

Distinguished Nevadan Nomination Form

Deadline: December 31

Please send all nominations to:

Scott G. Wasserman, CEO and Special Counsel to the Board of Regents
2601 Enterprise Road, Reno, NV 89512
e-mail: Scott.Wasserman@nshe.nevada.edu Fax: (775) 327-5049

1. Salutation: Mr. Mrs. Miss Ms. **XX** Dr.

2. Nominee's Name *(Please ensure correct spelling.):* _____
Dr. Michael A. Golberg (posthumously)

3. Nominee's Mailing Address: _____

4. Nominee's Phone Number: Work: _____ Home: _____

5. Employment History *(Attach additional material if necessary.):*

(Please see attached resume.)

6. Educational Background *(Attach additional material if necessary.)*

(Please see attached resume.)

7. **Reasons for Nomination** *(Please include outstanding accomplishments, achievements, and contributions to Nevada and its people. Please be specific and provide considerable detail. You may attach additional pages if necessary.):* _____

(Please see attached resume.)

8. **Other NSHE Awards** *(Please list other awards this individual has received.)* _____

9. **Nominated by*:** Regent Jack Lund Schofield

* Candidates for the Distinguished Nevadan Award may only be nominated by a current member of the Nevada Board of Regents. (Added 6/05)

DR. MICHAEL A. GOLBERG

PROFESSIONAL EXPERIENCE

- 1994-present Independent Consultant, Author, and Editor
Las Vegas, Nevada.
- 1976-1990 Professor of Mathematics, Department of Mathematical Sciences
University of Nevada, Las Vegas.
- 1973-1976 Associate Professor of Mathematics, Department of Mathematical
Sciences, University of Nevada, Las Vegas .
- 1967-1973 Lecturer in Mathematics, Department of Mathematical Sciences
University of Nevada, Las Vegas.
- 1966-1967 Graduate Teaching Assistant, Mathematics Department
Massachusetts Institute of Technology.
- 1962-1967 Graduate Research Assistant in Operations Research
Massachusetts Institute of Technology.
- 1964(Summer) Operations Research Analyst, Aluminum Company of Canada
Montreal, Canada.
- 1967(Summer) Operations Research Analyst, Aluminum Company of Canada
Montreal, Canada.
- 1958-1962 Private tutor in Mathematics and Physics.

EDUCATION

- 1972 Ph.D. in Mathematics, Massachusetts Institute of Technology
Thesis Title: *Invariant Imbedding and Ricatti Transformation*
Advisor: Professor G. Strang
- 1962 B.Sc. in Mathematical Physics, First Class honors
McGill University – Montreal, Canada

STUDENT AWARDS AND SCHOLARSHIPS

- 1958-1962 McGill University Scholarship
- 1962-1965 Massachusetts Institute of Technology – Graduate Assistantship
- 1964-1965 Province of Quebec Scholarship
- 1965 Massachusetts Institute of Technology Teaching Assistantship

CONSULTING

During the period from 1967 until 2004 I have acted as a consultant in a variety of capacities to the following organizations:

- Academic Press: Prepublication book reviewer
- Addison Wesley Publishing Company: Prepublication book reviewer
- Allstate Coin Company: Problem: Verification of odds for blackjack machines
- Computational Mechanics Publications: Prepublication book reviewer
- Denver Research Institute: Problem: Development of mathematical models for radar calibration at the Tonopah Test Range, Nellis Air Force Base
- ETI Corporation – Boston, MA: Problem: Development of queuing models for setting telephone rates
- Lockheed Georgia Corporation: Problem: Interference in porous wall wind tunnels.
- National Aeronautics and Space Administration: Problem: Subsonic flow in ventilated win tunnels
- Nevada Power Company: Problem: Mathematical models for overhead and maintenance costs Testified before the Nevada Public Service Commission
- Nevada State Medical Association: Problem: Development of procedure for the verification of Medicaid rates
- Pepsi Cola Company of Canada, Ltd.: Problem: Development of procedures for the minimization of bottle returns for salesmen-drives
- Stardust Hotel & Casino: Problem: Statistical analysis of Keno data
- Summa Corporation: Problem: Verification of slot machine odds
- United States Environmental Protection Agency: Project reviewer
- United States Internal Revenue Service: Statistical testimony

