

Research Publications of Hugh L. Montgomery through 2014

1. *Distribution of irregular primes*, Illinois J. Math. **9** (1965), 553-558. MR31#5861 (L. Carlitz)
2. *A note on the large sieve*, J. London Math. Soc. **43** (1968), 93-98. MR37#184 (W. G. H. Schaal)
3. *Mean and large values of Dirichlet polynomials*, Invent. Math. **8** (1969), 334-345. MR42#3029 (B. Berlowitz)
4. *Zeros of L-functions*, Invent. Math. **8** (1969), 346-354. MR40#2620 (K. Thanigasalam)
5. *Primes in arithmetic progressions*, Michigan Math. J. **17** (1970), 33-39. MR41#1660 (W. Schwarz)
6. (with P. E. Blanksby) *Algebraic integers near the unit circle*, Acta Arith. **18** (1971), 355-369. MR45#5082 (L. Carlitz)
7. (with R. C. Vaughan) *The large sieve*, Mathematika **20** (1973), 119-134. MR51#10260 (J. W. Porter)
8. The pair correlation of zeros of the zeta function, *Analytic Number Theory* (St. Louis, 1972), Proc. Sympos. Pure Math. **24**, Amer. Math. Soc. (Providence), 1973, pp. 181-193. MR49#2590 (J. Knopfmacher)
9. (with R. C. Vaughan) *Error terms in additive prime number theory*, Quart. J. Math. Oxford Ser. (2) **24** (1973), 207-216. MR49#2624 (B. Garrison)
10. (with P. J. Weinberger) *Notes on small class numbers*, Acta Arith. **24** (1973/1974), 529-542. MR50#9841 (M. Jutila)
11. (with R. C. Vaughan) *Hilbert's inequality*, J. London Math. Soc. (2) **8** (1974), 73-82. MR49#2544 (E. Grosswald)
12. (with Norman Levinson) *Zeros of the derivatives of the Riemann zeta-function*, Acta Math. **133** (1974), 49-65. MR54#5135 (B. C. Berndt)
13. (with R. C. Vaughan) *The exceptional set in Goldbach's problem*, Acta Arith. **27** (1975), 353-370. MR51#10263 (A. Sarkozi)
14. (with A. Fujii & P. X. Gallagher) Some hybrid bounds for character sums and Dirichlet L -series, *Topics in Number Theory* (Debrecen, 1974), Colloq. Math. Soc. Janos Bolyai **13**, North-Holland (Amsterdam), 1976, pp. 41-57. MR55#7949 (M. Jutila)
15. Distribution questions concerning a character sum, *Topics in Number Theory* (Debrecen, 1974), Colloq. Math. Soc. Janos Bolyai **13**, North-Holland (Amsterdam), 1976, pp. 195-203. MR55#7942 (K.-H. Indlekofer)
16. *A note on rearrangements of Fourier coefficients*, Ann. Inst. Fourier (Grenoble) **26**(2) (1976), 29-34. MR53#11292 (E. Grosswald)
17. (with J. M. Masley) *Cyclotomic fields with unique factorization*, J. Reine Angew. Math. **286/287** (1976), 248-256. MR55#2834 (W. Johnson)
18. (with A. Schinzel) Some arithmetic properties of polynomials in several variables, *Transcendence theory: advances and applications* (Cambridge, 1976), Academic Press (London), 1977, pp. 195-203. MR57#12447 (R. Tijdeman)
19. (with P. J. Weinberger) *Real quadratic fields with large class number*, Math. Ann. **225** (1977), 173-176. MR55#306 (M. Jutila)
20. (with R. C. Vaughan) *Exponential sums with multiplicative coefficients*, Invent. Math. **43** (1977), 69-82. MR56#15579 (M. Jutila)
21. *Extreme values of the Riemann zeta function*, Comment. Math. Helv. **52** (1977), 511-518. MR57#249 (E. Stankus)
22. (with H. Niederreiter) *Estimation optimale de sommes exponentielles*, Bull. Soc. Math. Grèce (N.S.) **18** (1977), 291-301. MR80c:10042 (E. Stankus)

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23. (with J. C. Lagarias & A. M. Odlyzko) *A bound for the least prime ideal in the Chebotarev density theorem*, *Invent. Math.* **54** (1979), 271-296. MR81b:12013 (L. J. Goldstein)
24. (with R. C. Vaughan) *Mean values of character sums*, *Canad. J. Math.* **31** (1979), 476-487. MR81c:10043 (H. G. Diamond)
