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REFERENCES

- [1] Abikoff, W.: Remark on the size of a Riemann surface. *J. Analyse Math.* **46** (1986), 11–12.
- [2] Accola, R.: Differentials and extremal length on Riemann surfaces. *Proc. Nat. Acad. Sci. USA* **46** (1960), 540–543.
- [3] Adams, C.: Maximal cusps, collars, and systoles in hyperbolic surfaces. *Indiana Univ. Math. J.* **47** (1998), no. 2, 419–437.
- [4] Adams, C.: Detecting incompressibility of boundary in 3-manifolds. *Geom. Dedicata* **99** (2003), 47–60.
- [5] Adams, C.; Morgan, F.: Isoperimetric curves on hyperbolic surfaces. *Proc. Amer. Math. Soc.* **127** (1999), no. 5, 1347–1356.
- [6] Adams, C.; Reid, A.: Systoles of hyperbolic 3-manifolds. *Math. Proc. Cambridge Philos. Soc.* **128** (2000), no. 1, 103–110.
- [7] Agol, I.: Systoles of hyperbolic 4-manifolds. See [arXiv:math.DG/0612290](https://arxiv.org/abs/math/0612290)
- [8] Akrouit, H.: Singularités topologiques des systoles généralisées. (French) [Topological singularities of generalized systoles] *Topology* **42** (2003), no. 2, 291–308.
- [9] Akrouit, H.: Un processus effectif de détermination des systoles pour les surfaces hyperboliques. (French) [An effective process for determining the systoles of hyperbolic surfaces] *Geom. Dedicata* **121** (2006), 1–8.
- [10] Bavard, C.: La systole des surfaces hyperelliptiques, *Prepubl. Ec. Norm. Sup. Lyon* **71** (1992).
- [11] Besson, G.; Courtois, G.; Gallot, S.: Hyperbolic manifolds, amalgamated products and critical exponents. *C. R. Math. Acad. Sci. Paris* **336** (2003), no. 3, 257–261.
- [12] Brooks, R.: Platonic surfaces. *Comment. Math. Helv.* **74** (1999), no. 1, 156–170.
- [13] Brooks, B.; Makover, E.: Random construction of Riemann surfaces, *J. Differential Geom.* **68** (2004), 121–157.

- [14] Buser, P.: Riemannsche Flächen mit grosser Kragenweite. *Comment. Math. Helv.* **53** (1978), no. 3, 395–407.
- [15] Buser, P.; Sarnak, P.: On the period matrix of a Riemann surface of large genus. With an appendix by J. H. Conway and N. J. A. Sloane. *Invent. Math.* **117** (1994), no. 1, 27–56.
- [16] Buser, P.; Seppälä, M.: Short homology bases and partitions of Riemann surfaces. *Topology* **41** (2002), no. 5, 863–871.
- [17] Buser, P.; Seppälä, M.: Triangulations and homology of Riemann surfaces. *Proc. Amer. Math. Soc.* **131** (2003), no. 2, 425–432
- [18] Gendulphé, M.: Paysage systolique des surfaces hyperboliques compactes de caractéristique -1 . See [arXiv:math.DG/0508036](https://arxiv.org/abs/math/0508036)
- [19] Hamenstädt, U.; Koch, R.: Systoles of a family of triangle surfaces. *Experiment. Math.* **11** (2002), no. 2, 249–270.
- [20] Jenni, F.: Über den ersten Eigenwert des Laplace-Operators auf ausgewählten Beispielen kompakter Riemannscher Flächen. *Comment. Math. Helv.* **59** (1984), no. 2, 193–203.
- [21] Katz, M.; Sabourau, S.: An optimal systolic inequality for CAT(0) metrics in genus two. *Pacific J. Math.* **227** (2006), no. 1, 95–107. Available at [arXiv:math.DG/0501017](https://arxiv.org/abs/math/0501017)
- [22] Katz, M.; Schaps, M.; Vishne, U.: Logarithmic growth of systole of arithmetic Riemann surfaces along congruence subgroups. *J. Differential Geom.* (to appear). Available at [arXiv:math.DG/0505007](https://arxiv.org/abs/math/0505007)
- [23] Katz, M.; Schaps, M.; Vishne, U.: Explicit computations in the Hurwitz quaternion order. See [arXiv:math.RA/0701137](https://arxiv.org/abs/math/0701137)
- [24] Makover, E.; McGowan, J.: The length of closed geodesics on random Riemann surfaces. See [arXiv:math.DG/0504175](https://arxiv.org/abs/math/0504175)
- [25] Parlier, H.: Fixed-point free involutions on Riemann surfaces. Available at [arXiv:math.DG/0504109](https://arxiv.org/abs/math/0504109)
- [26] Quine, J.: Systoles of two extremal Riemann surfaces. *J. Geom. Anal.* **6** (1996), no. 3, 461–474 (1997).
- [27] Quine, J.: Geometric and holomorphic moduli for extremal Riemann surfaces. Complex geometry of groups (Olmué, 1998), 279–286, *Contemp. Math.*, **240**, Amer. Math. Soc., Providence, RI, 1999.
- [28] Quine, J.; Zhang, P.: Extremal symplectic lattices. *Israel J. Math.* **108** (1998), 237–251.
- [29] Sarnak, P.: Extremal geometries. Extremal Riemann surfaces (San Francisco, CA, 1995), 1–7, *Contemp. Math.*, **201**, Amer. Math. Soc., Providence, RI, 1997.
- [30] Schmutz, P.: Riemann surfaces with shortest geodesic of maximal length. *Geom. Funct. Anal.* **3** (1993), no. 6, 564–631.
- [31] Schmutz, P.: Systoles on Riemann surfaces. *Manuscripta Math.* **85** (1994), no. 3-4, 429–447.
- [32] Schmutz, P.: Congruence subgroups and maximal Riemann surfaces. *J. Geom. Anal.* **4** (1994), no. 2, 207–218.
- [33] Schmutz, P.: Arithmetic Fuchsian groups and the number of systoles. *Math. Z.* **223** (1996), no. 1, 13–25.
- [34] Schmutz, P.: Compact Riemann surfaces with many systoles. *Duke Math. J.* **84** (1996), no. 1, 191–198.

- [35] Schmutz, P.: Systoles of arithmetic surfaces and the Markoff spectrum. *Math. Ann.* **305** (1996), no. 1, 191–203.
- [36] Schmutz Schaller, P.: Geometry of Riemann surfaces based on closed geodesics. *Bull. Amer. Math. Soc. (N.S.)* **35** (1998), no. 3, 193–214.
- [37] Vishne, U.: Traces in congruence subgroups of arithmetic groups, and girth of Riemannian manifolds, in preparation.
- [38] Vogeler, R.: Combinatorics of curves on Hurwitz surfaces. Dissertation, University of Helsinki, Helsinki, 2004. *Ann. Acad. Sci. Fenn. Math. Diss.* no. 137, (2004), 40 pp.
- [39] Vogeler, R.: Explicit computation of Hurwitz spectra. Computational aspects of algebraic curves, 84–94, *Lecture Notes Ser. Comput.*, **13**, World Sci. Publ., Hackensack, NJ, 2005.
- [40] Wolpert, S.: Weil-Petersson perspectives. Problems on mapping class groups and related topics, 269–282, *Proc. Sympos. Pure Math.*, **74**, Amer. Math. Soc., Providence, RI, 2006.