

JENNY HARRISON

PUBLICATIONS 2016

New #

- 1a.** On unsmoothable diffeomorphisms. Bulletin of the American Math Society, vol. 81, p. 746, 1975.
- 2a.** Unsmoothable diffeomorphisms. Annals of Mathematics, vol. 102, pp. 85-94, 1975. This paper was the main result of my thesis and solved a problem of Denjoy.
- 3a.** Structure of a foliated neighborhood. Proceedings of the Cambridge Philosophical Society (Cambridge, England), vol. 79, pp.101-110, 1976.
- 4a.** Unsmoothable diffeomorphisms on higher dimensional manifolds. Proceedings of the American Math Society, vol. 73, pp.249-255, 1979.
- 5ac.** Wandering intervals. Lecture Notes in Mathematics 898, (refereed) Springer Verlag, pp.154-163, 1981.
- 6a.** Opening closed leaves of foliations. Bulletin of the London Math Society, vol. 15, pp. 218-220, 1983.
- 7ac.** Flows on  $S^3$  and  $R^3$  without periodic orbits (With James A. Yorke). Lecture Notes in Mathematics 1007, (refereed) pp. 401-407, 1983.
- 8a.** Continued fractals and the Seifert Conjecture. Bulletin of the American Math Society, vol. 13, no. 2, pp. 147-153, 1985.
- 9a.**  $C^2$  counterexamples to the Seifert conjecture. Topology, vol. 27, no. 3, pp. 249-278, 1988.
- 10a.** Denjoy fractals. Topology, vol. 28, no. 1, pp. 59-80, 1989.

- 11a.** Dynamics on Ahlfors quasi-circles. Proceedings of the Indian Academy of Sciences. (Math.Sci.) vol. 99, no. 2, pp. 113-122, 1989.
- 12a.** A fixed point free ergodic flow on the three sphere (with Charles Pugh). Michigan Journal of Math, vol. 36, no. 2, pp. 261-266, 1989.
- 13a.** An introduction to fractals. American Math Society, Proceedings of Symposia in Applied Mathematics vol. 39, pp. 107-126, 1989.
- 14a.** Embedded continued fractals and their Hausdorff dimension. Constructive Approximation, Springer Verlag, vol. 5, pp 99-115, 1989.
- 15ac.** Geometry of algebraic continued fractals. London Math Society, Lecture Notes Series 134, Number Theory and Dynamical Systems, pp. 117-136, 1989.
- 16a.** The loxodromic mapping problem. Journal of Differential Equations, Vol. 90, No. 1, pp. 136-142, 1991.
- 17a.** Geometric integration on fractal curves in the plane (with Alec Norton). Indiana Journal, Vol. 40, pp. 567-594, 1991.
- 18a.** A remark on the loxodromic mapping conjecture (with Charles Pugh). Bulletin of the Australian Math Society, Vol. 45, No. 3, pp. 521-524, 1992.
- 19a.** [The Gauss-Green theorem for fractal boundaries](#), (with Alec Norton). Duke Journal of Mathematics, Vol. 67, No. 3, pp. 575-588, 1992.
- 20a.** [Stokes' theorem for nonsmooth chains](#). Bulletin of the American Math Society, (N.S.) 29, Oct 1993, No. 2, 235-242.
- 21a.** Numerical integration of vector fields over curves with zero area. Proceedings of the American Math Society. Vol 121, No. 3, July, 1994.

A = articles in journals, B = books, AC = articles in collections, AP = articles in proceedings, \* = new since last review

- 22ac.** rth order conditionally convergent serie of fractal domains, Contemporary Mathematics, AMS, 203, (1997) 257--267.
- 23a.** [Flux across nonsmooth boundaries and fractal Gauss/Green/Stokes theorems \[pdf\]](#) J. Phys. A 32 (1999), no. 28, 5317--5327.
- 24a.** [Continuity of the integral as a function of the domain\[pdf\]](#) Journal of Geometric Analysis, special edition dedicated to Fred Almgren, 8 (1998), no. 5, 769--795.
- 25a.** [Isomorphisms of differential forms and cochains\[pdf\]](#) Journal of Geometric Analysis, 8 (1998), no. 5, 797--807.
- 26ap.** [Geometric realizations of currents and distributions \[pdf\]](#), Proceedings of Fractal Geometry and Stochastics III, Birkauser, July 2004 “stochastics III, 193-204, Progr. Probab. 57, Birkhäuser Basel”.
- 27a.** [Cartan's magic formula and soap film structure \[pdf\]](#), Journal of Geometric Analysis. Vol. 14, (2004), No. 1, 47-61.
- 28a.** [On Plateau's problem for soap films with bounded energy \[pdf\]](#), Journal of Geometric Analysis. Vol. 14, (2004), No. 2, 319-329.
- 29a.** [Geometric Hodge \\* operator with applications to theorems of Gauss and Green\[pdf\]](#), Proceedings of the Cambridge Philosophical Society, Volume 140 (2006) No. 1, 135-155.
- 30a.** [Topological aspects of differential chains](#) (with Harrison Pugh), Journal of Geometric Analysis, Vol. 22, (2012), No. 3, 685-690.
- 31a.** [Soap film solutions to Plateau's Problem](#), Journal of Geometric Analysis (2014) 24:271–297

- 32a.** [Operator calculus of differential chains and differential forms](#), Journal of Geometric Analysis (2015) 25:357–420

New publications:

- 33b\***. Universal linear algebra for students of math and physics, 1-300.
- 34a\***. [Existence and Soap Film Regularity of Solutions to Plateau's Problem](#), (joint with H. Pugh,) Advances in Calculus of Variations (2015) 57 ISSN 1864-8258 46 pages
- 35a\*** [Solutions to the Reifenberg Plateau problem with cohomological spanning conditions](#) (joint with H. Pugh,) Calculus of Variations and Partial Differential Equations, 39 pages, to appear 2016
- 36ac\*** [Plateau's problem](#), invited chapter in Open Problems in Mathematics, Springer, New York, 2016, edited by John Nash, pp. 273-303

Submitted:

- 37a\*** [General Methods of Elliptic Minimization](#), (joint with H. Pugh,) submitted to Calculus of Variations and Partial Differential Equations, March 2016, 22 pages

A = articles in journals, B = books, AC = articles in collections, AP = articles in proceedings, \* = new since last review