

DOUGLAS ROBERT ANDERSON

Department of Mathematics
Concordia College
Moorhead, MN 56562 USA
<http://faculty.cord.edu/andersod/>
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 University, 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 1997-2012
Department of Mathematics, Concordia College Moorhead 2012-

Courses taught:

Math 105 *Exploring Mathematics*, 110 *Precalculus*, 121 *Calculus I*, 122 *Calculus II*,
Math 203 *Finite Mathematics*, 210 *Linear Algebra*, 223 *Calculus III*,
Math 250 *Pre-May Seminar*, 300 G *May Seminar Abroad*, 311 *Differential Equations*,
Math 312 *Applied Mathematics*, 328 *Complex Analysis*, 330 *Real Analysis I*,
Math 380 *Discrete Dynamics and Chaos*, 380 *Elementary Number Theory*,
Math 402 *Senior Capstone I*, 403 *Senior Capstone II*, 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

BOOKS

Douglas R. Anderson and Svetlin G. Georgiev, *Conformable Dynamic Equations on Time Scales*, Chapman and Hall/CRC, Boca Raton, 2020.

REFEREED JOURNAL PUBLICATIONS

1. Discrete trigonometric matrix functions, *PanAmerican Mathematical Journal*, 7:1 (1997) 39–54.
2. with Richard I. Avery, and Allan 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 Allan 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 Richard I. Avery, Multiple positive solutions to a third-order discrete focal boundary value problem, *Computers & Mathematics with Applications*, 42 (2001) 333–340.
10. with Richard I. Avery and Johnny 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 Richard 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 John 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 Richard 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 Joan 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 **John Bullock '02**, Lynn Erbe, Allan C. 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 Richard I. Avery and John 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 Joan 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 Richard 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 Richard I. Avery and Johnny 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 Joan 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 **Nicholas G. Myran '05 and Dustin 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 Richard I. Avery and Robert 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 **Tyler O. Anderson '06 and Matthew 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 Joan 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 Robert J. Krueger and Allan C. Peterson, Delay dynamic equations with stability, *Advances in Difference Equations*, 2006 (2006), Article ID 94051, 19 pages.
42. with Richard 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 Joan Hoffacker, Higher-order self adjoint boundary value problems on time scales, *Journal of Computational and Applied Mathematics*, 194:2 (2006) 309–342.
44. with Ruyun 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 Joan Hoffacker, Existence of solutions for a cantilever beam problem, *Journal of Mathematical Analysis and Applications*, 323 (2006) 958–973.
47. with Alberto 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 **Zackary R. Kenz '08**, Global asymptotic behavior for delay dynamic equations, *Nonlinear Analysis*, 66 (2007) 1633–1644.
51. with Christopher 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 Christopher C. Tisdell, Solvability of discrete Neumann boundary value problems, *Journal of Mathematical Analysis and Applications*, 331 (2007) 736–741.
53. with Bobbi 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 **Lisa 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 Joan 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 Joan 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 **William 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 **John 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 Patricia 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 Ağacık 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, 162–166.

