DOUGLAS ROBERT ANDERSON

Mathematics and Computer Science
Concordia College
Moorhead, MN 56562 USA
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andersod@cord.edu, 218-299-4453

EDUCATION

Ph.D. Mathematics, August 1997
University of Nebraska−Lincoln
Thesis: *Discrete Hamiltonian Systems*, under Professor Allan C. Peterson

M.S. Mathematics, December 1994
University of Nebraska−Lincoln

B.A. Mathematics, *Summa Cum Laude*, May 1989
Augustana College, Sioux Falls, South Dakota

PROFESSIONAL EXPERIENCE

Richard & Barbara Nelson Chair of Mathematics & Computer Science 2008−
Department Chair 2006 – 2009, 2010−
Professor 2011−
Associate Professor 2003 – 2011
Assistant Professor 1997 – 2003
Department of Mathematics and Computer Science, Concordia College Moorhead

Courses taught:
Math 105 *Exploring Mathematics*, Math 110 *Precalculus*, Math 121 *Calculus I*,
Math 122 *Calculus II*, Math 203 *Finite Mathematics*, Math 210 *Linear Algebra*,
Math 250 *Pre-May Seminar*, Math 300 *May Seminar Abroad*, Math 311 *Differential Equations*,
Math 312 *Applied Mathematics*, Math 328 *Complex Analysis*, Math 330 *Real Analysis I*,
Math 380 *Discrete Dynamics and Chaos*, Math 402 *Senior Seminar*, Math 430 *Real Analysis II*.

Visiting Associate Professor, February−June, 2010
Division of Science and Technology, United International College, Zhuhai, China

Courses taught:
Math 3010 *Advanced Calculus II*, Math 1040 *Linear Algebra*

Visiting Fellow, July−November, 2009
School of Mathematics and Statistics, The University of New South Wales, Sydney, Australia

Graduate Teaching Assistant, 1989 – 1990, 1993 – 1997
Department of Mathematics and Statistics, University of Nebraska–Lincoln

Courses taught as principal lecturer:
Math 101 *College Algebra*, Math 103 *Precalculus with Graphing Calculator*,
Math 106 *Calculus I,II with Graphing Calculator*,
Math 107 *Calculus II with Graphing Calculator*, SIPS Program,
Stats 180 *Elementary Statistics*.

Senior High School, 1991 – 1993, Nagoya Gakuin Kotogakko, Nagoya, Japan

Course taught:
Algebra (for exchange students from Australia and New Zealand)

Eikaiwa (English Conversation) for Japanese, 1990 – 1993
Musashino Ruuteru Kyokai, Tokyo, Japan
Nagoya Gakuin Chugaku and Kibo Ruuteru Kyokai, Nagoya, Japan

REFEREED JOURNAL PUBLICATIONS

1. Discrete trigonometric matrix functions, *PanAmerican Mathematical Journal*, 7:1 (1997) 39–54.
2. with R. I. Avery, and A. C. Peterson, Three positive solutions to a discrete focal boundary value problem, *Journal of Computational and Applied Mathematics*, 88:1 (1998) 103–118.
3. Green's function for an n-point discrete right focal boundary value problem, *PanAmerican Mathematical Journal*, 8:2 (1998) 45–70.
4. Multiple positive solutions for a three-point boundary value problem, *Mathematical and Computer Modelling*, 27:6 (1998) 49–57.
5. A $2n$th-order linear difference equation, *Communications in Applied Analysis*, 2:4 (1998) 521–529.
6. Normalized prepared bases for discrete symplectic matrix systems, *Dynamic Systems and Applications*, 8 (1999) 335–344.
7. Positivity of Green's function for an n-point right focal boundary value problem on measure chains, *Mathematical and Computer Modelling*, 31 (2000) 29–50.
8. with A. C. Peterson, Asymptotic properties of solutions of a $2n$th-order differential equation on a time scale, *Mathematical and Computer Modelling*, 32 (2000) 653–660.
9. with R. I. Avery, Multiple positive solutions to a third-order discrete focal boundary value problem, *Computers & Mathematics with Applications*, 42 (2001) 333–340.
10. with R. I. Avery and J. Henderson, Corollary to the five functionals fixed point theorem, *Journal of Nonlinear Studies*, 8:4 (2001) 451–464.
11. Eigenvalue intervals for a two-point boundary value problem on a measure chain, *Journal of Computational and Applied Mathematics*, 141:1-2 (2002) 57–64.
12. with R. I. Avery, Existence of three positive solutions to a second-order boundary value problem on a measure chain, *Journal of Computational and Applied Mathematics*, 141: 1-2 (2002) 65–73.
13. with J. M. Davis, Multiple solutions and eigenvalues for third-order right focal boundary value problems, *Journal of Mathematical Analysis and Applications*, 267:1 (2002) 135–157.
14. Solutions to a second-order three-point problem on time scales, *Journal of Difference Equations and Applications*, 8:8 (2002) 673–688.
15. Eigenvalue intervals for a second-order mixed-conditions problem on time scales, *International Journal of Nonlinear Differential Equations*, 7:1-2 (2002) 97–104.
16. with R. I. Avery, Fixed point theorem of cone expansion and compression of functional type, *Journal of Difference Equations and Applications*, 8:11 (2002) 1073–1083.
17. Taylor polynomials for nabla dynamic equations on time scales, *PanAmerican Mathematical Journal*, 12:4 (2002) 17–27.
18. A fourth-order nonlinear difference equation, *Journal of Difference Equations and Applications*, 9:1 (2003) 161–169.
19. with J. Hoffacker, Green's function for an even-order mixed derivative problem on time scales, *Dynamic Systems and Applications*, 12:1-2 (2003) 9–22.

