CURRICULUM VITAE

Name: Sergei K. Suslov
Date of birth: October 19, 1955
Address: School of Mathematical and Statistical Sciences, Arizona State University, Tempe, AZ 85287-1804, USA
URL: http://hahn.la.asu.edu/~suslov/index.html

Education: Ph. D. 1986, Kurchatov Institute of Atomic Energy
(Supervisor - Professor Ya. A. Smorodinskii)
M. Sc. 1980, Moscow Institute of Physics and Technology

Professional employment:

1980-1986	Junior research scientist (equivalent to assistant professor) Department of Molecular Physics, Kurchatov Institute of Atomic Energy, Moscow, Russia.
1986-1997	Senior research scientist (equivalent to associate professor) Laboratory for Mathematical Problems of Physics, Institute of Molecular Physics, Kurchatov Institute, Moscow, Russia.
1997-1998	Senior Lecturer, Department of Mathematics, Arizona State University, Tempe, USA.
1998-1999	Visiting Associate Professor, Department of Mathematics, Arizona State University, Tempe, USA.
1999- 2001	Assistant Professor, Department of Mathematics, Arizona State University, Tempe, USA.
2001- 2004	Associate Professor, Department of Mathematics, Arizona State University, Tempe, USA.
2004 -	Professor, Department of Mathematics, Arizona State University, Tempe, USA.

Visiting positions:

1991, September-November: Visiting professor, University of South Florida, Tampa.
1992, January-April: Research associate, Carleton University, Ottawa.
1993, January-May: Research associate, Carleton University, Ottawa.
1994-1995, October-May: Visiting professor, Carleton University, Ottawa.
1995, June-August: Visiting professor, University of Toronto.
1995, August-December: Visiting professor, University of South Florida, Tampa.
1996-1997, January-May: Visiting professor, Aizona State University, Tempe.
1997, June-July: Visiting professor, Mathematical Sciences Research Institute, Berkeley.
2005, August-December: Visiting professor, Utah State University, Logan.

Special awards and honors:

1985 First Kurchatov Award to the Young Scientist, Kurchatov Institute, Moscow (awarded for the first time at Kurchatov Institute for a pure theoretical work).
1994-1995 Foreign Researcher Award of Natural Sciences and Engineering Research Council of Canada.
1996-1997 General Membership at Mathematical Sciences Research Institute in Berkeley (California).
2002 Charles Wexler's Teaching Award for Distinguished Teaching of Mathematics, Department of Mathematics and Statistics, Arizona State University (Tempe).
2011 Special Recognition from ASU Professor of the Year (top five candidates).
2014 Leonard Euler Prize; 6 September 2014; Homburg/Saar, Germany.

Grants:
1995-1996 International Science Foundation Long-Term Research Grant (Soros Grant), PI.
1998-2002 National Science Foundation Research Grant in the Analysis Program, a continuing three-year grant in the amount of $140,521.00 including support for a graduate student, PI.
1999-2000 NATO Advanced Study Institute "Special Functions 2000", NATO-country co-director.
2000 National Science Foundation Conference Grant "Special Functions 2000: Current Perspective and Future Directions", PI; Joaquin Bustoz and Mourad Ismail co-PIs.
2003 National Science Foundation Conference Grant "International Workshop on Special Functions, Orthogonal Polynomials, Quantum Groups and Related Topics, PI.
2004 National Science Foundation Conference Grant "International School on Mathematical Modeling", PI, Carlos Castillo-Chavez, co-PI.
2014 NSF travel grant DMS-1440664, Conference on Partial Differential Equations, Novacella, Italy, 28th May - 31st May 2014, PI; Martin Bohner, Carlos Castillo-Chavez, and Svetlana Roudenko; co-PIs.
2015 NSF travel grant DMS-1535822, Conference on Partial Differential Equations, Munich, Germany, 25 – 29th March 2015, co-PI; Martin Bohner, co-PI; and Svetlana Roudenko, PI; $10,097.00.

Research interests:
Classical analysis and approximation theory, orthogonal polynomials and *q*-special functions; theory of group representations, integral transformations and their applications in theoretical and mathematical physics; soliton theory; computer algebra and special functions; quantum optics and cavity QED, relativistic wave equations.

List of main publications:
(A) *Publications in refereed journals*
(B) *Conference proceedings*
(C) *Review articles*
(D) *Books and special volumes*
(E) *Translations*
(F) *Accepted articles*
(G) *Web pages design*

(A) Publications in refereed journals:

1. Ya. A. Smorodinskii and S. K. Suslov, *The Clebsch-Gordan coefficients of the group SU(2) and Hahn polynomials*, Soviet J. Nuclear Phys. **35** (1982)#1, 108-113; reprinted in: Ya. A. Smorodinskii, *Selected Works*, Classics of Science, Editorial URSS, Moscow, 2nd edition, 2006, pp. 352-362 [in Russian].

2. S. K. Suslov, *Matrix elements of Lorentz boosts and the orthogonality of Hahn polynomials on a contour*, Soviet J. Nuclear Phys. **36** (1982)#4, 621-622.

3. Ya. A. Smorodinskii and S. K. Suslov, *6j-symbols and orthogonal polynomials*, Soviet J. Nuclear Phys. **36** (1982) #4, 623-625; reprinted in: Ya. A. Smorodinskii, *Selected Works*, Classics of Science, Editorial URSS, Moscow, 2nd edition, 2006, pp. 363-368 [in Russian].

