

## Publications

- [1] I. H. Sloan, The method of polarized orbitals for the elastic scattering of slow electrons by ionized helium and atomic hydrogen, *Proc. Roy. Soc. (London)*, **A281** (1964), 151–163.
- [2] I. H. Sloan, H. S. W. Massey, The exchange-polarization approximation for elastic scattering of slow electrons by atoms and ions: electron scattering by helium ions, M.R.C. McDowell (ed), *Atomic Collision Processes*, North Holland, Amsterdam, (1964), 14–15.
- [3] I. H. Sloan, The ionization of neutral helium by electron impact, *Proc. Phys. Soc.*, **85** (1965), 435–442.
- [4] I. H. Sloan, Unitary modification of the impulse-pickup approximation, *Phys. Lett.*, **25B** (1967), 84–85.
- [5] I. H. Sloan, Unitary modifications of the impulse approximation, *Phys. Rev.*, **162** (1967), 855–858.
- [6] I. H. Sloan, Approximation method for three-body collisions, *Phys. Rev.*, **165** (1968), 1587–1594.
- [7] I. H. Sloan, Errors in the Numerov and Runge-Kutta Methods, *J. Computational Phys.*, **2** (1968), 414–416.
- [8] I. H. Sloan, Method for the numerical solution of linear second-order differential equations, *J. Computational Phys.*, **3** (1968), 40–45.
- [9] I. H. Sloan, The numerical evaluation of principal-value integrals, *J. Computational Phys.*, **3** (1968), 332–333.
- [10] I. H. Sloan, E. J. Moore, Integral equation approach to electron-hydrogen collisions, *J. Phys. B (Proc. Phys. Soc.)*, **1** (1968), 414–422.
- [11] I. H. Sloan, Multiple-scattering analysis on a soluble neutron-deuteron model, *Phys. Rev.*, **185** (1969), 1361–1370.
- [12] I. H. Sloan, Tensor force in the separable potential model of neutron-deuteron collisions, *Nucl. Phys.*, **A139** (1969), 337–352.
- [13] R. T. Cahill, I. H. Sloan, Neutron-Deuteron breakup with Amado’s model, *The Three-Body Problem*, eds. J.S.C. McKee and P.M. Rolph, North Holland, Amsterdam, (1970), 265–274.
- [14] R. T. Cahill, I. H. Sloan, Neutron-deuteron breakup models, *Phys. Lett.*, **33B** (1970), 195–196.
- [15] R. T. Cahill, I. H. Sloan, Neutron-deuteron scattering with soft core, *Phys. Lett.*, **31B** (1970), 353–354.
- [16] R. T. Cahill, I. H. Sloan, Theory of neutron-deuteron breakup at 14.4 MeV, *Nucl. Phys.*, **A165** (1971), 161–179.
- [17] I. H. Sloan, Levinson’s theorem and S-wave neutron-deuteron scattering, *Phys. Lett.*, **34B** (1971), 243–244.
- [18] I. H. Sloan, Perturbation methods for three-body collisions, *Bull. Amer. Phys. Soc.*, **16** (1971), 1349.
- [19] I. H. Sloan, Phase parameters for nucleon-deuteron scattering, *Nucl. Phys.*, **A168** (1971), 211–224.
- [20] J. C. Aarons, I. H. Sloan, Krauss-Kowalski calculations of nucleon-deuteron polarization, *Phys. Rev.*, **C5** (1972), 582–585.
- [21] J. C. Aarons, I. H. Sloan, Vector and tensor polarizations in nucleon-deuteron scattering, *Nucl. Phys.*, **A182** (1972), 369–384.
- [22] T. J. Brady, I. H. Sloan, Padé approximants and nucleon-deuteron scattering, *Phys. Lett.*, **40B** (1972), 55–57.

- [23] T. J. Brady, I. H. Sloan, Variational approach to breakup calculations in the Amado model, *Few Particle Problems in the Nuclear Interaction* eds. I. Slaus, S.A. Moszkowski, R.P. Haddock and W.T.H. van Oers, North Holland/American Elsevier, Amsterdam, (1972), 364–367.
- [24] R. T. Cahill, I. H. Sloan, The n-d initial-state interaction in n-d breakup, *Nucl. Phys.*, **A194** (1972), 589–598.
- [25] P. Doleschall, J. C. Aarons, I. H. Sloan, Exact calculations of n-d polarization, *Phys. Lett.*, **40B** (1972), 605–606.
- [26] I. H. Sloan, A three-nucleon scattering calculation using perturbation theory, *Nucl. Phys.*, **A188** (1972), 193–204.
- [27] I. H. Sloan, Equations for four-particle scattering, *Phys. Rev.*, **C6** (1972), 1945–1955.
- [28] I. H. Sloan, Separable expansions and perturbation theory for three-body collisions, *Nucl. Phys.*, **A182** (1972), 549–557.
- [29] I. H. Sloan, J. C. Aarons, Vector and tensor polarizations in nucleon-deuteron scattering II, *Nucl. Phys.*, **A198** (1972), 321–342.
- [30] I. H. Sloan, T. J. Brady, Variational approach to the on- and off-shell t-matrix, *Phys. Rev.*, **C6** (1972), 701–709.
- [31] I. H. Sloan, T. J. Brady, Variational calculations of the off-shell t-matrix, *Bull. Amer. Phys. Soc.*, **17** (1972), 608.
- [32] T. J. Brady, I. H. Sloan, Variational calculations of three-body amplitudes, *Bull. Amer. Phys. Soc.*, **18** (1973), 18.
- [33] I. H. Sloan, Sturmian expansion of the Coulomb t-matrix, *Phys. Rev.*, **A7** (1973), 1016–1023.
- [34] I. H. Sloan, J. D. Gray, Separable expansions of the t-matrix, *Phys. Lett.*, **44B** (1973), 354–356.
- [35] T. J. Brady, I. H. Sloan, Variational method for off-shell three-body amplitudes, *Phys. Rev.*, **C9** (1974), 4–15.
- [36] I. H. Sloan, Few-body problems in nuclear physics, *Australian Physicist (Supplement) April*, **4** (1974), 3.
- [37] I. H. Sloan, S. K. Adhikari, Method for Lippmann-Schwinger equations, *Nucl. Phys.*, **A235** (1974), 352–360.
- [38] S. K. Adhikari, I. H. Sloan, Method for three-body equations, *Phys. Rev.*, **C12** (1975), 1152–1157.
- [39] S. K. Adhikari, I. H. Sloan, Separable expansion of the t-matrix in the  ${}^3S_1 - {}^3D_1$  channel, *Nucl. Phys.*, **A251** (1975), 297–304.
- [40] S. K. Adhikari, I. H. Sloan, Separable expansion of the t-matrix with analytic form factors, *Phys. Rev.*, **C11** (1975), 1133–1140.
- [41] S. K. Adhikari, I. H. Sloan, Separable operator expansions for the t-matrix, *Nucl. Phys.*, **A241** (1975), 429–442.
- [42] I. H. Sloan, B. J. Burn, N. Datyner, A new approach to the numerical solution of integral equations, *J. Computational Phys.*, **18** (1975), 92–105.
- [43] I. H. Sloan, Convergence of degenerate-kernel methods, *J. Austral. Math. Soc. Series B*, **19** (1976), 422–431.
- [44] I. H. Sloan, Error analysis for a class of degenerate-kernel methods, *Numer. Math.*, **25** (1976), 231–238.
- [45] I. H. Sloan, Improvement by iteration for compact operator equations, *Math. Comp.*, **30** (1976), 758–764.

