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PUBLICATIONS

- [1] C. J. Bishop and J. K. Wetterer Planktivore prey selection: the relative field volume model vs. the apparent size model. *Ecology*, 66(2):457, 1985.
- [2] C. J. Bishop. A counterexample in conformal welding concerning Hausdorff dimension. Michigan Math. J., 35(1):151–159, 1988.
- [3] C. J. Bishop. An element of the disk-algebra that is stationary on a set of positive length. Algebra i Analiz, 1(3):83–88, 1989.
- [4] C. J. Bishop. Constructing continuous functions holomorphic off a curve. J. Funct. Anal., 82(1):113–137, 1989.
- [5] C. J. Bishop. Approximating continuous functions by holomorphic and harmonic functions. *Trans. Amer. Math. Soc.*, 311(2):781–811, 1989.
- [6] C. J. Bishop, L. Carleson, J. B. Garnett, and P. W. Jones. Harmonic measures supported on curves. *Pacific J. Math.*, 138(2):233–236, 1989.
- [7] C. J. Bishop. Bounded functions in the little Bloch space. *Pacific J. Math.*, 142(2):209–225, 1990.
- [8] C. J. Bishop. Conformal welding of rectifiable curves. Math. Scand., 67(1):61–72, 1990.
- [9] C. J. Bishop and P. W. Jones. Harmonic measure and arclength. Ann. of Math. (2), 132(3):511–547, 1990.
- [10] C. J. Bishop and T. Steger. Three rigidity criteria for PSL(2, R). Bull. Amer. Math. Soc. (N.S.), 24(1):117–123, 1991.
- [11] C. J. Bishop. A characterization of Poissonian domains. Ark. Mat., 29(1):1–24, 1991.
- [12] C. J. Bishop. Brownian motion in Denjoy domains. Ann. Probab., 20(2):631–651, 1992.
- [13] C. J. Bishop. Some questions concerning harmonic measure. In Partial differential equations with minimal smoothness and applications (Chicago, IL, 1990), volume 42 of IMA Vol. Math. Appl., pages 89–97. Springer, New York, 1992.
- [14] C. J. Bishop and T. Steger. Representation-theoretic rigidity in PSL(2, R). Acta Math., 170(1):121–149, 1993.
- [15] C. J. Bishop. An indestructible Blaschke product in the little Bloch space. Publ. Mat., 37(1):95–109, 1993.
- [16] C. J. Bishop. How geodesics approach the boundary in a simply connected domain. J. Anal. Math., 64:291–325, 1994.
- [17] C. J. Bishop and P. W. Jones. Harmonic measure, L² estimates and the Schwarzian derivative. J. Anal. Math., 62:77–113, 1994.

- [18] C. J. Bishop. Some homeomorphisms of the sphere conformal off a curve. Ann. Acad. Sci. Fenn. Ser. A I Math., 19(2):323–338, 1994.
- [19] C. J. Bishop. A counterexample concerning smooth approximation. Proc. Amer. Math. Soc., 124(10):3131–3134, 1996.
- [20] C. J. Bishop. A distance formula for algebras on the disk. Pacific J. Math., 174(1):1–27, 1996.
- [21] C. J. Bishop. Minkowski dimension and the Poincaré exponent. Michigan Math. J., 43(2):231–246, 1996.
- [22] C. J. Bishop. On a theorem of Beardon and Maskit. Ann. Acad. Sci. Fenn. Math., 21(2):383–388, 1996.
- [23] C. J. Bishop. Some characterizations of C(M). Proc. Amer. Math. Soc., 124(9):2695–2701, 1996.
- [24] C. J. Bishop. Geometric exponents and Kleinian groups. Invent. Math., 127(1):33–50, 1997.
- [25] C. J. Bishop and Y. Peres. Packing dimension and Cartesian products. Trans. Amer. Math. Soc., 348(11):4433–4445, 1996.
- [26] C. J. Bishop and Peter W. Jones. Hausdorff dimension and Kleinian groups. Acta Math., 179(1):1–39, 1997.
- [27] C. J. Bishop and P. W. Jones. The law of the iterated logarithm for Kleinian groups. In Lipa's legacy (New York, 1995), volume 211 of Contemp. Math., pages 17–50. Amer. Math. Soc., Providence, RI, 1997.
- [28] C. J. Bishop and P. W. Jones. Wiggly sets and limit sets. Ark. Mat., 35(2):201–224, 1997.
- [29] C. J. Bishop, P. W. Jones, Robin Pemantle, and Yuval Peres. The dimension of the Brownian frontier is greater than 1. J. Funct. Anal., 143(2):309–336, 1997.
- [30] C. J. Bishop. Quasiconformal mappings which increase dimension. Ann. Acad. Sci. Fenn. Math., 24(2):397–407, 1999.
- [31] C. J. Bishop. A quasisymmetric surface with no rectifiable curves. Proc. Amer. Math. Soc., 127(7):2035–2040, 1999.
- [32] C. J. Bishop, A. Böttcher, Yu. I. Karlovich, and I. Spitkovsky. Local spectra and index of singular integral operators with piecewise continuous coefficients on composed curves. *Math. Nachr.*, 206:5–83, 1999.
- [33] C. J. Bishop and J. T. Tyson. Conformal dimension of the antenna set. Proc. Amer. Math. Soc., 129(12):3631–3636, 2001.
- [34] C. J. Bishop and J. T. Tyson. Locally minimal sets for conformal dimension. Ann. Acad. Sci. Fenn. Math., 26(2):361–373, 2001.
- [35] C. J. Bishop. Bi-Lipschitz homogeneous curves in ℝ² are quasicircles. Trans. Amer. Math. Soc., 353(7):2655–2663 (electronic), 2001.
- [36] C. J. Bishop. Divergence groups have the Bowen property. Ann. of Math. (2), 154(1):205–217, 2001.