20. with **J. Bullock '02**, L. Erbe, A. Peterson, and H. Tran, Nabla dynamic equations on time scales, *PanAmerican Mathematical Journal*, 13:1 (2003) 1–47.

21. Existence of a solution to a higher-order discrete three-point problem, *Electronic Journal of Differential Equations*, 2003:40 (2003) 1–7.

22. with R. I. Avery and J. M. Davis, Existence and uniqueness of solutions to discrete diffusion equations, *Computers & Mathematics with Applications*, 45 (2003) 1075–1085.

23. Discrete third-order three-point right focal boundary value problems, *Computers & Mathematics with Applications*, 45 (2003) 861–871.

24. Green's function for a third-order generalized right focal problem, *Journal of Mathematical Analysis and Applications*, 288:1 (2003) 1–14.

25. Kamenev-type oscillation criteria for linear Hamiltonian systems, *PanAmerican Mathematics Journal*, 13:4 (2003) 71–75.

26. with J. Hoffacker, A stacked delta-nabla self-adjoint problem of even order, *Mathematical and Computer Modelling*, 38 (2003) 481–494.

27. Extension of a second-order multi-point problem to time scales, *Dynamic Systems and Applications*, 12:3-4 (2003) 393–404.

28. with R. I. Avery, An even-order three-point boundary value problem on time scales, *Journal of Mathematical Analysis and Applications*, 291:2 (2004) 514–525.

29. Nonlinear triple-point problems on time scales, *Electronic Journal of Differential Equations*, 2004:47 (2004) 1–12.

30. with R. I. Avery and J. Henderson, Existence of solutions for a one-dimensional p-Laplacian on time scales, *Journal of Difference Equations and Applications*, 10:10 (2004) 889–896.

31. Twin n-point boundary value problems, *Applied Mathematics Letters*, 17:9 (2004) 1053–1059.

32. Multiple periodic solutions for a second-order problem on periodic time scales, *Nonlinear Analysis TMA*, 60:1 (2005) 101–115.

33. with J. Hoffacker, Even-order self adjoint time scale problems, *Electronic Journal of Differential Equations*, 2005:24 (2005) 1–9.

34. Eigenvalue intervals for even-order Sturm-Liouville dynamic equations, *Communications on Applied Nonlinear Analysis*, 12:4 (2005) 1–13.

35. Time-scale integral inequalities, *Journal of Inequalities in Pure and Applied Mathematics*, 6:3:66 (2005) 1-15.

36. with **N. G. Myran '05 and D. L. White '05**, Basins of attraction in a Cournot duopoly model of Kopel, *Journal of Difference Equations and Applications*, 11:10 (2005) 879–887.

37. Existence of solutions for nonlinear multi-point problems on time scales, *Dynamic Systems and Applications*, 15 (2006) 21–34.

38. with R. I. Avery and R. J. Krueger, An extension of the fixed point theorem of cone expansion and compression of functional type, *Communications on Applied Nonlinear Analysis*, 13:1 (2006) 15–26.

39. with **T. O. Anderson '06 and M. M. Kleber '06**, Green's function and existence of solutions for a functional focal differential equation, *Electronic Journal of Differential Equations*, 2006 (2006), No. 12, 1–14.

