

## List of Publications for John Willard Milnor

### BOOKS

- [MT] *Morse Theory*. Based on lecture notes by M. Spivak and R. Wells. Annals of Math. Studies, no. 51. Princeton University Press, Princeton, NJ, 1963. (Translated into Russian, Japanese, Korean).
- [H-COB] *Lectures on the h-cobordism theorem*. Notes by L. Siebenmann and J. Sondow. Princeton University Press, Princeton, NJ, 1965. (Translated into Russian).
- [TDV] *Topology from the Differentiable Viewpoint*. Based on notes by David W. Weaver. The University Press of Virginia, Charlottesville, Va, 1965. (Translated into Russian, Japanese). Revised reprint, Princeton Landmarks in Mathematics, Princeton University Press, Princeton, NJ, 1997.
- [SPCH] *Singular Points of Complex Hypersurfaces*. Annals of Math. Studies, no. 61. Princeton University Press, Princeton, NJ, 1968. (Translated into Russian, Japanese).
- [AKT] *Introduction to Algebraic K-Theory*. Annals of Math. Studies, no. 72. Princeton University Press, Princeton, NJ, 1971. (Translated into Russian).
- [SBF] (with D. Husemoller). *Symmetric Bilinear Forms*. Ergebnisse der Mathematik und ihrer Grenzgebiete, Band 73. Springer-Verlag, New York, 1973. (Translated into Russian).
- [CC] (with J.D. Stasheff). *Characteristic Classes*. Annals of Math. Studies, no. 76. Princeton University Press, Princeton, NJ, 1974. (Translated into Russian, Japanese, Spanish).
- [D1CV] *Dynamics in One Complex Variable*. Friedr. Vieweg & Sohn, Braunschweig, 1999. Second edition, 2000. Third edition, Annals of Math. Studies, no. 160, Princeton University Press, Princeton, NJ, 2006.
- [CP1] *John Milnor Collected Papers. vol. 1, Geometry*. Publish or Perish Inc., Houston, TX, 1994. (Available through the A.M.S.)
- [CP2] *John Milnor: Collected Papers. vol. 2. The Fundamental Group*. Publish or Perish Inc., Houston, TX., 1995. Reprint, American Mathematical Society, RI, 2009.
- [CP3] *Collected Papers of John Milnor III, Differential Topology*. American Mathematical Society, Providence, RI, 2007.
- [CP4] *Collected Papers of John Milnor IV, Homotopy, Homology and Manifolds*. American Mathematical Society, Providence, RI. Edited by John McCleary, 2009.

- [CP5] *Collected Papers of John Milnor V, Algebra*. American Mathematical Society, Providence, RI. Edited by H. Bass and T.-Y. Lam, 2010.
- [CP6] *Collected Papers of John Milnor VI, Dynamics (1953–2000)*. American Mathematical Society, Providence, RI. Edited by A. Bonifant, 2012.
- [CP7] *Collected Papers of John Milnor VII, Dynamics (1984–2012)*. American Mathematical Society, Providence, RI. Edited by A. Bonifant, 2014.

## PAPERS

1950

- [a] On the total curvature of knots. *Ann. of Math.* (2), 52:248–257; [CP1, pp. 3–14]\*.
- [b] On a relationship between the Betti numbers of a hypersurface and an integral of its Gaussian curvature. First published in [CP1, pp. 15–26].

1953

- [a] Sums of positional games. In *Contributions to the Theory of Games*, vol. 2, Annals of Math. Studies, no. 28, pages 291–301. Princeton University Press, Princeton, NJ.
- [b] The characteristics of a vector field on the two-sphere. *Ann. of Math.* (2), 58:253–257; [CP6, pp. 15–19].
- [c] On total curvatures of closed space curves. *Math. Scand.*, 1:289–296; [CP1, pp. 27–36].
- [d] (with I.N. Herstein). An axiomatic approach to measurable utility. *Econometrica*, 21:291–297.

1954

- [a] Link groups. *Ann. of Math.* (2), 59:177–195; [CP2, pp. 7–25].
- [b] Games against nature. In *Decision Processes*, R. M. Thrall, C.H. Coombs and R.L. Davis, editors, pages 49–59, Wiley, New York; Chapman and Hall Ltd., London. (Reprinted in *Game Theory and Related Approaches to Social Behavior*, M. Shubik, editor, Wiley, New York.
- [c] (with G. Kalish, J. Nash, and E.D. Nering). Some experimental  $n$ -person games. In *Decision Processes*, R.M. Thrall, C.H. Coombs and R.L. Davis, editors, pages 301–327, Wiley, New York; Chapman and Hall Ltd., London.