- [37] C. J. Bishop. BiLipschitz approximations of quasiconformal maps. Ann. Acad. Sci. Fenn. Math., 27(1):97–108, 2002.
- [38] C. J. Bishop. Quasiconformal mappings of Y-pieces. Rev. Mat. Iberoamericana, 18(3):627– 652, 2002.
- [39] C. J. Bishop. Non-rectifiable limit sets of dimension one. Rev. Mat. Iberoamericana, 18(3):653–684, 2002.
- [40] C. J. Bishop and P. W. Jones. Compact deformations of Fuchsian groups. J. Anal. Math., 87:5–36, 2002. Dedicated to the memory of Thomas H. Wolff.
- [41] C. J. Bishop. Quasiconformal Lipschitz maps, Sullivan's convex hull theorem and Brennan's conjecture. Ark. Mat., 40(1):1–26, 2002.
- [42] C. J. Bishop, V. Ya. Gutlyanskiĭ, O. Martio, and M. Vuorinen. On conformal dilatation in space. Int. J. Math. Math. Sci., (22):1397–1420, 2003.
- [43] C. J. Bishop. Big deformations near infinity. Illinois J. Math., 47(4):977–996, 2003.
- [44] C. J. Bishop. δ-stable Fuchsian groups. Ann. Acad. Sci. Fenn. Math., 28(1):153–167, 2003.
- [45] C. J. Bishop. An explicit constant for Sullivan's convex hull theorem. In In the tradition of Ahlfors and Bers, III, volume 355 of Contemp. Math., pages 41–69. Amer. Math. Soc., Providence, RI, 2004.
- [46] C. J. Bishop. The linear escape limit set. Proc. Amer. Math. Soc., 132(5):1385–1388 (electronic), 2004.
- [47] C. J. Bishop. Orthogonal functions in H^{∞} . Pacific J. Math., 220(1):1–31, 2005.
- [48] C. J. Bishop. Boundary interpolation sets for conformal maps. Bull. London Math. Soc., 38(4):607–616, 2006.
- [49] C. J. Bishop. A criterion for the failure of Ruelle's property. Ergodic Theory Dynam. Systems, 26(6):1733–1748, 2006.
- [50] C.J. Bishop. Harmonic measure by Garnett and Marshall. Book review in Bull. Amer. Math. Soc. 44(2):267-276, 2007.
- [51] C.J. Bishop. An A₁ weight not comparable to any quasiconformal Jacobian. In the tradition of Ahlfors-Bers, IV, volume 432 of Contemp. Math., pages 7–18. Amer. Math. Soc., Providence, RI. 2007
- [52] C.J. Bishop and H. Hakobyan. A central set of dimension 2. Proc. Amer. Math. Soc., pages 2453-2461, 136(2008), no. 7.
- [53] C.J. Bishop. Conformal welding and Koebe's theorem. Ann. of Math. 166(2): 613–656, 2007.
- [54] C.J. Bishop. Decreasing dilatations can increase dimension. Proc. Amer. Math. Soc, 136: 2453–2461, 2008.
- [55] C.J. Bishop. A set containing rectifiable arcs locally but not globally. Pure and Applied Math. Quarterly, 7(1): 121-138, 2011. Special issue in honor of Fred Gehring, part 1 of 2.