COMMITTEES

University

- | | |
|-----------|---|
| 1987 | Barrick Fellowship Committee |
| 1985-1987 | UNLV Faculty Senate |
| 1984 | Salary and Benefits Committee |
| 1980-1981 | Salary and Benefits Committee |
| 1980-1981 | University Research Council |
| 1978-1979 | Senate Ad-hoc Committee on Sabbatical Leave |
| 1977 | Chairman, Sabbatical Leave Committee |
| 1975-1977 | UNLV Research Council |
| 1975-1977 | Vice President's Advisory Committee |
| 1976 | Sabbatical Leave Committee |
| 1973 | Curriculum Committee |
| 1966 | Salary and Benefits Committee |

College

- | | |
|------|--------------------------------------|
| 1977 | Chairman, Faculty Workload Committee |
| 1977 | Curriculum Committee |

Department

- | | |
|-----------|---|
| 1984-1985 | Chairman, Coordinating Committee |
| 1979 | Ad-hoc Committee for Department Ten year plan |

1980-1982	Coordinating Committee
1980	Ad-hoc Committee on Accreditation Report
1978-1980	Chairman, Department Personnel Committee
1977	Curriculum Committee
1976	Curriculum Committee
	Chairman, Personnel Guidelines Committees (Responsible for developing administrative procedures with respect to tenure and promotion)
1975-1976	Bylaws Committee

COURSES TAUGHT

*Applied Functional Analysis	*Modern Advanced Calculus
*Calculus (elementary and intermediate) (Loomis & Sternberg, Advanced Calculus)	
*College Algebra and Trigonometry	*Numerical Analysis
*Differential Equations (elementary and advanced, numerical analysis)	
*Operational Calculus (Mikusinski Operations)	
*Invariant Imbedding (Elementary and Advanced)	
*History of Mathematics	*Probability theory
*Linear Algebra	*Statistics
*Mathematical Modeling	*Mathematical Physics
*Seminar on radial basis functions	

EDITORIAL WORK

1975-present	Associate Editor, Applied Mathematics and Computation
1996-present	Associate Editor, Advances in the Boundary Element Method, Computational Mechanics Publications
1976-1978	Editor, a special issue of the Journal of Optimization Theory and Applications on Numerical Methods for Integral Equations
1977-2003	Associate Editor, Journal of Optimization Theory and Applications
1983-1984	Editor, Cauchy Singular Integral Equations Newsletter
1998-2003	Editorial board member, Engineering Analysis with Boundary Elements
2004 -present	Editorial board member, Computers, Materials, and Continua

PROFESSIONAL AFFILIATIONS

- American Mathematical Society (no active)
- Society for Industrial and Applied Mathematics (SIAM)
- Sigma Xi (no active)
- Served as Publicity director for the 1972 AMS National Meeting in Las Vegas
- Served as Arrangements Chairman for the 1975 ORSA-TIMS National Meeting in Las Vegas
- Referee for numerous journals (6-8 papers per year) and project reviewer for the National Science Foundation

- International Society for Boundary Elements

GRANTS

1986-1987	Barrick Research Fellowship, UNLV
1981-1982	Barrick Research Fellowship, UNLV
1980-1981	Project Director, NASA Grant Unsteady Airloads in Porous Wall Tunnels
1976-1980	NASA Grant (with J. Fromme) for the investigation of flows about airfoils in two dimensional subsonic ventilated wind tunnels.
1976-1977	UNLV Grant for the investigation of initial value methods for Fredholm and Volterra integral equations
1975-1976	UNLV Grants for the investigation of mathematical models in education administration
1971-1972	UNLV Grant for the investigation of numerical methods for solving integral equations

AWARDS

1981	UNLV Alumni "Distinguished Professor" Award
1996	Eminent Scientist Award of Wessex Institute of Technology, U.K.
2001	Fellow of Wessex Institute of Technology, U.K.

GOVERNMENT REPORTS

- Unsteady Two Dimensional Airloads Acting on Oscillating Thin Airfoils in Subsonic Ventilated Wind Tunnels, NASA CR-2987, 1970 (with J. Fromme)
- Two Dimensional Aerodynamic Interference Effects on Oscillating Airfoils with Flaps in Ventilated Subsonic Wind Tunnels (with J. Fromme and J. Werth), NASA CR-3210, 1979

BOOK REVIEWS

Review of Green's Functions by G. Roach, Journal of the Franklin Institute, 1975

PUBLICATIONS

BOOK

- Golberg, M. A.; Cho, H. A. Introduction to regression analysis, *WIT Press, Southampton*, 2004.
- Golberg, M.A., editor, Boundary Integral Methods, Computational Mechanics Publications, 1998.
- Golberg, M. A.; Chen, C. S. Discrete projection methods for integral equations, *Computational Mechanics Publications, Southampton*, 1997.
- Golberg, M. A. Numerical Methods for Integral Equations, Plenum Publishing Company 1990

- Golberg, M. A. An introduction to probability theory with statistical applications, *Mathematical Concepts and Methods in Science and Engineering*, 29. *Plenum Press, New York*, 1985.
- Solution methods for integral equations. Theory and applications, Edited by Michael A. Golberg. *Mathematical Concepts and Methods in Science and Engineering*, 18. *Plenum Press, New York-London*, 1979.