1956

- [a] Construction of universal bundles. I. *Ann. of Math.* (2), 63:272–284; [CP4, pp. 7–19].
- [b] Construction of universal bundles. II. *Ann. of Math.* (2), 63:430–436; [CP4, pp. 21–27].
- [c] On the immersion of  $n$ -manifolds in  $(n + 1)$ -space. *Comment. Math. Helv.*, 30:275–284; [CP4, pp. 141–150].
- [d] On manifolds homeomorphic to the 7-sphere. *Ann. of Math.* (2), 64:399–405; [CP3, pp. 11–17].
- [e] On the relationship between differentiable manifolds and combinatorial manifolds. First published in [CP3, pp. 19–28].

1957

- [a] The geometric realization of a semi-simplicial complex. *Ann. of Math.* (2), 65:357–362; [CP4, pp. 29–34].
- [b] Groups which act on  $S^n$  without fixed points. *Amer. J. Math.*, 79:623–630; [CP2, pp. 97–104]. .
- [c] Isotopy of links. In *Algebraic Geometry and Topology, a Symposium in Honor of S. Lefschetz*, pages 280–306. Princeton University Press, Princeton, NJ; [CP2, pp. 27–53].
- [d] (with L.S. Shapley). On games of survival. In *Contributions to the Theory of Games, vol. 3*, Annals of Math. Studies, no. 39, pages 15–45. Princeton University Press, Princeton, NJ.

1958

- [a] On the existence of a connection with curvature zero. *Comment. Math. Helv.*, 32:215–223; [CP1, pp. 37–47]. .
- [b] The Steenrod algebra and its dual. *Ann. of Math.* (2), 67:150–171; [CP4, pp. 61–82]. .
- [c] (with R. Bott). On the parallelizability of the spheres. *Bull. Amer. Math. Soc.*, 64:87–89; [CP3, pp. 229–231].
- [d] Some consequences of a theorem of Bott. *Ann. of Math.* (2), 68:444–449; [CP3, pp. 233–238]. .
- [e] On the Whitehead homomorphism  $J$ . *Bull. Amer. Math. Soc.*, 64:79–82; [CP3, pp. 239–242]. .
- [f] On simply connected 4-manifolds. In *Symposium Internacional de Topología Algebraica. (International Symposium on Algebraic Topology)*, pages 122–128. Universidad Nacional Autónoma de México and UNESCO, Mexico City; [CP4, pp. 151–157].
- [g] Lectures on differential topology. Notes by J. Munkres. First published in [CP3, pp. 145–176].

1959

- [a] On spaces having the homotopy type of a CW-complex. *Trans. Amer. Math. Soc.*, 90:272–280; [CP4, pp. 35–43]. .
- [b] Differentiable structures on spheres. *Amer. J. Math.*, 81:962–972; [CP3, pp. 35–45].
- [c] Sommes de variétés différentiables et structures différentiables des sphères. *Bull. Soc. Math. France*, 87:439–444. In [CP3, pp. 29–34].
- [d] Differentiable manifolds which are homotopy spheres. First published in [CP3, pp. 65–88].

1960

- [a] (with E. Spanier). Two remarks on fiber homotopy type. *Pacific J. Math.*, 10:585–590; [CP4, pp. 167–172]. .
- [b] On the cobordism ring  $\Omega^*$  and a complex analogue. I. *Amer. J. Math.*, 82:505–521; [CP3, pp. 255–273].
- [c] (with M. A. Kervaire). Bernoulli numbers, homotopy groups, and a theorem of Rohlin. In *Proc. Internat. Congress Math. Edinburgh 1958*, pages 454–458. Cambridge Univ. Press, New York; [CP3, pp. 243–247].

