

CAROLINE SERIES PUBLICATIONS

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Research Papers

1. Ergodic actions of product groups, *Pacific J. Math.* 20, 1977, 519 – 547.
2. An application of groupoid cohomology, *Pacific J. Math.* 91, 1980, 40 – 55.
3. The Rohlin tower theorem and hyperfiniteness for actions of continuous groups, *Israel J. Math.* 30, 1978, 99 – 122.
4. The Poincaré flow of a foliation, *American J. Math.* 102, 1978, 93 – 128.
5. Foliations of polynomial growth are hyperfinite, *Israel J. Math.* 34, 1979, 245 – 258.
6. (with R. Bowen) Markov maps associated with Fuchsian groups, *IHES Publications* 50, 1979, 153 – 170.
7. Symbolic dynamics for geodesic flows, *Acta Math.* 146, 1981, 103 – 128.
8. Coding geodesics with continued fractions, *L'Enseignement Math.* 29, 1981, 67 – 76.
9. A problem in ergodic theory, *Bull. London Math. Soc.* 14, 1982, 28 – 29.
10. The infinite word problem and limit sets in Fuchsian groups, *Ergodic Theory and Dynam. Systems* 1, 1981, 337 – 360.
11. Martin boundaries of random walks on Fuchsian groups, *Israel J. Math.* 44, 1983, 221 – 240.
12. (with R. Brooks) Bounded cohomology for surface groups, *Topology* 23, 1984, 29 – 36.
13. Non Euclidean geometry, continued fractions and ergodic theory, *Math. Intelligencer* 4, 1982, 24 – 31.
14. (with J. Birman) Geodesics with bounded intersection number on surfaces are sparsely distributed, *Topology* 24, 1985, 217 – 227.
15. (with J. Birman) An algorithm for simple curves on surfaces, *J. London Math. Soc.* 2, 29, 1984, 331 – 342.
16. The modular surface and continued fractions, *J. London Math. Soc.* 2, 31, 1985, 69 – 85.
17. The Geometry of Markoff Numbers, *Math. Intelligencer* 7, 1985, 20 – 29.

18. (with J. Birman) Geodesics with multiple self-intersections and symmetries on Riemann surfaces, in *Low dimensional topology and Kleinian groups*, D. Epstein ed., LMS Lecture Notes 112, Cambridge Univ. Press 1986, 3 – 12.
19. (with J. Birman) Dehn's algorithm revisited, with application to simple curves on surfaces, in *Combinatorial Group Theory and Topology*, S. Gersten and J. Stallings eds., Ann. of Math. Studies III, Princeton Univ. Press 1987, 451 – 478.
20. Geometrical Markov coding of geodesics on surfaces of constant negative curvature, *Ergodic Theory and Dynam. Systems* 6, 1986, 601 – 625.
21. (with J. Birman) Algebraic Linearity for an automorphism of a surface group, *J. of Pure and Applied Algebra* 52, 1988, 227 – 275.
22. (with A. Haas) The Hurwitz constant and Diophantine approximation on Hecke groups, *J. London Math. Soc.* 2, 34, 1986, 219 – 334.
23. The Markoff spectrum in the Hecke group G_5 , *Proc. London Math. Soc.* 57, 1988, 151 – 181.
24. Symbolic dynamics for geodesic flows, *Proc. International Congress Math.*, Berkeley 1986, Vol. II, 1210 – 1215.
25. Some classical examples of chaotic dynamics, *Proc. Roy. Soc.* A413, 1987, 171 – 182.
26. Symbolic dynamics and diophantine approximation, in *Number Theory and Dynamical Systems*, M. Dodson and J. Vickers eds., LMS Lecture Notes 134, 1989, 49 – 67.
27. The growth function of a Fuchsian group, *Papers presented to E.C. Zeeman*, Warwick 1988, 281 – 291.
28. (with Ya. G. Sinai) Ising models on the Lobachevsky plane, *Comm. Math. Phys.* 128, 1990, 63 – 76.
29. Geometrical methods of symbolic coding, in *Ergodic Theory and Symbolic Dynamics in Hyperbolic Spaces*, T. Bedford, M. Keane and C. Series eds., Oxford Univ. Press 1991, 125 – 151.
30. Lectures on pleating coordinates for the Maskit embedding of the punctured torus, in *Proc. 4th workshop on Math. Physics*, Dong Pyo Chi ed., Korean Academic Council, Seoul 1992, 115 – 146.
31.] (with L. Keen) Pleating coordinates for punctured tori. *Bull. American Math. Soc.* 26, 1992, 141 – 146.
32. (with L. Keen) Pleating Coordinates for the Maskit embedding of the Teichmüller space of punctured tori, *Topology* 32, 1993, 719 – 749.
33. (with L. Keen and B. Maskit) Geometric finiteness and uniqueness for groups with circle packing limit sets. *J. reine und angew. Mathematik* 436, 1993, 209 – 219.
34. (with L. Keen) The Riley slice of Schottky space. *Proc. London Math. Soc.* 69, 1994, 72 – 90.