ARTICLES IN REFEREED JOURNALS

1. Muleshkov, A.S.; Golberg, M. A.; Chen, C.S. Particular solutions for axisymmetric Helmholtz-type operators, in preparation .
2. Chen, C.S.; Cho, H. A.; Golberg, M. A. Some comments on the ill-conditioning of the method of fundamental solutions. *Engineering Analysis with Boundary Elements*, 30 (2006). In print.
3. Muleskov, A.S.; Chen, C.S.; Golberg, M.A. The method of fundamental solutions for nonhomogeneous axisymmetric problems, to appear in *Numerical Methods for Partial Differential Equations*.
4. Cho, H. A.; Golberg, M. A.; A.S. Muleskov; Li, X. Trefftz Methods for Time Dependent Partial Differential Equations, *Computers, Materials, and Continua*, 1(2004), 1-37.
5. Cheng, A. H.-D.; Golberg, M. A.; Kansa, E. J.; Zammito, G. Exponential convergence and h-c multiquadric collocation method for partial differential equations. *Numer. Methods Partial Differential Equations* 19 (2003), no. 5, 571--594.
6. Golberg, M. A.; Muleshkov, A. S.; Chen, C. S.; Cheng, A. H.-D. Polynomial particular solutions for certain partial differential operators. *Numer. Methods Partial Differential Equations* 19 (2003), no. 1, 112-133.
7. Wong, S.M.; Hon, Y.C.; Golberg, M.A. Compactly supported radial basis functions for shallow water equation. *Appl. Math. Comput.* 127 (2002), no. 1, 79-101.
8. Golberg, M. A.; Chen, C. S. A mesh free method for solving nonlinear reaction-diffusion equations, the *Journal of Computer Modeling in Engineering & Science*, 2 (2001), pp. 87-95.
9. Cheng, A. H.-D.; Chen, C. S.; Golberg, M.A.; Rashed, Y.F. BEM for thermo-elasticity and elasticity with body force – a revisit, *Engineering Analysis with Boundary Elements*, 25, pp. 377-387, 2001.
10. Rashed, Y.F.; Chen, C. S.; Golberg, M.A. Efficient evaluation of plate-half space interaction using contour integrals, *Applied Mathematics Modeling*, 25 (2001), pp. 967-978.
11. Golberg, M.A.; Chen, C. S.; Ganesh, M. Particular solutions of the 3D modified Helmholtz-type equations using compactly supported radial basis functions, *Journal of Engineering Analysis with Boundary Elements*, 24 (2000), pp. 539-547.