4. S. K. Suslov, *Rodrigues formula for the Racah coefficients*, Soviet J. Nuclear Phys. **37** (1983) #3, 472-473.

5. S. K. Suslov, *The 9j-symbols as orthogonal polynomials in two discrete variables*, Soviet J. Nuclear Phys. **38** (1983) #4, 662-663.

6. S. K. Suslov, *The T-coefficients of the "tree" method as orthogonal polynomials of a discrete variable*, Soviet J. Nuclear Phys. **38** (1983) #5, 829-834.

7. S. K. Suslov, *The Hahn polynomials in the Coulomb problem*, Soviet J. Nuclear Phys. **40** (1984) #1, 79-82.

8. Yu. F. Smirnov, S. K. Suslov, and A. M. Shirokov, *Clebsch-Gordan coefficients and Racah coefficients for the SU(2) and SU(1,1) groups as the discrete analogues of the Poschl-Teller potential wave functions*, J. Phys. **A17** (1984) #11, 2157-2175.

9. A. F. Nikiforov, S. K. Suslov, and V. B. Uvarov, *Classical orthogonal polynomials of a discrete variable and representations of the three-dimensional rotation group*, Functional Anal. Appl. **19**(1985), 182-193.

10. N. M. Atakishiyev and S. K. Suslov, *The Hahn and Meixner polynomials of an imaginary argument and some of their applications*, J. Phys. **A18** (1985) #10, 1583-1596.

11. A. F. Nikiforov and S. K. Suslov, *Classical orthogonal polynomials of a discrete variable on nonuniform lattices*, Lett. Math. Phys. **11** (1986) #1, 27-34.

12. S. K. Suslov, *Classical orthogonal polynomials of a discrete variable continuous orthogonality relations*, Lett. Math. Phys. **14** (1987)#1, 77-88.

13. A. F. Nikiforov, S. K. Suslov, and V. B. Uvarov, *Classical orthogonal polynomials in a discrete variable on nonuniform lattices*, Soviet Math. Dokl. **34** (1987) #3, 576-579.

14. N. M. Atakishiyev and S. K. Suslov, *About one class of special functions*, Rev. Mexicana Fis. **34** (1988) #2, 152-167.

15. N. M. Atakishiyev and S. K. Suslov, *On the moments of classical and related polynomials*, Rev. Mexicana Fis. **34** (1988) #2, 147-157.

16. N. M. Atakishiyev and S. K. Suslov, *Continuous orthogonality property for some classical polynomials of a discrete variable*, Rev. Mexicana Fis. **34** (1988) #4, 541-563.

17. N. M. Atakishiyev and S. K. Suslov, *Difference analogues of the harmonic oscillator*, Theoret. and Math. Phys. **85** (1990) #1, 1055-1062.

18. N. M. Atakishiyev and S. K. Suslov, *A realization of the q-harmonic oscillator*, Theoret. and Math. Phys. **87** (1991) #1, 442-444.

19. S. K. Suslov, *On the theory of 9j-symbols*, Theoret. and Math. Phys. **88** (1991) #1, 720-724.

20. N. M. Atakishiyev and S. K. Suslov, *On the Askey-Wilson polynomials*, Constructive Approximation **8** (1992), 363-369.

21. R. Askey and S. K. Suslov, *The q-harmonic oscillator and an analogue of the Charlier polynomials*, J. Phys. **A26** (1993), L693-L698.

22. R. Askey and S. K. Suslov, *The q-harmonic oscillator and the Al-Salam and Carlitz polynomials*, Lett. Math. Phys. **29** (1993) #2, 123-132.

23. N. M. Atakishiyev and S. K. Suslov, *The Clebsch-Gordan coefficients for quantum algebra SUq(2)*, Theoret. and Math. Phys. **98** (1994) #1, 3-11.

24. M. Rahman and S. K. Suslov, *The Pearson equation and the beta integrals*, SIAM J. Math. Anal. **25** (1994) #2, 646-693.

25. M. Rahman and S. K. Suslov, *Barnes and Ramanujan-type integrals on the q-linear lattice*, SIAM J. Math. Anal. **25** (1994) #3, 1002-1022.

26. R. Askey, M. Rahman, and S. K. Suslov, *On a general q-Fourier transformation with nonsymmetric kernels*, Journal of Computational and Applied Mathematics **68** (1996), 25-55.

27. M. Rahman and S. K. Suslov, *A unified approach to the summation and integration formulas for q-hypergeometric functions, I*, Journal of Statistical Planning and Inference **54** (1996), 101-118.

28. M. E. H. Ismail, M. Rahman, and S. K. Suslov, *Some summation theorems and transformations for q-series*, Canad. J. Math. **49** (1997), 543-567.

29. S. K. Suslov, "*Addition" theorems for some q-exponential and q-trigonometric functions*, Methods and Applications of Analysis **4** (1997), 11-32.

30. S. K. Suslov, *Some orthogonal very-well-posed 8phi7-functions*, J. Phys. A: Math. Gen. **30** (1997), 5877-5885.

31. J. Bustoz and S. K. Suslov, *Basic analog of Fourier series on a q-quadratic grid*, Methods and Applications of Analysis **5** (1998) #1, 1-38.

32. S. K. Suslov, *Multiparameter Ramanujan-type q-beta integrals*, The Ramanujan Journal **2** (1998) #3, 351-369.

33. M. Rahman and S. K. Suslov, *A unified approach to the summation and integration formulas for q-hypergeometric functions. II*, Methods and Applications of Analysis **5** (1998) #4, 399-412.