78. with Richard 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 Richard I. Avery and Johnny 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 Richard I. Avery and Johnny 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 Richard I. Avery and Johnny 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 Ağacik 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 John 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 Christopher 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 Richard I. Avery, Johnny 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 Richard 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 Richard I. Avery, Johnny 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 Richard I. Avery and Johnny 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 Richard I. Avery, Johnny 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 Richard I. Avery, Johnny 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 Richard I. Avery, Johnny 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.
97. with **Ben Gates ‘13** and **Dylan Heuer ‘13**, Hyers–Ulam stability of second-order linear dynamic equations on time scales, *Communications in Applied Analysis*, 16:3 (2012) 281–292.
98. with Richard I. Avery, Johnny Henderson, and X. Y. Liu, Multiple fixed point theorems utilizing operators and functionals, *Communications in Applied Analysis*, 16:3 (2012) 377–388.
99. with Samir H. Saker, Interval oscillation criteria for forced Emden-Fowler functional dynamic equations with oscillatory potential, *Science China Mathematics*, 56:3 (2013) 561–576.
100. Existence of three solutions for a first-order problem with nonlinear nonlocal boundary conditions, *Journal of Mathematical Analysis and Applications*, 408 (2013) 318–323.
101. with Richard I. Avery, Application of the omitted ray fixed point theorem, *Electronic Journal of Qualitative Theory of Differential Equations* 2014 (2014), No. 18, 1–9.
102. Hyers–Ulam stability of higher-order Cauchy-Euler dynamic equations on time scales, *Dynamic Systems & Applications*, 23 (2014) 653–664.
103. with Richard I. Avery, Johnny Henderson, and X. Y. Liu, Functional omitted ray fixed point theorem, *Journal of Fixed Point Theory*, 2014 (2014), Article ID 7.
104. with Richard I. Avery, Fractional-order boundary value problem with Sturm-Liouville boundary conditions, *Electronic Journal of Differential Equations*, 2015 (2015), No. 29, 1–10.
105. with **Jenna M. Otto ‘16**, Hyers–Ulam stability of linear differential equations with vanishing coefficients, *Communications in Applied Analysis* 19 (2015) 15–30.
106. with Richard I. Avery, Existence of a solution to a conjugate boundary value problem applying a corollary of the omitted ray fixed point theorem, *Communications in Applied Analysis* 19 (2015) 403–412.
107. with Darin J. Ulness, Properties of the Katugampola fractional derivative with potential application in quantum mechanics, *Journal of Mathematical Physics* 56, 063502 (2015); doi: 10.1063/1.4922018.
108. with Darin J. Ulness, Newly defined conformable derivatives, *Advances in Dynamical Systems and Applications*, Vol 10 No. 2 (2015) 109–137.
109. with Roshdi Khalil and Mohammed Al Horani, Undetermined coefficients for local fractional differential equations, *Journal of Mathematics and Computer Science*, Vol 16 (2016) 140–146.
110. with Christopher C. Tisdell, Discrete approaches to continuous boundary value problems: existence and convergence of solutions, *Abstract and Applied Analysis*, Vol 2016 (2016), Article ID 3910972, 6 pages.
111. with Richard I. Avery and Johnny Henderson, Application of the functional compression-expansion fixed point theorem using comparison functionals involving the derivative, *Communications on Applied Nonlinear Analysis*, Volume 23 (2016), Number 4, 33–40.
112. with Richard I. Avery and Johnny Henderson, An extension of the compression-expansion fixed point theorem of functional type, *Electronic Journal of Differential Equations*, Volume 2016 (2016), Number 253, 1–9.

113. Second-order self-adjoint differential equations using a proportional-derivative controller, *Communications on Applied Nonlinear Analysis*, Volume 24 (2017), Number 1, 17–48.
114. Even-order self-adjoint boundary value problems for proportional derivatives, *Electronic Journal of Differential Equations*, Volume 2017 (2017), Number 210, 1–18.
115. with Richard I. Avery and Johnny Henderson, Generalization of the functional omitted ray fixed point theorem, *Communications on Applied Nonlinear Analysis*, Volume 25 (2018), Number 1, 39–51.
116. with Richard I. Avery and Johnny Henderson, Layered compression-expansion fixed point theorem, *Results in Fixed Point Theory and Applications*, Volume 2018, Article ID 201825, 10 pages.
117. with Richard I. Avery and Johnny Henderson, Stacking Leggett-Williams conditions in the layered compression-expansion fixed point theorem, *Communications on Applied Nonlinear Analysis*, Volume 25 (2018), Number 3, 37–51.
118. with Masakazu Onitsuka, Hyers-Ulam stability of first-order homogeneous linear dynamic equations on time scales, *Demonstratio Mathematica*, 51 (2018) 198–210.
119. with **Evan Camrud '17** and Darin J. Ulness, On the nature of the conformable derivative and its applications to physics, *Journal of Fractional Calculus and Applications*, 10:2 (2019) 92–135.
120. with Masakazu Onitsuka, Hyers-Ulam stability for a discrete time scale with two step sizes, *Applied Mathematics and Computation*, 344–345 (2019) 128–140.
121. with Masakazu Onitsuka, Hyers–Ulam stability of a discrete diamond–alpha derivative equation, *Frontiers in Functional Equations and Analytic Inequalities*, edited by George Anastassiou and John Michael Rassias, Springer Nature Switzerland AG, 2019.
122. Hyers–Ulam stability for a first-order linear proportional nabla difference operator, *Frontiers in Functional Equations and Analytic Inequalities*, edited by George Anastassiou and John Michael Rassias, Springer Nature Switzerland AG, 2019.
123. with Richard I. Avery and Johnny Henderson, Compression-expansion fixed point theorem of product type *Communications on Applied Nonlinear Analysis*, 26:3 (2019) 44–54.
124. with Masakazu Onitsuka, Best constant for Hyers–Ulam stability of second-order h -difference equations with constant coefficients, *Results in Mathematics*, (2019) 74: 151. <https://doi.org/10.1007/s00025-019-1077-9>
125. with Richard I. Avery and Johnny Henderson, Alternative iterative technique, *Electronic Journal of Qualitative Theory of Differential Equations*, (2019) Number 51, 1–7.
126. The discrete diamond–alpha imaginary ellipse and Hyers–Ulam stability, *International J. Difference Equations*, 14:1 (2019) 25–38.
127. with Richard I. Avery and Johnny Henderson, Layered monotonic fixed point theorem, *Results in Fixed Point Theory and Applications*, Volume 2020, Article ID 2018037, 10 pages.
128. with Xiang Liu and Baoguo Jia, Hyers–Ulam stability for sequential fractional order h -difference equations, *Dynamic Systems and Applications* 29 (2020) 11–25.
129. with Masakazu Onitsuka, Hyers–Ulam stability and best constant for Cayley h -difference equations, *Bulletin of the Malaysian Mathematical Sciences Society*, 10.1007/s40840-020-00920-z.