25. *An exponential polynomial formed with the Legendre symbol*, *Acta Arith.* **37** (1980), 375-380. MR82a:10041 (A. I. Vinogradov)
26. (with R. C. Vaughan) *The distribution of squarefree numbers*, *Recent progress in analytic number theory*, Vol. 1 (Durham, 1979), Academic Press (London), 1981, pp. 247-256. MR83d:10010 (J.-M. De Koninck)
27. *Maximal variants of the large sieve*, *J. Fac. Sci. Univ. Tokyo Sect. 1A Math.* **28** (1981), 805-812. MR83g:10033 (D. R. Heath-Brown)
28. (with D. E. Rohrlich) *On the L -functions of canonical Hecke characters of imaginary quadratic fields, II*, *Duke Math. J.* **49** (1982), 937-942. MR84e:12014 (R. Bölling)
29. *On a question of Ramachandra*, *Hardy-Ramanujan J.* **5** (1982), 31-36. MR84h:10054 (B. C. Berndt)
30. (with G. Halász) *Bernstein's inequality for finite intervals*, *Conference on harmonic analysis in honor of Antoni Zygmund*, Vol I, II (Chicago, 1981), Wadsworth (Belmont), 1983, pp. 60-65. MR85j:41028
31. *Zeros of approximations to the zeta function*, *Studies in pure mathematics (to the Memory of Paul Turán)*, Birkhäuser (Basel), 1983, pp. 497-506. MR87a:11081 (M. Jutila)
32. (with D. J. Lewis) *On zeros of p -adic forms*, *Michigan Math. J.* **30** (1983), 83-87. MR84f:10029 (V. Lashin)
33. (with A. M. Odlyzko) *Gaps between zeros of the zeta function*, *Topics in classical number theory*, Vol I, II (Budapest, 1981), *Colloq. Math. Soc. János Bolyai* 34, North-Holland (Amsterdam), 1984, pp. 1079-1106. MR86e:11072 (A. Perelli)
34. (with R. C. Vaughan) *The order of magnitude of the m th coefficients of cyclotomic polynomials*, *Glasgow Math. J.* **27** (1985), 143-159. MR87e:11026 (T. M. Apostol)
35. (with R. C. Vaughan) *On the distribution of reduced residues*, *Annals of Math. (2)* **123** (1986), 311-333. MR87g:11119 (S. W. Graham)
36. (with D. A. Goldston) *Pair correlation of zeros and primes in short intervals*, *Analytic number theory and Diophantine problems* (Stillwater, 1984), *Progr. Math.* 70, Birkhäuser (Boston), 1987, pp. 183-203. MR90h:11084 (A. Ivić)
37. *Fluctuations in the mean of Euler's phi function*, *Proc. Indian Acad. Sci. Math. Sci.* **97** (1987), 239-245. MR90e:11138 (A. Ivić)
38. *Prime-like sequences*, *Acta Arith.* **49** (1988), 277-280. MR89c:11038 (F. Roesler)
39. *Minimal theta functions*, *Glasgow Math. J.* **30** (1988), 75-85. MR89d:11029 (S. Böcherer)
40. (with A. M. Odlyzko) *Large deviations of sums of independent random variables*, *Acta Arith.* **49** (1988), 427-434. MR89m:11075 (A. Laurincikas)
41. *Irregularities of distribution by means of power sums*, *Proc. Congress on Number Theory* (Zarauz, 1984), Univ. País Vasco (Bilbao), 1989, pp. 11-27. MR93m:11072 (D. Hensley)
42. (with R. C. Vaughan) *A basic inequality*, *Proc. Congress on Number Theory* (Zarauz, 1984), Univ. País Vasco (Bilbao), 1989, pp. 163-175. MR94a:11154 (J. D. Vaaler)
43. (with J. D. Vaaler) *Maximal variants of basic inequalities*, *Proc. Congress on Number Theory* (Zarauz, 1984), Univ. País Vasco (Bilbao), 1989, pp. 181-197. MR94d:11062 (E. Stankus)
44. (with D. W. Boyd) *Cyclotomic partitions*, *Number Theory* (Banff, 1988), de Gruyter (Berlin), 1990, pp. 331-338. MR92b:11073 (A. J. Hildebrand)

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45. (with R. C. Baker) Oscillations of quadratic L -functions, *Analytic number theory* (Allerton Park, 1989), Progr. Math. 84, Birkhäuser (Boston), 1990, pp. 23-40. MR91k:11071 (M. Jutila)
