Supplementary Material

George Szekeres 1911–2005

M. G. Cowling[A,B], *D. C. Hunt*[A] *and J. D. Steele*[A]

[A]School of Mathematics and Statistics, University of New South Wales, UNSW Sydney, NSW 2052, Australia.

[B]Corresponding author. Email: m.cowling@unsw.edu.au

Supplementary Material

Here is a list of George Szkeres' scientific publications. In some papers, the name "George" is used; in others, "György"; in some papers, the Hungarian-style initial "Gy." is used rather than "G.". For uniformity, we have used "G" throughout.

Publications of George Szekeres

1. G. Szekeres and P. Turán, 'Über das zweite Hauptproblem der "Factorisatio Numerorum"', *Acta Litterarum ac Scientiarum. Regiae Universitatis Hungaricae Francisco-Josephinae. Sectio Scientiarum Mathematicarum*, 6 (1933), 143–154.

2. P. Erdős and G. Szekeres, 'Über die Anzahl der Abelschen Gruppen gegebener Ordnung und über ein verwandtes zahlentheoretisches Problem', *Acta Litterarum ac Scientiarum. Regiae Universitatis Hungaricae Francisco-Josephinae. Sectio Scientiarum Mathematicarum*, 7 (1934), 95–102.

3. P. Erdős and G. Szekeres, 'A combinatorial problem in geometry', *Compositio Mathematica*, 2 (1935), 463–470.

4. G. Szekeres, 'Note on lattice points within a parallelepiped', *Journal of the London Mathematical Society*, 12 (1937), 36–39.

5. G. Szekeres, 'On a problem of the lattice-plane', *Journal of the London Mathematical Society*, 12 (1937), 88–93.

6. G. Szekeres and P. Turán, 'Egy Szélsőértékfeladat a Determinánselméletben', *Mathematikai és Természettudományi Értesítő*, 56 (1937), 796–806. (In Hungarian, German summary; German title: 'Über ein Extremalproblem in der Determinantentheorie').

7. G. Szekeres, 'Ein Problem über mehrere ebene Bereiche', *Acta Litterarum ac Scientiarum. Regiae Universitatis Hungaricae Francisco-Josephinae. Sectio Scientiarum Mathematicarum*, 9 (1940), 247–252.

8. G. Szekeres, 'On an extremum problem in the plane', *American Journal of Mathematics*, 63 (1941), 208–210.

9. E. Szekeres and G. Szekeres, 'Problems and Solutions: Elementary Problems: Solutions: E449', *American Mathematical Monthly*, 48 (1941), 557–558.

10. O. Ore, H. E. Vaughan, and G. Szekeres, 'Problems and Solutions: Advanced Problems: Solutions: 3954', *American Mathematical Monthly*, 48 (1941), 564–569.

11. G. Szekeres, 'A new determination of the Young–Helmholtz primaries', *Journal of the Optical Society of America*, 38 (1948), 350–363.

12. G. Szekeres, 'On a certain class of metabelian groups', *Annals of Mathematics. Second Series*, 49 (1948), 43–52.

13. G. Szekeres, 'Countable abelian groups without torsion', *Duke Mathematical Journal*, 15 (1948), 293–306.

14. G. Szekeres, 'Determination of a certain family of finite metabelian groups', *Transactions of the American Mathematical Society*, 66 (1949), 1–43.

15. G. Szekeres, 'The asymptotic behaviour of the coefficients of certain power series', *Acta Scientiarum Mathematicarum*, 12 (1950), 187–198.

16. G. Szekeres, 'An asymptotic formula in the theory of partitions', *The Quarterly Journal of Mathematics, Oxford. Second Series*, 2 (1951), 85–108.

17. G. Szekeres, 'A canonical basis for the ideals of a polynomial domain', *American Mathematical Monthly*, 59 (1952), 379–386.

18. C. D. Olds and G. Szekeres, 'Advanced Problems and Solutions: Solutions: 4400', *American Mathematical Monthly*, 59 (1952), 110–112.

19. P. Erdős and G. Szekeres, 'Problems and Solutions: Advanced Problems: Solutions: 4352', *American Mathematical Monthly*, 60 (1953), 717–718.

