CURRICULUM VITA

NAME: Mourad E.H. Ismail

ADDRESS: Department of Mathematics
University of Central Florida
Orlando, FL 32816
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POSITION: Professor

PERSONAL DATA: Born April 27, 1944, in Cairo, Egypt.
Male. Married.
Canadian and Egyptian citizen, permanent
resident in the United States.

EDUCATION: Ph.D. 1974 (Alberta), M.Sc. 1969 (Alberta), B.Sc. 1964 (Cairo).

MATHEMATICAL GENEALOGY:

Source: The Mathematics Genealogy Project, http://www.genealogy.ams.org

- Yours truely, Ph. D. 1974, Advisor: Waleed Al-Salam.
- Waleed Al-Salam, Ph. D. 1958, Advisor: Leonard Carlitz.
- Leonard Carlitz, Ph. D. 1930, Advisor: Howard Mitchell.
- Howard Mitchell, Ph. D. 1910, Advisor: Oswald Veblen.
- Oswald Veblen, Ph. D. 1903, Advisor: Eliakim Hastings Moore.
- Eliakim Hastings Moore, Ph. D. 1885, Advisor: H. A. Newton.
- H. A. Newton, B. S. Yale 1850, Advisor: Michel Chasles.
- Michel Chasles, Ph. D. 1814, Advisor: Simeon Poisson.
- Simeon Poisson, Advisor: Joseph Lagrange.
- Joseph Lagrange, Ph. D. Advisor: Leonhard Euler.

RESEARCH INTERESTS:

Approximation theory, asymptotics, combinatorics, integral transforms and operational calculus, mathematical physics, orthogonal polynomials and special functions.

POSITIONS HELD:

2003-present	Professor, University of Central Florida
1987-2003	Professor, University of South Florida, tenured 1988
1982-1989	Professor with tenure, Arizona State University
1980-1982	Associate Professor, Arizona State University
1978-1980	Assistant Professor, Arizona State University
1979-1981	Associate Professor, McMaster University, tenured 1981
1976-1979	Assistant Professor, McMaster University
1964-1968	Instructor, Cairo University

VISITING POSITIONS:

2002	Visiting Scholar, Hong Kong U of Sc. and Tech., May & June
2000-2001	Visiting university professor, City University of Hong Kong
1999	Visiting member, Mat. Sc. Res. Inst., Berkeley, three months.
1996	Visiting Professor and Leverhulme research fellow, Imperial College, London
1990-1991	Adjunct Professor, University of Toronto
1990	Visiting Professor, University of Paris VII (10 weeks in the summer)
1988	Visiting Professor, National University of Colombia (1 month)
1987-1990	Adjunct Professor, York University
1987	Visiting Professor, University of Alberta (1 month in the summer)
1986	Visiting Professor, University of Paris VII (10 weeks in the summer)
1984-1985	Visiting Professor, University of Minnesota, Minneapolis
1982	Visiting Professor, Kuwait University (winter and summer semesters)
1976	Visiting Scholar, Mathematics Research Center University of Wisconsin, Madison
1975-1976	Visiting Lecturer and Research Associate, University of Toronto
1974-1975	Assistant Scientist, Department of Mathematics and Mathematics Research Center, University of Wisconsin, Madison

Erdős Number 2, (Twice) through M. V. Subbarao and J. Gillis.
Einstein Number 3 through J. Gillis.

EDITORIAL BOARDS:

1. Constructive Approximation, Published by Springer-Verlag, 1988-present.
2. Encyclopedia of Mathematics, Cambridge University Press, 1992-present.
3. Journal of Approximation Theory, Published by Academic Press, 2000-present.
4. Journal of Physics A: Mathematical and General, 2001-2004.
5. The Ramanujan Journal, Published by Kluwer, 1996-present.
6. Methods and Applications of Analysis, Published by International Press, 1992-1999.
7. International Journal of Mathematics and Mathematical Sciences, 1993-present.
8. Journal of Computational analysis and Applications, Published by Plennum, 1998-present.
9. The Indian Journal of Mathematics. 1997-present.
10. Fractional Calculus & Applied Analysis, 1998-present.
11. The Egyptian Journal of Mathematics, 2003–prsent.
12. Collaborating Problem Editor, American Mathematical Monthly, 1992-1997.

RESEARCH AND CONFERENCE GRANTS:

1. Science and Engineering Research Board of McMaster University, 1976-78.
2. National Research Council of Canada, 1977-1982.
3. National Science Foundation (NSF), USA, classical analysis, 1979-82, 1983-95, 1996-99, (79-82 joint with J. Bustoz, 1989-92 joint with E.B. Saff, 1992-95 joint with E.B. Saff and V. Totik). NSF analysis 1996-1999, 1999-2003.
4. CBMS Conference on q-series, Statistical Physics and Computer Algebra, joint with E. Ihrig, 1985.
5. International Division, National Science Foundation, USA, 1988-1991, collaboration with J. Charris, Colombia.
6. NATO A.S.I. on Orthogonal Polynomials and Their Applications, joint with P. Nevai and D. Stanton, 1989-1990.
7. NSF conference grant, a supplement to #6, joint with P. Nevai and D. Stanton, 1989-1990.
8. NSF grant, joint with E.B. Saff, from special projects for a special year in Approximation Theory (at USF) for 1989-1990.
9. NSF equipment grant for work stations and symbolic manipulations, joint with J. Pedersen, G. McColm, R. Stark and C. Williams.
10. NSF grant, joint with E.B. Saff, for collaborative research in classical analysis, 1989-91.

11. NSF grant, International Division, joint with M.Z. Nashed and A. Zayed, for a Conference in Cairo, Egypt, 1993-94.

12. NATO Collaborative research grant, joint with R. Askey and B. M. Brown, 1994-1997.

13. Research fellowship from the Leverhulme foundation, Britain, 1995-97.

14. EPSRC grant, with Y. Chen, fall of 1996.

15. NSF grant for the joint AMS-IMA-SIAM summer research conference on q-series, combinatorics, and computer algebra, joint with D. Stanton, June 1998.

16. NSF grant, International Division, for collaborative research with Britain, 1998-2000.

17. NSA grant, The Askey-Bateman Project, 1998-2000.

18. NSF grant, International Division, joint with S. Elaydi, A. El-Khadre, and M. Z. Nashed,for a conference of the Palestinian Math. Soc. held at Bir Zeit University, West Bank, 1998.

19. NSF grant, International Division, joint with C. Dunkl, for a conference in Hong Kong, 1998-99.

20. NSF conference grant from algebra-Number theory program, for a conference in Gainesville, joint with Frank Garvan, U of Florida, 1999.

21. Grant from the Number Theory Foundation for a conference in Gainesville, joint with Frank Garvan, U of Florida, 1999.

22. NSF conference grant from Analysis program, for a conference in Tempe, Arizona, joint with Sergei Suslov, Arizona State University, 2000.

AGENCIES REFEREED FOR:

National Science Foundation (algebra and number theory, classical analysis, computers and computational mathematics, and modern analysis), City University of Hong Kong Research Committee, National Security Agency, Natural Sciences and Engineering Research Council of Canada, Soros program, and Kuwait Research Foundation.