- [46] I. H. Sloan, Iterated Galerkin method for eigenvalue problems, *SIAM J. Numer. Anal.*, **13** (1976), 753–760.
- [47] I. H. Sloan, Three-body collisions involving breakup, Momentum Wave Functions ed. D.W. Devins, AIP Conference Proceedings, (1977), 187–194.
- [48] I. H. Sloan, Comment on ‘The collocation variational method for solving Fredholm integral equations ...’, *J. Phys. A: Math. Gen.*, **11** (1978), 1195–1197.
- [49] I. H. Sloan, On the numerical evaluation of singular integrals, *BIT*, **18** (1978), 91–102.
- [50] I. H. Sloan, W. E. Smith, Product integration with the Clenshaw-Curtis and related points: convergence properties, *Numer. Math.*, **30** (1978), 415–428.
- [51] I. G. Graham, I. H. Sloan, On the compactness of certain integral operators, *J. Math. Anal. and Appl.*, **68** (1979), 580–594.
- [52] I. H. Sloan, Fredholm equations of the second kind by product integration via polynomial interpolation, *Notices of the Amer. Math. Soc.*, **26A-** (1979), 136.
- [53] I. H. Sloan, B. J. Burn, Collocation with polynomials for integral equations of the second kind, *J. Integral Eqns.*, **1** (1979), 77–94.
- [54] I. H. Sloan, E. S. Noussair, B. J. Burn, Projection methods for equations of the second kind, *J. Mathematical Analysis and Applications*, **69** (1979), 84–103.
- [55] I. H. Sloan. A review of numerical methods for Fredholm equations of the second kind. in *The Application and Numerical Solution of Integral Equations*, eds. R.S. Anderssen, F. de Hoog and M. Lukas, Sijthoff and Noordhoff, Alphen aan den Rijn, 1980, 51–74.
- [56] I. H. Sloan, On choosing the points in product integration, *J. Math. Phys.*, **21** (1980), 1032–1039.
- [57] I. H. Sloan, The numerical solution of Fredholm equations of the second kind by polynomial interpolation, *J. Integral Eqns.*, **2** (1980), 265–279.
- [58] I. H. Sloan, W. E. Smith, Product integration with the Clenshaw-Curtis points: implementation and error estimates, *Numer. Math.*, **34** (1980), 387–401.
- [59] W. E. Smith, I. H. Sloan, Product integration rules based on the zeros of Jacobi polynomials, *SIAM J. Numer. Anal.*, **17** (1980), 1–13.
- [60] I. H. Sloan, Analysis of general quadrature methods for integral equations of the second kind, *Numer. Math.*, **38** (1981), 263–278.
- [61] I. H. Sloan, Comment on ‘Failure of the connected kernel method’, *Phys. Rev.*, **C23** (1981), 1289–1292.
- [62] I. H. Sloan, Mathematical and computational methods, (rapporteur’s talk), *Nucl. Phys.* A353, (1981), 365–374.
- [63] I. H. Sloan, Quadrature methods for integral equations of the second kind over infinite intervals, *Math. Comp.*, **36** (1981), 511–523.
- [64] I. H. Sloan, Superconvergence and the Galerkin method for integral equations of the second kind, in *Treatment of Integral Equations by Numerical Methods*, eds. C.T.H. Baker and G.F. Miller, Academic Press, (1982), 197–207.
- [65] I. H. Sloan, W. E. Smith, Properties of interpolatory product integration rules, *SIAM J. Numer. Anal.*, **19** (1982), 427–442.
- [66] K. E. Atkinson, I. G. Graham, I. H. Sloan, Piecewise continuous collocation for integral equations, *SIAM J. Numer. Anal.*, **20** (1983), 172–186.
- [67] I. H. Sloan, Non-polynomial interpolation, *J. Approximation Theory*, **39** (1983), 97–117.