12. Golberg, M. A.; Chen, C. S.; Rashed, Y.F. The annihilator method for computing particular solutions to partial differential equations, to appear in *Engineering Analysis with Boundary Elements*, 23 (1999), 275-279.
13. Golberg, Michael A. A note on the decomposition method for operator equations. *Appl. Math. Comput.* 106 (1999), no. 2-3, 215-220.
14. Muleshkov, A. S.; Golberg, M. A.; Chen, C. S. Particular solutions of Helmholtz-type operators using higher order polyharmonic splines. *Comput. Mech.* 23 (1999), no. 5-6, 411--419.
15. Golberg, M. A.; Chen, C. S.; Bowman, H. Some recent results and proposals for the use of radial basis functions in the BEM, *Engineering Analysis with Boundary Elements*, 23 (1999), 285-296.
16. Chen, C. S.; Golberg, M. A.; Hon, Y.C. Numerical justification of the method of fundamental solutions and the quasi-Monte Carlo method for Poisson-type equations, *Engineering Analysis with Boundary Elements*, 22 (1998), 61-69.
17. Chen, C. S.; Golberg, M. A.; Rashed, Y.F. A mesh free method for linear diffusion equations, *Numerical Heat Transfer, Part B*, 33 (1998), 469-486.
18. Chen, C. S.; Golberg, M.A.; Hon, Y.C. The method of fundamental solutions and quasi-Monte Carlo method for diffusion equations, *International Journal of Numerical Methods in Engineering*, 43 (1998), 1421-1436.
19. Golberg, Michael; Bowman, Harold Optimal convergence rates for some discrete projection methods. *Appl. Math. Comput.* 96 (1998), no. 2-3, 237--271.
20. Golberg, M. A.; Chen, C. S.; Bowman, H.; Power, H. Some comments on the use of radial basis functions in the dual reciprocity method. *Comput. Mech.* 22 (1998), no. 1, 61--69.
21. Golberg, M. A.; Fromme, J. Transient response analysis of nonlinear modally coupled structures, *AIAA J.* (1998).
22. Golberg, M. A. Superconvergence and the use of the residual as an error estimator in the BEM: II, *Engineering Analysis with Boundary Elements*.
23. Golberg, M. A. Superconvergence and the use of the residual as an error estimator in the BEM: The theoretical developments, *Boundary Elements Communications*, 1997.
24. Golberg, M. A. Cross validation in the boundary element methods, BEM, *Engineering Analysis with Boundary Elements*. (1996)
25. Golberg, M. A. Improved convergence rates for some discrete Galerkin methods. *J. Integral Equations Appl.* 8 (1996), no. 3, 307-335.
26. Golberg, M. A. Recent developments in the numerical evaluation of particular solutions in the boundary element method. *Appl. Math. Comput.* 75 (1996), no. 1, 91--101.
27. Golberg, M. A.; Chen, C. S.; Karur, S.R. Improved multiquadric interpolation for partial differential equations, *Engineering Analysis with Boundary Elements*, 18 (1996), 9-17.
28. M.A. Golberg and C.S. Chen, A bibliography on radial basis function approximation, *Boundary Elements Communications*, 7 (4) (1996), 155-163.
29. Golberg, M. A. A note on the sparse representation of discrete integral operators. *Appl. Math. Comput.* 71 (1995), no. 2-3, 97--118.

30. Golberg, M. A. The method of fundamental solutions for Poisson's equation: II, *Engineering Analysis with Boundary Elements*, 1995.
31. Golberg, M. A. The numerical evaluation of particular solutions in the BEM – a review, *Boundary Elements Communications*, 1995.
32. Golberg, M. A.; Chen, C.S. The theory of radial basis functions applied to the BEM for inhomogeneous partial differential equations, *Boundary Elements Communications*, 5, 1994, pp 57-61.
33. Golberg, M. A. Discrete polynomial-based Galerkin methods for Fredholm integral equations. *J. Integral Equations Appl.* 6 (1994), no. 2, 197–211.
34. Golberg, M. A.; Chen, C. S. On a method of Atkinson for evaluating domain integrals in the boundary element method. *Appl. Math. Comput.* 60 (1994), no. 2-3, 125–138.
35. Golberg, M. A.; McKenna, Michael The numerical evaluation of a class of logarithmically singular integral transforms. *Appl. Math. Comput.* 57 (1993), no. 2-3, 117--129.
36. Golberg, M. A. The discrete Sloan iterate for the generalized airfoil equation. *Appl. Math. Comput.* 57 (1993), no. 2-3, 103--115.
37. Golberg, M. A.; Bowman, H. The conditioning of some projection methods for Fredholm and singular integral equations. *Appl. Math. Comput.* 40 (1990), no. 2, part II, 165--178.
38. Golberg, M. A. A comment on Leko's nonexistence proof for the Dirichlet problem, ZAMM, 1990.
39. Golberg, M. A. Discrete projection methods for Cauchy singular integral equations with constant coefficients. *Appl. Math. Comput.* 33 (1989), no. 1, part I, 1–41.
40. Golberg, M. A. A note on a superconvergence result for the generalized airfoil equation. *Appl. Math. Comput.* 26 (1988), no. 2, part I, 105--117.
41. Golberg, M. A. The perturbed Galerkin method for Cauchy singular integral equations with constant coefficients. *Appl. Math. Comput.* 26 (1988), no. 1, 1-33.
42. Golberg, M. A. The convergence of several algorithms for solving integral equations with finite part integrals. II. *J. Integral Equations* 9 (1985), no. 3, 267-275.
43. Golberg, M. A. The numerical solution of Cauchy singular integral equations with constant coefficients. *J. Integral Equations* 9 (1985), no. 1, suppl., 127-151.
44. Golberg, M. A. The convergence of a collocation method for a class of Cauchy singular integral equations. *J. Math. Anal. Appl.* 100 (1984), no. 2, 500-512.
45. Golberg, M. A. Galerkin's method for operator equations with nonnegative index--- with application to Cauchy singular integral equations. *J. Math. Anal. Appl.* 91 (1983), no. 2, 394-409.
46. Golberg, M. A. The convergence of several algorithms for solving integral equations with finite-part integrals. *J. Integral Equations* 5 (1983), no. 4, 329--340.
47. Golberg, M. A.; Lea, Mayana; Miel, George, A superconvergence result for the generalized airfoil equation with application to the flap problem. *J. Integral Equations* 5 (1983), no. 2, 175--186.
48. Golberg, M. A. On the expected value of two order statistics, SIAM review, 1983.

