CURRICULUM VITAE

MAIN INFORMATION

Name, Surname: Olena Yezerska (Elena Ezerskaya)
Date of Birth: May 5, 1957
Place of Birth: Kharkov, Ukraine
Marital status: married
Present Position: Assoc.Prof.
Work Address: Physical Faculty, Dept of Theoretical Physics
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Education: higher, physicist.
Kharkov State University, Department of Physics. MS. (Physics). Certificate of degree Г-II No 047352 from June 27, 1979

Academic degree: PhD, 01.04.11 – Physics of Magnetic Phenomena, certificate of degree ФМ No 024649 from November 6, 1985, Kharkov State University. Thesis: "Some Properties of Magnetic Systems with Anisotropic Exchange Interaction"
Associate Professor, 01.04.02 – Theoretical physics, certification ДЦ АР No 000864 from October 28, 1994

Research interests: Strongly Correlated Electron Systems: Heisenberg Spin Hamiltonian, Low Dimensional Spin Magnetic systems, Exactly Solvable spin Hamiltonians, Hubbard model

Affiliation: V.N. Karazin Kharkiv National University, School of Physics, Department of Theoretical Physics named by Academic I.M.Lifshits, Assoc. Prof..

Teaching Experience:
1993- Present: lecturer in "Theoretical Mechanics", "Electrodynamics", "Quantum Mechanics" (Graduate Courses for Physicists)
1993-Present – lecturer in "Theory of Magnetism", "Dynamics of Crystal Lattice", "Theory of Metals" (Advanced Courses in Theoretical Physics)
1990-1993: lecturer in "Course of General Physics" (Undergraduate Course for the students of Biological Faculty)
1983-Present: instructor in principal divisions of theoretical physics: "Theoretical Mechanics", "Electrodynamics", "Quantum Mechanics" (Graduate Courses for Physicists)
1990-1993: instructor in principal divisions of Physics: "Mechanics", "Molecular Physics", "Electricity and Magnetism", "Optics", "Atomic Physics" (Undergraduate Courses for students of Natural Sciences)
1992-Present: Supervisor for MS
2001-Present: Supervisor for Ph.D

Co-author in 8 text-books for the students of Kharkov University

Research interests: Strongly Correlated Electron Systems: Heisenberg Spin Hamiltonian, Low Dimensional Spin Magnetic systems, Hubbard model.

Publications: author of more than 100 publications.

Main papers

Articles

1. E.V.Ezerskaya. Stationary States of Quasi-One-Dimensional Magnetic System with Comb Structure // Low Temperature Physics, 1995, Vol.21, No 9, P.732-735.
2. V.O.Cheranovskii, E.V.Ezerskaya. Analytical and Numerical Results for the Spectrum of the Modified One-Dimensional Kondo-Lattice Model // Phys.Rev.B, 1997, Vol.55, No 18,P.12480-12487
3. V.O.Cheranovskii, E.V.Ezerskaya and I.Ozkan. The energy spectrum of a spin-1/2 ladder with mixed interactions // J. Phys.: Condensed Matter,2001, Vol.13, No 20, P.4525-4534.
4. V.O.Cheranovskii, E.V.Ezerskaya, I.Ozkan. Energy spectrum of extended Hubbard model with spin-dependent hopping and related spin ladder model // Int.Journ.Quant. Chem. 2002. Vol.88, No. 4, P.398-402.
5. Cheranovskii V.O., Ezerskaya E.V., Klein D.J., Kravchenko A.A. Magnetic properties of model non carbon nanotubes with macroscopic value of ground state spin // Journal of Magnetism and Magnetic Materials.– 2011. – Vol. 323, N 12. – P. 1636-1642.
6. Cheranovskii V.O., Ezerskaya E.V. Magnetic properties of the infinite U Hubbard model on one-dimensional frustrated lattices // J. Supercond Nov Magn. – 2015. V.28—P. 773-776.
7. Ezerskaya E.V. The Energy Spectrum and Thermodynamics of Spin-1/2 XX Chain with Ising Impurities // Acta Physica Polonica Series A. – 2017. – V. 131, No 4, P. 928-930. DOI: 10.12693/APhysPolA.131.928
8. V.O. Cheranovskii, E.V. Ezerskaya, D.J. Klein, V.V. Tokarev, Lowest energy states of Hubbard ladder model with infinite electron repulsion // Computational and Theoretical Chemistry Volume 1116, 15 September 2017, P.112–116.
9. V. O. Cheranovskii, E. V. Ezerskaya, D. J. Klein, V. V. Tokarev, Finite Size Effects in Anisotropic u = ∞ Hubbard Ladder Rings // Journal of Superconductivity and Novel Magnetism First Online: 12 September 2017doi.org/10.1007/s10948-017-4323-y – 2018. – V.31, N 5, P 1369–1373.
10. V. O. Cheranovskii, E.V. Ezerskaya, V. V. Slavin, A. L. Tchougréeff, R. Dronskowski, Magnetic Properties of Quasi-One-Dimensional Crystals Formed by Graphene Nanoclusters and Embedded Atoms of the Transition Metals // Crystals 2019, V. 9, 251 (12 pp.); doi:10.3390/cryst9050251.
11. E. V. Ezerskaya, On the energy spectrum and thermodynamics of decorated quasi-one-dimensional magnetic systems with uniaxial anisotropy // Low Temperature Physics/Fizika Nizkikh Temperatur, 2021, vol. 47, No. 6, pp. 509–514.

