

Richard Douglas Canary

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Employment:

Stanford University	1989 – 1991	
Gabor Szëgo Assistant Professor of Mathematics		
University of Michigan	1991 – Present	
Assistant Professor of Mathematics	1991 – 1996	
Associate Professor of Mathematics	1996 – 2001	
Professor of Mathematics	2001 – Present	

Education:

Princeton University	1984 – 89	
Ph.D. in Mathematics, June 1989		
Thesis: Hyperbolic Structures on 3-manifolds with Compressible Boundary		
Advisor: Bill Thurston		
Warwick University, Coventry, England	1983 – 84	
M.S. in Mathematics, July 1985		
Thesis: A Boy's Guide to William P. Thurston		
Advisor: David Epstein		
New College of USF	1980 – 83	
B.A. in Mathematics, June 1985		
Advisor: Soo Bong Chae		

Visiting Positions:

Mathematics Institute, University of Warwick, April 1993–July 1993
Ecole Normale Supérieure de Lyon, May 1994–July 1994
Stanford University, September 1994–August 1995
Mathematical Sciences Research Institute, Berkeley, January 1995–June 1995
Institut Henri Poincaré, Paris, June 1996
University of Southampton, June–July 1997
Wesleyan University, September–December 2004
Mathematical Sciences Research Institute, Berkeley, August–December 2007

Awards:

Sloan Foundation Fellowship, 1993–1997.

Papers:

- [1] (with D.B.A. Epstein and P. Green) “Notes on notes of Thurston”, in *Analytical and Geometrical Aspects of Hyperbolic Spaces*, Cambridge University Press, 1987, 3–92.
- [2] “The Poincaré metric and a conformal version of a theorem of Thurston,” *Duke Mathematical Journal* **64**(1991), 349–359.
- [3] “On the Laplacian and the geometry of hyperbolic 3-manifolds,” *Journal of Differential Geometry*, **36**(1992), 349–367.
- [4] “Ends of hyperbolic 3-manifolds,” *Journal of the American Mathematical Society*, **6**(1993), 1–35.
- [5] “Algebraic convergence of Schottky groups,” *Transactions of the American Mathematical Society*, **337**(1993), 235–258.
- [6] “Geometrically tame hyperbolic 3-manifolds,” in *Differential Geometry: Riemannian Geometry, Proceedings of Symposia in Pure Mathematics*, **54**(1993), Part 3, 99–109.
- [7] (with E. Taylor) “Kleinian groups with small limit sets,” *Duke Mathematical Journal* **73**(1994), 371–381.
- [8] (with M. Burger) “A lower bound on λ_0 for geometrically finite hyperbolic n -manifolds,” *Journal für die reine und angewandte Mathematik*, **454**(1994), 37–57.
- [9] “Covering theorems for hyperbolic 3-manifolds,” *Proceedings of Low-Dimensional Topology*, International Press, 1994, 21–30.
- [10] “A covering theorem for hyperbolic 3-manifolds and its applications,” *Topology*, **35**(1996), 751–778.
- [11] (with Y. Minsky) “On limits of tame hyperbolic 3-manifolds,” *Journal of Differential Geometry*, **43**(1996), 1–41.
- [12] (with J.W. Anderson) “Cores of hyperbolic 3-manifolds and limits of Kleinian groups,” *American Journal of Mathematics*, **118**(1996), 745–779.
- [13] (with J.W. Anderson, M. Culler and P. Shalen) “Free Kleinian groups and volumes of hyperbolic 3-manifolds,” *Journal of Differential Geometry*, **44**(1996), 738–782.
- [14] (with J.W. Anderson) “Algebraic limits of Kleinian groups which rearrange the pages of a book,” *Inventiones Mathematicae*, **126**(1996), 205–214.