49. Fromme, J. A.; Golberg, M. A. Convergence and stability of a collocation method for the generalized airfoil equation. *Appl. Math. Comput.* **8** (1981), no. 4, 281-292.
50. Golberg, M. A.; Bowman, H. Mikusinski operators without the Titchmarsh theorem. *Amer. Math. Monthly* **87** (1980), no. 7, 564--567.
51. Fromme, J. A.; Golberg, M. A. Reformulation of Possio's kernel with application to unsteady wind tunnel interference. *AIAA J.* **18** (1980), no. 8, 951-957.
52. Fromme, J. A.; Golberg, M. A. Aerodynamic interference effects on oscillating airfoils with controls in ventilated wind tunnels. *AIAA J.* **18** (1980), no. 4, 417--426.
53. Fromme, J. A.; Golberg, M. A. Integral equations for flows in wind tunnels. *J. Integral Equations* **1** (1979), no. 3, 249-273.
54. Golberg, M. A.; Fromme, J. A. On the L_2 convergence of collocation for the generalized airfoil equation. *J. Math. Anal. Appl.* **71** (1979), no. 1, 271-286.
55. Golberg, M. A. A method of adjoints for solving some ill-posed equations of the first kind. *Appl. Math. Comput.* **5** (1979), no. 2, 123-129.
56. Golberg, M. A. On a method of Bownds for solving Volterra integral equations. Issue devoted to numerical methods for solving integral equations. *J. Optim. Theory Appl.* **24** (1978), no. 1, 221-232.
57. Fromme, J.; Golberg, M. A. Numerical solution of a class of integral equations arising in two-dimensional aerodynamics. Issue devoted to numerical methods for solving integral equations. *J. Optim. Theory Appl.* **24** (1978), no. 1, 169-206.
58. Golberg, M. A. Boundary and initial-value methods for solving Fredholm equations with semidegenerate kernels. Issue devoted to numerical methods for solving integral equations. *J. Optim. Theory Appl.* **24** (1978), no. 1, 89-131
59. Golberg, M. A. The conversion of Fredholm integral equations to equivalent Cauchy problems. II. Computation of resolvents. *Appl. Math. Comput.* **3** (1977), no. 1, 39-58.
60. Golberg, M. A. Invariant imbedding and critical length problems. Papers on the numerical solution of two-point boundary-value problems (NSF-CBMS Regional Res. Conf., Texas Tech Univ., Lubbock, Tex., 1975). *SIAM J. Numer. Anal.* **14** (1977), no. 1, 152--160.
61. Golberg, M. A. A note on the relation between invariant imbedding and quasilinearization. *J. Math. Anal. Appl.* **54** (1976), no. 3, 691--696.
62. Golberg, M. A. The conversion of Fredholm integral equations to equivalent Cauchy problems. *Appl. Math. Comput.* **2** (1976), no. 1, 1--18.
63. Golberg, M. A. Initial value methods in the theory of Fredholm integral equations. III. The nonlinear eigenvalue problem. *Appl. Math. Comput.* **1** (1975), no. 4, 281--286.
64. Golberg, M. A. Invariant imbedding and Riccati transformations. *Appl. Math. Comput.* **1** (1975), no. 1, 1-24
65. Golberg, M. A. Some functional relations for two point boundary value problems. II. The inhomogeneous case. *Appl. Math. Comput.* **1** (1975), no. 2, 93-104.
66. Golberg, M. A. An initial value method for the computation of the characteristic values and functions of an integral operator. II. *J. Math. Anal. Appl.* **49** (1975), 773-781.
67. Golberg, M. A. Low resolution timer distributions. *Amer. Statist.* **28** (1974), 166.

