

November 2, 2005

ADDRESSES, TALKS, SEMINARS

1. September 23, 2005. Plenary lecture *Schrödinger particle as a multifractal*. International Conference “Harmonic Analysis and Approximations, III”, Tsahkadzor, Armenia, September 20 – 27, 2005.
2. June 12, 2005. Invited lecture *On a problem of Chowla and the Schrödinger density*. 4th Workshop on Kinetic Theory and Applications. Karlstad University, Sweden, 12 – 14 June 2005.
3. May 27, 2005. Plenary talk *On a problem of Chowla and the Schrödinger density*. International Conference and Workshop “Function Spaces, Approximation Theory, Non-linear Analysis” dedicated to the centennial of Sergei Mikhailovich Nikolskii. Steklov Mathematical Institute Ac. Sci. Russia, Moscow.
4. April 16, 2005. 25-min. talk *On the double exponential sums with the hyperbolic phase*. South East Regional Meeting On Numbers (SERMON) 2005. Department of Mathematics, USC.
5. March 24, 2005. Talk *Quadratic and quartic variations of the Schrödinger particle in a box*. Industrial Mathematics Institute mini-conference, March 24 – 25, 2005. Department of Mathematics, USC.
6. March 19, 2005. Talk *Quadratic and quartic variations of the Schrödinger particle in a box*. 28th annual Texas partial differential equations conference, March 19 – 20, 2005. University of Texas – Pan American, Edinburg, Texas.
7. February 04, 2005. Colloquium talk *The Schrödinger density and the Talbot’s effect*. Department of Mathematics, University of Massachusetts at Lowell.
8. February 03, 2005. Colloquium talk *The Schrödinger density and the Talbot’s effect*. Department of Mathematics, Massachusetts Institute of Technology, Cambridge, MA.
9. December 19, 2004. Invited talk *Some results in ridge approximation*. Extremal Problems and Approximation: International conference on the occasion of the 70th anniversary of Professor Vladimir M. Tikhomirov, 18 – 20 December 2004, Moscow State University, Russia.

10. December 07, 2004. Talk *A result of N. Alon concerning ranks of matrices*. The seminar on Nonlinear Approximation, Department of Mathematics, USC.
11. September 23, 2004. Invited lecture *Talbot's effect and Wigner's function for Schrödinger equation*. Approximation and Probability: International conference on the occasion of the 70th anniversary of Professor Zbigniew Ciesielski, 20 – 24 September 2004, Bedlewo, Poland.
12. June 21, 2004. Seminar talk *On Talbot's effect for Schrödinger equation*. Department of Mathematics, Royal Institute of Technology, Stockholm, Sweden (Institutionen för matematik, Kgl. tekniska högskolan, audience included: L. Carleson, P. Sjölin, M. Benedicks, A. Laptev, Sukhanov, et. al).
13. June 15, 2004. Seminar talk *Talbot's effect for Schrödinger equation with non-smooth potential*. Division for Engineering Sciences, Physics and Mathematics, Karlstad University, Sweden.
14. June 08, 2004. Seminar talk *Talbot's effect for Schrödinger and Helmholtz' equations*. Division for Engineering Sciences, Physics and Mathematics, Karlstad University, Sweden.
15. May 27, 2004. Invited lecture *Talbot's effect for Schrödinger equation with integrable potentials*. CBMS conference on tiling, Carleson theorem, and applications of combinatorial methods in harmonic analysis, Department of Mathematics, Georgia Institute of Technology, Atlanta, GA.
16. April 29, 2004. Lecture *On Talbot's phenomenon for Schrödinger equation*, Chebyshev's Lectures Series, Department of Mathematics, Texas A&M, College Station, Texas.
17. April 16, 2004. Talk *Talbot's phenomenon for Schrödinger equation with non-smooth potential*, Analysis Seminar, Department of Mathematics, USC.
18. February 11, 2004. Talk *The double trigonometric series with the hyperbolic phase, and a problem of S. Chowla*, Analysis Seminar, Department of Mathematics, Georgia Institute of Technology, Atlanta, GA.
19. January 22, 2004. Colloquium talk *Quantum carpets, Talbot's effect, and Analytic Number Theory*, Department of Physics, USC.
20. December 25, 2003. Invited talk *On Chowla's problem*, Real Analysis Seminar, Steklov Mathematical Institute of the Russian Academy of Sciences, Moscow, Russia.
21. October 22, 2003. Talk *On Chowla's problem*, Greedy Algorithms seminar, USC.
22. September 23, 2003. Lecture *The valleys of shadow in Talbot – Schrödinger landscape*, VIGRE program seminar, UGA, Athens, Georgia.
23. September 18, 2003. Talk *The valleys of shadow in Talbot – Schrödinger landscape*, Applied Mathematics seminar, USC.