Some Recent International Conferences

1. E.Ezerskaya The energy spectrum and thermodynamics of the spin-1/2 XX chain with Ising impurities 16th Czech and Slovak Conference on Magnetism, Košice, Slovakia, June 13th-17th 2016. P. 218.
2. Artemov A.V., Ezerskaya E.V. On the thermodynamics of finite spin-1/2 xx chains with Ising impurities. 6th International Conference on Superconductivity and Magnetism. 29 April – 4 May 2018. Abstract Book. – Antalya, Turkey. – P. 544.

3. Elena V. Ezerskaya, Low temperature properties of low-dimensional exactly solvable spin models with impurities // Research & Reviews: Journal of Material Sciences ISSN: 2321-6212. Proceedings of 3rd International Conference on Magnetism and Magnetic Materials, October 22-23, 2018 Rome, Italy, V. 6, P. 53.
4. Vladyslav O. Cheranovskii, Viktor V. Slavin, and Elena V. Ezerskaya, The electron correlation effect on the magnetic properties of quasi-one dimensional materials on the base of graphitic nanoclusters with embedded transition metals // Research & Reviews: Journal of Material Sciences ISSN: 2321-6212. Proceedings of 3rd International Conference on Magnetism and Magnetic Materials, October 22-23, 2018 Rome, Italy, V. 6, P. 71.
5. E.V.Ezerskaya, V.O.Cheranovskii, Low temperature thermodynamics of spin-1/2 XX chains with periodically embedded Ising impurities // 17th Czech and Slovak Conference on Magnetism, June 3-7, 2019, Košice, Slovakia, P. 96.
6. V.Cheranovskii, E. Ezerskaya, V. Slavin, Quantum Phase Transitions and Intermediate Magnetization Plateau of 1D Heisenberg Spin Models for Polymeric Complexes of Transition Metals and Graphene Based Composite Nanomagnets // Abstract book for 7th International Conference on Superconductivity and Magnetism (ICSM2021). Oct 21 – 27, 2021 Milas-Bodrum, Turkey. – P. 223
7. O. Dzhenzherov, E. Ezerskaya, Low Temperature Thermodynamics of the Finite Spin-1/2 XX Chain with Distortions // Abstract book for7th International Conference on Superconductivity and Magnetism (ICSM2021). Oct 21 – 27, 2021 Milas-Bodrum, Turkey. – P. 476

Some Text-books

1. Ezerskaya E.V., Chebanova T.S., Usatenko O.V. Oscillations of systems with many degrees of freedom [in Russian] // Kharkov University Polygraph. Company, Kharkov KSU, 1989 (42 pp)
2. Kovalev A.S., Ezerskaya E.V., Majzelis Z.A., Chebanova T.S. Small oscillations. I. Linear oscillations. [Teaching manual] // KhNU Publishing House, Kh.: VN Karazin KhNU, 2013 [in Russian] and 2016 [in Ukrainian]. – 112 p.
3. Ezerskaya E.V., Kovalev A.S., Majzelis Z.A., Chebanova T.S. Classical dynamics in the Newton and Lagrange formalisms. [Teaching manual] // KhNU Publishing House, Kh.: VN Karazin [in Ukrainian] 2019. – 148 p.
4. Apostolov S. S., Ezerskaya E.V. Quantum mechanics Foundations. Theory and Problems. [Teaching manual] // KhNU Publishing House, Kh.: VN Karazin [in Ukrainian] 2021. – 140 p.

International Cooperation:

In 1998 and 2000 visited Dokuz Eulul University, Izmir

In 2003, and 2004 visited several times Middle East Technical University, Ankara

In 2015 visited Cukurova University, Adana (Turkey) as lecturer in frames academic mobility Mevlana program.

In 2018-2019 was the team member in “Deductive Quantum Molecular Mechanics of Carbon Allotropes” Volkswagenstiftung, Germany, grant number 151110