Olena Melamedova (Moskovchenko)

Curriculum vitae

Born: 01.12.1979, Kharkiv, Ukraine

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EDUCATION AND ACADEMIC DEGREES

❖ ***Candidate of Science (PhD)*** (Physical and Mathematical Sciences), B. Verkin Institute for Low Temperature Physics and Engineering National Academy of Sciences of Ukraine, Kharkiv, Ukraine, 2010
❖ ***Master of Science***: Kharkiv National University, Kharkiv, Ukraine, 2002
❖ Undergraduate: Kharkiv National University, Kharkiv, Ukraine, 1997-2002

PROFESSIONAL CAREER

✓ ***Research Fellow*** (2017-2019, 2026 – the present time), Department of Mathematical Physics, Mathematical Division, B. Verkin Institute for Low Temperature Physics and Engineering National Academy of Sciences of Ukraine
✓ ***Junior Research Fellow*** (2007 - 2017), Mathematical Division, B. Verkin Institute for Low Temperature Physics and Engineering National Academy of Sciences of Ukraine
✓ ***Engineer*** (2002-2007), Mathematical Division, B. Verkin Institute for Low Temperature Physics and Engineering National Academy of Sciences of Ukraine

PROFESSIONAL AFFILIATIONS

- Member of the Board of Kharkiv Mathematical Society

RESEARCH INTERESTS

Inverse scattering problem, Riemann-Hilbert problem, nonlinear integrable equations, long-time asymptotics

LIST of PUBLICATIONS

1. ***Melamedova (Moskovchenko) E.A.*** Maxwell–Bloch Equations without Spectral Broadening: Gauge Equivalence, Transformation Operators and Matrix Riemann–Hilbert Problems / M.S. Filipkovska, V.P. Kotlyarov, E.A. Melamedova (Moskovchenko) // Journal of mathematical physics, analysis, geometry - 2017. - Vol. 13, No. 2. - P. 119-153.
2. ***Melamedova (Moskovchenko) E.A.*** Matrix Riemann-Hilbert Problems and Maxwell-Bloch Equations without Spectral Broadening/ V.P. Kotlyarov, E.A. Melamedova (Moskovchenko) // Journal of mathematical physics, analysis, geometry - 2014. - Vol. 10, No. 3. - P. 328-349.
3. ***Moskovchenko E.A.*** Periodic Boundary Data for Integrable Model of the Stimulated Raman Scattering: Long-time Asymptotic Behavior / E.A. Moskovchenko, V.P. Kotlyarov // J. Phys. A.:Math. Theor. - 2010. - Vol. 43. - P. 1-31.
4. ***Moskovchenko E.A.*** Simple periodic boundary data and Riemann-Hilbert problem for integrable model of the stimulated Raman scattering / E.A. Moskovchenko // Journal of mathematical physics, analysis, geometry. - 2009. - Vol. 5, No. 1. - P. 82-103.
5. ***Moskovchenko E.A.*** Long-time Asymptotic Behavior of an Integrable model of the Stimulated Raman Scattering with Periodic Boundary Data / E.A. Moskovchenko, V.P. Kotlyarov // Journal of mathematical physics, analysis, geometry. - 2009. - Vol. 5, No. 4. - P. 386-395.
6. ***Moskovchenko E.A.*** A new Riemann-Hilbert problem in a model of stimulated Raman scattering / V.P. Kotlyarov, E.A. Moskovchenko // J. Phys. A.:Math. Gen. - 2006. - Vol. 39. - P. 14591-14610.

LIST of CONFERENCE

1. ***Moskovchenko E.A.*** A new Riemann-Hilbert problem in a model of stimulated Raman scattering // Тези доповідей міжнародної конференції "Nonlinear Physics and Mathematics". - Kyiv, Ukraine. - 25-27 May. - 2006
2. ***Moskovchenko E.A.*** A Riemann-Hilbert problem in a model of stimulated Raman scattering by periodic boundary condition // Тези доповідей міжнародної конференції "Lyapunov Memorial Conference". - Kharkiv, Ukraine. - 24-30 June. - 2007
3. ***Moskovchenko E.A.*** Simple periodic boundary data and Riemann-Hilbert problem for integrable model of the stimulated Raman scattering // Тези доповідей міжнародної конференції "Second International Conference for Young Mathematicians on Differential Equations and Applications dedicated to Ya.B.Lopatinskii". - Donetsk, Ukraine. - 11-14 November. - 2008
4. ***Московченко О.О.*** Інтегровна модель стимульованого раманівського розсіяння. Асимптотика розв'язку // Тези доповідей "Українського математичного конгресу" - Київ, Україна . - 27-29 серпня. - 2009
5. ***Olena Melamedova (Moskovchenko)*** Mixed initial-boundary value problem for nonlinear Maxwell–Bloch equations and Riemann–Hilbert problems / V.P. Kotlyarov, Maria Filipkovska, Olena Melamedova (Moskovchenko) // Тези доповідей міжнародної конференції "V International Conference ANALYSIS AND MATHEMATICAL PHYSICS dedicated to Vladimir A. Marchenko's 95th birthday and the centennial anniversary of the National Academy of Sciences of Ukraine". - Kharkiv, Ukraine. - 19–24 June, 2017
6. ***Olena Melamedova*** ВИБІР ПЛАТФОРМИ ДЛЯ ОНЛАЙН ТЕСТУВАННЯ З МАТЕМАТИКИ // Тези доповідей міжнародної конференції «II International Conference PROBLEMS OF TEACHING MATHEMATICS IN EDUCATIONAL INSTITUTIONS: THEORY, METHODOLOGY, PRACTICE (in honor of O.V. Pogorelov) ». - Kharkiv, Ukraine. - 23 – 25 March, 2021
7. ***Olena Melamedova*** ЦИФРОВА ЕКОСИСТЕМА КОМПЛЕКСНОГО ОЦІНЮВАННЯ ЯК ІНСТРУМЕНТ ПОДОЛАННЯ ОСВІТНІХ ВТРАТ ТА РЕАЛІЗАЦІЇ ПЕДАГОГІКИ СТІЙКОСТІ НА УРОКАХ МАТЕМАТИКИ // Тези доповідей міжнародної конференції «IV International Conference PROBLEMS OF TEACHING MATHEMATICS IN EDUCATIONAL INSTITUTIONS: THEORY, METHODOLOGY, PRACTICE (in honor of

O.V. Pogorelov) ». - Kharkiv, Ukraine. - 23 – 25 March, 2026