- [15] (with E.C. Taylor) “Hausdorff dimension and limits of Kleinian groups,” *Geometric and Functional Analysis*, **9**(1999), 283–297.
- [16] (with Y. Minsky and E. Taylor) “Spectral theory, Hausdorff dimension and the topology of hyperbolic 3-manifolds,” *Journal of Geometric Analysis*, **9**(1999), 18–40.
- [17] (with J.W. Anderson) “Cores of hyperbolic 3-manifolds and limits of Kleinian groups II,” *Journal of the London Mathematical Society* **61**(2000), 489–505.
- [18] “The conformal boundary and the boundary of the convex core,” *Duke Mathematical Journal*, **106**(2001), 193–207.
- [19] (with J.W. Anderson and D. McCullough) “On the topology of deformation spaces of Kleinian groups,” *Annals of Mathematics*, **152**(2000), 693–741.
- [20] (with J.W. Anderson) “The visual core of a hyperbolic 3-manifold,” *Mathematische Annalen*, **321**(2001), 989–1000.
- [21] (with M. Bridgeman) “From the boundary of the convex core to the conformal boundary,” *Geometriae Dedicata*, **96**(2003), 211–240.
- [22] (with M.Culler, S. Hersonsky, and P. Shalen) “Approximation by maximal cusps in boundaries of deformation spaces,” *J. Diff. Geom.*, **64**(2003), 57–109.
- [23] (with D. McCullough) “Homotopy equivalences of 3-manifolds and deformation theory of Kleinian groups,” *Memoirs of the A.M.S.*, **172**(2004), no. 812, xii+218 pp.
- [24] (with S. Hersonsky) “Ubiquity of geometric finiteness in boundaries of deformation spaces of hyperbolic 3-manifolds,” *Amer. J. Math.*, **126**(2004), 1193–1220.
- [25] “Pushing the boundary,” in *In the Tradition of Ahlfors and Bers, III*, Contemporary Mathematics **355**(2004), American Mathematical Society, 109–121.
- [26] (with M. Bridgeman) “Bounding the bending of a hyperbolic 3-manifold,” *Pac. J. Math*, **218**(2005), 299–314.
- [27] (with P. Bonfert-Taylor, G. Martin and E. Taylor) “Quasiconformal homogeneity of hyperbolic manifolds,” *Mathematische Annalen*, **331**(2005), 281–295.
- [28] (with J. Brock and Y. Minsky) “The classification of Kleinian surface groups II: the ending lamination conjecture,” submitted.
- [29] (with C. Leininger) “Kleinian groups with discrete length spectrum,” *Bull. L.M.S.*, **39**(2007), 189–193.
- [30] (with P. Bonfert-Taylor, M. Bridgeman and E.C. Taylor) “Quasiconformal homogeneity of hyperbolic surfaces with fixed-point full automorphisms,” *Math. Proc. Camb. Phil. Soc.*, **143**(2007), 71–84.

- [31] (edited with D.B.A. Epstein and A. Marden) *Fundamentals of Hyperbolic Manifolds: Selected Expositions*, London Mathematical Society Lecture Note Series **328**, Cambridge University Press, 2006, xii+335 pages.
- [32] (with D.B.A. Epstein and P.L. Green) “Notes on notes of Thurston,” a re-issue of [1] which appears in [31] with a new foreword by R.D. Canary, 1–115.
- [33] (edited with J. Gilman, J. Heinonen, and H. Masur) *In the Tradition of Ahlfors-Bers, IV, Contemporary Mathematics* **432**(2007), xvi+229 pages.
- [34] “Introductory bumponomics: the topology of deformation spaces of hyperbolic 3-manifolds,” to appear.
- [35] “Marden’s Tameness Conjecture: History and Applications,” in *Geometry, Analysis and Topology of Discrete Groups*, ed. by L. Ji, K. Liu, L. Yang and S.T. Yau, Higher Education Press, 2008, 137–162.
- [36] (with P. Bonfert-Taylor, G. Martin, E. Taylor and M. Wolf) “Ambient quasiconformal homogeneity of planar domains,” *Ann. Acad. Sci. Fenn.*, to appear.
- [37] (with Peter Storm) “The curious moduli space of unmarked Kleinian surface groups,” submitted.