130. with Masakazu Onitsuka, Hyers–Ulam stability for quantum equations of Euler type, *Discrete Dynamics in Nature and Society*, Volume 2020, Article ID 5626481, 10 pages <https://doi.org/10.1155/2020/5626481>
131. with Masakazu Onitsuka, Hyers–Ulam stability for quantum equations, *Aequationes Mathematicae* 95 (2021) 201–214. DOI 10.1007/s00010-020-00734-1.
132. with Masakazu Onitsuka and John Michael Rassias, Best constant for Ulam stability of first-order h -difference equations with periodic coefficient, *Journal of Mathematical Analysis and Applications* 491 (2020) 124363. <https://doi.org/10.1016/j.jmaa.2020.124363>
133. with **Andrew J. Jennissen ‘21** and **Cole J. Montplaisir ‘22**, Hyers–Ulam stability for a continuous time scale with discrete uniform jumps, *International J. Difference Equations* 15:2 (2020) 1–21.
134. with Xiang Liu, Feifei Du, and Baoguo Jia, Monotonicity result for nabla fractional h -difference operators, *Mathematical Methods in the Applied Sciences*, (2020) <https://doi.org/10.1002/mma.6823>
135. with Masakazu Onitsuka, Best constant for Hyers–Ulam stability of two step sizes linear difference equations, *Journal of Mathematical Analysis and Applications* (2021) <https://doi.org/10.1016/j.jmaa.2020.124807>
136. with Masakazu Onitsuka, Hyers–Ulam stability for Cayley quantum equations and its application to h -difference equations, *Mediterranean Journal of Mathematics* (2021) 18:168.
137. with Martin Bohner, A multivalued logarithm on time scales, *Applied Mathematics and Computation* 397 (2021) 125954.
138. with Masakazu Onitsuka, Hyers–Ulam stability of second-order linear dynamic equations on time scales, *Acta Mathematica Scientia* 41:5 (2021) 1809–1826. doi 10.1007/s10473-021-0525-2
139. with Samir H. Saker and Ahmed I. Saied, Some new characterizations of weights in dynamic inequalities involving monotonic functions, *Qualitative Theory of Dynamical Systems* (2021) 20:49 <https://doi.org/10.1007/s12346-021-00489-3>
140. with Samir H. Saker and Mahmoud Mohamed Osman, On a new class of dynamic Hardy-type inequalities and some related generalizations, *Aequationes Mathematicae* 96 (2022) 773–793. <https://doi.org/10.1007/s00010-021-00831-9>
141. with Masakazu Onitsuka, Best Hyers–Ulam stability constants on a time scale with discrete core and continuous periphery. In: T.M. Rassias (ed) *Nonlinear Analysis, Differential Equations, and Applications*. Springer Optimization and Its Applications, vol 173 (2021). Springer, Cham. https://doi.org/10.1007/978-3-030-72563-1_2
142. with Masakazu Onitsuka, Ulam stability for nonautonomous quantum equations, *Journal of Inequalities and Applications*, (2021) 2021:161. <https://doi.org/10.1186/s13660-021-02699-4>
143. with Richard I. Avery and Johnny Henderson, Using an integrating factor followed by a substitution to transform a bvp to a fixed point problem, *PanAmerican Mathematics Journal*, Volume 31(2021), Number 4, 31–40.
144. with Samir H. Saker and Mahmoud Mohamed Osman, Two weighted norm dynamic inequalities with applications on second order half-linear dynamic equations, *Qualitative Theory of Dynamical Systems*, (2022) 21:4. <https://doi.org/10.1007/s12346-021-00534-1>
145. with Xiang Liu, Peiguang Wang, On stability and feedback control of discrete fractional order singular systems with multiple time-varying delays, *Chaos, Solitons and Fractals*, 155 (2022) 111740 <https://doi.org/10.1016/j.chaos.2021.111740>