40. with J. Hoffacker, Positive periodic time-scale solutions for functional dynamic equations, *Australian Journal of Mathematical Analysis and Applications*, 3:1:5 (2006) 1–14.

41. with R. J. Krueger and A. C. Peterson, Delay dynamic equations with stability, *Advances in Difference Equations*, 2006 (2006), Article ID 94051, 19 pages.

42. with R. I. Avery, A fourth-order four-point right focal boundary value problem, *Rocky Mountain Journal of Mathematics*, 36:2 (2006) 367–380.

43. with G. Sh. Guseinov and J. Hoffacker, Higher-order self adjoint boundary value problems on time scales, *Journal of Computational and Applied Mathematics*, 194:2 (2006) 309–342.

44. with R. Ma, Second-order n-point eigenvalue problems on time scales, *Advances in Difference Equations*, 2006 (2006), Article ID 59572, 17 pages.

45. Asymptotic behavior of solutions for neutral delay dynamic equations on time scales, *Advances in Difference Equations*, 2006 (2006), Article ID 80850, 11 pages.

46. with J. Hoffacker, Existence of solutions for a cantilever beam problem, *Journal of Mathematical Analysis and Applications*, 323 (2006) 958–973.

47. with A. Cabada, Third-order right-focal multi-point problems on time scales, *Journal of Difference Equations and Applications*, 12:9 (2006) 919–935.

48. Second-order n-point problems on time scales with changing-sign nonlinearity, *Advances in Dynamical Systems and Applications*, 1:1 (2006) 17–27.

49. Boundedness and vanishing of solutions for a forced delay dynamic equation, *Advances in Difference Equations*, 2006 (2006), Article ID 35063, 17 pages.

50. with **Z. R. Kenz '08**, Global asymptotic behavior for delay dynamic equations, *Nonlinear Analysis*, 66 (2007) 1633–1644.

51. with C. C. Tisdell, Third-order nonlocal problems with sign-changing nonlinearity on time scales, *Electronic Journal of Differential Equations*, 2007 (2007), No. 19, 1–12.

52. with I. Rachůnková and C. C. Tisdell, Solvability of discrete Neumann boundary value problems, *Journal of Mathematical Analysis and Applications*, 331 (2007) 736–741.

53. with B. Buchholz, Self-adjoint matrix equations on time scales, *PanAmerican Mathematical Journal*, 17:2 (2007) 81–104.

54. Oscillation of second-order forced functional dynamic equations with oscillatory potentials, *Journal of Difference Equations and Applications*, 13:5 (2007) 407–421.

55. with **L. M. Moats '10**, q-Dominant and q-recessive matrix solutions for linear quantum systems, *Electronic Journal of Qualitative Theory of Differential Equations*, 2007:11 (2007) 1–29.

56. with Z. Liu, J. S. Ume, and S. M. Kang, Twin monotone positive solutions to a singular nonlinear third order differential equation, *Journal of Mathematical Analysis and Applications*, 334 (2007) 299–313.

57. with J. Hoffacker, Existence of solutions to a third-order multi-point problem on time scales, *Electronic Journal of Differential Equations*, 2007(2007), No. 107, pp. 1–15.

58. Young's integral inequality on time scales revisited, *Journal of Inequalities in Pure and Applied Mathematics*, 8 (2007), Issue 3, Article 64, 5 pages.

59. with J. Hoffacker, Higher-dimensional functional dynamic equations on periodic time scales, *Journal of Difference Equations and Applications*, 14:1 (2008) 83–89.

60. Dynamic double integral inequalities in two independent variables on time scales, *Journal of Mathematical Inequalities*, 2:2 (2008) 163–184.

61. Existence of solutions for first-order multi-point problems with changing-sign nonlinearity, *Journal of Difference Equations and Applications*, 14:6 (2008) 657–666.

62. Nonlinear dynamic integral inequalities in two independent variables on time scale pairs, *Advances in Dynamical Systems and Applications*, 3:1 (2008) 1–13.

63. Global attractivity for nonlinear delay dynamic equations, *International Journal of Difference Equations*, 3:1 (2008) 37–51.

64. Existence of solutions for a first-order p-Laplacian bvp on time scales, *Nonlinear Analysis*, 69 (2008) 4521–4525.

65. Interval criteria for oscillation of nonlinear second-order dynamic equations on time scales, *Nonlinear Analysis*, 69 (2008) 4614–4623.

