

## Publications of Haynes R. Miller

1. *Some Algebraic Aspects of the Adams-Novikov Spectral Sequence*, Thesis, Princeton University, 1974.
2. (with W. S. Wilson) On Novikov's  $\text{Ext}^1$  modulo an invariant prime ideal, Reunion Sobre Theoria de Homotopia, Northwestern University, 1974, Ser. Notas de Mat. y Simposia, Soc. Mat. Mex. (1975) 156–166.
3. (with D. C. Johnson, W. S. Wilson, and R. S. Zahler) Boundary homomorphisms in the generalized Adams spectral sequence and the nontriviality of infinitely many  $\gamma_t$  in stable homotopy, *Ibid.* 47–59.
4. (with W. S. Wilson) On Novikov's  $\text{Ext}^1$  modulo an invariant prime ideal, *Topology* **15** (1976) 131–141.
5. (with D. C. Ravenel and W. S. Wilson) Novikov's  $\text{Ext}^2$  and the nontriviality of the gamma family, *Bull. Amer. Math. Soc.* **81** (1975) 1073–1075.
6. (with D. C. Ravenel and W. S. Wilson) Periodic phenomena in the Adams-Novikov spectral sequence, *Ann. of Math.* **106** (1977) 469–516.
7. (with D. C. Ravenel) Morava stabilizer algebras and the localization of Novikov's  $E_2$ -term, *Duke Math. J.* **44** (1977) 433–447.
8. (with S. B. Priddy) On  $G$  and the stable Adams conjecture, *Geometric Applications of Homotopy Theory II: Proceedings, Evanston*, Springer Lect. Notes in Math. **658** (1977) 331–348.
9. A localization theorem in homological algebra, *Math. Proc. Camb. Phil. Soc.* **84** (1978) 73–84.
10. A spectral sequence for the homology of an infinite delooping, *Pac. J. Math.* **79** (1978) 139–155.
11. (with M. Bendersky and E. B. Curtis) The unstable Adams-Novikov spectral sequence, *Topology* **17** (1978) 229–248.
12. On relations between Adams spectral sequences, with an application to the stable homotopy of a Moore space, *J. Pure Appl. Alg.* **20** (1981) 287–312.
13. (with V. P. Snaith) On the K-theory of the Kahn-Priddy map, *J. Lond. Math. Soc.* **20** (1979) 339–342.
14. (with J. R. Harper) On the double suspension homomorphism at odd primes, *Trans. Amer. Math. Soc.* **273** (1982) 319–331.
15. (with B. M. Mann and E. Y. Miller)  $S^1$ -equivariant function spaces and characteristic classes, *Trans. Amer. Math. Soc.* **295** (1986) 233–256.

16. (with V. P. Snaith) On  $K_*(\mathbf{Q}\mathbf{R}P^n; \mathbf{Z}/2)$ , *Current Trends in Algebraic Topology*, Can. Math. Soc. Conf. Proc. **2**, Part 1 (1982) 233–243.
17. Universal Bernoulli numbers and the  $S^1$ -transfer, *Ibid.*, Part 2 (1982) 437–449.
18. (with C. W. Wilkerson) Vanishing lines for modules over the Steenrod algebra, *J. Pure App. Alg.* **22** (1981) 293–307.
19. An algebraic analogue of a conjecture of G. W. Whitehead, *Proc. Amer. Math. Soc.* **84** (1982) 131–137.
20. Appendix to: D. C. Ravenel, The Segal conjecture for cyclic groups and its consequences, *Amer. J. Math.* **106** (1984) 415–446.
21. (with M. G. Barratt) On the anti-automorphism of the Steenrod algebra, *Symposium on Algebraic Topology in Honor of José Adem*, *Cont. Math.* **12** (1982) 47–52.
22. (with C. W. Wilkerson) On the Segal conjecture for periodic groups, *Northwestern Homotopy Theory Conference*, *Cont. Math.* **19** (1983) 233–246.
23. Massey-Peterson towers and maps from classifying spaces, *Algebraic Topology, Aarhus, 1982*, Springer Lect. Notes in Math. **1051** (1984) 401–417.
24. The Sullivan conjecture, *Bull. Amer. Math. Soc.* **9** (1983) 75–79.
25. The Sullivan conjecture on maps from classifying spaces, *Ann. of Math.* **120** (1984) 39–87, and **121** (1985) 605–609.
26. (with J. F. Adams and J. H. Gunawardena) The Segal conjecture for elementary abelian  $p$ -groups, *Topology* **24** (1985) 435–460.
27. (with D. M. Davis and M. E. Mahowald) Mapping telescopes and K-theory localization, *Algebraic Topology and Algebraic K-Theory*, *Ann. of Math. Studies* **113** (1987) 152–167.
28. Stable splittings of Stiefel manifolds, *Topology* **24** (1985) 411–419.
29. The Sullivan conjecture and homotopical representation theory, *Proc. Int. Cong. Math.*, 1986, 580–589.
30. (with W. G. Dwyer and C. W. Wilkerson) The homotopy uniqueness of  $BS^3$ , *Algebraic Topology, Barcelona 1986*, Springer Lect. Notes in Math. **1298** (1987) 90–105.
31. (with W. G. Dwyer and J. Neisendorfer) Fiberwise completion and unstable Adams spectral sequences, *Israel J. Math.* **66** (1989) 160–178.
32. The elliptic character and the Witten genus, *Algebraic Topology*, *Cont. Math.* **96** (1989) 281–289.