24. September 05, 2003. Talk *The valleys of shadow in Schrödinger landscape*, Analysis seminar, USC.
25. June 25, 2003. Invited talk *Some numerical experiments with the time-dependent Schrödinger equation*, International Workshop on Non-linear Approximations in Numerical Analysis, Institute of Numerical Mathematics and Steklov Institute of Mathematics, Russian Academy of Sciences, June 22 – 25, 2003, Moscow, Russia.
26. June 20, 2003. 20-min. invited talk *Ridge approximation and Kolmogorov – Nikol'skii problem on optimal quadrature formulas*, Section *Theory of Functions and Functional Analysis* of the International Conference “Kolmogorov and Contemporary Mathematics”, organized by Russian Academy of Sciences and Moscow State University; held June 16 – 21, 2003 at Moscow State University; Moscow, Russia.
27. June 16, 2003. Plenary talk *Analytic Number Theory in Schrödinger type equations with the periodic initial data*, 3rd International Workshop on Kinetic Theory and Applications, Division for Engineering Sciences, Physics and Mathematics, Karlstad University, Sweden, June 15 – 17, 2003.
28. June 11, 2003. 50-min. invited talk *Exponential sums with the hyperbolic phase*, Seminar of the Division for Engineering Sciences, Physics and Mathematics, Karlstad University, Sweden.
29. April 18, 25; May 02, 2003. Series of 3 talks *Multiple discrete oscillatory Hilbert transforms*, Number Theory Seminar, Department of Mathematics, USC.
30. April 11, 2003. Talk *Farey tree and the convergence of a double trigonometric series*, Analysis Seminar, Department of Mathematics, USC.
31. March 14, 2003. Invited lecture *Schrödinger equation and oscillatory Hilbert transforms*, Series of Lectures on the occasion of the 10th anniversary of the foundation of the E. Schrödinger Institute, Vienna, Austria.
32. February 25, 2003. Invited talk *Multiple oscillatory Hilbert transforms with the polynomial phases*, International Workshop “Combinatorial and Number Theoretic Methods in Harmonic Analysis”, The Erwin Schrödinger International Institute for Mathematical Physics, Vienna, Austria.
33. February 13, 2003. Talk *S.A. Telyakovskii's result and multiple oscillatory Hilbert transforms with the polynomial phases*, Seminar on Approximation Theory, Steklov Mathematical Institute of the Russian Academy of Sciences, Moscow, Russia.
34. January 27, 2003. Plenary lecture *S.A. Telyakovskii's result and multiple oscillatory Hilbert transforms with the polynomial phases*, Voronezh Winter Mathematical School “The modern methods of analysis and related fields”, Voronezh, Russia.