146. with Richard I. Avery and Johnny Henderson, Using an integrating factor to transform a second order bvp to a fixed point problem, appearing in I. N. Parasidis et al. (eds.), *Mathematical Analysis in Interdisciplinary Research*, Springer Optimization and Its Applications 179 (2021), pages 101–108. https://doi.org/10.1007/978-3-030-84721-0_7
147. with Masakazu Onitsuka, Hyers-Ulam stability for differential systems with 2×2 constant coefficient matrix, *Results in Mathematics*, (2022) 77:136, 23 pages. <https://doi.org/10.1007/s00025-022-01671-y>
148. with Richard I. Avery, Utilizing an integrating factor to convert a right focal boundary value problem to a fixed point problem, *Differential Equations & Applications*, 14:2 (2022) 179–187.
149. with Samir H. Saker and Mahmoud Mohamed Osman, Two weighted higher-order dynamic inequalities of Opial type with two functions, *Qualitative Theory of Dynamical Systems*, (2022) 21:57. <https://doi.org/10.1007/s12346-022-00592-z>
150. with Richard I. Avery and Johnny Henderson, Using a logarithmic substitution for a derivative to transform a bvp to a fixed point problem, *Communications on Applied Nonlinear Analysis* Volume 29(2022), Number 3, 53–64.
151. with Masakazu Onitsuka, Equilibrium stability for the discrete diamond–alpha operator, *Bulletin of the Malaysian Mathematical Sciences Society* (2023) 46:15 <https://doi.org/10.1007/s40840-022-01417-7>
152. No Ulam stability, but modified Ulam stability of first-order q -difference equations with periodic coefficient, to appear in Themistocles M. Rassias and Panos M. Pardalos (editors), *Mathematical Analysis, Optimization, Approximation and Applications*, World Scientific, Singapore (2023).
153. Best constant for modified Ulam stability of first-order q -difference equations with periodic coefficient, to appear in Themistocles M. Rassias and Panos M. Pardalos (editors), *Global Optimization, Computation, Approximation and Applications*, World Scientific, Singapore (2023).
154. with Richard I. Avery and Johnny Henderson, Decomposing a Fixed Point Problem into Multiple Fixed Point Problems, *Rocky Mountain Journal of Mathematics*, April 26, 2023.
155. with Masakazu Onitsuka, Hyers-Ulam stability for a type of discrete Hill equation, *Results in Mathematics*, June 3, 2023.
156. with Masakazu Onitsuka and Donal O'Regan, Best Ulam constants for two-dimensional nonautonomous linear differential systems, *Advances in Mathematics*, 12-22-2022.
157. with Masakazu Onitsuka, Ulam stability and instability of first-order linear 1–periodic and 2–periodic dynamic equations on isolated time scales, to appear in *Dynamic Calculus and Equations on Time Scales: Theory and Applications*, editor Svetlin Georgiev, De Gruyter, Berlin, 2023. ISBN 978-3-11-118289-6
158. with Masakazu Onitsuka, Ulam stability and instability of first-order linear ν –periodic dynamic equations on isolated time scales, *Functional Differential Equations and Dynamic Equations on time scales - With Applications to Continuum Mechanics*, Springer volume.
159. with Masakazu Onitsuka and Donal O'Regan, Best Ulam constants for damped linear oscillators with variable coefficients, *Journal of Differential Equations*, 6-24-2023.
160. with Gregory Tanner, Hyers-Ulam Stability of a Second-Order Convergent Finite Difference Scheme Using a Diamond- α Difference Operator, *Qualitative Theory of Dynamical Systems*, 7-24-2023.
161. with Richard I. Avery and Johnny Henderson, Decomposing a Conjugate Fixed Point Problem into Multiple Fixed Point Problems, *Dynamic Systems and Applications*, 8-02-2023.