33. (with J. R. Harper) Looping spaces with very nice cohomology, *Advances in Homotopy Theory*, Lon. Math. Soc. Lect. Note Ser. **139** (1989) 69–86.
34. On Jones’s Kahn-Priddy Theorem, *Homotopy Theory and Related Topics*, Springer Lect. Notes in Math. **1418** (1990) 210–218.
35. (with W. G. Dwyer and C. W. Wilkerson) Homotopical uniqueness of classifying spaces, *Topology* **31** (1992) 29–45.
36. (with D. C. Ravenel) Mark Mahowald’s work on the homotopy groups of spheres, *Algebraic Topology, Oaxtepec 1991*, Cont. Math. **146** (1993) 1–30.
37. Finite localizations, *Bol. Soc. Mat. Mex.* **37** (1992) 383–389.
38. (with M. Ando) Ian Grojnowski’s “Declocalized equivariant elliptic cohomology,” *Elliptic Cohomology*, Lon. Math. Soc. Lect. Notes **342** (2007) 111–113.
39. Kervaire Invariant One [after M. A. Hill, M. J. Hopkins, and D. C. Ravenel], *Séminaire Bourbaki no. 1029*, Astérisque **348** (2012) 65–98.
40. (with V. Giambalvo) More on the anti-automorphism of the Steenrod algebra, *Alg. Geo. Top.* **11** (2011) 2579–2585.
41. (with M. J. Hopkins) Elliptic curves and stable homotopy I, *Topological Modular Forms*, Mathematical Surveys and Monographs **201**, Amer. Math. Soc. (2014) 209–260.
42. The Burnside bicategory of groupoids, *Bol. Soc. Mat. Mex.* **23** (2017) 173–194.
43. (with R. Haugseng) A spectral sequence for the cohomology of an infinite loop space, *Alg. Geo. Top.* **16** (2016) 2911–2948.
44. (with M. J. Andrews) Inverting the Hopf map, *J. Topol.* **10** (2017) 1145–1168.
45. Comodules, sheaves, and the exact functor theorem, *Contemp. Math.* **729** (2019) 205–220.
46. *Lectures on Algebraic Topology*, World Scientific, 2021.
47. (with B. Agrawalla and N. Khlaif) The André-Quillen cohomology of commutative monoids, *Semigroup Forum* **108** (2024) 275–299. arXiv:2011.01536.
48. (with N. Dhankhar and A. Tahboub) Beck modules and alternative algebras, arXiv:2309.07962

## Historical articles

1. Leray in Oflag XXVIA: The origins of sheaf theory, sheaf cohomology, and spectral sequences, *Jean Leray (1906–1998)*, *Gazette des Mathématiciens* **84** suppl (2000) 17–34.
2. A marriage of manifolds and algebra: the mathematical work of Peter Landweber, *Recent progress in homotopy theory (Baltimore, MD, 2000)*, *Cont. Math.* **203** (2002) 3–13.
3. (with E. H. Brown, F. R. Cohen, F. W. Gehring, and B. A. Taylor) Franklin P. Peterson (1930–2000), *Notices Amer. Math. Soc.* **48** (2001) 1161–1168.
4. (with C. Barwick, M. J. Hopkins, and I. Moerdijk) Daniel M. Kan (1927–2013), *Notices Amer. Math. Soc.* **62** (2015) 1042–1045.
5. George William Whitehead, Jr. (1918–2004), *Biographical Memoirs of the National Academy of Sciences*, 2015.
6. Review of “Cohomology of sporadic groups, finite loop spaces, and the Dickson invariants” by David J. Benson, *Lond. Math. Soc. Lecture Note Series* **252** (1998) 10–23, reprinted in *Bull. Amer. Math. Soc.* **53** (2016) 683–684.
7. Review of “Discrete models for the  $p$ -local homotopy theory of compact Lie groups and  $p$ -compact groups” by Carles Broto, Ran Levi, and Bob Oliver, *Geometry and Topology* **11** (2007) 315–427, reprinted in *Bull. Amer. Math. Soc.* **53** (2016) 684–686.