- [68] W. E. Smith, I. H. Sloan, A. H. Opie, Product integration over infinite intervals I. Rules based on the zeros of Hermite polynomials, *Math. Comp.*, **40** (1983), 519–535.
- [69] P. Rabinowitz, I. H. Sloan, Product integration in the presence of a singularity, *SIAM J. Numer. Anal.*, **21** (1984), 149–166.
- [70] I. H. Sloan, Fast convergence of the Galerkin method for integral equations, in *Computational Techniques and Applications, CTAC-83*, eds, J. Noye and C. Fletcher, North Holland, (1984), 352–358.
- [71] I. H. Sloan, Four variants of the Galerkin method for integral equations of the second kind, *IMA J. Numer. Anal.*, **4** (1984), 9–17.
- [72] I. H. Sloan, The iterated Galerkin method for integral equations of the second kind, in *Miniconference on Operator Theory and Partial Differential Equations*, eds. B. Jefferies and A. McIntosh, Proc. of the Centre for Mathematical Analysis, A.N.U., Canberra, 5, (1984), 153–161.
- [73] I. H. Sloan, P. J. Kachoyan, Lattices for multiple integration, in *Mathematical Programming and Numerical Analysis Workshop*, eds. S.-Å. Gustafson and R.S. Womersley, Proc. of the Centre for Mathematical Analysis, A.N.U., Canberra, 6, (1984), 147–165.
- [74] P. M. Anselone, I. H. Sloan, Integral equations on the half-line, *J. Integral Equations*, **9** (suppl.) (1985), 3–23.
- [75] I. G. Graham, S. Joe, I. H. Sloan, Iterated Galerkin versus iterated collocation for integral equations of the second kind, *IMA J. Numer. Anal.*, **5** (1985), 355–369.
- [76] I. H. Sloan, Lattice methods for multiple integration, invited paper at the International Conference on Computational and Applied Mathematics, Leuven 1984, *J. Comp. Appl. Math.*, **12 & 13**, (1985), 131–143.
- [77] I. H. Sloan, A. Spence, Wiener-Hopf integral equations: finite-section approximation and projection methods, in *Constructive Methods for the Practical Treatment of Integral Equations*, eds. G. Hämmerlin and K.-H. Hoffmann, ISNM73, Birkhäuser Verlag, (1985), 256–272.
- [78] I. H. Sloan, V. Thomée, Superconvergence of the Galerkin iterates for integral equations of the second kind, *J. Integral Equations*, **9** (1985), 1–23.
- [79] S. Joe, I. H. Sloan, On Bateman’s method for solving second kind integral equations, *Numer. Math.*, **49** (1986), 499–510.
- [80] I. H. Sloan, A. Spence, Integral equations on the half-line: a modified finite-section approximation, *Math. Comp.*, **47** (1986), 589–595.
- [81] I. H. Sloan, A. Spence, Projection methods for integral equations on the half-line, *IMA J. Numer. Anal.*, **6** (1986), 153–172.
- [82] I. H. Sloan, V. Thomée, Time discretization of an integro-differential equation of parabolic type, *SIAM J. Numer. Anal.*, **23** (1986), 1052–1061.
- [83] P. M. Anselone, I. H. Sloan, Numerical solution of integral equations on the half line I. The compact case, *Numer. Math.*, **51** (1987), 599–614.
- [84] F. R. De Hoog, I. H. Sloan, The finite-section approximation for integral equations on the half-line, *J. Austral. Math. Soc. Series B*, **28** (1987), 415–434.
- [85] S. Kumar, I. H. Sloan, A new collocation-type method for Hammerstein integral equations, *Math. Comp.*, **48** (1987), 585–593.
- [86] I. H. Sloan, P. J. Kachoyan, Lattice methods for multiple integration: theory, error analysis and examples, *SIAM J. Numer. Anal.*, **24** (1987), 116–128.
- [87] I. H. Sloan, T. R. Osborn, Multiple integration over bounded and unbounded regions, *J. Comp. Appl. Math.*, **17** (1987), 181–196.

- [88] I. H. Sloan, T. R. Osborn. Multiple integration over bounded and unbounded regions. reprinted in Numerical Quadrature, eds. R. Piessens and M. Mori, North-Holland, 1987, 1–22.
- [89] P. M. Anselone, I. H. Sloan, Numerical solution of integral equations on the half line II. The Wiener-Hopf case, *J. Integral Eqns. and Applications*, **1** (1988), 203–225.
- [90] I. H. Sloan, A quadrature based approach to improving the collocation method, *Numer. Math.*, **54** (1988), 41–56.
- [91] I. H. Sloan, Superconvergence in the collocation and qualocation methods, ICNM88: Numerical Mathematics, Singapore 1988, ed R. Agarwal, Birkhäuser Verlag, (1988), 429–441.
- [92] I. H. Sloan, A. Spence, Galerkin method for integral equations of the first kind with logarithmic kernel: theory, *I.M.A. J. Numer. Anal.*, **8** (1988), 105–122.
- [93] I. H. Sloan, A. Spence, The Galerkin method for integral equations of the first kind with logarithmic kernel: applications, *I.M.A. J. Numer. Anal.*, **8** (1988), 123–140.
- [94] I. H. Sloan, L. Walsh, Lattice rules — classification and searches, in Numerical Integration III, eds. H. Brass and G. Hämmerlin, ISNM 85, Birkhäuser Verlag, (1988), 251–260.
- [95] Y. Yan, I. H. Sloan, On integral equations of the first kind with logarithmic kernels, *J. Integral Eqns. and Applications*, **1** (1988), 549–579.
- [96] S. Amini, I. H. Sloan, Collocation methods for second kind integral equations with non-compact operators, *J. Integral Equations Appl.*, **2** (1989), 1–30.
- [97] J. N. Lyness, I. H. Sloan, Some properties of rank - 2 lattice rules, *Math. Comp.*, **53** (1989), 627–637.
- [98] I. H. Sloan, J. N. Lyness, The representation of lattice quadrature rules as multiple sums, *Math. Comp.*, **52** (1989), 81–94.
- [99] I. H. Sloan, W. L. Wendland, A quadrature-based approach to improving the collocation method for splines of even degree, *Zeitschrift für Analysis und ihre Anwendungen. Invited contribution to special volume to celebrate the 80th birthday of S.G. Micklin*, **8** (1989), 361–376.
- [100] Y. Yan, I. H. Sloan, Mesh grading for integral equations of the first kind with logarithmic kernel, *SIAM J. Numer. Anal.*, **26** (1989), 574–587.
- [101] P. M. Anselone, I. H. Sloan, Spectral Approximations for Wiener-Hopf Operators, *J. Integral Equations and Applications*, **2** (1990), 237–261.
- [102] G. A. Chandler, I. H. Sloan, Spline qualocation methods for boundary integral equations, *Numer. Math.*, **58** (1990), 537–567.
- [103] Q. Lin, I. H. Sloan, R. Xie, Extrapolation of the iterated collocation method for integral equations of the second kind, *SIAM J. Numer. Anal.*, **27** (1990), 1535–1541.
- [104] H. Niederreiter, I. H. Sloan, Lattice rules for multiple integration and discrepancy, *Math. Comp.*, **54** (1990), 303–312.
- [105] I. H. Sloan. Superconvergence, in Numerical Solution of Integral Equations. ed. M. Golberg, Plenum Press, 1990, 35–70.
- [106] I. H. Sloan, J. N. Lyness, Lattice rules: projection regularity and unique representations, *Math. Comp.*, **54** (1990), 649–660.
- [107] I. H. Sloan, L. Walsh, A computer search of rank-2 lattice rules for multidimensional quadrature, *Math. Comp.*, **54** (1990), 281–302.
- [108] K. E. Atkinson, I. H. Sloan, The numerical solution of first-kind logarithmic-kernel integral equations on smooth open arcs, *Math. Comp.*, **56** (1991), 119–139.
- [109] G. Brown, G. A. Chandler, I. H. Sloan, D. C. Wilson, Properties of certain trigonometric series arising in numerical analysis, *J. Math. Anal. & Applications*, **162** (1991), 371–380.