JOURNALS REFEREED FOR:

Advances in Applied Probability, Advances in Mathematocs, Aequationes Mathematicae, American Mathematical Monthly, Analysis, Annales des Sciences Mathematiques du Quebec, Annals of Mathematics, Applied Math. Letters, Arab Gulf Journal Scientific Research, Arabian Journal Science and Engineering, Australian Journal of Mathematics, Bol. Soc. Mat. Mexicana, Canadian Journal of Chemical Engineering, Canadian Journal of Mathematics, Canadian Mathematical Bulletin, Communications in Mathematical Physics, Complex Variables, Constructive Approximation, Cubo, Discrete Applications of Mathematics, Discrete Mathematics, Egyptian Mathematical Journal, Fibonnaci Quarterly, Foundations of Computational Mathematics, Ganita, Glasgow Mathematical Journal, Houston Journal of Mathematics, Indag. Math. Indian Journal of Mathematics, Indian Journal of Pure and Applied Mathematics, International Journal of Mathematics and Mathematical Sciences,

International Mathematics Research Notes, Journal of Applied Probability, Journal of Approximation Theory, Journal of Combinatorial Theory, Journal of Difference Equations, Journal of Functional Analysis, Journal of the Egyptian Mathematical Society, Journal of Linear Algebra and Applications, Journal of Linear and Multilinear Algebra, Journal of London Mathematical Society, Journal of Mathematical Analysis and Applications, Journal of Mathematical Physics, Journal of nonlinear Mathematical Physics, Journal of Physics A: Mathematical and General, Journal of the University of Kuwait (Science); Mathematical Physics, Analysis, and Geometry; Mathematics Magazine, Mathematics of Computation, Mathematika, Monatsh für Mathematik, Nihonkai Mathematical Journal, Numerical Functional Analysis and Optimization, Proceedings of the American Mathematical Society, Physics Letters A, Physical Review, Proceedings of the Edinburgh Mathematical Society, Proceedings of the Mathematical and Physical Society of Egypt, Proceedings of the Royal Society of London, Punjab Journal of Mathematics, Radgovi Mathematicae, Rendenconti Circolo di Palermo, Revista Colombiana de Matematicas, Revista Matematica Iberoamericana, Rocky Mountain Journal Mathematics, Serdica, SIAM Journal of Applied Mathematics, SIAM Journal of Mathematical Analysis, SIAM Journal of Numerical Analysis, SIAM J. Scientific Computing, Southeast Asean Mathematics Buletin, Transactions of the American Mathematical Society, Zeitschrift Anal. Anwendungen.

HONORS AND AWARDS:

Undergraduate Merit Scholarship, Cairo University 1960-1964;
Dissertation Fellowship, University of Alberta, 1973-1974;
Theodore and Venette Askounes-Ashford Distinguished Scholar Award University of South Florida, 1992-1993.
Leverhulme research fellow, Imperial College, London, 1996.
University visiting research professorship, City University of Hong Kong, 2000-2001.
USF Predential Excellence Award (= 10 % raise), 2003.
Listed among the highly cited: www.isihighlycited.com
Elected fellow of the Institute of Physics, December 2004.

Citations of my work in nonmathematical Journals: Ann. Physics New York, Aust. NZ J. Stat., Comm. Math. Physics, Czeck J. Physics, Eur. J. Physics A, Fiz Nizk Temp, J. Phys. Condensed Matter, Int. J. Mod. Phys., IEEE Inform. Th., J. Math. Phys., J. Phys. A, J. Phys. B, J. Statistical Planning and Inference, Lecture Notes in Computer Sci., Lett. Math. Phys., Mod. Phys. Lett. A, Nuclear Physics B, Physica A, Phys. Rep., Phys. Rev. A, Phys. Rev. B, Phys. Rev. E, Phys. Rev. Lett., Phys. Atom. Nucl., Phys. Lett. A, Queueing Systems, Rep. Math Ohys., Rev. Mod. Physics, Sankhya, Skand. J. Statistics, Theor. Computer Science, Theor. Math. Phys. Wave Random Media, Z. Phys., B Cond. Matt.

PUBLICATIONS:
Books

1. Mathematical Analysis, Wavelets, and Signal Processing, Proceedings of an International Conference on Mathematical Analysis and Signal Processing, coedited with M. Z. Nashed, A. I. Zayed and A. F. Ghaleb, Contemporary Mathematics, volume 190, American Mathematical Society, Providence, 1995.

2. Special Functions, q-Series and Related Topics, coedited with D. Masson and M. Rahman, Fields Institute Communications, volume 14, American Mathematical Society, Providence, 1997.

3. Q-Series from a Contemporary Perespective, coedited with D. Stanton, Contemporary Mathematics, volume 254, American Mathematical Society, Providence, 2000.

4. Special Functions, coedited with C. F. Dunkl and R. Wong, World Scientific, Singapore, 2000.

5. Special Functions 2000, Current Perspectives and Future Directions, coedited with J. Bustoz, and S. K. Suslov, Kluwer, Dorchester, 2001.

6. Symbolic Computation, Number Theory, Special Functions, Physics and Combinatorics 2001, Coedited with F. G. Garvan, Developments in Mathematics, Volume 4, Kluwer, Dorchester, 2001.

7. Theory and Applications of Special Functions: A volume dedicated to Mizan Rahman, Coedited with H. Koelink, Developments in Mathematics, Springer+Business Media, New York, 2005.

8. Classical and Quantum Orthogonal Polynomials in one Variable, Cambridge University Press, 2005.

Special Issues

1. Special Issue dedicated to R. Askey and F. W. J. Olver, coedited with G. Andrews, G. Gasper, and P. Nevai, SIAM J. Math. Anal. volume 25, number 2, (1994), pp. 243–814

2. Special volume on q-series, coedited with D. Masson, J. Comp. Appl. Math. 68 (1996), 339 pages.

3. Special Issues of Methods and Applications of Analysis, coedited with D. Stanton, volume 5, 1999.

4. Special issue of the Rocky Mountain J. Math., coedited with J. Bustoz and S. Suslov, volume 32, number 2, (2002), 389–936.

Papers

1. On some conjectures of Askey concerning completely monotonic functions, with J. Fields, in "Spline Functions and Approximation Theory", edited by A. Meir and A. Sharma, International Series on Numerical Mathematics, Vol. 21 (1973), Birkhauser Verlag, Basel, pp. 101–111.

2. On obtaining generating functions of Boas and Buck type for orthogonal polynomials, SIAM J. Math. Anal. 5 (1974), pp. 202–208.

3. On a generalization of Szász operators, Mathematica (Cluj) 16 (1974), pp. 259–267.

4. Orthogonal polynomials in a class of polynomials, Bull. Polytech. 1st, Iasy, Sect. I: Math., Mech., Theor. Phys. 20 (1974), pp. 45–50.

5. A sequence to function analogue of the Hausdorff means for double sequences: the $[J,\ f\,(x,\ y)]$ means, Proc. Amer. Math. Soc. 48 (1975), pp. 403–408.

6. On the positivity of some ${}_1F_2$'s joint with J. Fields, SIAM J. Math. Anal. 6 (1975), pp. 551–559.

7. A positive sum from summability theory, joint with R. Askey and G. Gasper, J. Approx. Theory 13 (1975), pp. 413–420.

8. Dual and triple sequence equations involving orthogonal polynomials, Indagationes Math. 37 (1975), pp. 164–169.

9. Some operational formulas, joint with W. Al-Salam, J. Math. Anal. Appl. 51 (1975), pp. 208–218.

10. Polynomial expansions, joint with J. Fields, Mathematics of Computation 29 (1975), pp. 894–902.

11. The Bessel polynomials and the student t-distribution, joint with D. Kelker, SIAM J. Math. Anal. 7 (1976), pp. 82–91.

12. Polynomials orthogonal with respect to discrete convolution, joint with W. Al-Salam, J. Math. Anal. Appl. 55 (1976), pp. 125–139.