68. Golberg, M. A. A matrix limit, *SIAM Review* (1976).
69. Golberg, M. A. The optimization of a substitute teacher pool, *SIAM Review*, 1976.
70. Golberg, M. A. Some functional relations for two point boundary value problems. *J. Math. Anal. Appl.* **45** (1974), 199-209.
71. Golberg, M. A. Differentials in one dimension. *Amer. Math. Monthly* **81** (1974), 1006--1008.
72. Golberg, M. A. Convergence of an initial-value method for Fredholm integral equations. *J. Optimization Theory Appl.* **12** (1973), 344-354.
73. Golberg, M. A. A generalized Rayleigh quotient for eigenvalue problems nonlinear in the parameter. *J. Optimization Theory Appl.* **11** (1973), 146-158.
74. Golberg, M. A. An initial-value method for the determination of Green's functions. *J. Optimization Theory Appl.* **11** (1973), 506-516.
75. Golberg, M. A. A generalization of a formula of Bellman and Krein. *J. Math. Anal. Appl.* **42** (1973), 513-521.
76. Golberg, M. A. Initial-value methods in the theory of Fredholm integral equations. II. *J. Optimization Theory Appl.* **9** (1972), 426-432.
77. Golberg, M. A. An initial value method for the computation of characteristic values and functions of an integral operator. *J. Math. Anal. Appl.* **40** (1972), 625-633.
78. Golberg, M. A. The derivative of a determinant. *Amer. Math. Monthly* **79** (1972), 1124--1126.
79. Golberg, M. A. The equivalence of several initial value methods for solving integral equations. *J. Comput. System Sci.* **6** (1972), 291-297.
80. Golberg, M. A. Invariant imbedding for differential equations with integral boundary conditions. *J. Math. Anal. Appl.* **38** (1972), 92-105.
81. Golberg, M. A. Initial value methods in the theory of Fredholm integral equations. *J. Optimization Theory Appl.* **9** (1972), 112-119.
82. Golberg, M. A. A generalized invariant imbedding equation. III. Nonlinear boundary conditions. *J. Math. Anal. Appl.* **35** 1971 209-214.
83. Golberg, M. A. A generalized invariant imbedding equation. II. *J. Math. Anal. Appl.* **34** 1971 590-601.
84. Golberg, M. A. A generalized invariant imbedding equation. *J. Math. Anal. Appl.* **33** 1971 518-528.
85. Golberg, M. A. Derivation and validation of initial-value methods for boundary-value problems for difference equations. *J. Optimization Theory Appl.* **7** 1971 411-419.
86. Golberg, M. A. Some invariance principles for two-point boundary value problems. *J. Math. Anal. Appl.* **36** 1971 141-148.
87. Golberg, M. A. Multipoint boundary value problems and generalized invariant imbedding equations. *J. Math. Anal. Appl.* **33** 1971 335-340.