- [110] S. A. R. Disney, I. H. Sloan, Error bounds for the method of good lattice points, *Math. Comp.*, **56** (1991), 257–266.
- [111] P. M. Anselone, I. H. Sloan, Spectral approximations for Wiener–Hopf operators II, *J. Integral Eqns. Appl.*, **4** (4) (1992), 465–489.
- [112] S. Prössdorf, I. H. Sloan, Quadrature method for singular integral equations on closed curves, *Numer. Math.*, **61** (1992), 543–559.
- [113] J. Saranen, I. H. Sloan, Quadrature methods for logarithmic-kernel integral equations on closed curves, *IMA J. Numer. Anal.*, **12** (1992), 167–187.
- [114] S. A. R. Disney, I. H. Sloan, Lattice integration rules of maximal rank formed by copying rank 1 rules, *SIAM J. Numer. Anal.*, **29** (1992), 566–577.
- [115] S. Joe, I. H. Sloan, Imbedded lattice rules for multidimensional integration, *SIAM J. Numer. Anal.*, **29**(4) (1992), 1119–1135.
- [116] S. Joe, I. H. Sloan, On computing the lattice rule criterion  $R$ , *Math. Comp.*, **59** (1992), 557–568.
- [117] J. F. Price, I. H. Sloan, Pointwise convergence of multiple Fourier series: sufficient conditions and an application to numerical integration, *J. Math. Anal. and Applic.*, **169** (1992), 140–156.
- [118] I. H. Sloan. Error analysis of boundary integral methods. *Acta Numerica*, **1**, 1992, 287–339.
- [119] I. H. Sloan, Numerical integration in high dimensions — the lattice rule approach, in Numerical Integration, ed. T.O. Espelid & A. Genz, Kluwer, (1992), 55–69.
- [120] I. H. Sloan, Unconventional methods for boundary integral equations in the plane, in Numerical Analysis 1991, ed. D.F. Griffiths & G.A. Watson, Longman Scientific and Technical, (1992), 194–218.
- [121] I. H. Sloan, B. J. Burn, An unconventional quadrature method for logarithmic-kernel integral equations on closed curves, *J. Integral Equations Appl.*, **4** (1992), 117–151.
- [122] I. H. Sloan, E. Stephan, Collocation with Chebyshev polynomials for Symm’s integral equation on an interval, *J. Aust. Math. Soc. Series B*, **34** (1992), 199–211.
- [123] H. Niederreiter, I. H. Sloan, Quasi-Monte Carlo methods with modified vertex weights, in ‘Numerical Integration IV’, ISNM 112 (Ed. H. Brass and G. Hämmerlin), Birkhäuser, Basel, (1993), 253–265.
- [124] S. Prössdorf, J. Saranen, I. H. Sloan, A discrete method for the logarithmic-kernel integral equation on an open arc, *J. Austral. Math. Soc. Ser. B*, **34** (1993), 401–418.
- [125] S. Joe, I. H. Sloan, Implementation of a lattice method for numerical multiple integration, *ACM Trans. Mathematical Software*, **19** (1993), 523–545.
- [126] R. Kress, I. H. Sloan, On the numerical solution of a logarithmic integral equation of the first kind for the Helmholtz equation, *Numer. Math.*, **66** (1993), 199–214.
- [127] I. H. Sloan, Review of ‘Random Number Generation and Quasi-Monte Carlo Methods’, by H. Niederreiter, *SIAM Rev.*, **35**(4) (1993), 680–681.
- [128] I. H. Sloan, D. Tran, G. Fairweather, A fourth-order cubic spline method for linear second-order two-point boundary value problems, *IMA J. Numer. Anal.*, **13** (1993), 591–607.
- [129] H. Niederreiter, I. H. Sloan, Integration of nonperiodic functions of two variables by Fibonacci lattice rules, *J. Comp. and Applied Math.*, **51** (1994), 57–70.
- [130] W. McLean, I. H. Sloan, A fully-discrete and symmetric boundary element method, *IMA J. Numer. Anal.*, **14** (1994), 311–345.
- [131] I. H. Sloan, S. Joe. *Lattice Methods for Multiple Integration*. Oxford University Press, 1994.