13. Permutation problems and special functions, joint with R. Askey, Canadian J. Math. 28 (1976), pp. 853–874.

14. Unitary analogue of Carmichael's problem, joint with M.V. Subbarao, Indian J. Math. 18 (1976), pp. 49–55.

15. Connection relations and bilinear formulas for the classical orthogonal polynomials, J. Math. Anal. Appl. 57 (1977), pp. 487–496.

16. Polynomial expansions and generating functions, joint with T. Rashed, J. Math. Anal. Appl. 57 (1977), pp. 724–731.

17. A simple proof of Ramanujan's ${}_1\psi_1$ sum, Proc. Amer. Math. Soc. 63 (1977), pp. 185–186.

18. Bessel functions and the infinite divisibility of the student t-distribution, Ann. Prob. 5 (1977), pp. 582–585.

19. Integral representations and complete monotonicity of various quotients of Bessel functions, Canadian J. Math. 29 (1977), pp. 1198–1207.

20. Reproducing kernels for q-Jacobi polynomials, joint with W. Al-Salam, Proc. Amer. Math. Soc. 67 (1977), pp. 105–110.

21. Monotonicity of the zeros of a cross-product of Bessel functions, joint with M. Muldoon, SIAM J. Math. Anal. 9 (1978), pp. 759–767.

22. On solving differential and difference equations with variable coefficients, J. Math. Anal. Appl. 62 (1978), pp. 81–89.

23. On solving certain differential equations with variable coefficients, Aequationes Mathematicae 17 (1978), pp. 148–153.

24. On a family of approximation operators, joint with C.P. May, J. Math. Anal. Appl. 63 (1978), pp. 446–462.

25. Polynomials of binomial type and approximation theory, J. Approx. Theory 23 (1978), pp. 177–186.

26. A family of operational calculi, joint with W. Al-Salam, Math. Japonica 22 (1978), pp. 571–583.

27. Weighted permutation problems and Laguerre polynomials, joint with R. Askey and T. Koornwinder, J. Combinatorial Theory (Ser. A) 25 (1978), pp. 277–287.

28. A combinatorial approach to some positivity problems, joint with M.V. Tamhankar, SIAM J. Math. Anal. 10 (1979), pp. 478–485.

29. Special functions, Stieltjes transforms and infinite divisibility, joint with D. Kelker, SIAM J. Math. Anal. 10 (1979), pp. 884–901.

30. Special functions, infinite divisibility and solutions of certain transcendental equations, joint with C.P. May, Math. Proc. Cambridge Philos. Soc. 85 (1979), pp. 453–464.

31. The very well-poised ${}_6\psi_6$, joint with R. Askey, Proc. Amer. Math. Soc. 77 (1979), pp. 218–222.

32. On an umbral calculus, joint with E. Ihrig, Proc. 10th Southeastern Conference on Combinatorics, Graph Theory and Computing, (1979), pp. 523–528.

33. The Rogers q-ultraspherical polynomials, joint with R. Askey, in "Approximation Theory III" edited by E. Cheney, Academic Press, New York, 1980, pp. 175–182.

34. Asymptotic and explicit formulas for a non-Markovian model with linear transition rule, joint with R. Theodorescu, Biometrical J. (formerly Biomerische Zeit.) 22 (1980), pp. 67–71.

35. The basic Bessel functions and polynomials, SIAM J. Math. Anal. 12 (1981), pp. 454–468.

36. A q-umbral calculus, joint with E. Ihrig, J. Math. Anal. Appl. 84 (1981), pp. 178–207.

37. The zeros of basic Bessel functions, the functions $J_{\nu+ax}(x)$ and the associated orthogonal polynomials, J. Math. Anal. Appl. 86 (1982), pp. 1–19.

38. An infinitely divisible distribution involving modified Bessel functions, joint with K. Miller, Proc. Amer. Math. Soc. 85 (1982), pp. 233–238.

39. The associated classical orthogonal polynomials and their q-analogues, joint with J. Bustoz, Canadian J. Math. 34 (1982), pp. 718–736.

40. Asymptotic and generating relations for the q-Jacobi and ${}_4\phi_3$ polynomials, joint with J. Wilson, J. Approx. Theory 36 (1982), pp. 43–54.

41. On Dumont polynomials, joint with D. Stewart, Discrete Mathematics 41 (1982), pp. 155–160.

42. Orthogonal polynomials suggested by a queuing model, joint with T. Chihara, Advances in Appl. Math. 3 (1982), pp. 441–462.

43. Coefficients in expansions of certain rational functions, joint with R. Evans and D. Stanton, Canadian J. Math. 34 (1982), pp. 1011–1024.

44. Orthogonal polynomials associated with the Rogers-Ramanujan continued fraction, joint with W. Al-Salam, Pacific J. Math. 104 (1983), pp. 269–283.

45. A generalization of the ultraspherical polynomials, joint with R. Askey, in "Studies in Pure Mathematics", edited by P. Erdős, Birkhauser Verlag, Basel, 1983, pp. 55–78.

46. Turan type inequalities for ultraspherical and continuous q-ultraspherical polynomials, joint with J. Bustoz, SIAM J. Math. Anal. 14 (1983), pp. 807–819.

47. Recurrence relations, continued fractions and orthogonal polynomials, joint with R. Askey, Memoirs Amer. Math. Soc. 300 (1984), 112 pages.

48. A queuing model and a set of orthogonal polynomials, J. Math. Anal. and Appl. 108 (1985), pp. 575–594.

49. The attractive Coulomb potential polynomials, joint with E. Bank, Constructive Approximation 1 (1985), pp. 103–119.

50. On sieved orthogonal polynomials I: Symmetric Pollaczek analogues, SIAM J. Math. Anal. 16 (1985), pp. 1093–1113.

51. On sieved orthogonal polynomials II: Random walk polynomials, joint with J. Charris, Canadian J. Math. 38 (1986), pp. 397–414.

52. On sieved orthogonal polynomials III: Polynomials orthogonal on several intervals, Transactions Amer. Math. Soc. 294 (1986), pp. 89–111.

53. On sieved orthogonal polynomials IV: Generating functions, J. Approximation Theory 46 (1986), pp. 284–296.

54. Completely monotonic functions associated with the gamma function and its q-analogues, joint with L. Lorch and M. Muldoon, J. Math. Anal. Appl. 116 (1986), pp. 1–9.

55. Certain monotonicity properties of Bessel functions, joint with M. Muldoon, J. Math. Anal. Appl. 118 (1986), pp. 145–150.

56. Asymptotics of the Askey-Wilson and q-Jacobi polynomials, SIAM J. Math. Anal. 17 (1986), pp. 1475–1482.

57. On zeros of Bessel functions, Applicable Analysis 22 (1986), pp. 167–168.

58. On gamma function inequalities, joint with J. Bustoz, Mathematics of Computation 47 (1986), pp. 659–667.

59. The variation of zeros of certain orthogonal polynomials, Advances in Appl. Math. 8 (1987), pp. 111–118.

60. The generalized Chebyshev polynomials, joint with F. Mulla, SIAM J. Math. Anal. 18 (1987), pp. 243–258.

61. On sieved orthogonal polynomials V: Sieved Pollaczek polynomials, joint with J. Charris, SIAM J. Math. Anal. 18 (1987), pp. 1177–1218.

62. The combinatorics of q-Hermite polynomials and the Askey-Wilson integral, joint with D. Stanton and G. Viennot, European J. Combinatorics 8 (1987), pp. 379–392.

63. Linear birth and death models and associated Laguerre polynomials, joint with J. Letessier and G. Valent, J. Approx. Theory 55 (1988), pp. 337–348.