20. G. Szekeres, 'Some asymptotic formulae in the theory of partitions. II', *The Quarterly Journal of Mathematics, Oxford. Second Series*, 4 (1953), 96–111.

21. K. F. Roth and G. Szekeres, 'Some asymptotic formulae in the theory of partitions', *The Quarterly Journal of Mathematics, Oxford. Second Series*, 5 (1954), 241–259.

22. N. G. de Bruijn and G. Szekeres, 'On some exponential and polar representations of matrices', *Nieuw Archief voor Wiskunde. Derde Serie*, 3 (1955), 20–32.

23. G. Szekeres, 'New formulation of the general theory of relativity', *Physical Review, II. Series*, 97 (1955), 212–223.

24. G. Szekeres, 'A note on the volume of the unitary symmetrical space', *Journal of the Indian Mathematical Society. New Series*, 19 (1955), 127–132.

25. G. Szekeres, 'On a property of monotone and convex functions', *Proceedings of the American Mathematical Society*, 7 (1956), 351–353.

26. G. Szekeres, 'Ether drift and gravitational motion', *Physical Review, II. Series*, 104 (1956), 1791–1798.

27. W. Kantor and G. Szekeres, 'Cosmic time and the field equations of general relativity', *Physical Review, II. Series*, 104 (1956), 831–834.

28. G. Szekeres and F. E. Binet, 'On Borel fields over finite sets', *Annals of Mathematical Statistics*, 28 (1957), 494–498.

29. G. Szekeres, 'Spinor geometry and general field theory', *Journal of Mathematics and Mechanics*, 6 (1957), 471–517.

30. E. G. Straus and G. Szekeres, 'On a problem of D. R. Hughes', *Proceedings of the American Mathematical Society*, 9 (1958), 157–158.

31. G. Szekeres and A. Jakimovski, '(C, ∞) and (H, ∞) methods of summation', *Pacific Journal of Mathematics*, 8 (1958), 867–886.

32. G. Szekeres, 'Regular iteration of real and complex functions', *Acta Mathematica*, 100 (1958), 203–258.

33. P. Erdős and G. Szekeres, 'On the product $\prod_{k=1}^{n}(1-z^{a_k})$', *Académie Serbe des Sciences, Publications de l'Institut Mathématique*, 13 (1959), 29–34.

34. A. Schinzel and G. Szekeres, 'Sur un problème de M. Paul Erdős', *Acta Scientiarum Mathematicarum*, 20 (1959), 221–229.

35. G. Szekeres, 'Regular growth of real functions' in *Programme of the International Congress of Mathematicians*; pp. 67–68. Conference held in Edinburgh, 1958. [a]

36. G. Szekeres, 'On finite metabelian p-groups with two generators', *Acta Scientiarum Mathematicarum*, 21 (1960), 270–291.

37. G. Szekeres, 'On a theorem of Paul Lévy', *Publications of the Mathematical Institute of the Hungarian Academy of Sciences, Series A*, 5 (1960), 277–282.

38. G. Szekeres, 'On the propagation of gravitational waves', *Publications of the Mathematical Institute of the Hungarian Academy of Sciences, Series A*, 5 (1960), 3–15.

39. G. Szekeres, 'On the singularities of a Riemannian manifold', *Publicationes Mathematicae*, 7 (1960), 285–301.

40. P. Erdős and G. Szekeres, 'On some extremum problems in elementary geometry', *Annales Universitatis Scientiarum Budapestinensis de Rolando Eötvös Nominatae. Sectio Mathematica*, 3–4 (1961), 53–62.

---

[a] Abstracts of the short communications appeared in the conference programme, but were not otherwise published. Should this be presented, and if so how?

41. G. Szekeres, 'Fractional iteration of exponentially growing functions', *Journal of the Australian Mathematical Society*, 2 (1962), 301–320.

42. K. W. Morris and G. Szekeres, 'Tables of the logarithm of iteration of $e^x - 1$', *Journal of the Australian Mathematical Society*, 2 (1962), 321–333.

43. G. Szekeres, 'Fractional iteration of entire and rational functions', *Journal of the Australian Mathematical Society*, 4 (1964), 129–142.

44. T. W. Sag and G. Szekeres, 'Numerical evaluation of high-dimensional integrals', *Mathematics of Computation*, 18 (1964), 245–253.

