

D.A. Hejhal – List of Publications

- [1] On convergence properties of sequences of analytic functions, *American Mathematical Monthly* 74(1967), 1208-1211.
- [2] On overconvergence and natural boundaries, *Nieuw Archief voor Wiskunde* 16(1968), 172-178.
- [3] On the loci $|f(z)| = R$, $f(z)$ entire, *Glasgow Mathematical Journal* 10(1969), 94-102.
- [4] Classification theory for Hardy classes of analytic functions, *Bulletin of the American Mathematical Society* 77(1971), 767-771.
- [5] Linear extremal problems for analytic functions, *Acta Mathematica* 128(1972), 91-122.
- [6] Theta functions, kernel functions, and Abelian integrals, *American Mathematical Society Memoirs* 129(1972), 112 pp.
- [7] Fonctions théta, fonctions noyau, et intégrales abéliennes, *Comptes Rendus Acad. Sci. Paris* 275(1972), 97-100.
- [8] Sur les problèmes linéaires extrémaux pour les fonctions analytiques, *Comptes Rendus Acad. Sci. Paris* 275(1972), 329-332.
- [9] Some remarks on kernel functions and Abelian differentials, *Archive for Rational Mechanics and Analysis* 52(1973), 199-204.
- [10] Classification theory for Hardy classes of analytic functions, *Annales Acad. Sci. Fennicae* 566(1973), 30 pp.
- [11] Monodromy groups and linearly polymorphic functions, in *Discontinuous Groups and Riemann Surfaces* (ed. by L. Greenberg), Annals of Math. Studies No. 79, Princeton University Press, 1974, pp. 247-261.
- [12] Universal covering maps for variable regions, *Mathematische Zeitschrift* 137 (1974), 7-20.
- [13] A remark on the Lindelöf Hypothesis, *Bulletin of the American Mathematical Society* 80(1974), 695-699.
- [14] Schottky and Teichmüller spaces, *Advances in Mathematics* 15(1975), 133-156.
- [15] Sur les paramètres accessoires pour l'uniformisation de Schottky (I), *Comptes Rendus Acad. Sci. Paris* 279(1974), 695-697.
- [16] Sur les paramètres accessoires pour l'uniformisation de Schottky (II), *Comptes Rendus Acad. Sci. Paris* 279(1974), 713-716.
- [17] Quelques remarques à propos des séries de Poincaré sur les groupes de Schottky, *Comptes Rendus Acad. Sci. Paris* 280(1975), 341-344.
- [18] Quelques remarques au sujet des fonctions linéairement polymorphes sur une surface de Riemann, *Comptes Rendus Acad. Sci. Paris* 280(1975), 637-640.
- [19] Linear extremal problems for analytic functions with interior side-conditions, *Annales Acad. Sci. Fennicae* 586(1975), 36 pp.
- [20] Monodromy groups for higher-order differential equations, *Bulletin of the American Mathematical Society* 81(1975), 590-592.
- [21] The Selberg trace formula for congruence subgroups, *Bulletin of the American Mathematical Society* 81(1975), 752-755.
- [22] Monodromy groups and linearly polymorphic functions, *Acta Mathematica* 135 (1975), 1-55.
- [23] The variational theory of linearly polymorphic functions, *Journal d'Analyse Mathématique* 30(1976), 215-264.
- [24] Sur les paramètres accessoires pour l'uniformisation fuchsienne, *Comptes Rendus Acad. Sci. Paris* 282(1976), 403-406.
- [25] The Selberg trace formula and the Riemann zeta function, *Duke Mathematical Journal* 43(1976), 441-482.
- [26] *The Selberg Trace Formula for $PSL(2, R)$* , volume 1, Springer Lecture Notes in Mathematics No. 548(1976), 516 pp. (Reprinted 2008.)

- [27] *The Selberg Trace Formula for $PSL(2, R)$* , volume 2, Springer Lecture Notes in Mathematics No. 1001(1983), 806 pp. (Reprinted 2008.)