64. On the Hellmann-Feynman theorem and the variation of zeros of special functions, joint with R. Zhang, Advances in Appl. Math. 9 (1988), pp. 439–446.

65. On the variation with respect to a parameter of zeros of Bessel functions and q-Bessel functions, joint with M. Muldoon, J. Math. Anal. Appl. 135 (1988), pp. 187–207.

66. q-Beta integrals and the q-Hermite polynomials, joint with W. Al-Salam, Pacific J. Math 135 (1988), pp. 209–221.

67. Zeros of combinations of Bessel functions and their derivatives, joint with M. Muldoon, Applicable Analysis 31 (1988), pp. 73–90.

68. On the Askey-Wilson and Rogers polynomials, joint with D. Stanton, Canadian J. Math. 40 (1988), pp. 1025–1045.

69. A positive trigonometric sum, joint with J. Bustoz, SIAM J. Math. Anal. 20 (1989), pp. 176–181.

70. Quadratic birth and death processes and associated continuous dual Hahn polynomials, joint with J. Letessier and G. Valent, SIAM J. Math. Anal. 20 (1989), pp. 727–737.

71. The Hellmann-Feynman theorem and zeros of special functions, joint with R. Zhang, Invited Address, in "Ramanujan International Symposium on Analysis", edited by N.K. Thakare, McMillan of India, Delhi, 1989, pp. 151–183.

72. Contiguous relations, basic hypergeometric functions and orthogonal polynomials I, joint with C. Libis, J. Math. Anal. Appl. 141 (1989), pp. 349–372.

73. Monotonicity of zeros of orthogonal polynomials, Invited Address, in "q-Series and Partitions", edited by D. Stanton, IMA Volumes in Mathematics and Its Applications, Vol. 18, Springer-Verlag, New York, 1989, pp. 177–190.

74. Complete monotonicity of modified Bessel functions, Proc. Amer. Math. Soc. 108 (1990), pp. 353–361.

75. An asymptotic problem in derangement theory, joint with J. Gillis and T. Offer, SIAM J. Math. Anal. 21 (1990), pp. 262–269.

76. Birth and death processes and orthogonal polynomials, joint with J. Letessier, D. Masson, and G. Valent, in "Orthogonal Polynomials: Theory and Practice", edited by P. Nevai, Proc. NATO ASI on Orthogonal Polynomials and Their Applications, Kluwer Academic Publishers, 1990, pp. 225–229.

77. On sieved orthogonal polynomials VI: Differential equations, joint with J. Bustoz and J. Wimp, Differential and Integral Equations 3 (1990), pp. 757–766.

78. A generalization of starlike functions, joint with E. Merkes and D. Styer, Complex Variables 14 (1990), pp. 77–84.

79. Two families of associated Wilson polynomials, joint with J. Letessier, G. Valent and J. Wimp, Canadian J. Math. 42 (1990), pp. 659–695.

80. A discrete approach to monotonicity of zeros of orthogonal polynomials, joint with M. Muldoon, Transactions Amer. Math. Soc. 323 (1991), pp. 65–78.

81. Two families of orthogonal polynomials related to Jacobi polynomials, joint with D. Masson, Rocky Mountain J. Math. 21 (1991), pp. 359–375.

82. On asymptotics of Jacobi polynomials, joint with L. Chen, SIAM J. Math. Anal. 22 (1991), pp. 1442–1449.

83. Associated Askey-Wilson polynomials, joint with M. Rahman, Transactions Amer. Math. Soc. 328 (1991), pp. 201–239.

84. Some results on associated Wilson polynomials, joint with J. Letessier, G. Valent, and J. Wimp, in "Orthogonal Polynomials and Their Applications", edited by C. Brezinski, L. Gori and A. Ronveaux, J.C. Baltzer Ag , Basel (1991), pp. 293–298.

85. A minimal solution approach to polynomial asymptotics, joint with D. Masson and E. Saff, in "Orthogonal Polynomials and Their Applications", edited by C. Brezinski, L. Gori and A. Ronveaux, J.C. Baltzer Ag, Basel (1991), pp. 299–303.

86. Associated continuous Hahn polynomials, joint with D.P. Gupta and D. Masson, Canadian J. Math 43 (1991), pp. 1263–1280.

87. Complex weight functions for the classical orthogonal polynomials, joint with D. Masson and M. Rahman, Canadian J. Math 43 (1991), pp. 1294–1308.

88. Padé approximants for some q-hypergeometric functions, joint with R. Perline and J. Wimp, in "Progress in Approximation Theory", edited by A.A. Gonchar and E.B. Saff, Springer-Verlag, New York, 1992, pp. 37–50.

89. On sieved orthogonal polynomials IX: Orthogonality on the unit circle, joint with X. Li, Pacific J. Math. 153 (1992), pp. 289–297.

90. On sieved orthogonal polynomials VIII: Associated sieved Pollaczek polynomials, joint with N. Al-Salam, J. Approximation Theory 68 (1992), pp. 306–324.

91. Bounds for extreme zeros of orthogonal polynomials, joint with X. Li, Proc. Amer. Math. Soc. 115 (1992), pp. 131–140.

92. Birth and death processes with absorption, joint with J. Letessier and G. Valent, Int. J. Math. Math. Sci. 15 (1992), pp. 469–480.

93. A solvable random matrix model for disordered conductors, joint with Y. Chen and K. Muttalib, J. Phys.: Condensed Matter 4 (1992), pp. L417–L423.

94. Relation between polynomials orthogonal on the unit circle with respect to different weights, joint with R. Ruedemann, J. Approximation Theory 71 (1992), pp. 39–60.

95. Contiguous relations, basic hypergeometric functions and orthogonal polynomials II: Associated big Jacobi polynomials, joint with D.P. Gupta and D. Masson, J. Math. Anal. Appl. 171 (1992), pp. 477–497.

96. Extremal measures for a system of orthogonal polynomials, joint with T. Chihara, Constructive Approximation 9 (1993), pp. 111–119.

97. Metallic and insulating behavior in an exactly solvable random matrix model, joint with Y. Chen and K.A. Muttalib, J. Phys.: Condensed Matter 5 (1993), pp. 171–190.

98. Extremal measures for q-Hermite polynomials when $q > 1$, joint with D.R. Masson, Math. Rep. Royal Soc. Canada 15 (1993), pp. 7–12.

99. On sieved orthogonal polynomials VII: Generalized polynomial mappings, joint with J. Charris, Transactions Amer. Math. Soc. 340 (1993), pp. 71–93.

100. On some strange summation formulas, joint with R.W. Gosper and R. Zhang, Illinois J. Math 38 (1993), pp. 240–277.

101. A new family of unitary random matrices, joint with K.A. Muttalib, Y. Chen and V.N. Nicopoulos, Phys. Rev. Letters, 71 (1993), pp. 471–475.

102. Pages from the computer files of R. William Gosper, joint with Y. Takeuchi and R. Zhang, Proc. Amer. Math. Soc. 119 (1993), pp. 747–760.

103. Ladder operators for q^{-1}-Hermite polynomials, Math. Rep. Royal Soc. Canada, 15 (1993), pp. 261–266.

104. On sieved orthogonal polynomials X, joint with J. Charris and S. Monsalve, Pacific J. Math 163 (1994), pp. 237–267.

105. Asymptotics of Pollaczek polynomials and their zeros, SIAM J. Math. Anal. 25 (1994), pp. 462–473.

106. A q-beta integral on the unit circle and some biorthogonal rational functions, joint with W. Al-Salam, Proc. Amer. Math. Soc. 121 (1994), pp. 553–561.