1961

- [a] A procedure for killing homotopy groups of differentiable manifolds. In *Proc. Sympos. Pure Math.*, vol. III, pages 39–55. American Mathematical Society, Providence, RI; [CP3, pp. 47–63].
- [b] Two complexes which are homeomorphic but combinatorially distinct. *Ann. of Math. (2)*, 74:575–590; [CP2, pp. 123–138].
- [c] (with M. A. Kervaire). On 2-spheres in 4-manifolds. *Proc. Nat. Acad. Sci. U.S.A.*, 47:1651–1657. [CP4, pp. 159–165].
- [d] Variedades diferenciables con frontera. *An. Inst. Mat. Univ. Nac. Autónoma México*, 1:82–116. (Revised and augmented translation: “Smooth manifolds with boundary” published as [CP3, pp. 191–222].)
- [e] Lectures on differentiable structures. First published in [CP3, pp. 177–190].
- [f] Microbundles and differentiable structures. First published in [CP4, pp. 173–190].

1962

- [a] (with M. G. Barratt). An example of anomalous singular homology. *Proc. Amer. Math. Soc.*, 13:293–297. [CP4, pp. 107–111].
- [b] A duality theorem for Reidemeister torsion. *Ann. of Math. (2)*, 76:137–147. [CP2, pp. 139–149].

- [c] A unique decomposition theorem for 3-manifolds. *Amer. J. Math.*, 84:1–7. [CP2, pp. 237–243].
- [d] A survey of cobordism theory. *Enseignement Math.* (2), 8:16–23. (Erratum [CP3, pp. 291–292].)
- [e] On axiomatic homology theory. *Pacific J. Math.*, 12:337–341. [CP4, pp. 101–105].
- [f] The work of J. H. C. Whitehead. In *The Mathematical Works of J. H. C. Whitehead, vol. 1*, pages xxi–xxxiii, Pergamon Press, Oxford. [CP4, pp. 261–278].

1963

- [a] (with M. A. Kervaire). Groups of homotopy spheres. I. *Ann. of Math.* (2), 77:504–537. [CP3, pp. 89–122].
- [b] Spin structures on manifolds. *Enseignement Math.* (2), 9:198–203. [CP3, pp. 293–306].
- [c] Topological manifolds and smooth manifolds. In *Proc. Internat. Congr. Math., Stockholm 1962*, pages 132–138. Inst. Mittag-Leffler, Djursholm. [CP4, pp. 191–197].
- [d] The representation rings of some classical groups. First published as [CP5, pp. 143–154].

1964

- [a] On the Betti numbers of real varieties. *Proc. Amer. Math. Soc.*, 15:275–280. [CP1, pp. 133–140].
- [b] Microbundles. I. *Topology*, 3(suppl. 1):53–80. [CP4, pp. 199–226]
- [c] Eigenvalues of the Laplace operator on certain manifolds. *Proc. Nat. Acad. Sci. U.S.A.*, 51:542. [CP1, pp. 49–51]
- [d] Most knots are wild. *Fund. Math.*, 54:335–338. [CP2, pp. 55–58]
- [e] (with M. W. Hirsch). Some curious involutions of spheres. *Bull. Amer. Math. Soc.*, 70:372–377. [CP2, pp. 105–110]
- [f] Differential topology. In *Lectures on Modern Mathematics, vol. II*, pages 165–183. Wiley, New York. Also available in *Uspehi Mat. Nauk*, 20(6(126)):41–54, 1965 (in Russian). [CP3, pp. 123–141]
- [g] Some free actions of cyclic groups on spheres. In *Differential Analysis, Bombay Colloq., 1964*, pages 37–42. Oxford Univ. Press, London. [CP2, pp. 111–116]

1965

- [a] (with J. C. Moore). On the structure of Hopf algebras. *Ann. of Math.* (2), 81:211–264. (An earlier version from 1959 is published as [CP5, pp. 7–36].)
- [b] On the Stiefel-Whitney numbers of complex manifolds and of spin manifolds. *Topology*, 3:223–230. [CP3, pp. 307–314]
- [c] Remarks concerning spin manifolds. In *Differential and Combinatorial Topology, a Symposium in Honor of Marston Morse*, pages 55–62. Princeton Univ. Press, Princeton, NJ. [CP3, 299–306]
- [d] (with H. Bass) On unimodular groups over number fields. First published as [CP5, pp. 165–179].