## Education articles

1. (with K. H. Lundberg and D. L. Trumper) Initial conditions, generalized functions, and the Laplace transform, *IEEE Control Systems Magazine* **27** (2007) 22–35.
2. (with D. Upton) Computer manipulatives in an ordinary differential equations course: development, implementation, and assessment, *Journal of Science Education and Technology* **17** (2008) 124–137.
3. (with S. Greenwald) Computer-assisted explorations in mathematics: Pedagogical adaptations across the Atlantic, *University Collaboration for Innovation: Lessons from the Cambridge-MIT Institute*, edited by D. Good, S. Greenwald, R. Cox, and M. Goldman, Sense Publishers, 2007, pp. 121–131.
4. (with H. Burgiel, C. Lieberman, and K. Willcox) Interactive applets in calculus and engineering courses, *Enhancing Mathematics Understanding through Visualization: the Role of Dynamical Software*, edited by S. Habre, IGI Global, 2013, pp. 127–144.
5. (with K. Lin) A laboratory course in mathematics, *Directions for Mathematics Research Experience for Undergraduates*, edited by Mark Peterson and Yanir Rubinstein, World Scientific, 2015, pp. 33–52.
6. (with E. Klopfer and K. Willcox) Open education resources: Past, present, and future, *The Bridge* vol 46 issue 3 (2016) 3–4.
7. (with K. Willcox and L. Huang) Crosslinks: Improving course connectivity using online open education resources, *The Bridge* vol 46 issue 3 (2016) 38–44.
8. Language, technology, and engagement in the Haitian classroom: an interim report on the MIT-Haiti Initiative, *CODEE Journal* 12 *Linking Differential Equations to Social Justice and Environmental Concerns* (2019) 123–138.
9. An electronic seminar on mathematics education, *MAA Focus*, April-May 2019, pp. 24–25.
10. (with M. DeGraff and W. S. Frager) Language policy in Haitian education: A history of conflict over the use of Kreyòl as language-of-instruction, *Journal of Haitian Studies* 28:2 (2022) 33–95.

## Books edited

1. (with S. B. Priddy) *Proceedings of the Northwestern Homotopy Theory Conference*, Amer. Math. Soc. Cont. Math. **19** (1983).
2. (with D. C. Ravenel) *Algebraic Topology: Proceedings, Seattle 1985*, Springer Lect. Notes in Math. **1286** (1987).
3. (with G. Carlsson, R. L. Cohen, and D. C. Ravenel) *Algebraic Topology: Proceedings, Arcata 1986*, Springer Lect. Notes in Math. **1370** (1989).
4. (with E. Dror Farjoun, H. Farkas, and J. Harper) Israel Journal of Mathematics **66** (1989), in memory of Alexander Zabrodsky.
5. (with J.-M. Lemaire and L. Schwartz) *Théorie de l'Homotopie*, Astérisque **191** (1990).
6. (with B. Cenk) *The Cech Centennial: Proceedings of a Conference in Homotopy Theory, Boston 1993*, Amer. Math. Soc. Cont. Math. **181** (1995).
7. (with D. C. Ravenel) *Elliptic Cohomology: Geometry, Applications, and Analogues*, London Math. Soc. Lect. Notes **342** (2007).
8. (with J. M. Boardman, J. D. Christensen, D. M. Davis, and J. Morava) *Complex cobordism in homotopy theory: its impact and prospects*, Homology, Homotopy and Applications **10** No 3 (2008).
9. (with E. Klopfer and Karen Willcox) The Bridge **46** Number 3, Fall 2016, Open Educational Resources.
10. *Handbook of Homotopy Theory*, Chapman and Hall/CRC Press Handbooks in Mathematics Series, 2019.

## MIT OpenCourseWare publications

1. (with A. Mattuck) 18.03 *Differential Equations*, <https://ocw.mit.edu/courses/mathematics/18-03-differential-equations-spring-2010/>.
2. (with A. Mattuck, J. Orloff, and J. Lewis) 18.03SC *Differential Equations*, <https://ocw.mit.edu/courses/mathematics/18-03sc-differential-equations-fall-2011/>.
3. (with N. Stapleton, S. Glasman, and S. Ruff) 18.821 *Project Laboratory in Mathematics*, <https://ocw.mit.edu/courses/mathematics/18-821-project-laboratory-in-mathematics-spring-2013/>.
4. 18.915 *Graduate Topology Seminar*, <https://ocw.mit.edu/courses/mathematics/18-915-graduate-topology-seminar-kan-seminar-fall-2014/>.
5. 18.905 *Algebraic Topology I*, <https://ocw.mit.edu/courses/mathematics/18-905-algebraic-topology-i-fall-2016/>.
6. 18.906 *Algebraic Topology II*, <https://ocw.mit.edu/courses/mathematics/18-906-algebraic-topology-ii-spring-2020/>.
7. Interview on Chalk Radio, <https://chalk-radio.simplecast.com/episodes/communication-is-the-whole-game-with-paige-bright-prof-haynes-miller>.