107. Diagonalization of certain integral operators, joint with R. Zhang, Advances in Math. 109 (1994), pp. 1–33.

108. q-Hermite polynomials, biorthogonal rational functions, and q-beta integrals, joint with D. Masson, Transactions Amer. Math. Soc. 346 (1994), pp. 63–116.

109. Inequalities and monotonicity properties for gamma and q-gamma functions, joint with M. Muldoon, in"Approximation and Computation", R. Zahar, ed. A Festschrift in honor of Walter Gautschi, ISNM, Birkhauser, Boston, 1994, pp. 309–324.

110. Bounds for the small real and pure imaginary zeros of Bessel functions, joint with M. Muldoon, Methods and Applications of Analysis 2 (1995), pp 1–21.

111. A right inverse of the Askey-Wilson operator, joint with B. M. Brown., Proc. Amer. Math. Soc. 123 (1995), pp. 2071–2079.

112. Asymptotics of basic Bessel functions and q-Laguerre polynomials, joint with Y. Chen and K.A. Muttalib, J. Comp. Appl. Math. 54 (1995), 263–273.

113. Generalized orthogonality and continued fractions, joint with D. Masson, J. Approximation Theory 83 (1995), pp. 1–40.

114. Some basic bilateral sums and integrals, joint with M. Rahman, Pacific J. Math. 170 (1995), pp. 497–515.

115. Impact of localization on Dyson's circular, joint with K. A. Muttalib, J. Physics A 28 (1995), pp. L541–548.

116. The Askey-Wilson operator and summation theorems, in "Mathematical Analysis, Wavelets, and Signal Processing", M. Ismail, M. Z. Nashed, A. Zayed and A. Ghaleb, eds., Contemporary Mathematics, volume 190, American Mathematical Society, Providence, 1995, pp. 171–178.

117. The Askey-Wilson polynomials and q-Sturm-Liouville problems, joint with B. M. Brown and W.D. Evans, Math. Proc. Cambridge Philosophical Society 119 (1996), pp. 1–16.

118. Diagonalization of certain integral operators II, joint with M. Rahman and R. Zhang, J. Comp. Appl. Math. 68 (1996), pp. 163–196.

119. q-Hermite polynomials and the classical polynomials, joint with C. Berg, Canadian J. Math. 48 (1996), pp. 43–63.

120. Ladder operators for Szegö polynomials and related biorthogonal rational functions, joint with M. Rahman, Proc. Amer. Math. Soc. 124 (1996), pp. 2149-2159.

121. On a parametric diesel function, joint with A. Z. Grinshpan, Math. Rep. Royal Soc. Canada 19 (1996), pp. 53–58.

122. Relativistic orthogonal polynomials are Jacobi polynomials, J. Physics A, 29 (1996), pp. 3199–3202.

123. Binomial and q-binomial coefficient inequalities related to the Hamiltonicity of the Kneser graphs and their q-analogues, joint with W. E. Clark, J. Comb. Theory A 76 (1996), pp. 83–98.

124. Contiguous relations, basic hypergeometric functions and orthogonal polynomials III: Associated contiguous dual q-Hahn polynomials, joint with D.P. Gupta and D. Masson, J. Comp. Appl. Math. 68 (1996), pp. 115–149.

125. On an integral operator and its spectrum, joint with J. Bustoz and J. Ma, Illinois J. Math. 40 (1996), pp. 648–661.

126. Fractional powers of a difference operator, Computers and Mathematics 33 (1997), pp. 145–150.

127. Classical orthogonal polynomials as moments, joint with D. Stanton, Canadian J. Math. 49 (1997), pp. 520–542.

128. Some summation theorems and transformations for q-series, joint with M. Rahman and S. Suslov, Canadian J. Math. 49 (1997), pp. 543–567.

129. Turan inequalities for symmetric orthogonal polynomials, joint with J. Bustoz, Int. J. Math. Math. Sc. 20 (1997), pp. 1–8.

130. Some generating functions for q-polynomials, joint with D. Masson and S. Suslov, in "Special Functions and q-Series", M. Ismail, D. Masson and M. Rahman, eds., Proceedings of the Fields Institute workshop on special functions and q-series, American Mathematical Society, 1997, pp. 91–108.

131. Remarks on a paper by Giordano, Laforgia and Pecaric, J. Math. Anal. Appl. 211 (1997), pp. 621–625.

132. Fourier transform of $h_n(x+p)h_n(x-p)$, joint with K. Stempak, Int. J. Math. Math. Sc. 29 (1997), pp. 613–615.

133. Thermodynamic relations of the Hermitean matrix ensembles, joint with Y. Chen, J. Physics A 30 (1997), pp. 6633–6654.

134. Asymptotics of extreme zeros of the Meixner-Pollaczek polynomials, joint with Y. Chen, J. Comp. Appl. Math. 82 (1997), pp. 59–78.

135. Ladder operators and differential equations for orthogonal polynomials, joint with Y. Chen, J. Phys. A 30 (1997), pp. 7818–7829.

136. Hermitean Matrix ensembles and orthogonal polynomials, joint with Y. Chen, Studies in Appl. Math. 100 (1998), pp. 33–52.

137. Tau-function construction of the recurrence coefficients of orthogonal polynomials, joint with Y. Chen and W. Van Assche, Advances in Applied Math. 20 (1998), pp. 141–168.

138. More orthogonal polynomials as moments, joint with D. Stanton, Mathematical Essays in Honor of Gian-Carlo Rota, B. Sagan and R. P. Stanley, editors, Birkhauser, Basel 1998, pp. 377–396.

139. Some indeterminate moment problems and Freud-like weights, joint with Y. Chen, Constructive Approximation 14 (1998), pp. 439–458.

140. Discriminants and functions of the second kind of orthogonal polynomials, Results in Math. 34 (1998), pp. 132-149.

141. The q-Laguerre polynomials and related moment problems, joint with M. Rahman, J. Math. Anal. Appl. 218 (1998), pp. 155–174.

142. On a family of orthogonal polynomials related to elliptic functions, joint with G. Valent, Illinois J. Math. 42 (1998), pp. 294–312.

143. Remarks on a paper on semiorthogonal relations, Integral Transforms and Special Functions, 7 (1998), pp. 313–316.

144. Asymptotics of the largest zeros of some orthogonal polynomials, joint with Y. Chen, J. Phys. A 31 (1998), pp. 5525–5544.

145. In memoriam, Waleed Al-Salam (Obituary), joint with T. S. Chihara, J. Approx. Theory 95 (1998), pp. 153–160.

146. Strong asymptotics of the Krawchouck polynomials, joint with P. Simeonov, J. Comp. Appl. Math. 100 (1998), pp. 121–144.

147. On differential equations for orthogonal polynomials, joint with J. Wimp, Methods and Applications of Analysis 5 (1998), pp. 439–452.

148. Discriminants and electrostatics of general orthogonal polynomials, Math. Reports of the Royal Society of Canada 20 (1998), pp. 108–112.

149. Asymptotics of Racah coefficients and polynomials, joint with L-C. Chen and P. Simeonov, J. Phys. A 32 (1999), pp. 537–553.

150. Lattice paths and positive trigonometric sums, joint with D. Kim and D. Stanton, Constructive Approximation 15 (1999), pp. 69–81.

151. The q-Bessel functions on q-quadratic grid, joint with D. Masson and S. Suslov, in "Algebraic Methods and q-Special Functions", P. Van Diejen and L. Vinet, eds., American Mathematical Society, Providence 1999, pp. 183–200.

152. A curious expression for the Weyl fractional integral, joint with M. L. Glasser, Fractional Calculus and Applied Analysis 2 (1999), pp. 145-148.