162. with Vahid Keshavarz, Hyers-Ulam stabilities for m^{th} differential operators on H_{β}^2 , *Complex Analysis and Operator Theory*, March 19, 2023.

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
38. **Joint Mathematics Meetings** San Diego, California, January 2013
39. **Special Session on Fixed Point Theorems and Applications to Integral, Difference, and Differential Equations** AMS Southeastern section meeting, Louisville, Kentucky, October 2013 (invited talk)
40. **Allan Peterson Conference**, University of Nebraska-Lincoln, October 26, 2013
41. **MAA North Central Section Fall Meeting**, North Dakota State University, Fargo, North Dakota, September 27, 2014
42. **MAA North Central Section Fall Meeting**, University of Minnesota, Morris, October 20, 2017 (invited talk)
43. **American Mathematical Society Meeting** Central Section, Ohio State University, 17-18 March 2018 (invited talk)
44. **MAA North Central Section Spring Meeting**, Minnesota State University, Mankato, 20-21 April, 2018

45. **12th AIMS Conference on Dynamical Systems, Differential Equations and Applications** Taipei, Taiwan, July 5-9, 2018 (invited talk)
46. **Tri-College Mathematics Colloquium**, NDSU, Fargo, November 27, 2018
47. **International Conference on Differential & Difference Equations and Applications 2019**, July 1-5, 2019 - Lisbon, Portugal (two invited talks)
48. **Recent Trends in Ordinary Differential Equations and Their Developments**, Research Institute for Mathematical Sciences, Kyoto University, Japan, November 13-15, 2019 (invited talk)
49. **Handayama Differential Equation Seminar**, Okayama University of Science, Okayama, Japan, November 18, 2019 (invited talk)
50. **MAA Nebraska Southeast South Dakota Section Spring Meeting**, Dakota State University, Madison, SD, April 1-2, 2022
51. **MAA North Central Section Fall Meeting**, University of North Dakota, October 15, 2022
52. **Tri-College Mathematics Colloquium**, NDSU, Fargo, November 1, 2022
53. **Discrete and Continuous Analysis in Appalachia**, Fairmont State University, WV, Mathematics REU via Zoom, June 8, 2023 (invited talk)

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
32. **Conference on Mathematical Ecology** University of Nebraska-Lincoln, April 14-15, 2012
33. **37nd Annual Pi Mu Epsilon Conference for Undergraduates** St. John's University, 8-9 April 2016
34. **Nebraska Conference for Undergraduate Women in Mathematics** (2 students) Lincoln, Nebraska, 3-5 February 2017

35. **Topological Data Analysis: Theory and Applications** Macalester College, St. Paul, MN, 12-16 June 2017
36. **MAA North Central Section Fall Meeting**, Concordia College, Moorhead, MN, 18-19 October 2019
37. **MAA North Central Section Spring Meeting**, Zoom, 26-27 March 2021

EDITORIAL BOARDS

Abstract and Applied Analysis
Bulletin of Mathematical Analysis and Applications
Discrete Dynamics in Nature and Society