66. Global stability for nonlinear dynamic equations with variable coefficients, *Journal of Mathematical Analysis and Applications*, 345:2 (2008) 796–804.

67. with I. Y. Karaca, Higher-order three-point boundary value problem on time scales, *Computers & Mathematics with Applications*, 56 (2008) 2429–2443.

68. with **W. R. Hall '11**, Oscillation criteria for two-dimensional systems of first-order linear dynamic equations on time scales, *Involve: a Journal of Mathematics*, 2:1 (2009) 1–16.

69. with **J. D. Kwiatkowski '11**, Asymptotic and oscillatory behavior of second-order neutral quantum equations with maxima, *Electronic Journal of Qualitative Theory of Differential Equations*, 2009 (2009), No. 16, pp. 1–9.

70. with George Smyrlis, Solvability for a third-order three-point boundary value problem on time scales, *Mathematical and Computer Modelling*, 49 (2009) 1994–2001.

71. Dominant and recessive solutions of self-adjoint matrix systems on time scales, *Nonlinear Dynamics and Systems Theory*, 9:3 (2009) 219-238.

72. with P. J. Y. Wong, Positive solutions for second-order semipositone problems on time scales, *Computers & Mathematics with Applications*, 58 (2009) 281–291.

73. Oscillation and nonoscillation criteria for two-dimensional time-scale systems of first-order nonlinear dynamic equations, *Electronic Journal of Differential Equations*, 2009(2009), No. 24, pp. 1–13.

74. with Feliz Minhós, A discrete fourth-order Lidstone problem with parameters, *Applied Mathematics and Computation*, 214 (2009) 523–533.

75. with Ağacik Zafer, Nonlinear oscillation of second-order dynamic equations on time scales, *Applied Mathematics Letters*, 22 (2009) 1591–1597.

76. with Feliz Minhós, Existence of solutions for a fourth-order multi-point beam problem on measure chains, *Electronic Journal of Differential Equations*, 2009(2009), No. 98, pp. 1-10.

77. with Abdelkader Boucherif, Nonlocal initial value problem for first-order dynamic equations on time scales, *Dynamics of Continuous, Discrete and Impulsive Systems (Series A) Math. Anal.*, 16 (2009), Differential Equations and Dynamical Systems, suppl. S1, 222–226.

78. with R. I. Avery, Green's function of a centered partial difference equation, *Electronic Journal of Qualitative Theory of Differential Equations*, Spec. Ed. I, 2009 No. 4, pp. 1–12.

79. with R. I. Avery and J. Henderson, A topological proof and extension of the Leggett-Williams fixed point theorem, *Communications on Applied Nonlinear Analysis*, 16:4 (2009) 39–44.

80. with Chengbo Zhai, Positive solutions to semi-positone second-order three-point problems on time scales, *Applied Mathematics and Computation*, 215 (2010) 3713–3720.

81. with Ravi P. Agarwal and Ağacik Zafer, Interval oscillation criteria for second-order forced delay dynamic equations with mixed nonlinearities, *Computers & Mathematics with Applications*, 59 (2010) 977–993.

82. with R. I. Avery and J. Henderson, Existence of a positive solution to a right focal boundary value problem, *Electronic Journal of Qualitative Theory of Differential Equations*, 2010, No. 5, 1–6.

83. with R. I. Avery and J. Henderson, Functional expansion - compression fixed point theorem of Leggett-Williams type, *Electronic Journal of Differential Equations*, Vol. 2010(2010), No. 63, pp. 1–9.

84. with A. Zafer, Interval criteria for second-order super-half-linear functional dynamic equations with delay and advance arguments, *J. Difference Equations Applications*, 16:8 (2010) 917–930.

85. with J. R. Graef, Sturm-Picone comparison theorem for matrix systems on time scales, *Applicable Analysis and Discrete Mathematics*, 4 (2010) 338–346.

86. Titchmarsh-Sims-Weyl theory for complex Hamiltonian systems on Sturmian time scales, *Journal of Mathematical Analysis and Applications*, 373 (2011) 709–725.

87. with Chengbo Zhai, A sum operator equation and applications to nonlinear elastic beam equations and Lane-Emden-Fowler equations, *Journal of Mathematical Analysis and Applications*, 375:2 (2011) 388–400.

88. with C. C. Tisdell, Alternative solutions of inhomogeneous second–order linear dynamic equations on time scales, *Journal of Difference Equations and Applications*, 17:10 (2011) 1487–1498.