- [132] C. Schwab, I. H. Sloan, Review of ‘Cubature formulas and modern analysis: an introduction, by S.L. Sobolev, *Math. Comp.*, **64** (1995), 1761–1763.
- [133] I. H. Sloan. Boundary element methods. In ‘Theory and Numerics of Ordinary and Partial Differential Equations’, (Ed. M. Ainsworth, J. Levesley, W.A. Light and M. Marletta) Clarendon Press, Oxford, 1995, 143–180.
- [134] I. H. Sloan, Lattice rules of moderate order, Proc. Workshop on Quasi-Monte Carlo Methods and Their Applications, eds. K.-T. Fang and F.J. Hickernell, Statistics Research and Consultancy Unit, Hong Kong Baptist University, (1995), 147–153.
- [135] I. H. Sloan, Polynomial interpolation and hyperinterpolation over general regions, *J. Approx. Theory*, **83** (1995), 238–254.
- [136] J. Elschner, S. Prössdorf, I. H. Sloan, The qualocation method for Symm’s integral equation on a polygon, *Math. Nachr. (Special Issue dedicated to S.G. Mikhlin)*, **177** (1996), 81–108.
- [137] R. D. Grigorieff, I. H. Sloan, High-order Spline Petrov-Galerkin Methods with Quadrature, Proceedings of the International Congress on Industrial and Applied Mathematics, Hamburg, 1995, eds. G. Alefeld et al., ZAMM **76** Suppl. 1, (1996), 15–18.
- [138] R. D. Grigorieff, I. H. Sloan, Spline Petrov-Galerkin methods with quadrature, *Num. Funct. Anal. Optim.*, **17** (1996), 755–784.
- [139] Ch Lubich, I. H. Sloan, V. Thomée, Nonsmooth data error estimates for approximations of an evolution equation with a positive type memory term, *Math. Comp.*, **65** (1996), 1–17.
- [140] H. Niederreiter, I. H. Sloan, Variants of the Koksma-Hlawka inequality for vertex-modified quasi-Monte Carlo integration rules, *Mathl. Comput. Modelling, Special Issue on Monte Carlo and Quasi-Monte Carlo methods, Mathematical & Computer Modelling*, **23** (1996), 69–77.
- [141] A. H. Schatz, I. H. Sloan, L. B. Wahlbin, Superconvergence in finite element methods and meshes that are locally symmetric with respect to a point, *SIAM J. Numer. Anal.*, **33** (1996), 505–521.
- [142] R. Cools, I. H. Sloan, Minimal cubature formulae of trigonometric degree, *Math. Comp.*, **65** (1996), 1583–1600.
- [143] S. Wang, I. H. Sloan, D. W. Kelly, Pointwise a posteriori upper bounds for derivatives of a Neumann problem, in ‘Computational Techniques and Applications: CTAC95’, (Ed. R.L. May and A.K. Easton), World Scientific, Singapore, (1996), 771–778.
- [144] M. Ainsworth, D. W. Kelly, I. H. Sloan, S. Wang, Post-processing with computable error bounds for finite element approximation of a nonlinear heat conduction equation, *IMA J. Numer. Anal.*, **17** (1997), 547–561.
- [145] J. Elschner, Y. Jeon, I. H. Sloan, E. Stephan, The collocation method for mixed boundary value problems on domains with curved polygonal boundaries, *Numerische Mathematik*, **76** (1997), 355–381.
- [146] R. D. Grigorieff, I. H. Sloan, Galerkin approximation with quadrature for the screen problem in  $\mathbb{R}^3$ , *J. Integral Equations Appl.*, **9** (1997), 293–319.
- [147] J. N. Lyness, I. H. Sloan, Cubature rules of prescribed merit, *SIAM J. Numer. Anal.*, **34** (1997), 586–602.
- [148] G. Monegato, I. H. Sloan, Numerical solution of the generalized airfoil equation for an airfoil with a flap, *SIAM J. Numer. Anal.*, **34** (1997), 2288–2305.
- [149] E. Novak, I. H. Sloan, H. Woźniakowski, Tractability of tensor product linear operators, *J. Complexity*, **13** (1997), 387–418.
- [150] T. Cao, D. W. Kelly, I. H. Sloan, Post-processing for pointwise local error bounds for derivatives in finite element solutions, Proc. of NAFEMS World Congress 97, Stuttgart, Germany, 9-11 April 1997, (1997), 25–36.

- [151] Y. Jeon, I. H. Sloan, E. Stephan, J. Elschner, Discrete qualocation methods for logarithmic-kernel integral equations on a piecewise smooth boundary, *Advances Comp. Math.*, **7** (1997), 547–571.
- [152] A. V. Reztsov, I. H. Sloan, On 2D packings of cubes in the torus, *Proc. Amer. Math. Soc.*, **125** (1997), 17–26.
- [153] I. H. Sloan. Interpolation and hyperinterpolation on the sphere. in ‘Multivariate approximation: recent trends and results’, (Ed. W. Haussmann, K. Jetter and M. Reimer, Akademie Verlag, Berlin), 1997, 255–268.
- [154] I. H. Sloan, Review of ‘Integral Equations: Theory and Numerical Treatment’ by Wolfgang Hackbusch, *SIAM Rev.*, **39** (1997), 360.
- [155] I. H. Sloan, K. E. Atkinson, Semi-discrete Galerkin methods for the single layer equation on Lipschitz Curves, *J. Integral Equations Appl.*, **9** (1997), 279–292.
- [156] I. H. Sloan, H. Woźniakowski, An intractability result for multiple integration, *Math. Comp.*, **66** (1997), 1119–1124.
- [157] M. Ainsworth, R. D. Grigorieff, I. H. Sloan, Semi-discrete Galerkin approximation of the single layer equation by general splines, *Numer. Math.*, **79** (1998), 157–174.
- [158] R. D. Grigorieff, I. H. Sloan, Stability of discrete orthogonal projections for continuous splines on  $L_p$  spaces, *Bull. Austral. Math. Soc.*, **58** (1998), 307–332.
- [159] R. Kress, I. H. Sloan, F. Stenger, A sinc quadrature method for the double-layer integral equation in planar domains with corners, *J. Integr. Eqn & Appl.*, **10** (1998), 291–317.
- [160] I. H. Sloan, W. Wendland, Qualocation methods for elliptic boundary integral equations, *Numer. Math.*, **79** (1998), 451–483.
- [161] I. H. Sloan, H. Woźniakowski, When are Quasi-Monte Carlo algorithms efficient for high-dimensional integrals?, *J. Complexity*, **14** (1998), 1–33.
- [162] T. Tran, I. H. Sloan, Tolerant qualocation — a qualocation method for boundary integral equations with reduced regularity requirement, *J. Integral Equations Appl.*, **10** (1998), 85–115.
- [163] S. Wang, I. H. Sloan, D. W. Kelly, Computable error bounds for pointwise derivatives of a Neumann problem, *IMA J. Num. Anal.*, **18** (1998), 251–271.
- [164] D. Mauersberger, I. H. Sloan. A simplified approach to the semi-discrete Galerkin method for the single-layer equation for a plate, M. Bonnet, A.M. Sändig, W.L. Wendland (eds), *Mathematical Aspects of Boundary Element Methods*. Chapman and Hall, 1999, 178–190.
- [165] D. Sheen, I. H. Sloan, V. Thomée, A parallel method for time-discretization of parabolic problems based on contour integral representation and quadrature, *Math. Comp.*, **69** (1999), 177–195.
- [166] T. Cao, D. W. Kelly, I. H. Sloan, Local error bounds for post-processed finite element calculations, *Int. J. Num. Meth. Engrg.*, **45** (1999), 1085–1098.
- [167] T. Cao, D. W. Kelly, I. H. Sloan, Pointwise error estimates for stress in two dimensional elasticity, in: *Proceedings of ACAM99, The second Australasian congress on Applied Mechanics*, The Institution of Engineers, Australia, (1999).
- [168] M. Ganesh, I. H. Sloan, Optimal order spline methods for nonlinear differential and integro-differential equations, *Appl. Numer. Maths.*, **29** (1999), 445–478.
- [169] I. H. Sloan, W. Wendland, Commutator properties of periodic splines, *J. Approx. Theory*, **97** (1999), 254–281.
- [170] I. H. Sloan, W. L. Wendland, Spline qualocation methods for variable-coefficient elliptic equations on curves, *Numer. Math.*, **83** (1999), 497–533.



