

## REFERENCES

### BOOKS

1. ALEXANDROFF, P., *Combinatorial Topology*, vol. 1. Rochester, N.Y.: Graylock, 1956.
2. —, and HOPF, H., *Topologie*. Berlin: Springer-Verlag, 1935. (Ann Arbor: Edwards Brothers, 1945.)
3. BIRKHOFF, G., *Lattice Theory*. New York: A.M.S. Colloquium Publication No. 25 (1948).
4. BIRKHOFF, G. D., *Dynamical Systems*. New York: A.M.S. Colloquium Publication No. 9 (1927).
5. BOURBAKI, N., *Topologie Générale*. Paris: Actualites Sci. Ind. 858 (1940), 916 (1942), 1029 (1947), 1045 (1948), 1084 (1949).
6. CHEVALLEY, C., *Theory of Lie Groups*. Princeton: Princeton University Press, 1951.
7. EILENBERG, S., and STEENROD, N., *Foundations of Algebraic Topology*. Princeton: Princeton University Press, 1952.
8. FRAENKEL, A., *Abstract Set Theory*. Amsterdam: North-Holland, 1953.
- 8(a). — and BAR-HILLEL, Y., *Foundations of Set Theory*, Amsterdam: North-Holland, 1953.
9. HALL, D. W., and SPENCER, G. L., *Elementary Topology*. New York: Wiley, 1955.
10. HALMOS, P. R., *Finite Dimensional Vector Spaces*. Princeton: Van Nostrand, 1958.
11. —, *Introduction to Hilbert Space*. New York: Chelsea, 1951.
12. HAUSDORFF, F., *Mengenlehre*. Berlin: de Gruyter, 1927, 1935.
13. HILTON, P. J., *An Introduction to Homotopy Theory*. Cambridge: Cambridge University Press, 1953.
14. HODGE, W. V. D., *Harmonic Integrals*, 2nd ed. New York: Cambridge University Press, 1952.
- 14(a). HU, S. T., *Homotopy Theory*, New York: Academic Press, 1959.
15. HUREWICZ, W., and WALLMAN, H., *Dimension Theory*. Princeton: Princeton University Press, 1941.
16. KAPLAN, W., *Advanced Calculus*. Reading, Mass.: Addison-Wesley, 1952.
17. KELLEY, J. L., *General Topology*. New York: Van Nostrand, 1955.
18. KURATOWSKI, K., *Topologie*, vols. 1 and 2, 2nd ed. Warsaw: 1948.
19. LEFSCHETZ, S., *Topology*. New York: A.M.S. Colloquium Publication No. 12 (1930).
20. —, *Algebraic Topology*. New York: A.M.S. Colloquium Publication No. 27 (1942).
21. —, *Topics in Topology*. Princeton: Princeton University Press, 1942.
22. —, *Introduction to Topology*. Princeton: Princeton University Press, 1949.
23. MOORE, R. L., *Foundations of Point Set Theory*. New York: A.M.S. Colloquium Publication No. 13 (1932).

24. NEWMAN, M. H. A., *Elements of the Topology of Plane Sets of Points*. Cambridge: Cambridge University Press, 1939.
25. PÓLYA, G., *How to Solve It*. Princeton: Princeton University Press, 1945.
26. PONTRJAGIN, L. *Topological Groups*. Princeton: Princeton University Press, 1939.
27. —, *Combinatorial Topology*. Rochester, N.Y.: Graylock, 1952.
28. RADO, T., *Length and Area*. New York: A.M.S. Colloquium Publication No. 30 (1948).
29. —, and REICHELDERFER, P. V., *Continuous Transformations in Analysis*. Berlin: Springer, 1955.
30. REIDEMEISTER, K. *Knotentheorie*. Berlin: Springer, 1932.
31. —, *Topologie der Polyeder*. Leipzig: Akademischer Verlag, 1938.
32. SCHOENFLIES, A., *Die Entwicklung der Lehre von den Punktmannigfaltigkeiten*, II. Leipzig: Teubner, 1908.
33. SEIFERT, H., and THRELFALL, W., *Lehrbuch der Topologie*. Leipzig: Teubner, 1934.
34. SIERPINSKI, W., *Introduction to General Topology*. Toronto: University of Toronto Press, 1934.
35. STEENROD, N., *The Topology of Fibre Bundles*. Princeton: Princeton University Press, 1951.
36. THRALL, R. M., and TORNHEIM, L., *Vector Spaces and Matrices*. New York: Wiley, 1957.
37. VAIDYNATHASWAMY, R., *Treatise on Set Topology*, Part 1. Madras: Indian Mathematical Society, 1947.
38. VEBLEN, O., *Analysis Situs*, 2nd ed. New York: A.M.S. Colloquium Publication No. 5 (1931).
39. WALLACE, A. H., *An Introduction to Algebraic Topology*. New York: Pergamon, 1957.
40. WHYBURN, G. T., *Analytic Topology*. New York: A.M.S. Colloquium Publication No. 28 (1942).
41. —, *Topological Analysis*. Princeton: Princeton University Press, 1958.
42. WILDER, R. L., *Topology of Manifolds*. New York: A.M.S. Colloquium Publication No. 32 (1949).
43. —, *Introduction to the Foundations of Mathematics*. New York: Wiley, 1952.
44. —, and AYRES, W. L. (editors), *Lectures in Topology*. Ann Arbor: University of Michigan Press, 1941.