34. M. Rahman and S. K. Suslov, *A unified approach to the summation and integration formulas for q-hypergeometric functions. III*, Methods and Applications of Analysis **5** (1998) #4, 413-424.

35. S. K. Suslov, *Another addition theorem for the q-exponential function*, J. Phys. **A**: Math. Gen. **33** (2000), L375-L380.

36. S. K. Suslov, *Some orthogonal very-well-posed 8phi7-functions that generalize Askey-Wilson polynomials*, The Ramanujan Journal **5** (2001), 183-218.

37. S. K. Suslov, *Some expansions in basic Fourier series and related topics*, J. Approx. Theory, **115** (2002), 289-353.

38. S. K. Suslov, *Asymptotics of zeros of basic sine and cosine functions*, J. Approx. Theory, **121** (2003), 292-335.

39. S. K. Suslov, *A note on completeness of basic trigonometric system in L^2*, Rocky Mountain J. Math., **33** (2003) #4, 1513-1524.

40. K. Ey, A. Ruffing, and S. K. Suslov, *Method of separation of the variables for basic analogs of equations of mathematical physics*, The Ramanujan Journal, Askey Special Issues (G. E. Andrews, G. Gasper, and S. K. Suslov, Coordinating Editors), **13** (2007) #1-3, 407-447.

41. S. K. Suslov, *An algebra of integral operators*, Electronic Transactions on Numerical Analysis (ETNA), **27**, (2007), 140-155.

42. B. Trey and S.K. Suslov, *The Hahn polynomials in the nonrelativistic and relativistic Coulomb problems*, J. Math. Phys. **49** (2008); 012104 (51pp).

43. R. Cordero-Soto, R. M. Lopez, E. Suazo, and S. K. Suslov *Propagator of a charged particle with a spin in uniform magnetic and perpendicular electric fields*, Lett. Math. Phys. **84** (2008)#2-3, 159-178.

44. M. Meiler, R. Cordero-Soto, and S. K. Suslov, *Solution of the Cauchy problem for a time-dependent Schroedinger equation*, J. Math. Phys. **49** (2008)#7, 072102 (27pp).

45. M. Simon and S. K. Suslov, *Expansion of analytic functions in q-orthogonal polynomials*, The Ramanujan Journal, **19** (2009), 281-303.

46. S. K. Suslov, *Expectation values in relativistic Coulomb problems*, J. Phys. B: At. Mol. Opt. Phys. **42** (2009), 185003 (8pp).

47. R. Cordero-Soto, E. Suazo, and S. K. Suslov, *Models of damped oscillators in quantum mechanics*, Journal of Physical Mathematics, **1** (2009), S090603 (16pp).

48. R. M. Lopez and S. K. Suslov, *The Cauchy problem for a forced harmonic oscillator*, Revista Mexicana de Fisica, **55,** (2009), 195-215.

49. S. K. Suslov, *Mathematical structure of relativistic Coulomb integrals*, Phys. Rev. A **81** (2010), 032110 (8pp).

50. S. K. Suslov, *Relativistic Kramers-Pasternack recurrence relations*, J. Phys. B: At. Mol. Opt. Phys. **43** (2010), 074006 (7pp). (Special issue on High Precision Atomic Physics).

51. R. Cordero-Soto and S. K. Suslov, *Time reversal for modified oscillators*, Theoretical and Mathematical Physics **162** (2010)#3, 286-316.

52. S. K. Suslov, *Dynamical invariants for variable quadratic Hamiltonians*, Physica Scripta **81** (2010)#5, 055006 (11 pp).

53. R. Cordero-Soto, E. Suazo, and S. K. Suslov, *Quantum integrals of motion for variable quadratic Hamiltonians*, Annals of Physics, **325** (2010)#9, 1884-1912.

54. R. Cordero-Soto and S. K. Suslov, *The degenerate parametric oscillator and Ince's equation*, J. Phys. A: Math. Theor. **44** (2011)#1, 015101 (9pp).

55. E. Suazo, S. K. Suslov and J. M. Vega-Guzman, *The Riccati equation and a diffusion-type equation*, New York J. Math., **17a** (2011), 225-244.

56. N. Lanfear, R.M. Lopez and S.K. Suslov, *Exact wave functions for generalized harmonic oscillators*, Journal of Russian Laser Research **32** (2011)#4, 312-321; see also arXiv:11002.5119v1 24 Feb 2011.

57. B. Sanborn, S. K. Suslov and L.Vinet, *Dynamical Invariants and the Berry Phase for Generalized Driven Harmonic Oscillators*; Journal of Russian Laser Research **32** (2011)#5, 486—494; arXiv:1108.5144v1 25 Aug 2011.

58. E. Suazo and S. K. Suslov, *Soliton-like solutions for nonlinear Schrödinger equation with variable quadratic Hamiltonians*, Journal of Russian Laser Research **33** (2012)#1, 63-83; see also arXiv:1010.2504v4 [math-ph] 24 Nov 2010.

59. S. K. Suslov, *On integrability of nonautonomous nonlinear Schrödinger equations*, Proc. Amer. Math. Soc. **140** (2012)#9, 3067-3082; see also arXiv:1012.3661v3 [math-ph] 16 Apr 2011.

60. A. Mahalov and S.K. Suslov, *An "Airy gun": Self-accelerating solutions of the time-dependent Schrödinger equation in vacuum*, Phys. Lett. A **377** (2012), 33-38.