89. with R. I. Avery, J. Henderson, X. Liu, and J. W. Lyons, Existence of a positive solution for a right focal discrete boundary value problem, *Journal of Difference Equations and Applications*, 17:11 (2011) 1635–1642.

90. with R. I. Avery, Existence of a periodic solution for continuous and discrete periodic second-order equations with variable potentials, *Journal of Applied Mathematics and Computing*, 37:1 (2011) 297–312.

91. with R. I. Avery, J. Henderson, and X. Y. Liu, Operator type expansion-compression fixed point theorem, *Electronic Journal of Differential Equations*, 2011 (2011), No. 42, 1–11.

92. with R. I. Avery and J. Henderson, Some fixed point theorems of Leggett-Williams type, *Rocky Mountain Journal of Mathematics*, 41:2 (2011) 371–386.

93. with **Steven Noren '11** and **Brent Perreault '12**, Young's integral inequality with upper and lower bounds, *Electronic Journal of Differential Equations*, 2011 (2011), No. 74, 1–10.

94. with R. I. Avery, J. Henderson, and X. Y. Liu, Multiple fixed point theorems of operator type, *International Electronic Journal of Pure and Applied Mathematics*, Volume 3 No. 2 (2011) 173–185.

95. with R. I. Avery, J. Henderson, and X. Y. Liu, Existence of positive solutions of a second order right focal boundary value problem, *Communications on Applied Nonlinear Analysis*, Volume 18 Number 3 (2011) 41–51.

96. with R. I. Avery, J. Henderson, and X. Y. Liu, Fixed point theorem utilizing operators and functionals, *Electronic Journal of Qualitative Theory of Differential Equations*, 2012 No. 12 (2012) 1–16.

EDITORIAL BOARDS

Abstract and Applied Analysis

Bulletin of Mathematical Analysis and Applications

TALKS

1. **Joint Mathematics Meetings** San Diego, California, January 1997
2. **Conference on Applied Mathematics** University of Central Oklahoma, March 1997
3. **Rocky Mountain Mathematics Consortium Summer Conference** Topic: Difference Equations, University of Wyoming, July 1997
4. **Tri-College Mathematics Colloquium** Presenter, North Dakota State University, Fargo, April 1998
5. **Special Session in Boundary Value Problems for Differential Equations** AMS Southeastern section meeting, Chair of afternoon session, Louisville, Kentucky, April 1998 (invited talk)
6. **Third International Conference on Dynamic Systems and Applications** Morehouse College, Atlanta, May 1999 (invited talk)
7. **American Mathematical Society Meeting** Central Section, University of Notre Dame, April 2000 (invited talk)
8. **Third World Congress of Nonlinear Analysts** Catania, Sicily, Italy, July 2000 (invited talk)
9. **Rocky Mountain Mathematics Consortium Summer Conference** Topic: Dynamic Equations on Time Scales, University of Wyoming, July 2002
10. **American Mathematical Society Meeting** Central Section, Indiana University, 4-6 April 2003 (invited talk)
11. **Sigurdson Mathematics Symposium** Augustana College, Sioux Falls, South Dakota, 24-25 April 2003 (invited talk)
12. **Joint Mathematics Meetings** Phoenix, Arizona, January 2004 (invited talk)
13. **Physics and Chemistry Colloquium** "Using Calc I to Explore Periodic Differential Equations," 25 March 2004
14. **American Mathematical Society Meeting** Western Section, University of Southern California, 3-4 April 2004 (invited talk)
15. **Seventh Regional Workshop on the Mathematical Sciences** (9 students) University of Nebraska-Lincoln, 5-6 November 2004
16. **Joint Mathematics Meetings** Atlanta, Georgia, January 2005 (invited talk)
17. **International Workshop on Dynamic Equations on Time Scales** Bahçeşehir Üniversitesi, İstanbul, Turkey, 27 June - July 1 2005 (invited talk)
18. **Joint Mathematics Meetings** San Antonio, Texas, January 2006 (invited talk)
19. **Joint Mathematics Meetings** New Orleans, Louisiana, January 2007 (invited talk)
20. **MAA North Central Section** Fall Meeting, Bemidji State University, Bemidji, Minnesota, 19-20 October 2007
21. **Joint Mathematics Meetings** San Diego, California, January 2008

22. **Tri-College Mathematics Colloquium** Presenter, North Dakota State University, Fargo, April 1, 2008