SERVICE: Reviewer and Referee

1. *Abstract and Applied Analysis*: 8 manuscripts
2. *Acta et Commentationes Universitatis Tartuensis de Mathematica*: 1 manuscript
3. *Acta Mathematica Scientia*: 2 manuscripts
4. *Acta Mathematicae Applicatae Sinica*: 1 manuscript
5. *Acta Mathematica Sinica*: 1 manuscript
6. *Advances in Difference Equations/Advances in Continuous and Discrete Models: Theory and Modern Applications*: 21 manuscripts
7. *Advances in Dynamical Systems and Applications*: 3 manuscripts
8. *Advances in Mathematical Physics*: 1 manuscript
9. *Advances in Mathematical Sciences and Applications*: 1 manuscript
10. *Aequationes Mathematicae*: 1 manuscript
11. *AIMS Mathematics*: 5 manuscripts
12. *AIMS Proceedings*: 1 manuscript
13. *Analysis*: 2 manuscripts
14. *Analysis and Applications*: 1 manuscript
15. *Applicable Analysis*: 1 manuscript
16. *Applicable Analysis and Discrete Mathematics*: 2 manuscripts
17. *Applications and Applied Mathematics, An International Journal*: 1 manuscript
18. *Applied Mathematical Modelling*: 1 manuscript
19. *Applied Mathematics and Computation*: 15 manuscripts
20. *Applied Mathematics and Information Sciences*: 1 manuscript
21. *Applied Mathematics—A Journal of Chinese Universities*: 1 manuscript
22. *Applied Mathematics Letters*: 22 manuscripts
23. *Arabian Journal of Mathematics*: 1 manuscript
24. *Arab Journal of Mathematical Sciences*: 1 manuscript

25. *Asian Journal of Mathematics and Computer Research*: 1 manuscript
26. *Axioms*: 2 manuscripts
27. *Boundary Value Problems*: 9 manuscripts
28. *Bulletin des sciences mathématiques*: 1 manuscript
29. *Bulletin of the International Mathematical Virtual Institute*: 1 manuscript
30. *Bulletin of the Iranian Mathematical Society*: 2 manuscripts
31. *Bulletin of the Korean Mathematical Society*: 1 manuscript
32. *Bulletin of Mathematical Analysis and Applications*: 1 manuscript
33. *Central European Journal of Mathematics*: 1 manuscript
34. *Chaos, Solitons, & Fractals*: 4 manuscripts
35. *Communications in Applied Analysis*: 3 manuscripts
36. *Communications in Nonlinear Science and Numerical Simulations*: 1 manuscript
37. *Communications on Applied Nonlinear Analysis*: 1 manuscript
38. *Computers & Mathematics with Applications*: 12 manuscripts
39. *Contemporary Mathematics*: 1 manuscript
40. *CUBO Mathematical Journal*: 1 manuscript
41. *Differential Equations & Applications*: 3 manuscripts
42. *Discrete and Continuous Dynamical Systems*: 1 manuscript
43. *Discrete Dynamics in Nature and Society*: 8 manuscripts
44. *Dynamics of Continuous, Discrete & Impulsive Systems, Series A: Mathematical Analysis*: 1 manuscript
45. *Dynamic Systems and Applications*: 7 manuscripts
46. *Electronic Journal of Differential Equations*: 15 manuscripts
47. *Electronic Journal of Qualitative Theory of Differential Equations*: 8 manuscripts
48. *European Physical Journal*: 1 manuscript
49. *Filomat*: 2 manuscripts
50. *Fractal Fract*: 1 manuscript
51. *Fractional Differential Calculus*: 1 manuscript
52. *Georgian Mathematical Journal*: 1 manuscript
53. *Hacettepe Journal of Mathematics and Statistics*: 3 manuscripts
54. *Indian Journal of Mathematics*: 2 manuscripts
55. *Indian Journal of Pure and Applied Mathematics*: 4 manuscripts
56. *International Journal of Applied Mathematical Sciences*: 1 manuscript
57. *International Journal of Computer Mathematics*: 1 manuscript
58. *International Journal of Difference Equations*: 2 manuscripts