## PAPERS, ETC.

45. ALEXANDER, J. W., "A proof and extension of the Jordan-Brouwer separation theorem," *Trans. A.M.S.* **23**, 333–349 (1922).
46. —, "An example of a simply connected surface bounding a region which is not simply connected," *Proc. Nat. Acad. Sci.* **10**, 8–10 (1924).
47. ALEXANDROFF, P. S., "Über die Metrization der im kleinen kompakten topologischen Raume," *Math. Ann.* **92**, 294–301 (1924).
48. —, "Untersuchungen über Gestalt und Lage abgeschlossener Mengen beliebiger Dimension," *Ann. Math. (2)* **30**, 101–187 (1928).

49. ANDERSON, R. D., "On monotone interior mappings in the plane," *Trans. A.M.S.* **73**, 211–222 (1952).
50. ARTIN, E., and FOX, R. H., "Some wild cells and spheres in three-dimensional space," *Ann. Math.* **49**, 979–990 (1948).
51. BAIRE, R., "Sur les fonctions de variables réelles," *Ann. di Mat.* **3** (1899).
52. BANACH, S., "Über die Bairesche Kategorie gewissen Funktionenmengen," *Studia Mathematica* **3**, 174–179 (1931).
53. BEGLE, E. G., "The Vietoris mapping theorem for bicomact spaces," *Ann. Math. (2)* **51**, 534–543 (1950).
54. BERNSTEIN, F., "Zur Theorie der trigonometrischen Reihe," *Leipzig Bericht* **60**, 329 (1908).
55. BING, R. H., "A homogeneous indecomposable plane continuum," *Duke Math. J.* **15**, 729–742 (1948).
56. —, "A convex metric for a locally connected continuum," *Bull. A.M.S.* **55**, 812–819 (1949).
57. —, "Metriization of topological spaces," *Can. J. Math.* **3**, 175–186 (1951).
58. —, "Snake-like continua," *Duke Math. J.* **8**, 653–663 (1951).
59. —, "Concerning hereditarily indecomposable continua," *Pacific J. Math.* **1**, 43–51 (1951).
60. —, "Higher-dimensional hereditarily indecomposable continua," *Trans. A.M.S.* **71**, 267–273 (1951).
61. —, "A connected countable Hausdorff space," *Proc. A.M.S.* **4**, 474 (1953).
62. —, "Locally tame sets are tame," *Ann. Math.* **59**, 145–158 (1954).
63. BIRKHOFF, G. D., "On the combination of topologies," *Fund. Math.* **26**, 156–166 (1936).
64. —, and KELLOGG, O. D., "Invariant points in function spaces," *Trans. A.M.S.* **23**, 96–115 (1922).
65. BLANKINSHIP, W. A., and FOX, R. H., "Remarks on certain pathological open subsets of 3-space and their fundamental groups," *Proc. A.M.S.* **1**, 618–624 (1950).
66. BOREL, A., "The Poincaré duality in generalized manifolds," *Mich. Math. J.* **4**, 227–240 (1957).
67. BORSUK, K., "Sur les retractes," *Fund. Math.* **17**, 152–170 (1931).
68. —, "Über Schnitte der  $n$ -dimensionalen Euclidischen Räume," *Math. Ann.* **106**, 239–248 (1932).
69. —, "Über die Abbildungen der metrischen kompakten Räume auf die Kreislinie," *Fund. Math.* **19**, 220–242 (1932).
70. BROUWER, L. E. J., "Beweis der Invarianz der Dimensionahl," *Math. Ann.* **70**, 161–165 (1911).
71. —, "Über den natürlichen Dimensionsbegriff," *J. für Math.* **142**, 146–152 (1913).
- 72(a). BROWN, MORTON, "A proof of the generalized Schoenflies Theorem," *Bull. A.M.S.* **66**, 74–76 (1960).
72. ČECH, E., "Théorie générale de l'homologie dans une espace quelconque," *Fund. Math.* **19**, 149–183 (1932).
73. DIEUDONNE, J., "Une généralization des espaces compacts," *J. Math. Pures Appl.* **23**, 65–76 (1944).