61. R.M. Lopez, S.K. Suslov and J.M. Vega-Guzman, *Reconstructing the Schrödinger groups*, Physica Scripta **87** (2013)#3, 055006 (11 pp).

62. S. K. Suslov, *An analog of the Berry phase for simple harmonic oscillators*, Physica Scripta **81** (2013)#3, 038118 (4 pages). (Among top downloads of Physica Scripta in the first two months after publication.)

62. R.M. Lopez, S.K. Suslov and J.M. Vega-Guzman, *On a hidden symmetry of quantum harmonic oscillators*, Journal of Difference Equations and Applications, **19** (2013)#4, 543-554.

63. S.I. Kryuchkov, S.K. Suslov and J.M. Vega-Guzman, *The minimum-uncertainty squeezed states for atoms and photons in a cavity*, J. Phys. B: At. Mol. Opt. Phys. **46** (2013)#10, 104007 (15 pages). (IOP=Institute Of Physics SELECT and HIGHLIGHT for 2013).

64. A. Mahalov and S.K. Suslov, *Wigner function approach to oscillating solutions of the 1D quantic nonlinear Schrödinger equation*, Journal of Nonlinear Optical Physics and Materials **22** (2013)#2, 1350013 (14 pages).

65. A. Mahalov, E. Suazo, and S.K. Suslov, *Spiral laser beams in inhomogeneous media*, Optics Letters **38** (2013)#15, 2763-2766.

66. C. Krattenthaler, S.K. Kryuchkov, A. Mahalov, and S.K. Suslov, *On the problem of electromagnetic-field quantization*, International Journal of Theoretical Physics **52** (2013)#12, 4445-4460.

67. Marco A. Herrera-Valdez, Sergei K. Suslov, and José M. Vega-Guzmán, *A Graphical Approach to a Model of a Neuronal Tree with a Variable Diameter*, Mathematics **2** (2014), 119-135; doi:10.3390/math2030119.

68. Erwin Suazo, Sergei K. Suslov, and José M. Vega-Guzmán, *The Riccati System and a Diffusion-Type Equation*, Mathematics **2** (2014), 96-118; oi:10.3390/math2020096.

69. A. Mahalov and S.K. Suslov, *Solution of paraxial wave equation for inhomogeneous media in linear and quadratic approximation*, Proc. Amer. Math. Soc. **143** (2015)#2, 595-610; electronically published on October 28, 2014.

70. S. I. Kryuchkov, N. Lanfear, and S.K. Suslov, *The Pauli-Lubanski vector, complex electrodynamics, and photon helicity*, Physica Scripta **90** (2015)#7, 074065 (8 pages).

71. P. B. Acosta-Humandes, S. I. Kryuchkov, E. Suazo, and S.K. Suslov, *Degenerate parametric amplification of squeezed photons: explicit solutions, statistics, means and variances*, Journal of Nonlinear Optical Physics and Materials **24** (2015)#2, 1550021 (27 pages).

72. C. Koutschan, E. Suazo, and S.K. Suslov, *Fundamental laser modes in paraxial optics: from computer algebra and simulations to experimental observations*, Applied Physics B: Lasers and Optics **121** (2015)#2, 315-336.

73. S. I. Kryuchkov, N. Lanfear, and S.K. Suslov, *The role of the Pauli-Lubanski vector for the Dirac, Weyl, Proca, Maxwell, and Fierz-Pauli equations*, Physica Scripta **91** (2016)#3, 035301 (15 pages); see also http://arxiv.org/abs/1510.05164.

(B) Conference proceedings:

1. A. F. Nikiforov, S. K. Suslov, and V. B. Uvarov, *Classical orthogonal polynomials of a discrete variable in the theory of group representations*, in: Group Theoretical Methods in Physics, Vol. 1-3 (Zvenigorod,1982), Harwood Acad. Publ., Chur, 1985, pp. 87-96.
2. A. F. Nikiforov and S. K. Suslov, *Classical orthogonal polynomials of a discrete variable on nonuniform lattices*, in: GroupTheoretical Methods in Physics, Vol.1 (Yurmala, 1985), VNU Sci. Press, Utrecht, 1986, pp. 505-511.
3. N. M. Atakishiyev and S. K. Suslov, *Representations of SO(3,1) and the Hahn polynomials*, in: Group Theoretical Methods in Physics, Vol. 1 (Yurmala, 1985), VNU Sci. Press, Utrecht, 1986, pp. 523-530.
4. N. M. Atakishiyev, G. I. Kuznetsov, and S. K. Suslov, *The Charm polynomials*, in: Proceedings of the Third International Symposium on Orthogonal Polynomials and Their Applications (Brezinski et al., eds.), J. C. Baltzer A. G., Basel, Switzerland, 1991, pp. 15-16.
5. M. Rahman and S. K. Suslov, *Classical biorthogonal rational functions*, in: Methods of Approximation Theory in Complex Analysis and Mathematical Physics (A. A. Gonchar and E. B. Saff, eds.), Lecture Notes in Math. Vol. 1550, Springer-Verlag, 1993, pp. 131-146.
6. R. Askey, N. M. Atakishiyev and S. K. Suslov, *An analog of the Fourier transformation for a q-harmonic oscillator*, in: Symmetries in Science VI (B. Gruber, ed.), Plenum Press, New York, 1993, pp. 57-63; Preprint IAE-5611/1, Kurchatov Institute, Moscow 1993.
7. M. Rahman and S. K. Suslov, *Singular analogue of the Fourier transformation for the Askey-Wilson polynomials*, in: Symmetries and Integrability of Difference Equations (D. Levi, L. Vinet, and P. Winternitz, eds.), CRM Proceedings & Lecture Notes, Vol. 9, American Math. Society, 1996, pp. 289-302.
8. M. E. H. Ismail, D. Masson, and S. K. Suslov, *Some generating functions for q-polynomials*, in: Special Functions, q-Series and Related Topics (M. E. H. Ismail, D. R. Masson, and M. Rahman, eds.), Fields Institute Communications, Vol. 14, American Math. Society, 1997, pp. 91-108.
9. M. E. H. Ismail, D. Masson, and S. K. Suslov, *The q-Bessel functions on a q-quadratic grid*, in: Algebraic Methods and *q*-Special Functions (J. F. van Diejen and L. Vinet, eds.), CRM Proceedings & Lecture Notes, Vol. 22, American Math. Society, 1999, pp. 183-200.
10. R. Wm. Gosper and S. K. Suslov, *Numerical investigation of basic Fourier series*, in: *q*-Series from a Contemporary Perspective (M. E. H. Ismail and D. W. Stanton, eds.), Contemporary Mathematics, Vol. 254, American Math. Soc; 2000, pp. 199-227.
11. S. K. Suslov, *Completeness of basic trigonometric system in L^p*, in: *q*-Series with Applications to Combinatorics, Number Theory, and Physics (B. C. Berndt and K. Ono, eds.), Contemporary Mathematics, Vol. 291, American Math. Soc; 2001, pp. 229-241.