45. D. Elliott and G. Szekeres, 'Some estimates of the coefficients in the Chebyshev series expansion of a function', *Mathematics of Computation*, 19 (1965), 25–32.

46. E. Szekeres and G. Szekeres, 'On a problem of Schütte and Erdős', *The Mathematical Gazette*, 49 (1965), 290–293.

47. L. Mysak and G. Szekeres, 'Behaviour of the Schwarzschild singularity in superimposed gravitational fields', *Canadian Journal of Physics*, 44 (1966), 617–627.

48. A. Rényi and G. Szekeres, 'On the height of trees', *Journal of the Australian Mathematical Society*, 7 (1967), 497–507.

49. K. Mahler and G. Szekeres, 'On the approximation of real numbers by roots of integers', *Acta Arithmetica*, 12 (1967), 315–320.

50. G. Szekeres, 'Metabelian groups with two generators' in *Proceedings of the International Conference on the Theory of Groups*: *Held at the Australian National University, Canberra, 10-20 August, 1965*, ed. L. G. Kovács and B. H. Neumann (New York, 1967); pp. 323–346.

51. G. Szekeres and H. S. Wilf, 'An inequality for the chromatic number of a graph', *Journal of Combinatorial Theory*, 4 (1967), 1–3.

52. J. K. Gibson and G. Szekeres, 'Analytic matrix functions', *Nieuw Archief voor Wiskunde. Derde Serie*, 15 (1967), 233–246.

53. G. Szekeres, 'A combinatorial interpretation of Ramanujan's continued fraction', *Canadian Mathematical Bulletin*, 11 (1968), 405–408.

54. G. Szekeres, 'Kinematic geometry: an axiomatic system for Minkowski spacetime', *Journal of the Australian Mathematical Society*, 8 (1968), 134–160.

55. G. Szekeres, 'Effect of gravitation on frequency', *Nature*, 220 (1968), 1116–1118.

56. G. Szekeres, 'A new class of symmetric block designs', *Journal of Combinatorial Theory*, 6 (1969), 219–221.

57. G. Szekeres, 'Tournaments and Hadamard matrices', *L'Enseignement Mathématique. 2e Série*, 15 (1969), 269–278.

58. R. W. Ahrens and G. Szekeres, 'On a combinatorial generalization of 27 lines associated with a cubic surface', *Journal of the Australian Mathematical Society*, 10 (1969), 485–492.

59. G. Szekeres, 'Ferde konfigurációk', *Matematikai Lapok*, 20 (1969), 43–51. (In Hungarian. English title: 'Skew configurations'.)

60. D. Blatt and G. Szekeres, 'A skew Hadamard matrix of order 52', *Canadian Journal of Mathematics*, 21 (1969), 1319–1322.

61. L. C. Robinson and G. Szekeres, 'Motion of charged particles in a helically perturbed magnetic field', *Journal of Physics A: General Physics*, 3 (1970), 481–492.

62. G. Szekeres, 'Multidimensional continued fractions', *Annales Universitatis Scientiarum Budapestinensis de Rolando Eötvös Nominatae. Sectio Mathematica*, 13 (1971), 113–140.

63. G. Szekeres, 'Cyclotomy and complementary difference sets', *Acta Arithmetica*, 18 (1971), 349–353.

64. G. Szekeres, 'Infinite iteration of integral summation methods', *Journal d'Analyse Mathématique*, 24 (1971), 1–51.

65. G. Szekeres, 'The average value of skew Hadamard matrices' in *Proceedings of the First Australian Conference on Combinatorial Mathematics*, ed. J. Wallis and W. D. Wallis Conference held in University of Newcastle, NSW, 1972. (Newcastle, 1972); pp. 55–59.

66. G. Szekeres, 'Polyhedral decompositions of cubic graphs', *Bulletin of the Australian Mathematical Society*, 8 (1973), 367–387.