74. DOWKER, C. H., "Mapping theorems for noncompact spaces," *Am. J. Math.* **69**, 200–242 (1947).
75. EILENBERG, S., "Singular homology theory," *Ann. Math.* **45**, 407–447 (1944).
76. ERDOS, P., "The dimension of the rational points in Hilbert space," *Ann. Math.* **41**, 734 (1940).
77. FLORES, G., "Über  $n$ -dimensionale Komplexe die im  $R_{2n+1}$  absolute selbstverschlungen sind," *Ergebnisse eines mathematischen Kolloquium* **6**, 4–7 (1934).
78. FOX, R. H., "On topologies for function spaces," *Bull. A.M.S.* **51**, 429–432 (1945).
79. —, "Recent developments of knot theory of Princeton," *Proc. International Congress of Math.*, vol. 2, Cambridge, 453–457 (1950).
80. FREUDENTHAL, H., "Über die Klassen der Sphärenabbildungen I," *Composito Math.* **5**, 299–314 (1937).
81. HALL, D. W., and PUCKETT, W. T., "Conditions for the continuity of arc-preserving transformations," *Bull. A.M.S.* **47**, 468–475 (1941).
82. HARROLD, O. G., "Euclidean domains with uniformly abelian local fundamental groups, II," *Duke Math. J.* **17**, 269–272 (1950).
83. HOPF, H., "Über die Abbildungen der dreidimensionalen Sphäre auf die Kugelfläche," *Math. Ann.* **104**, 637–665 (1931).
84. HUREWICZ, W., "Über oberhalb-stetige Zerlegungen von Punktmengen in Kontinua," *Fund. Math.* **15**, 57–60 (1930).
85. —, "Beiträge zur Topologie der Deformationen. I. Höherdimensionale Homotopiegruppen," *Proc. Akad. Wetenschappen, Amsterdam* **38**, 112–119 (1935); "II. Homotopie und Homologiegruppen," *ibid.* 521–528; "III. Klassen und Homologietypen von Abbildungen," *ibid.* **39**, 117–126 (1936); "IV. Asphärische Räume," *ibid.* 215–224.
86. —, "On duality theorems," *Bull. A.M.S.* **47**, 562 (1941).
87. JONES, F. B., "A theorem concerning locally peripherally separable spaces," *Bull. A.M.S.* **41**, 437–439 (1935).
- 87(a). —, "Connected and disconnected plane sets and the functional equation  $f(x) + f(y) = f(x + y)$ ," *Bull. A.M.S.* **48**, 115–120 (1942).
88. —, "Concerning normal and completely normal spaces," *Bull. A.M.S.* **43**, 671–677 (1937).
89. KELLEY, J. L., "The Tychonoff product theorem implies the axiom of choice," *Fund. Math.* **37**, 75–76 (1950).
90. KLEE, V. L., "Some topological properties of convex sets," *Trans. A.M.S.* **78**, 30–45 (1955).
91. KNASTER, B., "Un continu dont tout sous-continu est indecomposable," *Fund. Math.* **3**, 247 (1922).
92. —, and KURATOWSKI, C., "A connected and connected im kleinen point set which contains no perfect set," *Bull. A.M.S.* **33**, 106–109 (1927).
93. KURATOWSKI, C., "Sur les coupures irréductibles du plan," *Fund. Math.* **6**, 130–145 (1924).
94. —, "Sur le problème des courbes gauches en Topologie," *Fund. Math.* **15**, 271–283 (1930).