12. S. K. Suslov, *An analog of the Cauchy – Hadamard formula for expansions in q-orthogonal polynomials*, in: Theory and Applications of Special Functions (M. E. H. Ismail and Erik Koelink, eds.), Springer Series Developments in Mathematics, Vol. 13, Springer – Verlag, 2005, pp. 443-460.

13. C. Koutschan, P. Paule, S. K. Suslov, *Relativistic Coulomb integrals and Zeilberger's holonomic systems approach II*, in: AADIOS 2012 – Algebraic and Algorithmic Aspects of Differential and Integral Operators Session (M. Barkatou et al., eds.), Lecture Notes in Computer Sciences, Vol. 8372, Springer – Verlag, 2014, pp. 135-145.

(C) Review articles:

1. S. K. Suslov, *The theory of difference analogues of special functions of hypergeometric type*, Russian Math. Surveys **44** (1989) #2, 227-278, London Math. Soc.

2. N. M. Atakishiyev and S. K. Suslov, *Difference hypergeometric functions*, in: Progress in Approximation Theory: An International Perspective (A. A. Gonchar and E. B. Saff, eds.), Springer Series in Computational Mathematics, Vol. 19, Springer-Verlag, 1992, pp. 1-35.

3. N. M. Atakishiyev, M. Rahman, and S. K. Suslov, *On the classical orthogonal polynomials*, Constructive Approximation **11** (1995) #2, 181-226.

4. S. K. Suslov, *Basic exponential functions on a q-quadratic grid*, in: Special Functions 2000: Current Perspective and Future Directions (J. Bustoz, M.E.H. Ismail, and S.K. Suslov, eds.), NATO Science Series II: Mathematics, Physics and Chemistry, Vol. 30, Kluwer Academic Publishers, Dordrecht – Boston – London, 2001, pp. 411-456.

(D) Books, Chapters, and Special Volumes:

1. A. F. Nikiforov, S. K. Suslov, and V. B. Uvarov, *Classical Orthogonal Polynomials of a Discrete Variable* [in Russian], Nauka, Moscow, 1985; English translation in Springer Series in Computational Physics, Springer-Verlag, 1991.
2. J. Bustoz, M.E.H. Ismail, and S.K. Suslov, eds., *Special Functions 2000: Current Perspective and Future Directions* (NATO Science Series II: Mathematics, Physics and Chemistry, Vol. 30, Kluwer Academic Publishers, Dordrecht – Boston – London, 2001.
3. J. Bustoz, M.E.H. Ismail, and S.K. Suslov, Guest Editors, *Rocky Mountain Journal of Mathematics*, Special Issue on Special Functions: Proceedings of the NATO Advanced Institute Special Functions 2000, Volume 32, Number 2, 2002, pp. 1-936.
4. S. K. Suslov, *An Introduction to Basic Fourier Series*, Kluwer Series "Developments in Mathematics", Vol. 9, Kluwer Academic Publishers, Dordrecht – Boston – London, 2003.
5. G. E. Andrews, G. Gasper, and S. K. Suslov, Coordinating Editors: *The Ramanujan Journal, Askey Special Issues*, Volume 13, Number 1-3, June 2007, pp. 1-469.
6. P. Paule and S. K. Suslov, *Relativistic Coulomb Integrals and Zeilberger's Holonomic Systems Approach. I*, in: Computer Algebra in Quantum Field Theory:

Integration, Summation and Special Functions, (C. Schneider and J. Blumlein, Editors), Springer Series "Texts and Monographs in Symbolic Computation", Springer-Verlag, Wien, 2013, pp. 225-241.

7. C. Koutschan, P. Paule and S. K. Suslov, *Relativistic Coulomb Integrals and Zeilberger's Holonomic Systems Approach II*, in: Algebraic and Algorithmic Aspects of Differential and Integral Operators, (M. Barkatou, T. Cluzeau, G. Regensburger, and M. Rosenkranz, Editors), Lecture Notes in Computer Science, Volume 8372, Springer-Verlag, Berlin, 2014, pp. 135–145.