35. (with L. Keen) Continuity of convex hull boundaries, *Pacific J. Math.* 168, 1995, 183 – 206.
36. (With J. Parker) Bending formulae for convex hull boundaries, *J. d'Analyse Math.* 67, 165 – 198, 1995.
37. (With L. Keen) How to bend pairs of punctured tori, in *Lipa's Legacy*, J. Dodziuk and L. Keen eds, *Contemporary Math.* 211, 1997, 359 – 387.
38. (With L. Keen and J. Parker) Combinatorics of simple closed curves on the twice punctured torus, *Israel J. Math.* 112, 1999, 29 – 60.
39. (With Y. Komori) The Riley slice revisited, in *The Epstein Birthday Schrift*, I. Rivin, C. Rourke and C. Series eds., *Geom. and Top. Monographs*, Vol.1, International Press 1999, 303 – 316.
40. Lectures on pleating coordinates for once punctured tori, in *Hyperbolic spaces and related topics*, *Kokyuroku* 1104, Research Inst. Math. Sci. Kyoto 1999, 30 – 108.
41. An extension of Wolpert's derivative formula, *Pacific J. Math.* 197, 2001, 223 – 239.
42. On Kerckhoff minima and pleating varieties for quasifuchsian groups, *Geometriae Dedicata* 88, 2001, 211 – 237.
43. (With Y. Komori) Pleating coordinates for the Earle embedding, *Ann. Fac. des Sciences de Toulouse Vol. X*, 2001, 69 – 105.
44. (With R. Díaz) Examples of pleating varieties for twice punctured tori, *Trans. Amer. Math. Soc.* 356, 2003, 621 – 658.
45. Why is there hyperbolic geometry in dynamics? in *European Women in Maths., Proceedings of the Tenth General Meeting*, E. Mezzetti and S. Paycha eds., World Scientific 2003, 191 – 208.
46. (With R. Díaz) Limit points of lines of minima in Thurston's boundary of Teichmüller space, *Algebraic and Geometric Topology* 3, 2003, 207 – 234.
47. (With L. Keen) Pleating invariants for punctured torus groups, *Topology* 43, 2004, 447 – 491.
48. (With J. Parker) The mapping class group of the twice punctured torus, in *Groups: Topological, Combinatorial and Arithmetic Aspects*, T. Müller ed., *LMS Lecture Notes* 311, Cambridge Univ. Press 2004, 405 – 486.
49. Limits of quasifuchsian groups with small bending, *Duke Mathematical J.* 128, 2005, 285 – 329.
50. A crash course on Kleinian groups, *Rend. Istit. Mat. Univ. Trieste XXXVII*, 2005, 1 – 38.
51. (With Y. Choi) Lengths are coordinates for convex structures, *J. Diff. Geom.* 73, 2006, 75 – 116.

52. Thurston's bending measure conjecture for once punctured torus groups, in *Spaces of Kleinian Groups*, Y. Minsky, M. Sakuma and C. Series eds., LMS Lecture Notes 329, Cambridge Univ. Press 2006, 75 – 90.
53. (With Y. Choi and K. Rafi) Lines of minima and Teichmüller geodesics, *GAF*, 18, 2008, 698 – 754.
54. (With Y. Choi and K. Rafi) Lines of minima are uniformly quasigeodesic, *Pacific J. Math.* 237, 2008, 21 – 44.
55. The Maskit embedding for the twice punctured torus, *Geometry & Topology* 14 (2010) 1941-1991.
56. Kerckhoff's lines of minima in Teichmüller space, in *Handbook of Teichmüller theory Vol. III*, A. Papdopoulos ed., IRMA Lectures in Mathematical and Theoretical Physics Vol. 17, EMS Publishing House, 2012, 123 – 156.
57. (With S.Maloni) Top terms of trace polynomials in Kra's plumbing construction. *Algebraic and Geometric Topology*, 10, 2010, 1565 – 1608.
58. (With A.Bufetov) A pointwise ergodic theorem for Fuchsian groups. *Math. Proc. Cam Phil. Soc*, 151, 2011, 145 – 159.
59. (With M.Mj) Limits of limit sets I. *Geometriae Dedicata*, 167, 2013, 35 – 67.
60. (With M.Mj) Limits of limit sets II. *Geometry and Topology*, 21, 2017, 647 – 692.
61. (with S.P. Tan and Y. Yamashita) The diagonal slice of Schottky space. *Algebraic and Geometric Topology*, 17, 2017, 2239 – 2282.
62. (With Alexander I. Bufetov, Alexey Klimenko) A symmetric Markov coding and the ergodic theorem for actions of Fuchsian groups. *Mathematics Research Reports*, 1, 2020, 5-14.
63. (with Alexander I. Bufetov, Alexey Klimenko) Convergence of spherical averages for actions of Fuchsian Groups. *Commentarii Math. Helvet.* 98, 2023, 41-134.
64. (with Alexander I. Bufetov, Alexey Klimenko) Ergodic theorem for actions of Fuchsian groups. (Russian) *Short communications, Uspekhi Math. Nauk* Vol 78 Issue 3, 2023, 16-17. English translation *Russ.Math. Surveys* 78:3, 2023, 566-568.
65. Primitive stability and Bowditch's BQ-condition are equivalent. [arXiv:1901.01396](https://arxiv.org/abs/1901.01396).
66. Primitive stability and the Bowditch conditions revisited. [arXiv:2006.10403](https://arxiv.org/abs/2006.10403). To appear, *New Aspects of Teichmüller Theory*, Eds. Ken'ichi Ohshika, Nariya Kawazumi and Sumio Yamada.
67. The Bowen-Series map revisited. In preparation.