- [28] Sur les séries de Poincaré des groupes fuchsien, *Comptes Rendus Acad. Sci. Paris* 284(1977), 607-610.
- [29] Monodromy groups and Poincaré series, *Bulletin of the American Mathematical Society* 84(1978), 339-376.
- [30] *Monodromy Groups and Poincaré Series*, manuscript for a book, 1978.
- [31] Sur certaines séries de Dirichlet dont les pôles sont sur les lignes critiques, *Comptes Rendus Acad. Sci. Paris* 287(1978), 383-385.
- [32] A note on the Voronoi summation formula, *Monatshefte für Mathematik* 87(1979), 1-14.
- [33] Some observations concerning eigenvalues of the Laplacian and Dirichlet L-series, in *Recent Progress in Analytic Number Theory* (ed. by H. Halberstam and C. Hooley), volume 2, Academic Press, New York, 1981, pp. 95-110.
- [33a] (with P. Cartier) Sur les zéros de la fonction zêta de Selberg, Inst. Hautes Etudes Sci. Pamphlet /M/79/305, October 1979, 84 pages.
- [34] Sur certaines séries de Dirichlet associées aux géodésiques fermées d'une surface de Riemann compacte, *Comptes Rendus Acad. Sci. Paris* 294(1982), 273-276.
- [35] Sur quelques propriétés asymptotiques des périodes hyperboliques et des invariants algébriques d'un sous-groupe discret de $PSL(2, R)$, *Comptes Rendus Acad. Sci. Paris* 294(1982), 509-512.
- [36] Quelques exemples de séries de Dirichlet dont les pôles ont un rapport étroit avec les valeurs propres de l'opérateur de Laplace-Beltrami hyperbolique, *Comptes Rendus Acad. Sci. Paris* 294(1982), 637-640.
- [37] Fourier coefficients for modular forms of negative weight, Technical Report 1981-17, Institut Mittag-Leffler, 1981, 10 pp. (Reprinted in [27] as Appendix D.)
- [38] Some Dirichlet Series whose poles are related to cusp forms, Technical Report No. 1981-14, Chalmers University of Technology (Sweden), 1981, 29 pp.
- [39] Some Dirichlet series whose poles are related to cusp forms (part 2), Tech. Report No. 1982-13, Chalmers University of Technology (Sweden), 1982, 26 pp.
- [40] Some Dirichlet series with coefficients related to periods of automorphic eigenforms I, *Proceedings of the Japan Academy* 58A(1982), 413-417.
- [41] Some Dirichlet series with coefficients related to periods of automorphic eigenforms II, *Proceedings of the Japan Academy* 59A(1983), 335-338.
- [42] Some Dirichlet series with coefficients related to periods of automorphic eigenforms III, manuscript, 1983.
- [43] A continuity method for spectral theory of Fuchsian groups, in *Modular Forms* (ed. by R.A. Rankin), Ellis-Horwood, 1984, pp. 107-140.
- [44] (with B. Berg) Some new results concerning eigenvalues of the non-Euclidean Laplacian for $PSL(2, Z)$, Technical Report No. 82-172, University of Minnesota, 1982, 7 pp.
- [45] A classical approach to a well-known spectral correspondence on quaternion groups, in *Number Theory: New York 1983-1984* (ed. by D. Chudnovsky, G. Chudnovsky, et. al.), Springer Lecture Notes in Mathematics No. 1135(1985), pp. 127-196.
- [46] *The Selberg Trace Formula for $PSL(2, R)$* , volume 3, in preparation.
- [47] Roots of quadratic congruences and eigenvalues of the non-Euclidean Laplacian, in *The Selberg Trace Formula and Related Topics* (ed. by D. Hejhal, P. Sarnak, A. Terras), Contemporary Mathematics Vol. 53, American Math. Society, 1986, pp. 277-339.