(E) Translations:

1. R. Askey, *Ramanujan and hypergeometric and basic hypergeometric series* [in Russian], translated from English with remark by N. M. Atakishiyev and S. K. Suslov, Uspekhi Mat. Nauk **45** (1990) #1, 33-76; Russian Math. Surveys **45** (1990)#1, 37-86, London Math. Soc.

2. G. Gasper and M. Rahman, *Basic Hypergeometric Series* [in Russian], translated from English by N. M. Atakishiyev and S. K. Suslov, Mir, Moscow, 1993.

(F) Articles under preparation or already submitted:

1. R.M. Lopez, B.R. Morin and S.K. Suslov, *Logistic Models with Time-Dependent Coefficients and Some of Their Applications*, 9 LaTeX pages, arXiv 1008.2534v1 15 Aug 2010.

2. K. Messan, K. Smith, Sh. Tsosie, Sh. Zhu, S. Suslov, *Short and Long Range Population Dynamics of the Monarch Butterfy (Danaus plexippus)*, arXiv:1112.3991v1 [q-bio.PE] 16 Dec 2011.

3. S. I. Kryuchkov, E. Suazo, and S. K. Suslov, *On photon statistics in variable media*; January 2014, 12 LaTeX pages; http://arxiv.org/abs/1401.2924v2.

4. S. I. Kryuchkov, N. Lanfear, and S. K. Suslov, 2015, Complex Form of Classical and Quantum Electrodynamics, in preparation.

(G) Web pages design:

1. The Linear Algebra Home Page, Department of Mathematics, Arizona State University. *http://www.public.asu.edu/~sergei/linalg/LinAlg.html* (Links2Go Key Resource Award, Algebra Topic, July 2000).

2. The NATO Advanced Study Instituite: Special Functions 2000. *http://math.la.asu.edu/~sf2000/index.html*

3. International Workshop on Special Functions, Orthogonal Polynomials, Quantum Groups and Related Topics dedicated to Dick Askey on his 70th birthday,. *http:/ hahn.la.asu.edu/~suslov/bexbach/index.html*

4. Distinguished Scholar Lecture by Vladimir E. Zakharov and Workshop on Nonlinear Sciences, http://hahn.la.asu.edu/~suslov/Zakharov/index.htm

Journals refereed for:

Canadian Journal of Mathematics, Discrete Mathematics, Duke Mathematical Journal, Journal of Approximation Theory, Journal of Computational and Applied Mathematics, Journal of Mathematical Analysis and Applications, Journal of Physics A: Mathematical and General, Methods and Applications of Analysis, Transactions of the American Mathematical Society, Proceedings of the American Mathematical Society, Physica Scripta, Soviet Journal of Nuclear Physics, Theoretical and Mathematical Physics, Russian Mathematical Surveys, Communications in Mathematical Physics.

Agencies refereed for:

International Science Foundation (Soros Foundation), National Science Foundation, Natural Sciences and Engineering Research Council of Canada.

Administrative experience:

A member of the organizing committee for the two-week mini program and workshop in "Special Functions, *q*-Series and Related Topics" at The Fields Institute, University of Toronto, June 1995.

NATO-country co-director of the Advanced Study Institute "Special Functions 2000", Arizona State University, Tempe, May 29 - June 9, 2000.

Co-editor of a special volume of The Rocky Mountain Journal of Mathematics, Summer 2002, Volume 32, Number 2.

A member of the organizing committee for the International Workshop on Special Functions, Orthogonal Polynomials, Quantum Groups and Related Topics dedicated to Dick Askey on his 70th birthday, Bexbach, Germany, October 18-22, 2003.

A member of the scientific committee for the International Conference on Difference Equations, Special Functions and Applications, Munich, Germany, July 2005.

Co-editor of a special volume of The Ramanujan Journal, Askey Special Issues, June 2007, Volume 13, Number 1-3.

Editorial Board of Journal of Difference Equations and Applications. 2008-2011.

Editorial Board of Proceedings of AMS, since 2011.

Editorial Board of Journal of Modern Physics, since 2012.

Founding Editor-in-Chief of Mathematics, 2012-2014.

American Mathematical Society Editorial Boards Committee, elected for the term 2011-2014.

A member of the organizing committee for COPDE 2014, Novacella, Italy, May-June 2014; https://math.la.asu.edu/~copde2014/

A member of the organizing committee for EASC 2014, Symposium on Differential and Difference Equations 2014, Homburg, Germany, 5 – 9 September 2014;https://math.la.asu.edu/~easc2014/

A member of the organizing committee for COPDE 2015, Munich, Germany, 25 – 29 March 2015; https://math.la.asu.edu/~copde2015/

Ph. D. students:

Luis Gordillo, Mathematics, July 2004. Doctoral dissertation: *q-Hausdorff Summability*. (Joaquin Bustoz, co-advisor)

Erwin Suazo, Mathematics, September 2009. Doctoral dissertation: *Fundamental Solutions of Some Evolution Equations.* (Svetlana Roudenko, co-advisor)

Ricardo Cordero-Soto, Applied Mathematics, February 2011. Doctoral dissertation: *Solvable Time-Dependent Models in Quantum Mechanics.* (Carlos Castillo-Chavez, co-adviser)

Barbara Sanborn, Mathematics, July 2011. Doctoral dissertation: *Symplectic topology and geometric quantum mechanics in condensed matter.* (Jack Spielberg, co-adviser)

Raquel M. Lopez, Applied Mathematics, May 2012. Doctoral dissertation: *Integrability of Quadratic Non-autonomous Linear Systems.* (Carlos Castillo-Chavez, co-adviser)

Jose Vega-Guzman, Applied Mathematics, January 2013. Doctoral dissertation: *Solution Methods for Certain Evolution Equations.* (Carlos Castillo-Chavez, co-adviser)

Nathan Lanfear, Mathematics, current Ph. D. candidate (will defend his dissertation in May, 2015, with several published articles).