23. **Mathematics on the Northern Plains**, North Dakota State University, Fargo, April 26, 2008 (Invited Plenary Lecture)

24. **6th International Conference on Differential Equations and Dynamical Systems**, Morgan State University, Baltimore, May 22-26, 2008 (invited talk)

25. **5th International Conference of Applied Mathematics and Computing**, Plovdiv, Bulgaria, August 12-18, 2008 (invited talk)

26. **MAA North Central Section** Fall Meeting, Concordia College, Moorhead, Minnesota, October 17-18, 2008

27. **Mathematics Colloquium Series**, Winona State University, February 25, 2009 (invited talk)

28. **Rocky Mountain Mathematics Consortium Summer Conference** Topic: Recent Developments in Dynamic Equations on Time Scales, University of Wyoming, June 2009 (3 talks)

29. **Down Under Time Scales Seminar**, The University of New South Wales, Sydney, Australia, 30 July 2009, 20 August 2009, 24 September 2009, 8 October 2009

30. **Statistics Seminar**, United International College, Zhuhai, Guangdong, China, 31 March 2010

31. **Mathematics Seminar**, South China University of Technology, Guangzhou, Guangdong, China, 3 June 2010 (invited talk)

32. **Mathematics Colloquium**, Sun Yat Sen University (Zhongshan Da Xue), Guangzhou, Guangdong, China, 4 June 2010 (invited talk)

33. **Statistics Summer Seminar**, BNU-HKBU-United International College, Zhuhai, Guangdong, China, 23 June 2010 (invited talk)

34. **MAA North Central Section** Fall Meeting, University of Sioux Falls, Sioux Falls, South Dakota, October 22-23, 2010, with Mike Hvidsten of Gustavus Adolphus College

35. **Joint Mathematics Meetings** New Orleans, Louisiana, January 2011 (invited talk)

36. **American Mathematical Society Meeting** Central Section, University of Nebraska-Lincoln, 14-16 October 2011 (invited talk)

37. **MAA North Central Section** Fall Meeting, Minnesota State University Moorhead, October 28-29, 2011

WORKSHOPS, CONFERENCES, and COLLOQUIA

1. **Rocky Mountain Mathematics Consortium Summer Conference** Topic: Math Modeling and Epidemiology, University of Wyoming, July 1998
2. **The Art and Science of Model Building: A Workshop for College Mathematics Teachers**, University of Montana, July 1998 & 1999
3. **Mathematical Association of America Meeting** North Central Section, Chair of afternoon session, Moorhead, Minnesota September 1998
4. **Computational Science in Undergraduate Education** Gustavus Adolphus College, March 1999
5. **21st Annual Pi Mu Epsilon Conference for Undergraduates** St. John's University, 9-10 April 1999
6. **Tri-College Differential Equations Seminar** Presenter and Participant, North Dakota State University, Fall 1999
7. **Mathematics on the Northern Plains** South Dakota State University, 15 April 2000
8. **Midwest Differential Equations Conference** Concordia College, Moorhead, MN, 20-21 October 2000, Host
9. **Third Regional Workshop on the Mathematical Sciences** (10 students) University of Nebraska-Lincoln, 27-28 October 2000
10. **23rd Annual Pi Mu Epsilon Conference for Undergraduates** (18 students) St. John's University, 30-31 March 2001
11. **Mathematics on the Northern Plains** University of South Dakota, 21 April 2001
12. **Fourth Regional Workshop on the Mathematical Sciences** (19 students) University of Nebraska-Lincoln, 2-3 November 2001
13. **Mathematics on the Northern Plains** South Dakota State University, 6 April 2002
14. **24th Annual Pi Mu Epsilon Conference for Undergraduates** (11 students) St. John's University, 12-13 April 2002
15. **Mathematical Association of America Meeting** North Central Section, Minnesota State University Moorhead, 25 October 2002
16. **Mathematics on the Northern Plains** University of South Dakota, 29 March 2003
17. **Rocky Mountain Mathematics Consortium Summer Conference** Topic: Discrete Dynamical Systems and Their Application to Population Dynamics, University of Wyoming, July 2003
18. **Sixth Regional Workshop on the Mathematical Sciences** (7 students) University of Nebraska-Lincoln, 7-8 November 2003
19. **26th Annual Pi Mu Epsilon Conference for Undergraduates** (4 students) St. John's University, 26-27 March 2004
20. **Mathematical Association of America Meeting** North Central Section, North Dakota State University, 29-30 October 2004
21. **28th Annual Pi Mu Epsilon Conference for Undergraduates** (9 students) St. John's University, 7-8 April 2006