- [171] I. H. Sloan, H. Woźniakowski, Multiple integrals in many dimensions, Zhongying Chen, Yuesheng Li, Yuesheng Xu, Charles A. Micchelli (eds), *Advances in Computational Mathematics-Proceedings of the Guangzhou International Symposium*, Marcell Dekker, Inc., (1999), 507–516.
- [172] I. H. Sloan, R. S. Womersley. The uniform error of hyperinterpolation on the sphere, K. Jetter W. Haussmann, M. Reimer (eds), *Advances in Multivariate Approximation*. Wiley-VCH, 1999, 289–306.
- [173] R. D. Grigorieff, I. H. Sloan, J. Brandts, Superapproximation and commutator properties of discrete orthogonal projections for continuous splines, *J. Approximation Theory*, **107** (2000), 244–267.
- [174] I. H. Sloan, Multiple integration is intractable but not hopeless, *ANZIAM J.*, **42** (2000), 3–8.
- [175] I. H. Sloan, Qualocation, *J. Comp. and Appl. Math., Special Issue, Volume VI*, **125** (2000), 461–478.
- [176] I. H. Sloan, R. S. Womersley, Constructive polynomial approximation on the sphere, *J. Approximation Theory*, **103** (2000), 91–118.
- [177] I. H. Sloan, R. S. Womersley. The search for good polynomial interpolation points on the sphere, D.F. Griffiths, G.A. Watson (eds), *Numerical Analysis 1999*. CRC Press, 2000, 211–230.
- [178] R. D. Grigorieff, I. H. Sloan, On qualocation and collocation methods for singular integral equations with piecewise continuous coefficients, using continuous splines on quasi-uniform meshes, *Operator Theory: Advances and Applications*, **121** (2001), 146–161.
- [179] Q. T. Le Gia, I. H. Sloan, The uniform norm of hyperinterpolation on the unit sphere in an arbitrary number of dimensions, *Constructive Approximation*, **17** (2001), 249–265.
- [180] I. H. Sloan, H. Woźniakowski, Tractability of multivariate integration for weighted Korobov classes, *J. Complexity*, **17** (2001), 697–721.
- [181] I. H. Sloan, A. Reztsov, Component-by-component construction of good lattice rules, *Math. Comp.*, **71**(237) (2001), 263–273.
- [182] I. H. Sloan, T. Tran, The tolerant qualocation method for variable-coefficient equations on curves, *J. Integral Eqns. and Applications*, **13** (2001), 73–98.
- [183] R. S. Womersley, I. H. Sloan, How good can polynomial interpolation on the sphere be?, *Advances in Computational Mathematics*, **14** (2001), 195–226.
- [184] I. G. Graham, I. H. Sloan, Fully discrete spectral boundary integral methods on smooth closed surfaces on  $\mathbb{R}^3$ , *Numerische Mathematik*, **92** (2002), 289–323.
- [185] I. H. Sloan, QMC integration – beating intractability by weighting the coordinate directions, K.-T. Fang, F.J. Hickernell, H. Niederrieter (eds), *Monte Carlo and Quasi-Monte Carlo Methods, 2000*, Springer Verlag, Berlin, (2002), 103–123.
- [186] I. H. Sloan, F. Y. Kuo, S. Joe, Constructing randomly shifted lattice rules in weighted Sobolev spaces, *SIAM J. Numer. Anal.*, **40** (2002), 1650–1665.
- [187] I. H. Sloan, F. Y. Kuo, S. Joe, On the step-by-step construction of quasi-Monte Carlo integration rules that achieve strong tractability error bounds in weighted Sobolev spaces, *Math. Comp.*, **71** (2002), 1609–1640.
- [188] I. H. Sloan, H. Woźniakowski, Tractability of integration in non-periodic and periodic weighted tensor product Hilbert spaces, *J. Complexity*, **18** (2002), 479–499.
- [189] I. H. Sloan, R. S. Womersley, Good approximations on the sphere with application to geodesy and the scattering of sound: Invited paper at the 2001 Toyota Conference on Computational Science and Engineering for the 21st Century, Fukuoku, Japan, *J. of Computational and Appl. Maths.*, **149** (2002), 227–237. also in *Scientific and Engineering Computations for the 21st Century - Methodologies and Applications*, eds. M. Mori, and T. Mitsui, North-Holland (2002).