Invited addresses:

1. International Conference on Approximation Theory, Tampa, Florida, March 1990, 50 minutes.
2. Third International Symposium on Orthogonal Polynomials and their Applications, Erice, Italy, June 1990, 60 minutes.
3. International seminar Methods of Approximation Theory in Complex Analysis and Mathematical Physics, Leningrad, May 1991, 45 minutes.
4. International workshop Symmetry Methods in Physics (in the memory of professor Ya. A. Smorodinsky), Dubna, Russia, July 1993, 35 minutes.
5. Workshop on Symmetries and Integrability of Difference Equations, Esterel, Quebec, May 1994, 50 minutes.
6. Workshop in Special Functions, *q*-Series and Related Topics at The Fields Institute, University of Toronto, June 1995, 60 minutes.
7. Workshop on Algebraic Methods and *q*-Special Functions, CRM, Montreal, May 1996, 60 minutes.

8. Department of Mathematics, Arizona State University, Tempe, Arizona, July-August 1996, 21 lectures on orthogonal polynomials, *q*-series, and their applications.

9. PhD Centennial Conference, Department of Mathematics, University of Wisconsin-Madison, May 1997, 30 minutes.

10. A Joint Summer Research Conference: *q*-Series, Combinatorics and Computer Algebra, Mount Holyoke College, South Hadley, Massachusetts, June 1998, 30 minutes.

11. A Minisymposium Orthogonal Polynomials; Theory and Applications, SIAM Annual Meeting in Atlanta, May 1999, 30 minutes.

12. International Workshop on Special Functions, Asymptotics, Harmonic Analysis, and Mathematical Physics, City Iniversity of Hong Kong, June 21-25 1999, 30 minutes.

13. Conference on Symbolic Computation, Number Theory, Special Functions, Physics, and Combinatorics, University of Florida, Gainesville, November 11-13, 1999, 60 minutes.

14. NATO Advanced Study Institute: Special Functions 2000, Arizona State University, Tempe, May 29 - June 9, 2000, 60 minutes.

15. Conference on *q*-Series with Applications to Combinatorics, Number Theory and Physics, University of Illinois at Urbana-Champaign, October 26-28, 2000, 30 minutes.

16. Sixth International Symposium on Orthogonal Polynomials, Special Functions, and Applications, Rome, Italy, June 18-22, 2001, 60 minutes.

17. International Workshop on Special Functions and Difference Equations, Bexbach, Germany, October 28 – November 1, 2002, two 60 minutes talks.

18. AMS Special Session on Special Functions and *q*-Series, Baltimore, January 15 -18, 2003, 30 minutes.

19. International Workshop "Orthogonal Polynomials; Interdisciplinary Aspects", March 27-April, 2004, Banff, Canada, 60 minutes.

20. International Conference on Difference Equations, Special Functions and Applications, Munich, Germany, July 2005, 60 minutes.

21. 12th International Conference on Squeezed States and Uncertainty Relations, Foz do Iguacu, Brazil, May 2011, 45 minutes.

22. Interdisciplinary Seminar on Research in the Mathematical Sciences - SIDIM XXVII; University of Puerto Rico–Mayagüez, March 2012, 60 minutes.

23. 13th International Conference on Squeezed States and Uncertainty Relations, Hamburg, Germany, June 2013, 30 minutes.

24. Special Pizza-Seminar at Scully's Institute for Quantum Science and Engineering, Texas A&M University, September 2013, 60 minutes.

25. 12th Christmas Symposium of Physicists, CAMTP, Maribor, Slovenia, December 2013, 30 minutes.

26. Conference on Partial Differential Equations and Applications/COPDE 2014, Novacella, Italy, May-June 2014, 60 minutes.

27. EASC 2014, Symposium on Differential and Difference Equations 2014, Homburg, Germany, 5 – 9 September, 60 minutes.

28. Conference on Partial Differential Equations and Applications/COPDE 2015, Munich, Germany, March 2015, two talks, 60 minutes.

29. Colloquium talks at several universities.

Teaching experience in The United States:

Fall 1995	University of South Florida: Brief Calculus I, Applied Finite Mathematics.
Spring 1996	Arizona State University: MAT 272, Calculus III, MAT 362, Advanced Engineering Mathematics.
Summer 1996	Arizona State University: MAT 210, Brief Calculus; two summer sessions.
Fall 1996	Arizona State University: MAT 272, Calculus III; two sessions.
Spring 1997	Arizona State University: MAT 271, Calculus II; two sessions.
Summer 1997	Arizona State University: MAT 210, Brief Calculus; one summer session.
Fall 1997	Arizona State University: MAT 271, Calculus II; two sessions; MAT 242, Elementary Linear Algebra; MAT 342, Linear Algebra.
Spring 1998	Arizona State University: MAT 342, Linear Algebra, MAT 362, Advanced Engineering Mathematics; two sessions.
Summer 1998	Arizona State University: PHY 121/122, University Physics I, 8 week session.
Fall 1998	Arizona State University: MAT 370, Intermediate Calculus, MAT 461, Applied Complex Analysis.
Spring 1999	Arizona State University: MAT 342, Linear Algebra, MAT 494, Mathematics of Quantum Mechanics.
Summer 1999	Arizona State University: MAT 271, Calculus II, 8 week session.
Fall 1999	Arizona State University: MAT 242, Elementary Linear Algebra; MAT 270, Calculus I.
Spring 2000	Arizona State University: MAT 494, Mathematics of Quantum Mechanics.
Summer 2000	Arizona State University: PHY 121/122, University Physics I, 8 week session.
Fall 2000	Arizona State University: MAT 274, Elementary Differential Equations, MAT 461, Applied Complex Analysis.
Spring 2001	Arizona State University: MAT 274, Elementary Differential Equations; MAT 494, An Introduction to Special Functions.

Fall 2001	Arizona State University: MAT 274, Elementary Differential Equations; MAT 370, Intermediate Calculus.
Spring 2002	Arizona State University: MAT 274, Elementary Differential Equations; MAT 494, Mathematics of Quantum Mechanics.
Summer 2002	Arizona State University: MAT 271, Calculus II, 8 week session; MAT 170, Precalculus, 5 week session.
Fall 2002	Arizona State University: MAT 461, Applied Complex Analysis, MAT 572, Complex Analysis.
Winter 2002	Arizona State University: MAT 242, Elementary Linear Algebra.
Spring 2003	Arizona State University: MAT 372, Advanced Calculus II, MAT 573, Complex Analysis.
Summer 2003	Arizona State University: MAT 270, Calculus I, 8 week session; MAT 362, Advanced Engineering Mathematics, 5 week session; MAT 342, Linear Algebra, 5 week session.
Fall 2003	Arizona State University: MAT 242, Elementary Linear Algebra, MAT 370, Intermediate Calculus.
Spring 2004	Arizona State University: MAT 272, Calculus III, MAT 494, Mathematics of Quantum Mechanics.
Summer 2004	Arizona State University: MAT 342, Linear Algebra, 5 week session; MAT 170, Precalculus, 5 week session.
Fall 2004	Arizona State University: MAT 371 Advanced Calculus, MAT 494, An Introduction to Special Functions.
Spring 2005	Arizona State University: MAT 462, Applied Partial Differential Equations, MAT 572, Complex Analysis.
Summer 2005	Arizona State University: MAT 170, Precalculus, 5 week session MAT 370, Intermediate Calculus, 5 week session.
Fall 2005	Utah State University: MAT 1210, Calculus I, Advanced Quantum Mechanics Seminar.
Spring 2006	Arizona State University: MAT 274, Elementary Differential Equations.
Summer 2006	Arizona State University: MAT 370, Intermediate Calculus, 5 week session.

Fall 2006	Arizona State University: MAT 342, Linear Algebra, MAT 461, Applied Complex Analysis.
Spring 2007	Arizona State University: MAT 170, Precalculus, MAT 494, Mathematics of Quantum Mechanics.
Summer 2007	Arizona State University: MAT 370, Intermediate Calculus, 5 week session.
Fall 2007	Arizona State University: MAT 274, Elementary Differential Equations, MAT 300, Mathematical Structures.
Spring 2008	Arizona State University: MAT 300, Mathematical Structures, MAT 494, Mathematics of Quantum Mechanics.
Summer 2008	Arizona State University: MAT 370, Intermediate Calculus, 5 week session.
Fall 2008	Arizona State University: MAT 274, Elementary Differential Equations, MAT 461, Applied Complex Analysis, MAT 472, Real Analysis I.
Spring 2009	Arizona State University: MAT 460, Vector Calculus.
Summer 2009	Arizona State University: MAT 370, Intermediate Calculus, 5 week session.
Fall 2009	Arizona State University: MAT 461, Applied Complex Analysis.
Spring 2010	Arizona State University: MAT 370, Intermediate Calculus, MAT 460, Vector Calculus.
Summer 2010	Arizona State University: MAT 370, Intermediate Calculus, 5 week session.
Fall 2010	Arizona State University: MAT 461, Applied Complex Analysis, MAT 494/598, Mathematics of Quantum Mechanics.
Spring 2011	Arizona State University: MAT 271, Calculus II, MAT 274, Elementary Differential Equations.
Summer 2011	Arizona State University: MAT 370, Intermediate Calculus
Fall 2011	Arizona State University: MAT 267, Calculus III, MAT 461, Applied Complex Analysis.
Spring 2012	Arizona State University: AMP 576, Partial Differential Equations.

Spring 2013	Arizona State University: MAT 267, Calculus III. University of Puerto Rico at Mayaguez: Two weeks mini course on PDE (during ASU spring break)
Fall 2013	Arizona State University: MAT 275, Modern Differential Equations, AMP 577, Partial Differential Equations.
Spring 2014	Arizona State University: MAT 342, Linear Algebra.
Fall 2014	Arizona State University: MAT 342, Linear Algebra, MAT 370, Intermediate Calculus.
Spring 2015	Arizona State University: MAT 342, Linear Algebra, MAT 461, Applied Complex Analysis.
Fall 2015	Arizona State University: MAT 342, Linear Algebra (two classes).
Spring 2015	Arizona State University: MAT 461, Applied Complex Analysis.