22. **Eighth Regional Workshop on the Mathematical Sciences** (5 students) University of Nebraska-Lincoln, 27-28 October 2006

23. **29th Annual Pi Mu Epsilon Conference for Undergraduates** (4 students) St. John's University, 20-21 April 2007

24. **MAA North Central Section 2007 Summer Seminar** Experimental Mathematics in Action with Jonathan Borwein, Carleton College, Northfield, Minnesota, 16-20 July 2007

25. **Mathematical Association of America Meeting** North Central Section, Concordia College, Moorhead, MN, October 2008, Host

26. **30th Annual Pi Mu Epsilon Conference for Undergraduates** St. John's University, 17-18 April 2009

27. **Nebraska Conference for Undergraduate Women in Mathematics** (5 students) Lincoln, Nebraska, 29-31 January 2010

28. **32nd Annual Pi Mu Epsilon Conference for Undergraduates** St. John's University, 8-9 April 2011

29. **Differential Equations Across the Collegiate Curriculum** Gustavus Adolphus College, 23-26 June 2011

30. **MAA North Central Section 2011 Summer Seminar** Heavenly Mathematics: The Birth of Mathematical Astronomy and Spherical Trigonometry with Glen Van Brummelen, Bemidji State University, Bemidji, Minnesota, 24-29 July 2011

31. **Joint Mathematics Meetings** Boston, Massachusetts, January 2012

SERVICE: REFEREE

1. *Abstract and Applied Analysis*: 6 manuscripts
2. *Acta Mathematica Sinica*: 1 manuscript
3. *Advances in Difference Equations*: 12 manuscripts
4. *Advances in Dynamical Systems and Applications*: 1 manuscript
5. *AIMS Proceedings*: 1 manuscript
6. *Analysis and Applications*: 1 manuscript
7. *Applicable Analysis*: 1 manuscript
8. *Applicable Analysis and Discrete Mathematics*: 2 manuscripts
9. *Applied Mathematical Modelling*: 1 manuscript
10. *Applied Mathematics and Computation*: 1 manuscript
11. *Applied Mathematics and Information Sciences*: 1 manuscript
12. *Applied Mathematics Letters*: 18 manuscripts
13. *Boundary Value Problems*: 4 manuscripts
14. *Bulletin of the Iranian Mathematical Society*: 1 manuscript
15. *Bulletin of the Korean Mathematical Society*: 1 manuscript
16. *Chaos, Solitons, & Fractals*: 1 manuscript
17. *Communications in Applied Analysis*: 1 manuscript
18. *Communications in Nonlinear Science and Numerical Simulations*: 1 manuscript
19. *Communications on Applied Nonlinear Analysis*: 1 manuscript
20. *Computers & Mathematics with Applications*: 12 manuscripts
21. *Differential Equations & Applications*: 1 manuscript
22. *Discrete and Continuous Dynamical Systems*: 1 manuscript
23. *Discrete Dynamics in Nature and Society*: 6 manuscripts
24. *Dynamic Systems and Applications*: 6 manuscripts
25. *Electronic Journal of Differential Equations*: 11 manuscripts
26. *Electronic Journal of Qualitative Theory of Differential Equations*: 5 manuscripts
27. *Georgian Mathematical Journal*: 1 manuscript
28. *Hacettepe Journal of Mathematics and Statistics*: 2 manuscripts
29. *Indian Journal of Pure and Applied Mathematics*: 4 manuscripts
30. *International Journal of Applied Mathematical Sciences*: 1 manuscript
31. *International Journal of Difference Equations*: 2 manuscripts
32. *International Journal of Mathematics and Mathematical Sciences*: 1 manuscript