35. November 13, 2002. Lecture *Non-linear oscillations: curse or blessing ?* The Wavelet IDR Center. South Carolina Marathon, Department of Mathematics, University of South Carolina, Columbia.
36. April 2002. Talk *Plane wave decompositions of multi-variate polynomials*, Number Theory Seminar, Department of Mathematics, University of South Carolina, Columbia.
37. March 2002. Talk *On the representations of bi-variate polynomials as linear combinations of plane waves*, Geometry and Analysis Seminar, Department of Mathematics, University of South Carolina, Columbia.
38. February 2002. Invited talk *Gridge Approximation and Radon compass*, International Workshop in Approximation Theory, School of Mathematical Sciences, Tel Aviv University, Israel.
39. February 2002. Series of talks *Error estimates of non-linear N -term ridge approximation, and convergence rates of gridge algorithms*, Seminar on Greedy Algorithms, Department of Mathematics, University of South Carolina, Columbia.
40. February 2002. Colloquium talk *Ridge approximation, gridge algorithms, and optimal cubature formulas*, Department of Mathematics, University of Missouri, Columbia.
41. September 2001. Plenary talk *Schrödinger equation and oscillatory Hilbert transforms with the quadratic phase*, International Conference "Harmonic Analysis and Approximations, II", Nor Amberd, Armenia, September 11 – 18, 2001.
42. April 2001. Talk *Trigonometric series with the polynomial phase and their applications to Schrödinger type equations*, Analysis Seminar, Department of Mathematics, Georgia Institute of Technology, Atlanta, GA.
43. March 2001. Talk *Fibonacci numbers and arithmetical properties of solutions of Schrödinger equation with periodic initial data*, Interdisciplinary Seminar, Department of Physics, USC.
44. March 2001. Invited lecture *Oscillatory Hilbert transforms with the polynomial phase and their applications to Schrödinger type equations*, the program on "Oscillatory Integrals and Dispersive Equations", March 19-23, Institute for Pure and Applied Mathematics, University of California, Los Angeles, CA.
45. March 2001. Talk *On the polynomial gridge series (963-42-212)*, Special Session on Approximation and Wavelets, III. 963rd AMS Meeting, University of South Carolina, Columbia, SC.
46. March 2001. Talk *Turan's method and ridge approximation of harmonic functions (963-41-207)*, Special Session on Analytic Number Theory, I. 963rd AMS Meeting, University of South Carolina, Columbia, SC.
47. January 2001. Colloquium talk *Oscillatory Hilbert transforms and their applications*, Department of Mathematics, Georgia Southern University, Statesboro, GA.

48. December 2000. Talk *Fourier analysis in the unit ball, optimal quadrature formulas and gridge algorithms*, Joint meeting of the Seminars on Approximation Theory and the Theory of Orthogonal Series, Steklov Mathematical Institute of Russian Academy of Sciences, Moscow, Russia.
49. December 2000. Talk *The effect of collapse in the N -term ridge approximation problem of harmonic functions*, Seminar of the Department of Functions of Complex variable, Steklov Mathematical Institute of Russian Academy of Sciences, Moscow, Russia.
50. November 2000. Talk *Nonlinear ridge approximation and gridge algorithms*, Special Session on Nonlinear Methods in Approximation, II. 960th AMS Meeting, University of Alabama, Birmingham.
51. September – October 2000. Series of talks *Fourier analysis as genesis of wavelets*, Interdisciplinary Seminar, Department of Physics, USC.
52. August 2000. Talk *Oscillatory Hilbert transforms*, Seminar on the Theory of Orthogonal Series, Steklov Mathematical Institute of Russian Academy of Sciences, Moscow, Russia.
53. July 2000. Invited talk *Some recent developments in ridge approximation*, Minisymposium MS46 “Nonlinear approximation”, 2000 SIAM Annual Meeting, July 10 – 14, 2000, Rio Grande, Puerto Rico.
54. January 2000. Plenary talk *Ridge approximation*, 10th Saratov winter Conference on Modern Problems of the Theory of Functions and Applications, January 27 – February 2, Saratov State University, Saratov, Russia.
55. December 1999. Invited talk *Ridge approximation, gridge algorithms and optimization of cubature formulas*, Workshop on Wavelets and Multiresolution, Foundations of Computational Mathematics (FOCM), November 29 – December 3, City University of Hong Kong, Hong Kong, Peoples Republic of China.
56. November 1999. Talk *Gridge algorithms and ridge approximation*, Seminar on Nonlinear Approximation, Industrial Mathematics Institute, Department of Mathematics, USC.
57. October 1999. Colloquium talk *Greedy algorithms in ridge approximation*, Department of Mathematics, University of South Florida, Tampa, Florida.
58. October 1999. Talk *On gridge algorithms*, Seminar on the Theory of Orthogonal Series, Steklov Mathematical Institute of Russian Academy of Sciences, Moscow, Russia.
59. July 1999. Talk *Ridge approximation and optimal quadrature formulas*, Seminar on Approximation Theory, Steklov Mathematical Institute of Russian Academy of Sciences, Moscow, Russia.
60. June 1999. Colloquium talk *On orthonormal systems of planar wave polynomials and ridge approximation*, Department of Mathematics, University of Umeå, Umeå, Sweden.

