mathematical Monthly*, **76**, 286–288. 1969.
126. "Is There an n for Which $\phi(x) = n$ Has a Unique Solution?" *American Mathematical Monthly*, **76**, 288–289. 1969.
127. "Can the Boundary of a d -Dimensional Convex Body Contain Segments in All Directions?" *American Mathematical Monthly*, **76**, 408–410. 1969.
128. "Is a Body Spherical if its HA -Measurements are Constant?" *American Mathematical Monthly*, **76**, 539–542. 1969.
129. "Can All Convex Borel Sets be Generated in a Borelian manner within the Realm of Convexity?" *American Mathematical Monthly*, **76**, 678–679. 1969.
130. "Intersection Theorems for Positive Sets" (with W. Hansen), *Proceedings of the American Mathematical Society*, **22**, 450–457. 1969.
131. "What are the Intersection Graphs of Arcs in a Circle?" *American Mathematical Monthly*, **76**, 810–813. 1969.

132. "On a Lemma of Fullerton and Braunschweiger," *Mathematische Annalen*, **182**, 249–250. 1969.
133. "Invertibly Positive Linear Operators on Spaces of Continuous Functions" (with T.A. Brown and M. Juncosa), *Mathematische Annalen*, **183**, 105–114. 1969.
134. "Two Renorming Constructions Related to a Question of Anselone," *Studia Mathematica*, **33**, 231–242. 1969.
135. "Separation and Support Properties of Convex Sets—A Survey," *Control Theory and the Calculus of Variations* (A. Balakrishnan, ed.), pp. 235–303, Academic Press, New York. 1969.

Reviewed: *Convex Sets* by F.A. Valentine, McGraw-Hill, 1964, 238 pp. *Bulletin of the American Mathematical Society*, **75**, 722–724. 1969.

1970

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139. "Convexité," *Encyclopedia Universalis*, **4**, 982–985. 1970.
140. "The Use of Circuit Codes in Analog-to-Digital Conversion," *Graph Theory and its Applications* (B. Harris, ed.), pp. 121–131. Academic Press, New York, 1970.
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1971

142. "Semicontinuity of the Face-Function of a Convex Set" (with M. Martin), *Commentarii Mathematici Helvetici*, **46**, 1–12. 1971.
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