ARTICLES IN OTHER MEDIA

88. Li, X; Chen, C.S.; Golberg, M.A. Computation of particular solutions by hyperinterpolation and fast Fourier transform, Proceedings of 2003 International Conference on computational & Experimental Engineering and Sciences, CD-Rom, 2003
89. Li, X; Golberg, M.A. On the convergence of the dual reciprocity method for Poisson's equation, in *Transformation of Domain Effects to the Boundary*, Y.F. Rashed and C.A. Brebbia, eds., 2003, 227-251.
90. C.S. Chen and M. Golberg, A domain embedding method and the quasi-monte carlo method for Poisson's Equation, *Boundary Elements XVII*, Computational Mechanics Publications, Boston, Southampton, 1995, 115-122.
91. C.S. Chen and M.A. Golberg, Las Vegas method for diffusion equations, *Boundary Element Technology XII*, eds. J.I. Frankel, C.A. Brebbia & M.A.H. Aliabadi, Computational Mechanics Publications, 1997, 299-308.
92. C.S. Chen, A.S. Muleshkov and M.A. Golberg, The numerical evaluation of particular solutions for Poisson's equation - a revisit, *Boundary Element Methods XXI*, eds. C.A. Brebbia, H. Power, WIT Press, Boston, Southampton, pp. 313-322, 1999.
93. M.A. Golberg, C.S. Chen & A.S. Muleshkov, The method of fundamental solutions for diffusion equations, *Boundary Element Technology XIII*, eds. C.S. Chen, C.A. Brebbia, D.W. Pepper, WIT Press, Boston, Southampton, pp. 377-386, 1999.
94. Y.F. Rashed, C.S. Chen and M.A. Golberg, Equivalent boundary integrals for Boussinesq - Cerruti half interaction with thin plates, *Boundary Element Methods XXI*, eds. C.A. Brebbia, H. Power, WIT Press, Boston, Southampton, pp. 615-625, 1999.
95. A.H.-D. Cheng, C.S. Chen, M.A. Golberg and D.-L. Young, Radial basis functions, polynomial basis functions, particular solutions and DRBEM, 14th Engineering Mechanics Conference, Austin, Texas, May 21-24, 2000 (in CD ROM).
96. C.S. Chen, M.A. Golberg, M. Ganesh, A. H-D. Cheng, The dual reciprocity method using multilevel method compactly supported radial basis functions, *Boundary Element Methods XXII*, eds. C.A. Brebbia, H. Power, WIT Press, Boston, Southampton, pp. 555-564, 2000
97. A.S. Muleshkov, C.S. Chen, M.A. Golberg and A.H-D. Cheng, Analytic particular solutions for inhomogeneous Helmholtz-type equations, *Advances in Computational Engineering & Sciences*, eds. S.N. Atluri, F.W. Brust, Tech Science Press, Vol. 1, pp. 27-32, 2000.
98. M.A. Golberg, C.S. Chen and V. Popov, A mesh free method for nonlinear reaction-diffusion equations, *Advances in Computational Engineering & Sciences*, eds. S.N. Atluri, F.W. Brust, Tech Science Press, Vol. 1, pp. 2-7, 2000
99. A.S. Muleshkov, M.A. Golberg, A.H-D. Cheng and C.S. Chen, Polynomial particular solutions for Poisson problems, *Boundary Elements XXIV*, eds. C.A. Brebbia, A. Tadeu and V. Popov, WIT Press, Southampton, Boston, pp. 115-124, 2002.
100. A.S. Muleshkov, M.A. Golberg, C.S. Chen, The method of fundamental solutions for solving the axisymmetric Poisson equation, *Advances in Computational &*

- Experimental Engineering & Sciences*, eds. S.N. Atluri, D.E. Beskos; D. Polyzos, 2003.
101. Li, X.; Golberg, M. A. On methods for solving the Dirichlet problem for Poisson's equation. *Boundary elements, XXIV (Sintra, 2002)*, 87-96, Int. Ser. Adv. Bound. Elem., 13, *WIT Press, Southampton*, 2002.
 102. Rashed, Y. F.; Chen, C. S.; Golberg, M. A. Equivalent boundary integrals for Boussinesq-Cerruti half interaction with thin plates. *Boundary elements, XXI (Oxford, 1999)*, 615-625, Int. Ser. Adv. Bound. Elem., 6, *WIT Press, Southampton*, 1999.
 103. Golberg, M. A.; Bowman, H. Some recent developments in the convergence analysis of discrete projection methods. *Boundary integral methods: numerical and mathematical aspects*, 307-374, *Comput. Eng.*, 1, *WIT Press/Comput. Mech. Publ., Boston, MA*, 1999.
 104. Golberg, M. A.; Chen, C. S. The method of fundamental solutions for potential, Helmholtz and diffusion problems. *Boundary integral methods: numerical and mathematical aspects*, 103-176, *Comput. Eng.*, 1, *WIT Press/Comput. Mech. Publ., Boston, MA*, 1999.
 105. Chen, C. S.; Muleshkov, A. S.; Golberg, M. A. The numerical evaluation of particular solutions for Poisson's equation- a revisit. *Boundary elements, XXI (Oxford, 1999)*, 313--322, Int. Ser. Adv. Bound. Elem., 6, *WIT Press, Southampton*, 1999.
 106. Golberg, M. A. Introduction to the numerical solution of Cauchy singular integral equations. *Numerical solution of integral equations*, 183-308, *Math. Concepts Methods Sci. Engrg.*, 42, *Plenum, New York*, 1990.
 107. Golberg, M. A. Perturbed projection methods for various classes of operator and integral equations. *Numerical solution of integral equations*, 71-129, *Math. Concepts Methods Sci. Engrg.*, 42, *Plenum, New York*, 1990.
 108. Golberg, Michael A. Projection methods for Cauchy singular integral equations with constant coefficients on $[-1, 1]$. *Treatment of integral equations by numerical methods (Durham, 1982)*, 261-272, *Academic Press, London*, 1982.
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115. Golberg, M.A. The Optimal Size of a Substitute Teacher Pool, reprinted in *Mathematical Modeling: Classroom Notes in Applied Mathematics*, Philadelphia, PA, 1977.