- [190] D. Sheen, I. H. Sloan, V. Thomée, A parallel method for time-discretization of parabolic equations based on Laplace transformation and quadrature, *IMA J. Numerical Analysis*, **23** (2003), 269–299.
- [191] F. J. Hickernell, I. H. Sloan, G. W. Wasilkowski, On strong tractability of weighted multivariate integration, *Mathematics of Computation*, **73** (2004), 1903–1911.
- [192] F. J. Hickernell, I. H. Sloan, G. W. Wasilkowski, On tractability of weighted integration of certain Banach spaces of functions, H. Niederreiter (ed), *Monte Carlo and Quasi-Monte Carlo Methods 2002*, National University of Singapore. Springer-Verlag, Berlin, (2004), 51–71.
- [193] F. J. Hickernell, I. H. Sloan, G. W. Wasilkowski, On tractability of weighted integration over bounded and unbounded regions in  $\mathbb{R}^s$ , *Mathematics of Computation*, **73** (2004), 1885–1901.
- [194] F. J. Hickernell, I. H. Sloan, G. W. Wasilkowski, The strong tractability of multivariate integration using lattice rules, H. Niederreiter (ed), *Monte Carlo and Quasi-Monte Carlo Methods 2002*, Springer-Verlag, Berlin, (2004), 259–272.
- [195] E. Novak, I. H. Sloan, H. Woźniakowski, Tractability of approximation for weighted Korobov spaces on classical and quantum computers, *Foundations of Computational Mathematics*, **4** (2004), 121–156.
- [196] J. Dick, I. H. Sloan, X. Wang, H. Wóznikowski, Liberating the weights, *J. Complexity*, **20** (2004), 593–623.
- [197] K. Hesse, I. H. Sloan, High-order numerical integration on the sphere and extremal point systems, *J. Computational Technologies*, **9** (2004), 4–12.
- [198] I. H. Sloan, H. Wóznikowski, When does Monte Carlo depend polynomially on the number of variables?, H. Niederreiter (ed), *Monte Carlo and Quasi-Monte Carlo Methods 2002*, National University of Singapore. Springer-Verlag, Berlin, (2004), 407–437.
- [199] I. H. Sloan, X. Wang, H. Woźniakowski, Finite-order weights imply tractability of multivariate integration, *J. Complexity*, **20** (2004), 46–74.
- [200] I. H. Sloan, R. S. Womersley, Extremal systems of points and numerical integration on the sphere, invited paper for special issue on approximation on the sphere, *Advances in Computational Mathematics*, **21** (2004), 107–125.
- [201] X. Wang, I. H. Sloan, J. Dick, On Korobov lattice rules in weighted spaces, *SIAM J. Numer. Anal.*, **42**(4) (2004), 1760–1779.
- [202] R. D. Grigorieff, I. H. Sloan, Discrete orthogonal projections on multiple knot periodic splines, *J. Approx. Theory*, **137** (2005), 201–225.
- [203] F. J. Hickernell, I. H. Sloan, G. W. Wasilkowski, A piecewise constant algorithm for weighted  $L_1$  approximation over bounded or unbounded regions in  $\mathbb{R}^s$ , *SIAM Journal on Numerical Analysis*, **43**(3) (2005), 1003–1020.
- [204] J. Dick, F. Y. Kuo, F. Pillichshammer, I. H. Sloan, Construction algorithms for polynomial lattice rules for multivariate integration, *Mathematics of Computation*, **74**(252) (2005), 1895–1921.
- [205] K. Hesse, I. H. Sloan, Optimal lower bounds for cubature error on the sphere  $S^2$ , *J. Complexity*, **21**(6) (2005), 790–803.
- [206] K. Hesse, I. H. Sloan. Optimal order integration on the sphere, Tatsien Li, Pingwen Zhang (eds), *Series in Contemporary Applied Mathematics (CAM) in Frontiers and Prospects of Contemporary Applied Mathematics*, Vol.6. Higher Education Press, World Scientific, 2005, 59–70.
- [207] K. Hesse, I. H. Sloan, Worst-case errors in a Sobolev space setting for cubature over the space  $S^2$ , *Bull. Austral. Math. Soc.*, **71** (2005), 81–105.
- [208] F. Y. Kuo, I. H. Sloan, Lifting the curse of dimensionality, *Notices Amer. Math. Soc.*, **52**(11) (2005), 1320–1328.

- [209] F. Y. Kuo, I. H. Sloan, Quasi-Monte Carlo methods can be efficient for integration over products of spheres, *J. Complexity*, **21** (2005), 196–210.
- [210] W. McLean, I. H. Sloan, V. Thomée, Time discretization via Laplace-transformation of an integro-differential equation of parabolic type, *Numerische Mathematik*, **102**(3) (2005), 497–522.
- [211] X. Wang, I. H. Sloan, Why are high-dimension finance problems often of low effective dimension?, *SIAM J. Sci. Computing*, **27**(1) (2005), 159–183.
- [212] R. D. Grigorieff, I. H. Sloan, Qualocation for boundary integral equations using splines with multiple knots, *J. Integral Equations and Applications*, **18** (2006), 117–140.
- [213] J. Dick, I. H. Sloan, X. Wang, H. Woźniakowski, Good lattice rules in weighted Korobov spaces with general weights, *Numer. Math.*, **103**(1) (2006), 63–97.
- [214] K. Hesse, I. H. Sloan, Cubature over the sphere  $S^2$  in Sobolev spaces of arbitrary order, *J. Approx. Theory*, **141**(2) (2006), 118–133.
- [215] K. Hesse, I. H. Sloan. Hyperinterpolation on the Sphere, N.K. Govil, H.N. Mhaskar, Ram N. Mohapatra, Zuhair Nashed, J. Szabados (eds), *Frontiers in Interpolation and Approximation, dedicated to the memory of Ambikeshwar Sharma*. Chapman & Hall/CRC, 2006, 213–248.
- [216] F. Y. Kuo, I. H. Sloan, H. Woźniakowski, Lattice rules for multivariate approximation in the worst case setting, H. Niederreiter, D. Talay (eds), *Monte Carlo and Quasi-Monte Carlo Methods 2004*, (2006), 289–330.
- [217] X. Wang, I. H. Sloan, Efficient weighted lattice rules with applications to finance, *SIAM J. Sci. Computing*, **28**(2) (2006), 728–750.
- [218] B. J. Waterhouse, F. Y. Kuo, I. H. Sloan, Randomly-shifted lattice rules on the unit cube for unbounded integrands in high dimensions, *J. Complexity*, **22** (2006), 71–101.
- [219] M. Ganesh, S. Langdon, I. H. Sloan, Efficient evaluation of highly oscillatory acoustic scattering surface integrals, *Journal of Computational and Applied Mathematics, Special Issue for WAVES'05*, **204**(2) (2007), 363–374.
- [220] R. Jeltsch, T. Li, I. H. Sloan. (eds.) *Some Topics in Industrial and Applied Mathematics*. Higher Education Press, 2007.
- [221] J. Dick, P. Kritzer, F. Y. Kuo, I. H. Sloan, Lattice-Nyström method for Fredholm integral equations of the second kind with convolution type kernels, *Journal of Complexity*, **23**(4-6) (2007), 752–772.
- [222] K. Hesse, H. N. Mhaskar, I. H. Sloan, Quadrature in Besov spaces on the Euclidean sphere, *Journal of Complexity*, **23**(4-6) (2007), 528–552.
- [223] K. Hesse, F. Y. Kuo, I. H. Sloan, A component-by-component approach to efficient numerical integration over products of spheres, *J. Complexity*, **23** (2007), 25–51.
- [224] F. Y. Kuo, I. H. Sloan, H. Woźniakowski, Periodization strategy may fail in high dimensions, *Numerical Algorithms*, **46**(4) (2007), 369–391.
- [225] I. H. Sloan, Finite order integration weights can be dangerous, *Computational Methods of Applied Mathematics*, **7** (2007), 239–254.
- [226] X. Wang, I. H. Sloan, Brownian bridge and principal component analysis: towards remaining the curse of dimensionality, *IMA Journal of Numerical Analysis*, **27**(4) (2007), 631–654.
- [227] M. Giles, F. Y. Kuo, I. H. Sloan, B. J. Waterhouse, Quasi-Monte Carlo for finance applications, *ANZIAM Journal*, **50** (2008), C308–C323.
- [228] F. Y. Kuo, W. T. M. Dunsmuir, I. H. Sloan, M. P. Wand, R. S. Womersley, Quasi-Monte Carlo for highly structured generalised response models, *Methodology and Computing in Applied Probability*, **10**(2) (2008), 239–275.