- [48] Some remarks about cusp forms: holomorphic and non-holomorphic, Technical Report No. 1984-26, Chalmers University of Technology (Sweden), 1984, 33 pp.
- [49] Sur certaines séries de Poincaré relatives associées à des éléments hyperboliques primitifs de $PSL(2, Z)$, *Comptes Rendus Acad. Sci. Paris* 301(1985), 57-60.
- [50] On Schottky and Koebe-like uniformizations, *Duke Mathematical Journal* 55(1987), 267-286.

- [51] (with E. Bombieri) Sur les zéros des fonctions zêta d'Epstein, *Comptes Rendus Acad. Sci. Paris* 304(1987), 213-217.
- [52] Zeros of Epstein zeta functions and supercomputers, in *Proceedings of the International Congress of Mathematicians*, Berkeley, 1986, pp. 1362-1384.
- [53] Regular b-groups, degenerating Riemann surfaces, and spectral theory, *American Mathematical Society Memoirs* 437(1990), 138 pp.
- [54] On the distribution of $\log |\zeta'(\frac{1}{2} + it)|$, in *Number Theory, Trace Formulas, and Discrete Groups: Symposium in Honor of Atle Selberg* (ed. by K.E. Aubert, E. Bombieri, D. Goldfeld), Academic Press, 1989, pp. 343-370.
- [55] Regular b-groups and repeated Dehn twists, in *Complex Analysis: Joensuu 1987 (Proceedings of the 13th Rolf Nevanlinna Colloquium)*, Springer Lecture Notes in Mathematics No. 1351(1988), pp. 169-192.
- [56] Eigenvalues of the Laplacian for $PSL(2, Z)$: some new computational techniques, in *International Symposium in Memory of Hua Loo-Keng* (ed. by S. Gong, Q. Lu, Y. Wang, L. Yang), Springer-Verlag, 1991, vol. 1, pp. 59-102.
- [57] (with E. Bombieri) On the distribution of zeros of linear combinations of Euler products, *Duke Mathematical J.* 80(1995), 821-862.
- [58] On a result of G. Pólya concerning the Riemann ξ -function, *J. d'Analyse Mathématique* 55(1990), pp. 59-95.
- [59] Eigenvalues of the Laplacian for Hecke triangle groups, *American Mathematical Society Memoirs* 469(1992), 165 pp.
- [60] On polynomial approximations to $Z(t)$, in *Proceedings of the Amalfi Conference on Analytic Number Theory* (ed. by E. Bombieri, A. Perelli, S. Salerno, U. Zannier), Università di Salerno, 1992, pp. 201-210.
- [61] On eigenvalues of the Laplacian for Hecke triangle groups, (a survey paper), in *Zeta Functions in Geometry* (ed. by T. Sunada), Adv. Studies in Pure Math. Vol. 21, 1992, pp. 359-408.
- [62] (with S. Arno) On Fourier coefficients of Maass waveforms for $PSL(2, Z)$, *Mathematics of Computation* 61(1993), 245-267 and S11-S16. (See also Minnesota Supercomputer Institute Research Report 1992/20.)
- [63] On the distribution of zeros of a certain class of Dirichlet series, *International Mathematics Research Notices* 1992(4), pp. 83-91 [in *Duke Math. J.* 66(1992)].
- [64] (with B. Rackner) On the topography of Maass waveforms for $PSL(2, Z)$, *Experimental Mathematics* 1(1992), 275-305.
- [65] On the triple correlation of zeros of the zeta function, *International Mathematics Research Notices* 1994(7), pp. 293-302.
- [66] Eisenstein series as limits of hyperbolic Poincaré series, manuscript, 1994.
- [67] On value distribution properties of automorphic functions along closed horocycles, in *XVIth Rolf Nevanlinna Colloquium* (ed. by I. Laine and O. Martio), de Gruyter, 1996, pp. 39-52.