67. G. Szekeres, 'Cosmology with spinor connection', *Computers & Mathematics with Applications*, 1 (1975), 345–350.

68. G. Szekeres, 'Determinants of skew type ± 1 matrices', *Periodica Mathematica Hungarica*, 3 (1973), 229–234.

69. G. Szekeres, 'Oriented Tait graphs', *Journal of the Australian Mathematical Society*, 16 (1973), 328–331.

70. G. Szekeres, 'On the number of divisors of $x^2 + x + A$', *Journal of Number Theory*, 6 (1974), 434–442.

71. G. Szekeres, 'Polyhedral decomposition of trivalent graphs' in *Combinatorial Mathematics*: *Proceedings of the Second Australian Conference*, ed. D. A. Holton (Berlin–Heidelberg–New York, 1974); pp. 125–127.

72. G. Szekeres, 'Non-colourable trivalent graphs', *Combinatorial Mathematics III*: *Proceedings of the Third Australian Conference held at the University of Queensland, 16–18 May, 1974*, ed. A. P. Street and W. D. Wallis (Berlin–Heidelberg–New York, 1975); pp. 227–233.

73. G. Szekeres, 'Homogeneous ideals in $K[x, y, z]$', *Acta Mathematica Academiae Scientiarum Hungaricae*, 26 (1975), 355–367.

74. G. Szekeres, 'Infinite values of meromorphic matrix functions', *Nederlandse Akademie van Wetenschappen. Proceedings. Series A. Indagationes Mathematicae*, 81 (1978), 287–295.

75. G. Szekeres, 'Major arcs in the four cubes problem', *Journal of the Australian Mathematical Society. Series A*, 25 (1978), 423–437.

76. B. Richmond and G. Szekeres, 'The Taylor coefficients of certain infinite products', *Acta Scientiarum Mathematicarum*, 40 (1978), 347–369.

77. P. Erdős and G. Szekeres, 'Some number theoretic problems on binomial coefficients', *The Australian Mathematical Society Gazette*, 5 (1978), 97–99.

78. F. Salzborn and G. Szekeres, 'A problem in combinatorial group theory', *Ars Combinatoria*, 7 (1979), 3–5.

79. B. Richmond and G. Szekeres, 'On the transformation equation for the partition generating function', *Aequationes Mathematicae*, 21 (1980), 44–48.

80. B. Richmond and G. Szekeres, 'Some formulas related to dilogarithms, the zeta function and the Andrews–Gordon identities', *Journal of the Australian Mathematical Society. Series A*, 31 (1981), 362–373.

81. G. Szekeres, 'Distribution of labelled trees by diameter', *Combinatorial Mathematics X*: *Proceedings of the Conference held in Adelaide, Australia, August 23–27, 1982*, ed. L. R. A. Casse (Berlin–Heidelberg–New York–Tokyo, 1983); pp. 392–397.

82. G. Szekeres, 'The n-dimensional approximation constant', *Bulletin of the Australian Mathematical Society*, 29 (1984), 119–125.

83. G. Szekeres, 'Scales of infinity and Abel's functional equation', *Mathematical Chronicle*, 13 (1984), 1–27.

84. G. Szekeres, 'Computer examination of the 2-dimensional simultaneous approximation constant', *Ars Combinatoria*, 19A (1985), 237–243.

85. G. Szekeres, 'Search for the three dimensional approximation constant' in *Diophantine Analysis: Proceedings of the Number Theory Section of the 1985 Australian Mathematical Society Convention*, ed. J. H. Loxton and A. J. van der Poorten (Cambridge–London–New York–New Rochelle–Melbourne–Sydney, 1986); pp. 139–146.

86. G. Szekeres, 'Asymptotic distribution of the number and size of parts in unequal partitions', *Bulletin of the Australian Mathematical Society*, 36 (1987), 89–97.

87. G. Szekeres and A. J. Guttmann, 'Spiral self-avoiding walks on the triangular lattice', *Journal of Physics A: Mathematical and General*, 20 (1987), 481–493.

88. G. Szekeres, 'A note on skew type orthogonal ± 1 matrices' in *Combinatorics*, ed. A. Hajnal, L. Lovász and V. T.-Sós (Amsterdam–Oxford–New York, 1988); pp. 489–498. Conference held in Eger, Hungary, 1987.