153. Quadratic q-exponentials and connection coefficient problems, joint with D. Stanton and M. Rahman, Proc. Amer. Math. Soc. 127 (1999), pp. 2931–2941.

154. Variants on the Rogers-Ramanujan identities, joint with K. Garrett and D. Stanton, Advances in Applied Math. 23 (1999), pp. 274-299.

155. Some continued fractions related to elliptic functions, joint with D. R. Masson, in "Continued Fractions: From Analytic Theory to Constructive Approximation", B. C. Berndt and F. Gesztesy, eds. Contemporary Mathematics, volume 236, 1999, pp. 149–166.

156. An electrostatic model for zeros of general orthogonal polynomials, Pacific J. Math. 193 (2000), pp. 355–369.

157. Schur's determinants and partition theorems, joint with Prodinger and D. Stanton, Séminaire Lotharingien de Combinatoire, B 44a (2000), 10 pages.

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159. Addition theorems for q-exponential functions, joint with D. Stanton, in "q-Series from a Contemporary Perspective", Contemporary Mathematics, M. E. H. Ismail and D. Stanton, eds., American Mathematical Society, Providence, 2000, pp. 235–245.

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161. Complete monotonicity and diesel fluid spray, joint with A. Z. Grinshpan and D. Milligan, Math. Intelligencer 22 (2000), pp. 43–53.

162. An extremal problem for generalized Jacobi polynomials, in "Proc. of the Mathematics Conference, Birzeit Universit", S. Elaydi et al, eds., World Scientific, 2000, pp. 139–145.

163. Algebraic evaluations of some symmetric Euler integrals, duplication formulas for Appell's F_1, and Brownian variations, joint with James Pitman, Canadian J. Math., 52 (2000), pp. 961–981.

164. Change of basis in Bailey pairs, joint with D. Bressoud and D. Stanton, the Ramanujan Journal, 4 (2000), pp. 435-453.

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166. Discriminants and functional equations for polynomials orthogonal on the unit circle, joint with N. Witte, J. Approx. Theory 110 (2001), pp. 200-228.

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180. A fourth order q-difference equation for associated discrete q-orthogonal polynomials, joint with P. Simeonov, Rocky Mountain J. Math. 32 (2002), pp. 679–790.

181. Difference equations and quantized discriminants for q-orthogonal polynomials, Advances in Applied Mathematics **30** (2003), pp. 562–589.

182. Inequalities involving Gamma and psi functions, joint with W. E. Clark, Analysis and Its Applications 1 (2003), pp. 129–140.

183. Remarks on "Differential equation of Appell polynomials $\cdots$", J. Comp, Appl. Math. **154** (2003), pp. 243–245.

184. Applications of q-Taylor theorems, joint with D. Stanton, J. Comp. Appl. Math. 153 (2003), pp. 259–272.

185. Tribasic Integrals and identities of Rogers-Ramanujan type, joint with D. Stanton, Transactions Amer. Math. Soc. 355 (2003), pp. 4061-4091.

186. Three routes to the exact asymptotics for the one-dimensional quantum walk, joint with H. A. Carteret and L. B. Richmond, J. Phys. A 36 (2003), pp. 8875–8895.

187. q-Taylor theorems, polynomial expansions, and interpolation of entire functions, joint with D. Stanton, J. Approximation Theory 123 (2003), pp. 125–146.

188. A generalization of a theorem of Bochner, J. Computational and Appl. Math. 159 (2003), pp. 319-324

189. A q-analogue of the Whittaker-Shannon-Kotel'nikov sampling theorem. joint with A. Zayed, Proc. Amer. Math. Soc. 131 (2003), pp. 3711-3719.

190. Application of upper and lower bounds for the domination number to Vizing's conjecture, joint with W. E. Clark and S. Suen, ARS Combinatoria 69 (2003), 97–108.

191. Lectures on orthogonal polynomials, in Differential Equations & Asymptotic Theory in Mathematical Physics, C. Hua and R. Wong, eds, World Scientific, Singapore, 2004, World Scientific, Singapore, 2004, pp. 1–43.

192. Difference equations and discriminants for discrete orthogonal polynomials, joint with Nikolova and Simeonov, the Ramanujan Journal 8 (2004), 475–502

193. Jacobi polynomials from compatibility conditions, joint with Y. Chen, Proc. Amer. Math. Soc. 133 (2004), pp. 465-472.

194. New proofs of some q-series results, joint with R. Zhang, in Theory and Applications of Special Functions, edited by M. E. H. Ismail and H. Koelink, Springer+Business Media, New York, 2005, pp 285–299.

195. Mizan Rahman, his mathematics and literary writings, joint with R. Askey and E. Koelink, in Theory and Applications of Special Functions, edited by M. E. H. Ismail and H. Koelink, Springer+Business Media, New York, 2005, pp 1–28.

196. Asymptotics of q orthogonal polynomials and a q-Airy function, IMRN (2005), 2005 18 (2005), pp. 1063–1088.

197. Determinants with orthogonal polynomial entries, J. Comp. Appl. Math. 178 (2005), pp. 255-266.

198. A moment problem and a family of integral evaluations, joint with J. Christiansen, Trans. Amer. Math. Soc. 358 (2006), 4071–4097.

199. On formulas of Ramanujan and Evans, the Ramanujan Journal, 11 (2006), pp. 349-353

200. Completely monotonic functions involving the Gamma and q-Gamma functions, joint with A. Z. Grinshpan, Proc. Amer. Math. Soc. 134 (2006), pp. 1153–1160.

201. Differential equations of orthogonal matrix polynomials, joint with A. Duran, J. Comput. Appl. Math. 190 (2006), pp. 424–436.

202. Functional inequalities for incomplete gamma and related functions, joint with A. Laforgia, Mathematical Inequalities & Applications, 9 (2006), pp. 299–302.

203. Ramanujan continued fractions via orthogonal polynomials, joint with D. Stanton, Advances in Math. 203 (2006), pp. 170–193.

204. On value distribution theory of second order periodic ODES, special functions and orthogonal polynomials, joint with Y. M. Chiang, Canadian J. Math. 58 (2006), to appear.

205. Bethe ansatz equations and q-Sturm-Liouville problems, joint with S. Lin and S. Roan, J. Math. Phys., to appear.

206. Generalizations of Chebyshev polynomials and Polynomial Mappings, joint with Y. Chen and J. Griffin, Tranactions Amer. Math. Soc., to appear.

207. Zeros of entire functions and a problem of Ramanujan, joint with C. Zhang, Advances in Math, to appear.

208. Resultants of Chebyshev polynomials, joint with J. Gishe, Z. Anal. Anwendungen, to appear.

209. Montonicity properteis of Determinants of Special fubctions, joint with A. Laforgia, Constructive Approximation, to appear.

210. Ramanujan's q-continued fractions, joint with X. Li, preprint.

211. linear q-difference equations, joint withM.H.Abu Risha, M.H.Annaby, and Z.S.Mansour, Z. Anal. Anwendungen, to appear.

212. Approximation operators, exponential, q-exponential, and free exponential families, joint with W. Bryc, submitted.

213. Orthogonal polynomials and Ramanujan's q-continued fractions, joint with X. Li, Proceedings of a conference held at Georia tech., to appear.