61. April 1999. Talk *Non-linearity versus linearity in ridge approximation*, Lucent Technologies, Bell Labs, New Jersey.
62. January 1999. Invited talk *Schrödinger equation and oscillatory Hilbert transforms of second degree*, Conference on Singular and Oscillatory Integrals, January 7 – 11, University of Wisconsin in Madison.
63. September 1998. Plenary talk *Non-linearity versus linearity in ridge approximation*, International Conference on Harmonic Analysis and Approximations, September 18 – 25, Nor Amberd, Armenia
64. March 1998. Address *Nonlinearity versus linearity in ridge approximation*, Special Session on Nonlinear Problems, Meeting #932, American Mathematical Society, March 27 – 28, Kansas State University, Manhattan, Kansas
65. March 1998. Report *Schrödinger equation and oscillatory Hilbert transforms of second degree*, Special Session for Contributed papers, Meeting #932, American Mathematical Society, March 27 – 28, Kansas State University, Manhattan, Kansas
66. January 1998. Talk *Kolmogorov – Nikol'skii problem and ridge approximation of harmonic functions*, Ninth International Conference on Approximation Theory, January 3 – 6, 1998, Nashville, Tennessee
67. July 1997. Talk *Ridge approximation, Chebyshev – Fourier analysis and optimal quadrature formulas*, Seminar on Multivariate Functions Theory, Steklov Mathematical Institute of Russian Academy of Sciences, Moscow, Russia.
68. April 1997. Talk *Ridge approximation and optimal quadrature formulas*, 8th Southeastern Approximation Theory Conference, April 11 – 13, 1997, Athens, Georgia.
69. March 1997. Series of talks *Radon – Fourier analysis, ridge approximation and optimal quadrature formulas*, Seminar on Functional Analysis, Department of Mathematics, USC.
70. February 1997. Colloquium talk *Ridge approximation and orthogonal polynomials*, Department of Mathematics, University of South Florida, Tampa, Florida.
71. January 1997. Talks: 1) *Chebyshev polynomials, Radon transforms and lower estimates of free non-linear ridge approximation in $L^2(B^2)$* , Workshop on Approximation Theory and PDEs, and 2) *Self-similarity properties of the solutions of time dependent Schrödinger equation of a free particle*, Workshop on Differential equations, International Conference *Foundations of Computational Mathematics*, IMPA, Rio de Janeiro, Brazil.
72. November 1996. Talk *On P.L. Ul'yanov's problem concerning spectra of uniform convergence and time dependent Schrödinger equation of a free particle* at the Fourier Analysis Seminar, Department of Mathematics, University of Indiana, Bloomington, Indiana.