89. G. Szekeres and V. T.-Sós, 'Rational approximation vectors', *Acta Arithmetica*, 49 (1988), 255–261.

90. G. Szekeres, 'John Markus Blatt: 1921–1990', *The Australian Mathematical Society Gazette*, 17 (1990), 73–74.

91. G. Szekeres, 'Asymptotic distribution of partitions by number and size of parts' in *Number theory. Volume I: Elementary and analytic*, ed. K. Győry and G. Halász (Amsterdam–Oxford–New York, 1990); pp. 527–538. Conference held in Budapest, 1987.

92. G. Szekeres, 'The graph algebra of skew Hadamard determinants' in *Sets, graphs and numbers: A birthday salute to Vera T. Sós and András Hajnal*, ed. G. Halász, L. Lovász, D. Miklós and T. Szőnyi (Amsterdam–Oxford–New York, 1992); pp. 691–698. Conference held in Budapest, 1991.

93. G. Szekeres, 'Recollections' in *Combinatorics, Paul Erdős is Eighty. Volume 1*, ed. D. Miklós, V. T.-Sós and T. Szőnyi (Berlin–Heidelberg–New York–Barcelona–Hong Kong–London–Milan–Paris–Tokyo/Budapest, 1993); pp. 15–17. Conference held in Budapest, 1993.

94. M. Laczkovich and G. Szekeres, 'Tilings of the square with similar rectangles', *Discrete & Computational Geometry*, 13 (1995), 569–572.

95. G. Szekeres, 'Higher order pseudoprimes in primality testing' in *Combinatorics, Paul Erdős is eighty. Volume II* (Berlin–Heidelberg–New York–Barcelona–Hong Kong–London–Milan–Paris–Tokyo/Budapest, 1996); pp. 451–458. Conference held in Keszthely, Hungary, 1993.

96. G. Szekeres, 'Paul Erdős (1913–1996)', *The Australian Mathematical Society Gazette*, 23 (1996), 189–191.

97. G. Szekeres, 'Abel's equation and regular growth: Variations on a theme by Abel', *Experimental Mathematics*, 7 (1998), 85–100.

98. K. M. Briggs, T. W. Dixon and G. Szekeres, 'Analytic solutions of the Cvitanović–Feigenbaum and Feigenbaum–Kadanoff–Shenker equations', *International Journal of Bifurcation and Chaos in Applied Sciences and Engineering*, 8 (1998), 347–357.

99. A. Knopfmacher, A. M. Odlyzko, B. Pittel, L. B. Richmond, D. Stark, G. Szekeres and N. C. Wormald, 'The asymptotic number of set partitions with unequal block sizes', *The Electronic Journal of Combinatorics*, 6 (1999), research paper r2, 35.

100. G. Szekeres, 'Obituary: Basil Cameron Rennie (December 24, 1920 – November 15, 1996)', *Bulletin of the London Mathematical Society*, 31 (1999), 737–739.

101. K. M. Briggs, T. W. Dixon and G. Szekeres, 'Essentially singular solutions of Feigenbaum-type functional equations' in *Statistical Physics on the Eve of the 21st Century In Honour of J B McGuire on the Occasion of His 65th Birthday*, ed. M. T. Batchelor and L T. Wille (Singapore, 1999); pp. 65–77.

102. G. Szekeres, 'On the singularities of a Riemannian manifold. (Reprint)', *General Relativity and Gravitation*, 34 (2002), 2001–2016.

103. G. Szekeres, 'Farewell to Paul' in *Paul Erdős and his mathematics I*, ed. G. Halász, L. Lovász, M. Simonovits and V. T.-Sós (Berlin–Heidelberg–New York–Barcelona–Hong Kong–London–Milan–Paris–Tokyo/Budapest, 2002); pp. 51–53. Conference held in Budapest, 1999.

104. G. Szekeres and L. Peters, 'Computer solution to the 17-point Erdős–Szekeres problem', *The ANZIAM Journal*, 48 (2006), 151–164.

105. G. Szekeres, 'Abel's functional equation and its role in the problem of croissance régulière' in *Transcendental Dynamics and Complex Analysis: A tribute to Noel Baker*, ed. P. J. Rippon and G .M. Stallard (Cambridge, 2008); pp. 447–451.

106. G. Szekeres and L. Peters, 'Space-time structure and spinor geometry', *The ANZIAM Journal*, 50 (2008), 143–176.