- [68] Eigenfunctions of the Laplacian, quantum chaos, and computation, in *Journees "Equations aux Derivees Partielles", St. Jean de Monts*, C.N.R.S., 1995, chapter 7, 11 pp.
- [69] (with W. Luo) On a spectral analog of Selberg's result on $S(T)$, *International Mathematics Research Notices* 1997(3), 135-151.
- [70] (joint with R. Bott, C. Earle, S. Krantz, et. al.) Lars Valerian Ahlfors, 1907-1996, *Notices of the Amer. Math. Society* 45(1998), 248-255, especially pages 251-253, which are DH's reminiscences.
- [71] On eigenfunctions of the Laplacian for Hecke triangle groups, in *Emerging Applications of Number Theory* (ed. by D.A. Hejhal, J. Friedman, et. al.), IMA Volume 109, Springer-Verlag, 1999, pp. 291-315.
- [72] Kernel functions, Poincaré series, and LVA, in *In the Tradition of Ahlfors and Bers: Proceedings of the First Ahlfors-Bers Colloquium* (ed. by I. Kra and B. Maskit), Contemporary Mathematics Vol. 256, American Math. Society, 2000, pp. 173-201.

- [73] On a result of Selberg concerning zeros of linear combinations of L -functions, *International Mathematics Research Notices* 2000(11), 551-577.
- [74] On the uniform equidistribution of long closed horocycles, *Asian Journal of Mathematics* 4(2000) 839-854.
- [75] (with A. Strömbergsson) On quantum chaos and Maass waveforms of CM-type, *Foundations of Physics* 31(2001), 519-533.
- [76] (with H. Christianson) On correlations of CM-type Maass waveforms under the horocyclic flow, *Journal of Physics A* 36(2003), 3467-3486.
- [77] On Euler products and multi-variate Gaussians, *Comptes Rendus Acad. Sci. Paris* 337(2003), 223-226.
- [78] On the distribution of zeros of linear combinations of Euler products, *Comptes Rendus Acad. Sci. Paris* 338(2004), 755-758.
- [79] On the calculation of Maass cusp forms, in *Hyperbolic Geometry and Applications in Quantum Chaos and Cosmology*, J. Bolte and F. Steiner, eds., LMS Lecture Note Series No. 397, 2012, pp. 175–185. (See also Minnesota Supercomputer Institute Research Report 2005/93.)
- [80] Turing: a bit off the beaten path, *The Mathematical Intelligencer* 29(2007), no. 1, pp. 27–35. (See also the cover page.)
- [81] (with P. Sarnak) Some commentary on Atle Selberg’s mathematics, *Bull. Amer. Math. Soc.* 45(2008), 485–487.
- [82] (coordinating editor) Remembering Atle Selberg, 1917–2007, *Notices Amer. Math. Soc.* 56(2009), 692–710, especially pp. 694–697.
- [83] “Remembering Paul Cohen”, in Remembering Paul Cohen (1934–2007), P. Sarnak, ed., *Notices Amer. Math. Soc.* 57(2010), 831–833.
- [84] (with A. Odlyzko) Alan Turing and the Riemann zeta function, in *Alan Turing: His Work and Impact*, S. B. Cooper and J. van Leeuwen, eds., Elsevier, 2013, pp. 265–279.
- [85] A few remarks about Turing’s method, in *Alan Turing: His Work and Impact*, S. B. Cooper and J. van Leeuwen, eds., Elsevier, 2013, pp. 279–283.
- [86] Some reminiscences of my thesis advisor, Max Schiffer, in *Menahem Max Schiffer: Selected Papers Volume 1*, P. Duren and L. Zalcman, eds., Birkhäuser/Springer, 2013, pp. 13–15.
- [87] On Gaussians, Zeros, and Linear Combinations of L -functions. Part A: Entire functions of Beurling-Selberg type and probability distributions, *arXiv.org* (19 Nov 2013), 1311.4862v1, 60pp.