Books

1. *Ergodic Theory and Symbolic Dynamics in Hyperbolic Spaces*. Oxford Univ. Press 1991. Editors T. Bedford, M. Keane and C. Series.
2. *The Epstein Birthday Schrift*. Geometry and Topology Monographs, Vol.1, International Press 1999. Editors I. Rivin, C. Rourke and C. Series.
3. (With D. Mumford and D. Wright) *Indra's Pearls*. Cambridge Univ. Press 2002. Japanese and Russian translations.
4. *Kleinian Groups and Hyperbolic 3-manifolds*. LMS Lecture Notes 299, Cambridge Univ. Press 2003. Editors Y. Komori, V. Markovic and C. Series.
5. *Spaces of Kleinian Groups*. LMS Lecture Notes 329, Cambridge Univ. Press 2006. Editors Y. Minsky, M. Sakuma and C. Series.
6. *Geometry, Topology & Dynamics of Character Varieties*. Lecture Note Series Vol. 23, Inst. for Math. Sciences, National Univ. of Singapore, World Scientific 2012. Editors W. Goldman, S. P. Tan, C. Series.

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Popular and General

1. Review of *L. Fox, The problem of women and mathematics*, Math Intelligencer 5,(1983), 52-3.
2. How to make a pseudosphere, *Manifold*, 1988.
3. Non-Euclidean Kaleidoscopes, *Interdisciplinary Science Reviews*, 15, 1989, 224-234.
4. (with M. Losada) Reflections on first and third world relations, *CSWP Gazette*, 9, 1989, 1-3.
5. Fractals, Reflections and Distortions, *New Scientist*, No. 1735, Sept. 1990, 54-58; Reprinted in the Penguin Book of Chaos; (translated into Japanese).
Extract reprinted in *The Faber Book of Science*, Ed. John Carey, Faber and Faber 1995.
6. British Women Mathematicians: 200 years of history. Oxford High School Birthday lecture volume, Dec 1996 (14 pages) .
7. And what became of the Women?, *Mathematical Spectrum*, 30, 1997/8, 49-52.
8. On the way to chaos theory, Obituary, Dame Mary Cartwright, *The Guardian*, April 9, 1998; reprinted in *European Maths. Soc. Newsletter*, Dec. 1998, 21 – 23.
9. Oxford Dictionary of National Biography entry for Dame Mary Cartwright, 2004.
10. Contribution to *George Mackey, 1916 – 2006*, *AMS Notices*, Vol. 54 No 7, August 2007.
11. (with David Wright) Non-Euclidean Symmetry and Indra's Pearls, in *Bridges London*, eds. R Sarhangi and J Sharp, Tarquin publications, 25 – 32, 2006.

12. Interview in *Mathematics Today*, February 2007.
13. (with David Wright) Non-Euclidean geometry and Indra's pearls, in +plus online magazine Issue 43, June 2007.
14. Milestones on a non-Euclidean journey, in *Visions of Mathematics*, ed. S Parc, Oxford Univ. Press , 2014.
15. Maryam Mirzakhani and her work, in *Mathematics Today* **192**, October 2017.
16. Interview in *Bhāvāna*, Vol. 5, Issue 2, April 2021.
<http://bhavana.org.in/zoom-invariant-pearls-from-the-hyperbolic-world/>
17. (with Marie-Françoise Roy) European Women in Mathematics and the European Mathematical Society's Women in Mathematics Committee, in *Association for Women in Mathematics: The First Fifty Years*, eds. J.L.Beery, S. J. Greenswald, C. Kessel, AWM Series Vol. 28, Springer, 2022.
18. (with Marie-Françoise Roy) International initiatives for women mathematicians, in *Association for Women in Mathematics: The First Fifty Years*, eds. J .L. Beery, S. J. Greenswald, C. Kessel, AWM Series Vol. 28, Springer, 2022.
19. The LMS committee for women and mathematics- a history 1995-2021 in *LMS Newsletter* Issue 500, May 2022.
20. Hyperbolic Geometry and Data Science, in *Mathematics Today* Vol. 59, July 2022.