73. February 1996. Invited talk *Orthonormal trigonometric polynomial bases with explicit coefficients* at the Workshop On Spline Functions and the Theory of Wavelets, Centre de Recherche Mathématiques, Montreal, Canada.
74. August 1995. Talk *Orthogonal Expansions associated with Radon Transforms* – 1995 AMS-SIAM Summer Seminar "Mathematics of numerical analysis: Real number algorithms", Park City, Utah.
75. December - November 1994. Series of talks on Research Seminars of the Department of Mathematics, USC:
 - Properties of Radon transforms* - Research Seminar on Approximation Theory;
 - Polygon approximation of functions of two variables*;
 - Orthonormal trigonometric polynomial bases via the Theory of Wavelets*;
 - Variational properties of solutions of time dependent Schrödinger equation of a free particle* - Seminar on Applied Mathematics;
 - Vinogradov's estimate of the smallest quadratic non-residue* - Number Theory Seminar.
76. Invited talk *On a construction of Fejer-Franklin orthonormal trigonometric polynomial bases* – Southeast Conference in Approximation Theory, Vanderbilt University, Nashville, Tennessee, November 4/6, 1994.
77. April 1994. Address *Gauss sums and Schrödinger equation* – 6th Annual South Eastern Region Meeting on Numbers, April 15/16, The Citadel, Charleston, SC, 1994.
78. March 1993. Colloquium talks *Curlicues, Gauss sums and self-similarity in time-dependent Schrödinger equation* – University of South Carolina (Columbia, SC), University of South Florida, Tampa, FL.
79. March 1993. Colloquium talks *Orthonormal polynomial bases in the spaces C and A with explicit coefficients and the theory of wavelets* – University of Windsor (Windsor, Ont., Canada) and York University, Toronto, Ont., Canada.
80. December 1992. Talk *Orthonormal trigonometric polynomial bases and the theory of wavelets* – at the Seminar on Approximation Theory, Tel Aviv University, Israel.
81. July -August 1992. Colloquium talk *Analytic Number Theory and chaotic features of solutions to time-dependent Schrödinger equation* at the Seminar of the Department of Mathematics of Wits University, Johannesburg, South Africa;
 - Talk *Gauss sums, Schrödinger equation and quantum chaos* – 18th South African Symposium on Numerical Mathematics, 13/15 July 1992, Durban, South Africa;
 - Talk *Optimal quadrature formulae on certain classes of periodic functions* – Seminar of the Department of Mathematics of the University of Stellenbosch, South Africa;

Series of talks *Wavelets* – Department of Mathematics at Wits University, Johannesburg, South Africa.

82. February 1992. Colloquium talk *Chaotic features of solutions to time Dependent Schrödinger equation with periodic initial data*– Department of Mathematics of the University of South Florida, Tampa, FL.
83. February 1992. Colloquium talk *Analytic Number Theory and Schrödinger equation* – Department of Mathematics of the University of Georgia, Athens, Ga.
84. February 1992. Talk *Orthonormal trigonometric polynomial bases and wavelets* – Seminar on Approximation Theory, Department of Mathematics of the University of South Carolina, Columbia, SC.
85. August 1991. Talk *Complexity of the solutions to time-dependent Schrödinger equation* – Third Conference of the Canadian Number Theory Association, August 1991, Queen’s University, Kingston, Ontario, Canada;
Talk *Wavelets and orthonormal trigonometric polynomial bases* – Mini- Conference on Approximation Theory, August 1991, Dalhousie University, Halifax, Nova Scotia, Canada;
86. July 1991. Colloquium talk *Time dependent Schrödinger equation with periodic initial data* – Department of Mathematics, University of Missouri- Columbia, Columbia, Missouri;
Colloquium talk *Trigonometric series with polynomial spectra* – Department of Mathematics, University Missouri-Rolla, Rolla, Missouri;
Series of talks *Wavelets* – Department of Mathematics and Statistics, Queen’s University, Kingston, Ontario, Canada.
87. June 1991. Talk *Wavelets* – Special Conference, Center of Mathematical Research, University of Montreal, Quebec, Canada;
88. June 1991. Plenary talk *Orthonormal trigonometric polynomial bases* – International Conference on Constructive Theory of Functions, Varna, Bulgaria.
89. May 1991. Plenary talk *V-series in the solutions to time dependent Schrödinger type equations with variable coefficients* – Second US-USSR Workshop on Approximation Theory, St. Petersburg, Russia.
90. August 1990. Plenary talk *Some new applications of exponential sums and integrals to spectral problems* – International Conference on Approximation Theory, Kecskemet, Hungary.
91. March 1990. Plenary talk *Oscillatory sums and integrals and their applications in Harmonic Analysis* – US – USSR Conference on Approximation Theory, March 19/22, Tampa, FL.
92. 1985, 1980, 1977. Plenary talks at the International Conferences on Constructive Theory of Functions, Varna and Blagoevgrad, Bulgaria.

93. Plenary and contributed Conference talks given at International and all-Union Conferences held in Moscow, Kalouga, Kiev, Minsk, Erevan, Ufa, Tbilissi, Kemerovo, Saratov, Voronezh, Dnepropetrovsk, Vil'nius.