ALEXEI MIKHAIL TSVELIK

Address:

Brookhaven National Laboratory, Department of Condensed Matter Physics and Materials Science, bldn. 734, Upton, NY 11973-5000, USA.

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Nationality: USA, UK

Area of expertise: physics of strongly correlated and low-dimensional systems, quantum impurities and quantum dots, physics of nanomaterials, quantum magnetism.

Fellowships and Awards:

American Physical Society Fellow 2002
Brookhaven Science and Technology Award 2006

Education

Sept 1971 June 1977: Undergraduate, Moscow Physical-Technical Institute.

July 1977 May 1980: Postgraduate studies at Institute for High Pressure Physics of Academy of Sciences of USSR.

March 1980: Ph. D. in theoretical physics.

Professional Record.

Since 4 April 2001 - Senior Scientist, Group Leader, Brookhaven National Laboratory, Upton, NY and Adjunct Professor at SUNY, Stony Brook.

March - June 2000, Visiting Fellow Commoner in Trinity College, Cambridge, UK (on leave from Oxford).

Since Sept. 1, 1992 till Apr. 4, 2001 - Lecturer (from July 28/97 - Professor) in Physics in Department of Physics, University of Oxford and a tutorial fellow in Brasenose College, Oxford, UK.

1 March - August 30 1992 Department of Physics, Harvard University, visiting scholar,

August 1991 - February 1992 Department of Physics, Princeton

University, visiting research staff member.

September 1989 - August 1991; Institute of Fundamental Theory fellow in University of Florida, Gainesville, FL.

May 1982 - February 1996; Permanent scientific staff member, Landau Institute for Theoretical Physics, Moscow.

May 1980 - May 1982 : Scientific staff member, Institute for High Pressure Physics, Moscow.

Presentations at Professional Conferences and Meetings (last 5 years).

1. ``Phenomenological model for underdoped cuprates'', conference on Frustrated Magnetism and 1D Systems, ICTP, Trieste, Aug. 1-17, 2007.

2.``Exciton condensation in graphene initiated by the magnetic field'', Mesoscopic workshop, Mojacar, Spain, Sept. 10-13, 2007.

3.`` PSL(2|2) WZNW theory as a possible theory for Plateau Transition in IQHE'', ``Fields, Lattices and Condensed Matter'', a symposium in honor of John Cardy's 60th birthday, Dec. 14-15, 2007, Oxford.

4. Lectures on 1D correlation functions, the 4th Capri School on Transport in Nanostructures, 30 March - April 7, 2008, Capri, Italy.

5. Lectures on Disordered Models with Gauge Potential Disorder, Hereus Workshop, Bremen, July 2008.

6. ``Experimental Realization of $SU_2(2)$ Kac-Moody algebra'', Low-Dimensional Field Theories and Applications, Sept. 8-14, 2008, GGI Florence.

7. ``A phenomenological theory of high-T_c superconductivity'', G. Shlyapnikov's 60-ties anniversary conference, Ecole Normale Superiere, Paris, Sept. 15-16, 2008.

8. `Virial expansion for the 1D Quantum Ising model correlation functions'', GGI mini-workshop, Florence, Oct. 1, 2008.

9. ``Condensed matter applications of SUSY sigma models'', Workshop on applied 2d Sigma models, DESY Hamburg, Germany, Nov. 10-14, 2008.

10. ``Spin-1 Cold atoms in D=1,2,3'', ITAMP/CUA workshop, Harvard Jan. 26-28, 2009.

11. ``Confinement of Fractional Quantum Number Particles in a Condensed Matter System: Example of CaCu2O3'', workshop on Strong Correlated Physics in ICTP, Trieste, July 2009.

12. ``Confinement of Fractional Quantum Number Particles in a Condensed Matter System: Example of CaCu2O3''. Conference "Heisenberg model: Past, Present and Future", Brasilia, July 2009.

13.``Influence of Thermal Fluctuations on Spectral Function of 2D Superconductors'', workshop Fermions 2009, Obergurgl, Austria, Oct. 2009.

14. ``Influence of Thermal Fluctuations on Spectral Function of 2D Superconductors'', workshop "Novel states in correlated condensed matter -- from model systems to real materials", Harnack House, Berlin, March 2-4, 2010. Org. by Michael Lang.

15. ``New results for 2-leg ladders'', Workshop on Emergence of New States of Matter in Magnetic Systems and Beyond, Trieste, 5 - 9 July 2010.

16. Physics of 1D high spin bosons'', Les Houches summer school in cold atoms, July 2010.

17. ``New results for 2-leg ladders'', University of Royal Holloway summer school, London, July 2010.

18. ``New results for 2-leg ladders'', APCTP-Postech AMS workshop ``Metal-Insulator Transitions in Disordered and Magnetic Systems'', Pohang, Korea, Sept. 9, 2010.

19. ``Zero energy Majorana modes in spin-1/2 ladders'', the 5th Asia-Pacific workshop on Quantum Information Science, May 2011, Singapore.

20. “Polar phased of spinor condensates”, Conference at Texas A & M University, College Station, December 2011.

21. “Universal Dynamics in Generalized Gibbs Ensembles”, Workshop on Non Equilibrium Systems. CUNY, March 2012

22. “Universal Spin Dynamics in Generalized Gibbs Ensembles”, GGI workshop “New states of matter in and out of equilibrium”, May 2012, Florence.

23. “Universal Dynamics in Generalized Gibbs Ensembles”, workshop on “Quantum systems: Non-Ergodicity, Glassiness and Localization”, 27-31 August 2012, ICTP, Trieste.

24. “Two-channel Kondo model made of three Ising chains”, - “Facets of integrability” workshop, SUNYSB, January 2013.