214. One parameter generalizations of the Fibonacci and Lucas numbers, submitted.

215. Scaled asymptotics for q-polynomials, joint with R. Zhang, Comptes Rendus Acd. France, to appear.

216. Chaotic and periodic asymptotics for q-orthogonal polynomials, joint with R. Zhang, submitted.

217. Inequalities and asymptotics for a terminating ${}_4F_3$ series, joint with P. Simeonov, submitted.

218. Equations of motion for time dependent orthogonal polynomials, joint with W. X. Ma, submitted.

219. Some properties of Jackson's third q-Bessel function, preprint.

INVITED PAPERS:

Papers #33, 71, 73, 76, 81, 88, 109, 116, 118, 124, 126, 130, 134, 138, 144, 145, 151, 155, 158, 162, 168, 169. 174, 196, 197, and 200 are invited papers and addresses. Papers #76 and 171 were lecture notes for a three-hour special presentation at a NATO Advanced Study Institute.

ADDITIONAL PUBLICATIONS:

1. Preface (Dedication) to the Askey-Olver special issue of SIAM Journal on Mathematical Analysis, joint with G. Andrews, G. Gasper, and P. Nevai, SIAM J. Math. Anal. volume 25, number 2, (1994), pp. vii–ix.

2. Preface to Mathematical Analysis, Wavelets, and Signal Processing, joint with M. Z. Nashed, A. Zayed, and A. F. Ghaleb, Contemporary Mathematics, volume 190, American Mathematical Society, Providence, 1995, ix–x.

3. Preface to Special Functions, q-Series and Related Topics, joint with D. R. Masson and M. Rahman, Fields Institute Communications, volume 14, American Mathematical Society, Providence, 1997.

4. Preface to a special issue on q-series, Journal of Computational And Applied Mathematics, joint with D. R. Masson, J. Comp. Appl. Math. 68 (1996), 1–2.

5. Dedication for Special Issues (dedicated to Richard Askey), joint with D. Stanton, Methods and Applications of Analysis 6, 1999, pp. 1-2.

6. Waleed Al-Salam, 1926–1996, in "Algebraic Methods and q-Special Functions", P. Van Diejen and L. Vinet, eds., American Mathematical Society, Providence 1999, pp. ix–xi.

7. Preface to q-Series from a Contemporary Perspective, Contemporary Mathematics, American Mathematical Society, Providence, 2000, pp. ix–x.

8. Preface to Special Functions 2000, Current Perspectives and Future Directions, Kluwer, Dorchester, 2001, p. vii..

9. Preface to Symbolic Computation, Number Theory, Special Functions, Physics and Combinatorics 2001, Developments in Mathematics, Volume 4, Kluwer, Dorchester, 2001, pp. vii-viii.

SOLUTIONS TO PROBLEMS:

1. Solution to Problem 75-3, SIAM Rev. 18 (1976), 302.

2. Solution to Problem 77-2, SIAM Rev. 20 (1978), 187–188.

3. Solution to Problem 95-7, SIAM Rev. 38 (1996), 324.

BOOK REVIEWS:

1. The Bessel Polynomials, by E. Grosswald, in: Mathematical Reviews 80 (1980) 80i:33013.

2. The H-Function with Applications in Statistics and Other Disciplines, by A.M. Mathai and R.K. Saxena, in: Canadian J. Statistics 8 (1980), pp. 143-145.

3. Special Functions in Queuing Theory, by H.M. Srivastava and R.K. Kashyap, in: SIAM Review 25 (1983), pp. 582-585.

4. q-Hypergeometric Functions and Applications, by H. Exton, in: SIAM Review 27 (1985), pp. 279-281.

5. Generalized Associated Legendre Functions and Their Applications, by N. Virchenko and I. Fedotova, SIAM Rev. 44 (2003), 288-291.

Unpublished Technical Reports:

1. On some r-semiorthogonal polynomials, MRC technical Summary Report 1487, November 1974, 7 pages.

2. A derangement problem, MRC technical Summary Report 1522, June 1975, 11 pages.

3. A combinatorial sum, joint with R. Askey, MRC technical Summary Report 1557, July 1975, 10 pages.

MASTER'S STUDENTS:

1. Richard Ruedemann, Arizona State University, August 1987.
Thesis title: "Positivity Results in Combinatorics".

2. Ruiming Zhang, Arizona State University, August 1987.
Thesis title: "The Hellmann-Feynman Theorem and Zeros of Special Functions".

3. David Milligan, University of South Florida, December 1997, "How Mathematics Aids Engineering and Engineering stimulates Mathematics and an Example Involving Fuel Spray".

DOCTORAL STUDENTS:

1. Edward Bank, Arizona State University, April 1984.
Dissertation title: "Pollaczek Polynomials and Functions".

2. Jairo Charris, Arizona State University, August 1984.
Dissertation title: "Sieved Pollaczek and Random Walk Polynomials".

3. Li-Chen Chen, University of South Florida, August 1989.
Dissertation title: "On Asymptotics of Certain Hypergeometric Functions and $6-j$ Symbols".

4. Richard Ruedemann, University of South Florida, August 1992.
Dissertation title: "Relation Between Polynomials Orthogonal on the Unit Circle With Respect to Different Weights".

5. Ruiming Zhang, University of South Florida, April 1993.
Dissertation title: "Some Formulas of W. Gosper and Spectral Properties of Certain Operators in Weighted Spaces".

6. Jifeng Ma, University of South Florida, May 1997.
   Dissertation title: "Spectrum of Some Integral Operators"

INVITED ADDRESSES:

1. Mathematical Analysis and Its Applications, an international conference, Kuwait, March 1985, 1 hour.
2. Orthogonal Polynomials and Applications, an international conference, Segovia (Spain), September 1986, 1 hour.
3. Colombian Mathematical Society, Bogota, July 1987, 45 minutes.
4. Ramanujan Birth Centenary Year International Symposium on Analysis, Pune (India), December 1987, 1 hour.
5. Symposium on q-series, Institute of Mathematics and Its Applications, University of Minnesota, March 1988, 1 hour.
6. The joint U.S.–Norway conference on continued fractions, University of Colorado, Boulder, June 1988, 1/2 hour.
7. The NATO ASI on orthogonal polynomials and their applications, Ohio State University, Columbus, May 1989, a 3-hour slot.
8. The Latin American Colloquium in Mathematics, Bogota, Colombia, November 1992, 1 hour.
9. Analytic and computational problems in spectral theory of differential operators, Gregynog, Wales, July 1993, 1/2 hour.
10. The Waleed Al-Salam Day, University of Alberta, September 1993, 45 minutes.
11. Special Functions Day, Catholic University of Louvain, Belgium, October 1993, 1 hour.
12. The First Stieltjes Colloquium, Free University of Amsterdam, November 1993, 1 hour.
13. Approximation Theory Day, Cambridge University, England, November 1993, 1 hour.
14. Conference on Signal Processing and Analysis, Cairo, Egypt, January 1994, 1 hour.
15. Conference on Functional Differential Equations, Cairo, Egypt, January 1995, two 45 minute talks.
16. The Lorch Symposium, York University, June 1995, 1/2 hour.
17. The Rotafest, a conference at the M.I.T., April 1996, 1/2 hour.
18. Workshop on group theoretic methods in the theory of special functions, CRM, Montreal, June 1996, 1 hour.
19. The annual meeting of the Danish Mathematical Society, Copenhagen, June, 1996, 1 hour.

20. Analytic and computational problems in spectral theory of differential operators, Gregynog, Wales, July 1996, 1/2 hour.

21. Congress on Computational and Applied Mathematics, Louvain, Belgium, July 1996, 1 hour.

22. British function theory meeting, Imperial College, London, September 1996, 1 hour.

23. Continued fractions and geometric function theory, Trondheim, Norway, June 1997, 1 hour talk.

24. Third International Symposium on difference equations and their applications, Taipei, Taiwan, September 1997, 1 hour talk.