- [229] F. Y. Kuo, I. H. Sloan, H. Woźniakowski, Lattice rule algorithms for multivariate approximation in the average case setting, *J. Complexity*, **24**(2) (2008), 283–323.
- [230] I. H. Sloan, A. Sommariva, Approximation on the sphere using radial basis functions plus polynomials, *Advances in Computational Mathematics*, **29** (2008), 147–177.
- [231] X. Wang, I. H. Sloan, Low discrepancy sequences in high dimensions: how well are their projections distributed?, *Journal of Computational and Applied Mathematics*, **213**(2) (2008), 366–386.
- [232] M. Maggioni, C. Schwab, I. Sloan. (eds.) *Constructive Approximation, (Special Issue on Constructive high-dimensional approximation)*, Vol. 30. Springer, 2009.
- [233] E. Novak, I. H. Sloan, J. F. Traub, H. Wozniakowski. (eds.) *Essays on the Complexity of Continuous Problems*. European Mathematical Society, 2009.
- [234] Q. T. Le Gia, I. H. Sloan, T. Tran, Overlapping additive Schwartz preconditioners for elliptic PDEs on the unit sphere, *Mathematics of Computation*, **78**(1) (2009), 79–101.
- [235] I. Sloan. How high is high-dimensional?, E. Novak, I.H. Sloan, J. F. Traub, H. Wozniakowski (eds), *Essays on the Complexity of Continuous Problems*. European Mathematical Society Publishing House, Switzerland, 2009, 73–87.
- [236] I. H. Sloan, R. S. Womersley, A variational characterisation of spherical designs, *Journal of Approximation Theory*, **159**(2) (2009), 308–318.
- [237] I.H. Sloan, H. Wendland, Inf-sup condition for spherical polynomials and radial basis functions on spheres, *Mathematics of Computation*, **78**(267) (2009), 1319–1331.
- [238] T. Tran, Q.T. Le Gia, I. Sloan, E. Stephan, Boundary integral equations on the sphere with radial basis functions: error analysis, *Applied Numerical Mathematics*, **59**(11) (2009), 2857–2871.
- [239] C. An, X. Chen, I. H. Sloan, R. S. Womersley, Well conditioned spherical designs for integration and interpolation on the two-sphere, *SIAM Journal on Numerical Analysis*, **48**(6) (2010), 2135–2157.
- [240] M. Griebel, F. Y. Kuo, I. H. Sloan, The smoothing effect of the ANOVA decomposition, *Journal of Complexity*, **26**(5) (2010), 523–551.
- [241] K. Hesse, I. H. Sloan, R. S. Womersley. Numerical integration on the sphere, W. Freeden, M. Z. Nashed, T. Sonar (eds), *Handbook of Geomathematics*. Springer, 2010, 1185–1219.
- [242] F. Y. Kuo, I. H. Sloan, G. W. Wasilkowski, H. Wozniakowski, Liberating the dimension, *Journal of Complexity*, **26**(5) (2010), 422–454.
- [243] F. Y. Kuo, I. H. Sloan, G. W. Wasilkowski, H. Wozniakowski, On decompositions of multivariate functions, *Mathematics of Computation*, **79**(270) (2010), 953–966.
- [244] F. Y. Kuo, I. H. Sloan, W. Wasilkowski, B. Waterhouse, Randomly shifted lattice rules with the optimal rate of convergence for unbounded integrands, *Journal of Complexity*, **26**(2) (2010), 135–160.
- [245] Q. T. Le Gia, I. H. Sloan, H. Wendland, Multiscale analysis in Sobolev spaces on the sphere, *SIAM Journal on Numerical Analysis*, **48**(6) (2010), 2065–2090.
- [246] T. Tran, Q. T. Le Gia, I. H. Sloan, E. P. Stephan, Preconditioners for pseudodifferential equations on the sphere with radial basis functions, *Numerische Mathematik*, **115**(1) (2010), 141–163.

## To Appear

- [247] M. Ganesh, Q. T. Le Gia, I. Sloan, A pseudospectral quadrature method for Navier-Stokes equations on rotating spheres, *Mathematics of Computation*.
- [248] Q. T. Le Gia, I. H. Sloan, A. J. Wathen, Stability and preconditioning for a hybrid approximation on the sphere, *Numerische Mathematik*.