1966

- [a] Whitehead torsion. *Bull. Amer. Math. Soc.*, 72:358–426. [CP2, pp. 151–219]
- [b] (with R. H. Fox). Singularities of 2-spheres in 4-space and cobordism of knots. *Osaka J. Math.*, 3:257–267. [CP2, pp. 59–69]

1967

- [a] (with H. Bass and J.-P. Serre). Solution of the congruence subgroup problem for  $SL_n$  ( $n \geq 3$ ) and  $Sp_{2n}$  ( $n \geq 2$ ). *Inst. Hautes Études Sci. Publ. Math.*, 33:59–137. [CP5, pp. 181–259]  
(Erratum: On a functorial property of power residue symbols. *ibid.* 44:241–244, 1974. [CP5, pp. 261–264])

1968

- [a] On characteristic classes for spherical fibre spaces. *Comment. Math. Helv.*, 43:51–77. [CP4, pp. 227–253]
- [b] A note on curvature and fundamental group. *J. Differential Geometry*, 2:1–7. [CP1, pp. 53–61]
- [c] Infinite cyclic coverings. In *Conference on the Topology of Manifolds (Michigan State Univ., E. Lansing, Mich., 1967)*, pages 115–133. Prindle, Weber & Schmidt, Boston, Mass. [CP2, pp. 71–89]
- [d] Growth of finitely generated solvable groups. *J. Differential Geometry*, 2:447–449. [CP5, 155–157]
- [e] Uses of the fundamental group. First published as [CP2, pp. 221–225].

1969

- [a] (with G. Lusztig and F.P. Peterson). Semi-characteristics and cobordism. *Topology*, 8:357–359. [CP4, pp. 113–115]
- [b] On isometries of inner product spaces. *Invent. Math.*, 8:83–97. [CP5, pp. 331–345]
- [c] A problem in cartography. *Amer. Math. Monthly*, 76:1101–1112. [CP1, 159–172]
- [d] Algebraic  $K$ -theory and quadratic forms. *Invent. Math.*, 9:318–344. [CP5, pp. 347–373]

1970

- [a] (with O. Burlet). Torsion et type simple d'homotopie. In *Essays on Topology and Related Topics (Mémoires dédiés à Georges de Rham)*, pages 12–17. Springer, New York. [CP2, pp. 227–232]
- [b] (with P. Orlik). Isolated singularities defined by weighted homogeneous polynomials. *Topology*, 9:385–393. [CP1, pp. 141–151]
- [c] Foliations and foliated vector bundles. First published as [CP4, pp. 279–320].
- [d] Symmetric inner products over a Dedekind domain. First published as [CP5, pp. 375–380].

1971

- [a] Symmetric inner products in characteristic 2. In *Prospects in Mathematics (Proc. Sympos., Princeton Univ., Princeton, NJ, 1970)*, pages 59–75. Annals of Math. Studies, no. 70. Princeton Univ. Press, Princeton, NJ. [CP5, pp. 381–397]
- [b] On the construction  $FK$ . In *Algebraic Topology: A Student's Guide*, by J. F. Adams, pages 119–136. [CP4, pp. 45–53]

1975

- [a] Isolated critical points of complex functions. In *Differential Geometry (Proc. Sympos. Pure Math., vol. XXVII, Part 1, Stanford Univ., Stanford, Calif., 1973)*, pages 381–382. Amer. Math. Soc., Providence, RI. [CP1, pp. 153–156]
- [b] On the 3-dimensional Brieskorn manifolds  $M(p, q, r)$ . In *Knots, Groups, and 3-Manifolds (Papers dedicated to the memory of R. H. Fox)*, pages 175–225. Annals of Math. Studies, no. 84. Princeton Univ. Press, Princeton, NJ. [CP2, pp. 245–295]

1976

- [a] Curvatures of left invariant metrics on Lie groups. *Advances in Math.*, 21(3):293–329. [CP1, pp. 73–111]
- [b] Hilbert’s problem 18: on crystallographic groups, fundamental domains, and on sphere packing. In *Mathematical Developments Arising from Hilbert Problems*, pages 491–506. Proc. Sympos. Pure Math., vol. XXVIII, F. Browder, editor. Amer. Math. Soc., Providence, RI. [CP1, 173–187]
- [c] Problems in differential geometry. In *Mathematical Developments Arising from Hilbert Problems*, pages 54–57, Proc. Symposia Pure Math. vol. XXVIII, F. Browder, editor, Amer. Math. Soc., Providence, RI. [CP1, pp. 63–71]