25. Southwest Mathematical Physics Meeting, California Institute of Technology, Pasadena, February 1998, 1 hour talk.

26. Fourier Analysis and Application, Kuwait University, Kuwait, May 1998, 1 hour talk.

27. The third conference on Symmetries and Integrablitiy of Difference Equations (SIDE III), Sabudia, Italy, May 1998, 1 hour talk.

28. Continued Fractions, University of Missouri at Columbia, Columbia, May 1998, 1 hour talk.

29. Second Meeting of the Palestinian Mathematical Society, Birzeit, West Bank, August 1998 1 hour talk.

30. MSRI workshop on Random Matrices, Statistical Mechanics, and Integrable Systems, February 1999, 1 hour talk (available on tape from MSRI).

31. Renaissance of Combinatorics 99, October 1999, Nankai University, China, 45 minute talk.

32. Workshop on orthogonal Polynomials, April 2000, 1 hour talk, Inzell, Germany.

33. The annual meeting of the Tunisian Mathematical Society, March 2001, 1 hour talk, Hammat, Tunisia.

34. Special functions in the digital age, Institute for Mathematics and Its Applications, University of Minnesota, July 2002, one hour talk.

35. Foundations of Computational Mathematics 2002, a semiplenary lecture (45 minutes), Institute for Mathematics and Its Applications, University of Minnesota, August 2002.

36. The 10th anniversary of the Journal of the Egyptian Mathematical Society, Cairo, Egypt, December 2002.

37. The Seventh International Symposium on Orthogonal Polynomials and Speceial Functions, Copenhagen, August 2003, one hour talk.

38. An conference in honor of Koornwinder's sixtieth birth day, Amsterdam, August 2003, one hour address.

39. The six conference on Symmetries and Integrablitiy of Difference Equations (SIDE VI), Helsinki, Finland, June 2004, 1 hour talk.

40. Aspects algébriques et Analytiques des Equations aux q-diffrences, Lille, France, September 2004, one hour.

41. The Eightth International Symposium on Orthogonal Polynomials and Speceial Functions, Munich, July 2005, one hour talk.

42. The Conference on analysis and its applications, Assiut, Egypt, the oppening lecture, January 2006.

43. United Arab Emirates Mathematics Day, University of Sharjah, April 2006, one hour.

44. A special Applied Mathematics Day, King Abdul Aziz City for Science and Technology, one hour.

45. Six invited one-hour talks at Oberwolfach meetings.

46. Several half-hour talks at special sessions of the American and Canadian Mathematical Societies and SIAM. Also a half hour talk at the Centenary celebration of the first Ph D in Mathematics at the University of Wisconsin, 1997.

47. Many 1-hour Colloquium and Seminar talks at various universities.

SERIES OF LECTURES:

1. Distinguished Visitors Program to Colombia (ICFES), Lectures at the National University of Colombia, 10 lectures on Orthogonal Polynomials and Applications, 1989.

2. Distinguished Visitors Program to Colombia (ICFES), Lectures at the National University of Colombia, 10 lectures on q-series, 1991.

3. Distinguished lecture series "Frontiers in Mathematics", Texas A & M University, March 1995, 3 lectures.

4. Distinguished visitors program University of Zulia, Zulia, Venezuela, Two lectures, July 1997.

5. NATO Advanced Study Institute, a series of three lectures on q-orthogonal polynomials, May-June 2000, Tempe, Arizona.

6. A series of two talks on differential equations and orthogonal polynomials, Academia Sinica, Taipei, February 2001.

7. A series of 3 two-hour talks at the University of Gabes, Gabes, Tunisia, March 2001.

8. Distinguished visitors program, Nagoya University, a series of three lectures, May 2001.

9. A series of two talks on orthogonal polynomials, summer school/summer seminar on Applied Analysis, City University of Hong Kong, Hong Kong, July 2001.

10. A series of five lectures on orthogonal polynomials in "Differential Equations and Asymptotic Theory in Matheatical Physics" held in Wuhan, China, October, 3003.

ADMINISTRATIVE EXPERIENCE:

1. Served on the graduate committee for several years at University of South Florida and Arizona State University, and was in charge of recruiting graduate students and teaching assistants at Arizona State University. Also served on the personnel committee at Arizona State University and the advisory committee at University of South Florida.

2. Served on various committees at McMaster University, Arizona State University, and the University of South Florida.

3. Organized a special session on spectral properties of Jacobi matrices and orthogonal polynomials at the summer meeting of the Canadian Mathematical Society in Edmonton, 1984.

4. Co-principal investigator and organizer of a CBMS conference held at Arizona State University in May 1985. The principal speaker was George Andrews who lectured on "q-Series, Mathematical Physics and Computer Algebra".

5. Co-principal investigator and organizer of a NATO Advanced Study Institute, Columbus, Ohio, May 1989. The topic is "Orthogonal polynomials".

6. Co-principal investigator of an NSF grant for a special year in Approximation Theory, University of South Florida, Tampa, FL, 1989-90. Chair of the local organizing committee.

7. Organized a special session on classical analysis at the winter meeting of the Canadian Mathematical Society in Victoria, 1991.

8. Organized a mini symposium (special session) on special functions and their applications at the summer meeting of SIAM in Los Angeles, 1992.

9. Co-organizer of a meeting on Mathematical Analysis, Wavelets, and Signal Processing, Cairo University, Egypt, January 1994.

10. Guest editor of a special issue of SIAM J. Math. Anal. **25** (1994), 480 pages.

11. Guest editor of a special issue of Journal of Computational and Applied Mathematics, **68** (1996), 330 pages.

12. Co-organizer (co chair) of the Fields Institute workshop on Special Functions and q-series, University of Toronto, Toronto, Canada, 2 weeks in June 1995.

13. Co-organizer (co Chair) of the American Mathematical Society Summer Conference on q-series, Combinatorics and Computer Algebra, Mount Holyoke College, June 1998.

14. Co-organizer of the second meeting of the Palestnian Mathematical Society, Birzeit, West Bank, August 1998.

15. Co-organizer of an International Workshop on Special Functions, Asymptotics, Harmonic Analysis, and Mathematical Physics, City University of Hong Kong, Hong Kong, June 1999.

16. Co-organizer of a conference on Symbolic Computation, Number Theory, Special Functions, Physics and Combinatorics, the University of Florida, Gainesville 1999,

17. Co-organizer of a NATO ASI on Special Functions, Tempe, Arizona, May-June 2000.

18. Co-organizer of an NSF sponsored conference on Special Functions, Tempe, Arizona, May-June 2000

19. Co-organizor of a Summer School/Summer Seminar on Applied Analysis, City University of Hong Kong, Hong Kong, July 2001.

20. Co-organizor of an International conference on special functions in Chennai (Madras), India, September 2002.

21. Co-organizor of the 8th meeting on Orthogonal Polynomials and Special Functions, Copenhagen, August 2003.

22. Orgainized a special session on spevial functions and q-series at the Annual meeting of the American Mathematical Society in Baltimore, January 2003.

REFERENCES:

1. **George Andrews**, Department of Mathematics, Pennsylvania State University, Univerity Park, Pennsylvania, 16802.

2. **Richard Askey**, Department of Mathematics, University of Wisconsin, Madison, Wisconsin 53706.

3. **Alberto Grunbaum**, Department of Mathematics, University of California-Berkeley. Berkeley, California 94720.

4. **Steve Milne**, Department of Mathematics, Ohio State University, Columbus, Ohio 43210.

5. **Mizan Rahman**, Department of Mathematics, Carleton University, Ottawa, Ontario, Canada K1S 5B6.

6. **Dennis Stanton**, School of Mathematics, University of Minnesota, Minneapolis, Minnesota 55455.