- [56] C.J. Bishop. Conformal mapping in linear time. Discrete and Computational Geometry, 44(2) 330-428, 2010.
- [57] C.J. Bishop. Bounds for the CRDT algorithm. Computational Methods in Function Theory, 10(1): 325-366, 2010.
- [58] C.J. Bishop. Optimal angle bounds for quadrilateral meshes. Discrete and Computational Geometry, 44(2): 308-329, 2010.
- [59] C.J. Bishop. Tree-like decompositions and conformal maps. Annals Acad. Sci. Fenn., 35(2): pages 389-404, 2010.
- [60] C.J. Bishop. A random walk in analysis. In the collection All That Math: portraits of mathematicians as young readers, 2011, a special volume of Revisita Matematica Iberoamericana, celebrating the Centennial of the Real Sociedad Matematica Espanola, Edited by Antonio Cordoba, Jose L. Fernandez and Pablo Fernandez
- [61] C.J. Bishop. True trees are dense. Invent. Mat. 197(2): pages 433-452, 2014.
- [62] C.J. Bishop with E. Feinberg and J. Zhang. Examples concerning Abel and Cesaro limits. J. Math. Analysis and App., 420(2): pages 1654-1661, 2014.
- [63] C.J. Bishop. The order conjecture fails in S. Journal d'Analyse, 127(1): pages 283–302, 2015.
- [64] C.J. Bishop. Constructing entire functions by quasiconformal folding. Acta. Math., 214(1): pages 1–60, 2015.
- [65] C.J. Bishop and K. Pilgrim. Dynamical dessins are dense. Rev. Mat. Iberoamericana, 31(3): pages 1033-1040, 2015.
- [66] C.J. Bishop. Models for the Eremenko-Lyubich class J. London Math. Soc., 92(1): 202-221, 2015.
- [67] C.J. Bishop. Nonobtuse triangulations of PSLGs Discrete and Computational Geometry, 56(1): pages 43–92, 2016.
- [68] C.J. Bishop. Quadrilateral meshes for PSLGs Discrete and Computational Geometry, 56(1): pages 1–42, 2016.
- [69] C.J. Bishop, H. Hakobyan and M. Williams. Frequency of dimension distortion under quasisymmetric mappings, *Geometric and Functional Analysis (GAFA)*, 26(2): pages 379–421, 2016.
- [70] C.J. Bishop. Models for the Speiser class. Proc. London Math. Soc., 114(3), 765–797, 2017.
- [71] C.J. Bishop. A transcendental Julia set of dimension 1. Inventiones Math., 212(2), 407–460, 2018.
- [72] C.J. Bishop and C. LeBrun. Anti-Self-Dual 4-manifolds, Quasi-Fuchsian groups and almost-Kahler geometry Comm. in Analysis and Geometry, special issue dedicated to Karen Uhlenbeck, 28(4), 745–780, 2020.
- [73] C.J. Bishop and K. Lazebnik. Prescribing the Postsingular Dynamics of Meromorphic Functions, Math. Annalen, 375(3), 1761-1782, 2019.

- [74] C.J. Bishop and S. Albrecht. A Speiser class Julia set with dimension near one, Journal d'Analyse, special issue dedicated to Larry Zalcman, 141(1), 49–98, 2020.
- [75] C.J. Bishop, H. Drillick and D. Ntalampekos. Falconers' distance set conjecture can fail for strictly convex sets in \mathbb{R}^d . Revista Mat. Iberoamericana, 37(5), 1953–1968, 2021.
- [76] C.J. Bishop. Quasiconformal maps with thin dilatations. *Publicacions Matemàtiques* vol 66(2022), 715-727.
- [77] C.J. Bishop. Conformal images of Carleson curves. Proc. Amer. Math. Soc. 9 (2022), 90–94.
- [78] C.J. Bishop. Uniformly acute triangulations of PSLGs to appear Discrete Comput. Geom.
- [79] C.J. Bishop. Uniformly acute triangulations of polygons. to appear *Discrete Comput. Geom.*
- [80] C.J. Bishop. The traveling salesman theorem for Jordan curves. to appear Advances in Math.
- [81] C.J. Bishop, K. Lazebnik and M. Urbanski. Equilateral triangulations and the postcritical dynamics of meromorphic functions. to appear *Math. Annalen*.
- [82] C.J. Bishop. Function theoretic characterizations of Weil-Petersson curves. to appear *Revista* Mat. Iberoamericana.

PREPRINTS

- [83] C.J. Bishop. Non-removable sets for quasiconformal and quasi-isometric mappings in \mathbb{R}^3 .
- [84] C.J. Bishop. Interpolating sequences for the Dirichlet space and its multipliers.
- [85] C.J. Bishop. Distortion of disks by conformal maps.
- [86] C.J. Bishop. A fast quasiconformal mapping theorem for polygons.
- [87] C.J. Bishop. Estimates for harmonic conjugation.
- [88] C.J. Bishop. Another Besicovitch-Kakeya set.
- [89] C.J. Bishop. A curve with no simple crossings by segments.
- [90] C.J. Bishop. Weil-Petersson curves, β -numbers, and minimal surfaces.
- [91] C.J. Bishop. Conformal removability is hard.
- [92] C.J. Bishop. BiLipschitz homogeneous hyperbolic nets.
- [93] C.J. Bishop and L. Rempe. Non-compact Riemann surfaces are equilaterally trianguable.
- [94] C.J. Bishop. Optimal triangulations of polygons.
- [95] C.J. Bishop. Wandering domains.
- [96] C.J. Bishop. Equi-triangulation of polygons.
- [97] C.J. Bishop and K. Lazebnik. A geometric approach to polynomial and rational approximation.

BOOKS

- [98] C.J. Bishop and Yuval Peres. Fractals in Analysis and Probability, Cambridge University Press, 2017
- [99] C.J. Bishop and Yuval Peres. Conformal Fractals (in preparation)
- [100] C.J. Bishop. The Riemann Mapping Theorem (in preparation)
- [101] C.J. Bishop. Introduction to Transcendental Dynamics (in preparation)
- [102] C.J. Bishop. Quasiconformal Mappings (in preparation)

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