1977

- [a] On deciding whether a surface is parabolic or hyperbolic. *Amer. Math. Monthly*, 84(1):43–46. [CP1, pp. 113–118]
- [b] On fundamental groups of complete affinely flat manifolds. *Advances in Math.*, 25(2):178–187. [CP1, pp. 119–130]
- [c] (with W. Thurston). Characteristic numbers of 3-manifolds. *Enseignement Math.* (2), 23(3-4):249–254. [CP2, pp. 297–302]

1978

- [a] (with L.S. Shapley). Values of large games. II. Oceanic games. *Math. Oper. Res.*, 3(4):290–307.
- [b] Analytic proofs of the “hairy ball theorem” and the Brouwer fixed-point theorem. *Amer. Math. Monthly*, 85(7):521–524. [CP1, pp. 235–242]
- [c] How to compute volume in hyperbolic space. First published as [CP1, pp. 189–212].
- [d] Euler characteristic and finitely additive Steiner measures. First published as [CP1, pp. 213–234].

1982

- [a] Hyperbolic geometry: the first 150 years. *Bull. Amer. Math. Soc. (N.S.)*, 6(1):9–24. [CP1, pp. 243–260]

1983

- [a] On the homology of Lie groups made discrete. *Comment. Math. Helv.*, 58(1):72–85. [CP4, pp. 117–130]
- [b] On polylogarithms, Hurwitz zeta functions, and the Kubert identities. *Enseign. Math.* (2), 29(3-4):281–322. [CP5, pp. 265–305]



- [c] On the geometry of the Kepler problem. *Amer. Math. Monthly*, 90(6):353–365. [CP1, 261–279]
- [d] The Schläfli differential inequality. First published as [CP1, pp. 281–295].

1984

- [a] Remarks on infinite-dimensional Lie groups. In *Relativity, groups and topology, II (Les Houches, 1983)*, pages 1007–1057. North-Holland, Amsterdam. [CP5, pp. 91–141]
- [b] Notes on surjective cellular automaton-maps. First published in [CP7, pp. 21–38]

1985

- [a] On the concept of attractor. *Comm. Math. Phys.*, 99(2):177–195. [CP6, pp. 21–41] Correction and remarks, *Comm. Math. Phys.*, 102(3):517–519. [CP6, pp. 43–45]

1986

- [a] Directional entropies of cellular automaton-maps. In *Disordered systems and biological organization (Les Houches, 1985)*, volume 20 of *NATO Adv. Sci. Inst. Ser. F Comput. Systems Sci.*, pages 113–115. Springer, Berlin. [CP6, pp. 47–49]

1987

- [a] The work of M. H. Freedman. In *Proc. Internat. Congr. Math., Berkeley, Calif. 1986, vol. 1*, pages 13–15, Amer. Math. Soc., Providence, RI. (Also published in *Fields Medallists' Lectures*, volume 5 of World Sci. Ser. 20th Century Math., pages 405–408. World Sci. Publ., River Edge, NJ., 1997.) [CP4, pp. 321–323]

1988

- [a] Non-expansive Hénon maps. *Adv. in Math.*, 69(1):109–114. [CP6, pp. 81–86]
- [b] On the entropy geometry of cellular automata. *Complex Systems*, 2(3):357–385. [CP6, pp. 51–79]
- [c] (with W. Thurston). On iterated maps of the interval. In *Dynamical systems (College Park, MD, 1986-87), Lecture Notes in Math.*, no. 1342, pages 465–563. Springer, Berlin. [CP6, pp. 87–155]

1989

- [a] Self-similarity and hairiness in the Mandelbrot set. In *Computers in Geometry and Topology (Chicago, IL, 1986)*, volume 114 of *Lecture Notes in Pure and Appl. Math.*, pages 211–257. Dekker, New York. [CP6, pp. 289–335]
- [b] (with S. Friedland). Dynamical properties of plane polynomial automorphisms. *Ergodic Theory Dynam. Systems*, 9(1):67–99. [CP6, pp. 255–287]

1992

- [a] Remarks on iterated cubic maps. *Experiment. Math.*, 1(1):5–24. [CP6, pp. 337–369]

1993

- [a] (with M. Lyubich). The Fibonacci unimodal map. *J. Amer. Math. Soc.*, 6(2):425–457. [CP6, pp. 439–471]
- [b] (with L.R. Goldberg). Fixed points of polynomial maps. II. Fixed point portraits. *Ann. Sci. École Norm. Sup. (4)*, 26(1):51–98. [CP6, pp. 473–520]
- [c] Geometry and dynamics of quadratic rational maps. *Experiment. Math.*, 2(1):37–83. With an appendix by the author and Tan Lei. [CP6, pp. 371–438]

1994

- [a] Thurston’s algorithm without critical finiteness. *Linear and Complex Analysis Problem Book 3, Part 2*, Havin and Nikolskii editors, Lecture Notes in Math no. 1474, pp. 434–436, Springer, Berlin.
- [b] Problems on local connectivity. *ibid.* pp. 443–446.