46. (with R. C. Vaughan) On the Erdős–Fuchs theorems, *A tribute to Paul Erdős*, Cambridge Univ. Press (Cambridge), 1990, pp. 331-338. MR92f:11128 (K. W. Lau)
47. (with B. Beuzamy, E. Bombieri, P. Enflo) *Products of polynomials in many variables*, J. Number Theory **36** (1990), 219-245. MR91m:11015 (F. Beukers)
48. Distribution of small powers of a primitive root, *Advances in number theory* (Kingston, 1991), Oxford Sci. Publ., Oxford Univ. Press (New York), 1993, pp. 137-149. MR96j:11112 (D. R. Heath-Brown)
49. (with R. C. Vaughan & T. D. Wooley) *Some remarks on Gauss sums associated with k th powers*, Math. Proc. Cambridge Philos. Soc. **118** (1995), 21-33. MR96e:11110 (R. J. Cook)
50. (with J. D. Vaaler) *A further generalization of Hilbert's inequality*, Mathematika **45** (1998), 35-39. MR2001c:11105 (S. W. Graham)
51. (with P. Erdős) *Sums of numbers with many divisors*, J. Number Theory **75** (1999), 1-6. MR99k:11153 (J. Wu)
52. (with R. C. Vaughan) Extreme values of Dirichlet L -functions at 1, *Number theory in progress*, Vol. 2 (Zakopane-Koscielisko, 1997), de Gruyter (Berlin), 1999, pp. 1039-1052. MR2000m:11075 (K. Soundararajan)
53. (with J. T. Barton & J. D. Vaaler) *Note on a Diophantine inequality in several variables*, Proc. Amer. Math. Soc. **129** (2001), 337-345. MR2002j:11090 (R. C. Baker)
54. (with D. A. Goldston & S. M. Gonek) *Mean values of the logarithmic derivative of the Riemann zeta-function with applications to primes in short intervals*, J. Reine Angew. Math. **537** (2001), 105-126. MR2003a:11108 (D. W. Farmer)
55. (with R. C. Vaughan) *Mean values of multiplicative functions*, Period. Math. Hungar. **43** (2001), 199-214. MR2002e:11130 (J. Steuding)
56. (with K. Soundararajan) Beyond pair correlation, *Paul Erdős and his mathematics*, Vol. I (Budapest, 1999), Math. Studies 11, Bolyai Society (Budapest), 2002, pp. 507-514. MR2004b:11133 (J. B. Friedlander)
57. (with U. M. A. Vorhauer) *Greedy sums of distinct squares*, Math. Comp. **73** (2004), 493-513. MR2005b:11026 (P. J. Grabner)
58. (with K. Soundararajan) *Primes in short intervals*, Comm. Math. Phys. **252** (2004), 589-617. MR2005f:11205 (T. H. Chan)
59. (with H. G. Diamond & U. M. A. Vorhauer) *Beurling primes with large oscillation*, Math. Ann. **334** (2006), 1-36. MR2006j:11131 (A. Sankaranarayanan)
60. (with U. M. A. Vorhauer) *Changes of sign of the error term in the prime number theorem*, Funct. Approx. Comment. Math. **35** (2006), 235-247. MR2008c:11123
61. (with R. C. Vaughan) *Local variation of Euler products*, Funct. Approx. Comment. Math. **39** (2008), 273-288. MR2010h:1157
62. (with H. Maier) *The sum of the Möbius function*, Bull. London Math. Soc. **41** (2009), 213-226. MR2010b:1131
63. *The combinatorics of moment calculations*, Hardy–Ramanujan J. **33** (2010), 2-22.
64. (with P. X. Gallagher) *A note on Burgess's estimate* (Russian), Mat. Zametki, **88** (2010), 355-364; English translation in Math. Notes **88** (2010), 321-329.
65. *On a random minimax* (Russian), Uspekhi Mat. Nauk **66** (2011), 217-222; English translation in Russian Math. Surveys **66** (2011), 421-426.
66. (with S. M. Gonek) *Zeros of a family of approximations of the Riemann zeta-function*, Int. Mat. Res. Not. IMRN 2012, rns187, 22 pp.; doi: 10.1093/imrn/rns187.
67. (with J. G. Thompson) *Geometric properties of the zeta function*, Acta Arith. **155** (2012), 373-396.
68. (with G. Tenenbaum) *Low moments of Dirichlet series*, Acta Math. Hungar. **144** (2014), 425-432.