59. *International Journal of Dynamical Systems and Differential Equations*: 1 manuscript
60. *International Journal of Mathematics and Mathematical Sciences*: 3 manuscripts
61. *Involve: a Journal of Mathematics*: 1 manuscript
62. *Italian Journal of Pure and Applied Mathematics*: 1 manuscript
63. *Journal of Applied Analysis*: 2 manuscripts
64. *Journal of Applied Analysis and Computation*: 1 manuscript
65. *Journal of Applied Mathematics*: 2 manuscripts
66. *Journal of Applied Mathematics and Computing*: 7 manuscripts
67. *Journal of Applied Nonlinear Dynamics*: 1 manuscript
68. *Journal of Computational and Applied Mathematics*: 6 manuscripts
69. *Journal of Difference Equations and Applications*: 14 manuscripts
70. *Journal of Fractional Calculus and Applications*: 1 manuscript
71. *Journal of Function Spaces*: 3 manuscripts
72. *Journal of Inequalities and Applications*: 7 manuscripts
73. *Journal of Inequalities and Special Functions*: 1 manuscript
74. *Journal of Inequalities in Pure and Applied Mathematics*: 2 manuscripts
75. *Journal of Information and Mathematical Sciences*: 1 manuscript
76. *Journal of Mathematical Analysis and Applications*: 17 manuscripts
77. *Journal of Mathematical Inequalities*: 5 manuscripts
78. *Journal of Mathematics*: 1 manuscript
79. *Journal of Mathematics and Computer Science*: 2 manuscripts
80. *Journal of Nonlinear Modeling and Analysis*: 1 manuscript
81. *Journal of Nonlinear Science and Applications*: 1 manuscript
82. *Journal of Physics: Conference Series*: 1 manuscript
83. *Konuralp Journal of Mathematics*: 1 manuscript
84. *Kragujevac Journal of Mathematics*: 2 manuscripts
85. *Lithuanian Mathematical Journal*: 1 manuscript
86. *London Mathematical Society*: 2 manuscripts
87. *Matematicki Vesnik*: 2 manuscripts
88. *Mathematica Slovaca*: 2 manuscripts
89. *Mathematical and Computational Applications*: 1 manuscript
90. *Mathematical and Computer Modelling*: 7 manuscripts
91. *Mathematical Biosciences and Engineering*: 3 manuscripts
92. *Mathematical Methods in the Applied Sciences*: 4 manuscripts

93. *Mathematical Problems in Engineering*: 2 manuscripts
94. *Mathematical Reviews (AMS)*: 11 reviews
95. *Mathematics*: 13 manuscripts
96. *Missouri Journal of Mathematical Sciences*: 1 manuscript
97. *Monatshefte fuer Mathematik*: 2 manuscripts
98. *Nagoya Mathematical Journal*: 1 manuscript
99. *Nonlinear Analysis*: 14 manuscripts
100. *Nonlinear Dynamics and Systems Theory*: 2 manuscripts
101. *Open Math*: 2 manuscripts
102. *Opuscula Mathematica*: 2 manuscripts
103. *PanAmerican Mathematical Journal*: 3 manuscripts
104. *Physica A*: 1 manuscript
105. *Proceedings of the Edinburgh Mathematical Society*: 1 manuscript
106. *Proceedings of the Indian Academy of Sciences*: 1 manuscript
107. *Proyecciones (Antofagasta)*: 1 manuscript
108. *Punjab University Journal of Mathematics*: 3 manuscripts
109. *Qualitative Theory of Dynamical Systems*: 6 manuscripts
110. *Real Analysis Exchange*: 1 manuscript
111. *Results in Mathematics*: 1 manuscript
112. *Revista de la Real Academia de Ciencias Exactas, Físicas y Naturales. Serie A. Matemáticas*: 2 manuscripts
113. *Revista Mexicana de Física*: 4 manuscripts
114. *Rocky Mountain Journal of Mathematics*: 5 manuscripts
115. *Royal Society of Edinburgh: Proceedings A*: 1 manuscript
116. *São Paulo Journal of Mathematical Sciences*: 1 manuscript
117. *Sarajevo Journal of Mathematics*: 2 manuscripts
118. *Scientific Research and Essays*: 1 manuscript
119. *Southeast Asian Bulletin of Mathematics*: 2 manuscripts
120. *Studia Scientiarum Mathematicarum Hungarica*: 2 manuscripts
121. *Symmetry*: 5 manuscripts
122. *Tbilisi Mathematical Journal*: 1 manuscript
123. *Turkish Journal of Mathematics*: 2 manuscripts
124. *Zeitschrift für angewandte Mathematik und Physik*: 2 manuscripts