CONTRIBUTED PAPERS AT PROFESSIONAL MEETINGS

- 1997 The Residual as an Error Estimator in the BEM, BEM 20, Univ. of Central Florida, Orlando.
- 1997 The Las Vegas Method for the Diffusion Equation, BETECH 97, Univ. of Tennessee.
- 1995 Improved Convergence Rates for Some Discrete Galerkin Methods, BEM XVIII, Univ. of Wisconsin, Madison.
- 1994 The Method of Fundamental Solutions for Poisson's Equation, BETECH 94, Univ. of Central Florida.
- 1984 Convergence of Several Algorithms for Solving Equations with Finite Part Integrals, SLAM Fall Meeting, Arizona State University.
- 1979 Reformulation of the Possio Kernel and its Application to Unsteady Wind Tunnel Interference Calculations, 20th Structural Dynamics and materials.
- 1980 Computation of Aerodynamic Interference Effects on Oscillating Airfoils with Controls in Ventilated Subsonic Wind Tunnels, AIAA 17th Aerospace Sciences Meeting, New Orleans.
- 1978 Oscillatory Aerodynamic Work Tensors in Ventilated Wind Tunnels, 8th U.S. National Congress of Applied Mechanics, Los Angeles.
- 1979 Projection Methods for a Class of Operator Equations with Application to Some Singular Integral Equations, SIAM Fall Meeting, Albuquerque, New Mexico.
- 1975-1977 Some New Methods for Solving Convolution Integral Equations, AMS Regional Meeting, Albuquerque, New Mexico.
- 1976 Integral Equations with Semidegenerated Kernels, AMS Regional Meeting, Portland, Oregon.

- 1975 Boundary and Initial Value Methods for Solving Convolution Integral Equations, SIAM Fall Meeting, San Francisco.
- 1974 The Solution of Linear Multipoint Boundary Value Problems by the Method of Invariant Imbedding, SIAM Spring Meeting, California Institute of Technology.
- 1973 Some Functional Relations for Two Point Boundary Value Problems, SIAM Fall Meeting, Iowa City, Iowa.
- 1972 An Initial Value Method for Integral Equations with Mildly Singular Kernels. SIAM Fall Meeting, Austin, Texas.
- 1972 Convergence of an Initial Value Method for Solving Fredholm Equations, SIAM Fall Meeting, Austin, Texas.
- 1971 An Initial Value Method for Computing the Eigenvectors and Eigenvalues of a Matrix, SIAM Fall Meeting, Madison, Wisconsin.
- 1970 A Generalized Invariant Imbedding Equation, AMS Summer Meeting, Laramie, Wyoming

INVITED TALKS

- 1998 Radial Basis Functions for Numerical Solution of PDEs, Math. Department, Uni. Southwestern Louisiana.
- 1996 Double Approximation Methods for some Boundary Integral Equations, BETECH 97, Univ. of Tennessee, Knoxville.
- 1995 Radial Basis Functions for Numerical Solution of PDEs, Second International Conference on Dynamical Systems, Morehouse College.
- 1983 The Numerical Solution of CSIES, Dept. of Mathematics, Univ. of Arizona, Tucson.
- 1977 A Survey of Numerical Methods for Solving Integral Equations, SIAM symposium in honor of Professor Arvid Lonseth, Univ. of Washington, Seattle.
- 1977 Numerical Solution of a Class of Integral Equations Arising in Two Dimensional Aerodynamics. Mathematical Research Center, Univ. of Wisconsin, Madison.
- 1975 The Use of Functional Equations in Numerical Analysis. AMS symposium on Functional Equations, Western Michigan University.
- 1973 Some Functional Relations for Two Point boundary Value Problems, Systems Engineering Department Colloquium, University of Arizona.

CURRENT RESEARCH

My current research center around the following topics:

- The development of mesh-free algorithms for the numerical solutions of PDEs using the method of fundamental solutions and ideas from the dual reciprocity method.
- Posterior error estimation for integral equations based on superconvergent approximations.

- The convergence analysis of numerical algorithms for integral equations – in particular studying the combined effects of numerical integration and data approximations.
- Numerical solution of hypersingular integral equations.

OTHER ACTIVITIES

Frequent contributor to 'Letters to the Editors'; cooking teacher specializing in Chinese and Jewish cooking.