1995

- [a] A Nobel Prize for John Nash. *Math. Intelligencer*, 17(3):11–17. Also available in *Pokroky Mat. Fyz. Astronom*, 41(4):169–179, 1996 (in Czech) and in *Gac. R. Soc. Mat. Esp.*, 5(3):560–577, 2002 (in Spanish).
- [b] (with S. P. Dawson, R. Galeeva, and C. Tresser). A monotonicity conjecture for real cubic maps. In *Real and Complex Dynamical Systems (Hillerød, 1993)*, volume 464 of *NATO Adv. Sci. Inst. Ser. C, Math. Phys. Sci.*, pages 165–183. Kluwer Acad. Publ., Dordrecht. [CP6, pp. 157–175]
- [c] On the Steenrod homology theory. In *Novikov Conjectures, Index Theorems and Rigidity, vol. 1 (Oberwolfach, 1993)*, volume 226 of *London Math. Soc. Lecture Note Ser.*, pages 79–96. Cambridge Univ. Press, Cambridge. [CP4, pp. 83–100]

1997

- [a] Fubini foiled: Katok's paradoxical example in measure theory. *Math. Intelligencer*, 19(2):30–32. [CP6, pp. 233–235]

1998

- [a] John Nash and “A Beautiful Mind”, *Notices Amer. Math. Soc.*, 45(10):1329–1332.

1999

- [a] The mathematical work of Curtis T. McMullen. In *The mathematical work of the 1998 Fields medalists*, *Notices Amer. Math. Soc.*, 46:23–26. [CP6, pp. 521–529]
- [b] Growing up in the old Fine Hall. In *Prospects in Mathematics* (Princeton, NJ, 1996), pages 1–11. Amer. Math. Soc., Providence, RI.

2000

- [a] (with C. Tresser). On entropy and monotonicity for real cubic maps. *Comm. Math. Phys.*, 209(1):123–178. With an appendix by Adrien Douady and Pierrette Sentenac. [CP6, pp. 177–232]
- [b] Classification of  $(n - 1)$ -connected  $2n$ -dimensional manifolds and the discovery of exotic spheres. In *Surveys on Surgery Theory, vol. 1*, Annals of Math. Studies, no. 145, pages 25–30. Princeton Univ. Press, Princeton, NJ.
- [c] Periodic orbits, external rays and the Mandelbrot set: an expository account. In *Géométrie Complexe et Systèmes Dynamiques, colloque en l'honneur d'Adrien Douady (Orsay, 1995)*; *Astérisque*, (261):xiii, 277–333. [CP7, pp. 171–229]
- [d] Local connectivity of Julia sets: expository lectures. In *The Mandelbrot Set, Theme and Variations*, volume 274 of *London Math. Soc. Lecture Note Ser.*, pages 67–116. Cambridge Univ. Press, Cambridge. [CP7, pp. 43–101]
- [e] On rational maps with two critical points. *Experiment. Math.*, 9(4):481–522. [CP7, pp. 103–170]
- [f] Tsujii's monotonicity proof for real quadratic maps. First published in [CP7, pp. 39–42]

2003

- [a] Towards the Poincaré conjecture and the classification of 3-manifolds. *Notices Amer. Math. Soc.*, 50(10):1226–1233. Also available in *Gaz. Math.*, (99):13–25, 2004 (French). [CP4, pp. 325–336]

2004

- [a] Pasting together Julia sets: a worked out example of mating. *Experiment. Math.*, 13(1):55–92. [CP7, pp. 231–292]

2006

- [a] The Poincaré conjecture one hundred years later. In *The Millennium Prize Problems*, pages 71–83. Clay Math. Inst., Cambridge, MA. [CP4, pp. 337–344]
- [b] On Lattès maps. In *Dynamics on the Riemann Sphere, a Bodil Branner Festschrift*, pages 9–43. Eur. Math. Soc., Zürich. [CP7, pp. 293–328]