PROFESSIONAL ACTIVITIES

Chair Department of Mathematics, 2012–

Chair Department of Mathematics and Computer Science, 2006 – 2009, 2010 – 2012

Summer Advisor for new students, 2000 – 2002, 2004 – 2008, 2011 – 2016

Faculty Advisor Habitat for Humanity trips:

Coahoma, MS 1990; Tampa, FL 1999; Winterhaven, FL 2002; Jacksonville, FL 2005;

Laredo, TX 2006; Denver, CO 2011; Taos, NM 2013; Goose Creek, SC 2022;

Woodland Park, CO 2022

Faculty Advisor Justice Journeys' Fall Break trip to Pine Ridge, SD 1997

Faculty Advisor Concordia Cycling Club Fall break trip to Duluth, 2003, 2004

Member Faculty Senate 2005 – 2009, 2010–; Curriculum Committee 2020–, Chair 2022–

Member Faculty Appeal Board 2011 – 2014, 2022; Off-Campus Programs 2008 – 2009

Member Global Education Committee 2010 – 2011, 2013 – 2014

Member Core Committee 2005 – 2008; Student Responsibility Board 1999 – 2000

Faculty Advisor, 1998 – 2009, 2010–

Member Budget Planning Committee, 2000 – 2003, 2004 – 2005, 2016 – 2019

Organizer 100th Anniversary of the Mathematics Department Alumni Talks, 2012

Organizer Flaata 125th Anniversary Faculty Award Alumni Talks, 2017

Member American Mathematical Society, Mathematical Association of America, 1997–

Faculty Advisor Pi Mu Epsilon Math Club, 2000 – 2006

Department Captain United Way campus campaign, 1998 – 2007

Member Faculty evaluation committee: Roger Haglund & Tim Mosser, 1999; Troy Odegaard, 2002;

Daniel Biebighauser, 2018

Chair Faculty evaluation committee for Vijayakumar Shanmugasundaram, 2004

Author Mathematics Self-Study Report, 2004, 2012

Facilitator for Faculty/Presidential Scholars interviews, 2001 – 2004, 2006 – 9, 2010 – 2016, 2018 – 2019

Director Tri-College Mathematics Contest: 1998, 2001, 2004, 2007, 2012, 2015, 2018

Outside Reviewer Promotion to Full Professor for Shaun Ramsey at

Washington College (MD), 2021

Outside Reviewer Master's Thesis, A. Shirley Raj and S.K. Shivashankari at

PSG College of Arts and Science, Coimbatore, India, 2021

Outside Reviewer Faculty Development Leave application for Raegan Higgins at

Texas Tech University, 2020

Outside Reviewer Ph.D. thesis committee for Mahmoud Mohamed Osman Ahmed, candidate in mathematics, Mansoura University, Egypt, 2020

Outside Reviewer Ph.D. thesis committee for Mohammed Ragab Zaki Kenawy, candidate in mathematics, Fayoum University, El Fayoum, Egypt, 2019

Outside Reviewer Tenure and promotion application for Raegan Higgins at

Texas Tech University, 2015

Outside Reviewer Tenure and promotion application for Miron B. Bekker at the

University of Pittsburgh at Johnstown, 2015

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, Dakota State University, 2007

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 pre-calculus course at UNL, 1994 – 95

AWARDS and FELLOWSHIPS

Centennial Scholars Research Grant, two students, 2020 – 2021
Ole & Lucy Flaot 125th Anniversary Faculty Award, 2016
NSF STEP grant (DUE 0969568) Research Mentor, two students, Summer 2016
**Concordia College Student Government Association
Distinguished Service Award**, 2014
NSF STEP grant (DUE 0969568) Research Mentor, Summer 2013
Augustana College Alumni Achievement Award, 2010
**Richard & Barbara Nelson Endowed Chair of Mathematics
& Computer Science**, 2008–present
Ole & Lucy Flaot Distinguished Scholarship Award, 2004 – 2006
NSF “Keeping Research Alive” Grant 0354281, 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