95. LEFSCHETZ, S., "The residual set of a complex on a manifold and related questions," *Proc. Nat. Acad. Sci.* **13**, 614-622 and 805-807 (1927).
96. —, "Chain-deformations in topology," *Duke Math. J.* **1**, 1-18 (1935).
97. LERAY, J., and SCHAUDER, J., "Topologie et equations fonctionelles," *Annales Scientifiques de l'École Normale Supérieure* **51**, 45-78 (1934).
98. LERAY, J., "La théorie des points fixés et ses applications en analyse," *Proc. International Congress of Math.*, vol. 2, Cambridge, 202-208 (1950).
99. LUBANSKI, M., "An example of an absolute neighborhood retract, which is the common boundary of three regions in the 3-dimensional Euclidean space," *Fund. Math.* **40**, 29-38 (1953).
100. MAZUR, B., "On imbedding of spheres," *Bull. A.M.S.* **165**, 59-65 (1959).
101. MAZURKIEWICZ, S., "Sur les continus homogenes," *Fund. Math.* **5**, 137-146 (1924).
102. MENGER, K., "Über umfassendste  $n$ -dimensionale Mengen," *Proc. Akad. Wetenschappen, Amsterdam* **29**, 1125-1128 (1929).
103. MOISE, E. E., "An indecomposable plane continuum which is homeomorphic to each of its nondegenerate subcontinua," *Trans. A.M.S.* **63**, 581-594 (1948).
104. —, "Affine structures in 3-manifolds. VII. Invariance of the knot-type; local tame imbedding," *Ann. Math. (2)* **59**, 159-170 (1954).
105. MOORE, R. L., "An extension of the theorem that no countable point set is perfect," *Proc. Nat. Acad. Sci.* **10**, 168-170 (1924).
106. —, "Concerning upper semi-continuous collections of continua," *Trans. A.M.S.* **27**, 416-428 (1925).
107. —, "A connected and regular point set which contains no arc," *Bull. A.M.S.* **32**, 331-332 (1926).
108. —, "Concerning triods in the plane and the junction points of plane continua," *Proc. Nat. Acad. Sci.* **14**, 85-88 (1928).
109. NÖBELING, G., "Über eine  $n$ -dimensionale Universalmenge in  $R_{2n+1}$ ," *Math. Ann.* **104**, 71-80 (1930).
110. NAGUMO, M., "A theory of degree of mappings based on infinitesimal analysis," *Am. J. Math.* **73**, 485-496 (1951).
111. —, "A note on the theory of degree of mappings in Euclidean spaces," *Osaka Math. J.* **4**, 1-9 (1952).
112. OXTOBY, J. C., and ULAM, S. M., "On the equivalence of any set of first category to a set of measure zero," *Fund. Math.* **31**, 201-206 (1938).
113. POINCARÉ, H., "Analysis situs," *J. de l'École Poly., Paris (2)* **1**, 1-123 (1895).
114. PONTRJAGIN, L., "Sur une hypothèse fondamentale de la théorie de la dimension," *Compt. rend.* **190**, 1105 (1930).
115. —, "Über den algebraischen Inhalt topologischer Dualitätssätze," *Math. Ann.* **105**, 165-205 (1931).
116. —, "The theory of topological commutative groups," *Ann. Math. (2)* **35**, 361-388 (1934).
117. ROBERTS, J. H., "Concerning atriodic continua," *Monatsh. Math. und Phys.* **37**, 223-230 (1930).

118. —, "Concerning collections of continua not all bounded," *Am. J. Math.* **52**, 551–562 (1930).
119. SEIFERT, H., and THRELFALL, W., "Old and new results on knots," *Can. J. Math.* **2**, 1–15 (1950).
120. SERRE, J-P., "Homologie singulière des espaces fibrés. Applications," *Ann. Math. (2)* **54**, 425–505 (1951).
121. SIERPINSKI, W., "Sur les espaces métriques localement séparables," *Fund. Math.* **21**, 107–113 (1933).
122. SMIRNOV, YU. M., "On metrization of topological spaces," *Uspekhi Matem. Nauk* **6**, 100–111 (1951).
123. —, "A necessary and sufficient condition for metrizability of a topological space," *Doklady Akad. Nauk SSSR* **77**, 197–200 (1951).
124. STONE, A. H., "Paracompactness and product spaces," *Bull. A.M.S.* **54**, 977–982 (1948).
125. —, "Metrizability of unions of spaces," *Proc. A.M.S.* **10**, 361–365 (1959).
- 125(a). TREYBIG, B., "Concerning local separability in locally periphally separable spaces," *Proc. A.M.S.* **10**, 957–958 (1959).
126. TYCHONOFF, A., "Über einen Funktionenraum," *Math. Ann.* **111**, 762–766 (1935).
127. URYSOHN, P., "Über metrization der kompakten topologischen Räume," *Math. Ann.* **92**, 275–293 (1924).
128. —, "Über die Mächtigkeit zusammenhängender Mengen," *Math. Ann.* **94**, 262–295 (1925).
129. VIETORIS, L., "Über den höheren Zusammenhang kompakter Räume und eine Klasse von zusammenhangstreuen Abbildungen," *Math. Ann.* **97**, 454–472 (1927).
130. WALLACE, A. D., "The structure of topological semi-groups," *Bull. A.M.S.* **61**, 95–112 (1955).
131. WHITNEY, H., "On products in a complex," *Ann. Math.* **39**, 397–432 (1938).
132. WILDER, R. L., "The sphere in topology," *A.M.S. Semicentennial Publication*, vol. 2, New York, 136–184 (1938).
133. YONEYAMA, K., "Theory of continuous sets of points," *Tohoku Math. J.* **11–12**, 43–158 (1917).
134. YOUNG, G. S., "The introduction of local connectivity by change of topology," *Am. J. Math.* **68**, 479–494 (1946).
135. —, "Fixed-point theorems for arcwise connected continua," *Proc. A.M.S.* **11**, 880–884 (1960).