2007

- [a] (with A. Bonifant and M. Dabija). Elliptic curves as attractors in  $\mathbb{P}^2$ , I, dynamics. *Experiment. Math.*, 16(4):385–420. [CP7, pp. 329–385]

2008

- [a] (with A. Bonifant). Schwarzian derivatives and cylinder maps. In *Holomorphic Dynamics and Renormalization*, **53** of *Fields Inst. Commun.*, pages 1–21. Amer. Math. Soc., Providence, RI. [CP7, pp. 387–407]

2009

- [a] Cubic polynomial maps with periodic critical orbit. I. In *Complex Dynamics, Families and Friends, in Honor of John Hamal Hubbard*, pages 333–411. A. K. Peters, Wellesley, MA. [CP7, pp. 409–476]
- [b] Fifty years ago: topology of manifolds in the 50’s and 60’s. In *Low Dimensional Topology*, volume 15 of *IAS/Park City Math. Ser.*, pages 9–20. Amer. Math. Soc., Providence, RI. [CP4, pp. 345–356]

2010

- [a] (with A. Bonifant and J. Kiwi). Cubic polynomial maps with periodic critical orbit. II. Escape regions. *Conform. Geom. Dyn.*, 14:68–112. [CP7, pp. 477–521] Errata, *Conform. Geom. Dyn.*, 14:190–193. [CP7, pp. 523–526]

2011

- [a] Differential topology forty-six years later. *Notices A. M. S.*, 58:804–809.

2012

- [a] Hyperbolic components (with an appendix by A. Poirier), In *Conformal Dynamics and Hyperbolic Geometry, Conference in honor of Linda Keen*, Contemporary Mathematics 273:183–232. (For a much earlier version, see arXiv:math/9202210 (1992).) [CP7, pp. 527–576]

2014

- [a] Arithmetic of unicritical polynomial maps, in pp. 15–24 of *Frontiers in Complex Dynamics: In Celebration of Jhon Milnor's 80th birthday*, editors A. Bonifant, M. Lyubich and S. Sutherland, Banff 2011. Princeton Math. Ser., 51, Princeton Univ. Press, Princeton, NJ, 2014.

2015

- [a] Topology through the centuries: low dimensional manifolds. Bull. Amer. Math. Soc. (N.S.) 52 (2015), no. 4, 545–584.
- [b] (with M. Kervaire) The Kervaire-Milnor correspondence 1958-1961. With transcription by Shu Otsuka. Bull. Amer. Math. Soc. (N.S.) 52 (2015), no. 4, 611–658.

2017

- [a] (with A. Bonifant) On real and complex cubic curves. Enseign. Math. 63 (2017), no. 1-2, 21–61.

2018

- [a] (with A. Bonifant and X. Buff) On Antipode Preserving Cubic Maps: the Fjord Theorem. Proc. London Math. Soc. 116 (2018), no. 3, 670–728. DOI:10.1112/plms.12075

2020

- [a] (with A. Bonifant) Group Actions, Divisors, and Plane Curves. Bulletin of the American Mathematical Society, 57 (2020), no. 2, 171–267. doi.org/10.1090/bull/1681

2021

- [a] (with A. Bonifant and S. Sutherland) The W. Thurston Algorithm Applied to Real Polynomial Maps. Conform. Geom. Dyn. 25 (2021) 179–199. <https://doi.org/10.1090/ecgd/365>

## Manuscripts in Preparation

- [a] (with A. Bonifant and S. Sutherland) The W. Thurston Algorithm for Real Quadratic Rational Maps. ArXiv:2009.10147 [math.DS] (September 21, 2020).
- [b] (with A. Bonifant and S. Sutherland) Parabolic Implosion and the Relative Green's Function.
- [c] (with A. Bonifant and M. Dabija). Elliptic curves as attractors in  $\mathbb{P}^2$ , II, The transverse Lyapunov exponent.
- [d] (with A. Bonifant) On Cubic Polynomial Maps with Periodic Critical Orbit, Part III: Tessellations and Orbit Portraits. (Submitted January, 2025)
- [e] (with A. Bonifant and X. Buff) Antipode Preserving Cubic Maps II: Tongues and the Ring Locus.