33. *Journal of Applied Mathematics*: 2 manuscripts
34. *Journal of Applied Mathematics and Computing*: 4 manuscripts
35. *Journal of Computational and Applied Mathematics*: 5 manuscripts
36. *Journal of Difference Equations and Applications*: 11 manuscripts
37. *Journal of Inequalities and Applications*: 5 manuscripts
38. *Journal of Inequalities in Pure and Applied Mathematics*: 2 manuscripts
39. *Journal of Information and Mathematical Sciences*: 1 manuscript
40. *Journal of Mathematical Analysis and Applications*: 17 manuscripts
41. *Journal of Mathematical Inequalities*: 4 manuscripts
42. *Lithuanian Mathematical Journal*: 1 manuscript
43. *London Mathematical Society*: 2 manuscripts
44. *Mathematica Slovaca*: 2 manuscripts
45. *Mathematical and Computer Modelling*: 7 manuscripts
46. *Monatshefte fuer Mathematik*: 2 manuscripts
47. *Nonlinear Analysis*: 13 manuscripts
48. *Nonlinear Dynamics and Systems Theory*: 2 manuscripts
49. *PanAmerican Mathematical Journal*: 2 manuscripts
50. *Proceedings of the Edinburgh Mathematical Society*: 1 manuscript
51. *Proceedings of the Indian Academy of Sciences*: 1 manuscript
52. *Rocky Mountain Journal of Mathematics*: 2 manuscripts
53. *Southeast Asian Bulletin of Mathematics*: 1 manuscript
54. *Tbilisi Mathematical Journal*: 1 manuscript
55. *Turkish Journal of Mathematics*: 2 manuscripts
56. *Zeitschrift für angewandte Mathematik und Physik*: 2 manuscripts

PROFESSIONAL ACTIVITIES

Chair Department of Mathematics and Computer Science, 2006 – 2009, 2010–
Member American Mathematical Society, Mathematical Association of America, 1997–
Member International Society of Difference Equations, 2005–
Faculty Advisor, 1998 – 2009, 2010–
Member Faculty Senate, 2005 – 2009, 2010–
Member Off-Campus Programs, 2008 – 2009, 2010 – 2011
Member Core Committee, 2005 – 2008
Member Budget Planning Committee, 2000 – 2003, 2004 – 2005
Member Student Responsibility Board, 1999 – 2000
Outside Reviewer Tenure and promotion application for Elvan Akin-Bohner at Missouri University of Science and Technology, 2008
Outside Reviewer Tenure and promotion application for Gro Hovhannisyan at Kent State University Stark campus, 2008
Outside Reviewer Tenure application for Mary Vanderschoot at Wheaton College, 2008
Outside Reviewer Promotion to Full Professor for Richard Avery at Dakota State University, 2007
Department Captain United Way campus campaign, 1998 – 2007
Member Faculty evaluation committee for Roger Haglund and Tim Mosser, 1999
Member Faculty evaluation committee for Troy Odegaard, 2002
Chair Faculty evaluation committee for Vijayakumar Shanmugasundaram, 2004
Author Mathematics Self-Study Report, 2004
Summer Advisor for new students, 2000 – 2002, 2004 – 2007
Faculty Advisor Habitat for Humanity Spring Break trip to Tampa, FL 1999; Winterhaven, FL 2002; Jacksonville, FL 2005; Laredo, TX 2006; Denver, CO 2011
Faculty Advisor Justice Journeys' Fall Break trip to Pine Ridge, SD 1997
Facilitator for Faculty/Presidential Scholars interviews, 2001 – 2004, 2006–
Faculty Advisor Pi Mu Epsilon Math Club, 2000 – 2006
Faculty Advisor Concordia Cycling Club Fall break trip to Duluth, 2003, 2004
Director Tri-College mathematics contest: 1998, 2001, 2004
Chair Afternoon session, MAA North Central Section meeting, Concordia-Moorhead, 1998
Chair Afternoon special session on boundary value problems, AMS Southeastern Section meeting, Louisville, 1998
Convener for all sections of the Precalculus course at UNL, 1994 – 95

AWARDS and FELLOWSHIPS

Augustana College Alumni Achievement Award, 2010
Richard & Barbara Nelson Endowed Chair of Mathematics & Computer Science, 2008−present
Ole and Lucy Flaat Distinguished Scholarship Award, 2004 – 2006
NSF "Keeping Research Alive" Grant, University of Nebraska-Lincoln, 2005
Carl L. Bailey Centennial Faculty Scholar, 2004 – 2005
Dean's Travel Funds, 2008 ($1000)
Concordia College Summer Study Grant, 1998 ($450), 2000 ($1250), 2001 ($940), 2003 ($233), 2005 ($1000), 2007 ($825)
University of Nebraska Foundation Fellowship, 1996 – 1997
UNL Department of Mathematics and Statistics Emeritus Faculty Fellowship, 1994
UNL Department of Mathematics and Statistics Outstanding Qualifying Exams, 1994
NCAA Postgraduate Scholarship, 1989
GTE Academic All-American, Cross Country, 1987 – 1988
GTE Academic All-American, Cross Country and Track, 1986 – 1987