

Ilya Vyugin: Curriculum Vitae

Born 26 June 1983. Residency: Moscow, Russia.

Email: vyugin@gmail.com.

Webpage: <http://www.iitp.ru/ru/userpages/372/>.

Education

Moscow Mathematical School number 57, 1996-2000. Student of Lomonosov Moscow State

University, Department of Mechanics and Mathematics, Chair of Dynamical Systems: 2000-2005. Scientific advisors: Prof. A.A. Bolibruch, Prof. D.V. Anosov.

PhD student at Lomonosov Moscow State University, Department of Mechanics and

Mathematics, Chair of Dynamical Systems: 2005-2008. Scientific advisor: Prof. D.V. Anosov.

Diplomas and titles

Graduated from Moscow State University, Lomonosov (Diploma in Mathematics) – 30.06.2005.

PhD (Physical and mathematical sciences: Differential equations), Moscow State University,

Thesis title: «Inverse monodromy problems with additional characteristics of singularities» – 3.10.2008. Thesis advisor: Prof. D.V. Anosov.

Permanent position

Senior researcher of Institute for Information Transmission Problems Russian Academy of Science, Dobrushin Mathematical Laboratory – Since 2009.

Address: 19 Bolshoy Karetnii per, Moscow, 127994, Russia.

Teaching experience

Teacher of mathematics in Moscow Mathematical School number 57 – 2001-2004 and 2005-2008.

Independent University of Moscow: lecture courses:

«Introduction to analytical theory of differential equations» – autumn 2010,

«Linear analytical differential equations and isomonodromic deformations» – spring 2011.

Moscow Institute of Physics and Technology: lecture course:

«Applied linear algebra» – spring 2012.

Awards

2012, Simons–IUM Fellowship for teachers–researchers.

Research interests

Inverse monodromy problems for linear differential equations (Riemann-Hilbert problem), isomonodromic deformations, Painlevé equations, irregular singular points, differential and difference equations with meromorphic coefficients, applications of linear differential equations to number theory, differential Galois theory.

List of journal publications

1. R.R.Gontsov, I.V.Vyugin, *Apparent singularities of Fuchsian equations, and the Painlevé VI equation and Garnier systems*, Journal of Geometry and Physics, 2011, V. 61, P. 2419-2435 (arXiv:0905.1436).
2. I.D. Shkredov, I.V. Vyugin, *On additive shifts of multiplicative subgroups*, Sbornik: Mathematics, 2012, V. 203, N. 6, P. 81-100, (Preprint: arXiv:1102.1172).
3. R.R.Gontsov, I.V.Vyugin *On the solvability of Fuchsian systems by quadratures*, Russian Mathematical Surveys, 2 pages (to be appear in 2012).
4. I.V. Vyugin, *The Riemann–Hilbert problem for scalar Fuchsian equations and related problems*, Russian Mathematical Surveys, 2011, V. 66, N. 1(397), P. 37-64.
5. I.V. V'yugin, R.R. Gontsov, *Construction of a system of linear differential equations from a scalar equation*, Proceedings of the Steklov Institute of Mathematics, 2010, V. 271, P. 322-338.
6. R. Gontsov, I. Vyugin, *Some addition to the generalized Riemann–Hilbert problem*, Ann. Fac. Sci. Toulouse, 2009, V. 18, N. 3, P. 527-542 (arXiv:0804.0609).
7. I.V. Vyugin, *Fuchsian, Systems with Completely Reducible Monodromy*, Mathematical Notes, 2009, V. 85, N. 6, 780-786.
8. I.V. Vyugin, *On Hilbert's 21st Problem for Scalar Fuchsian Equations*, Doklady Mathematics, 2009, V. 79, N. 2, 203-206.
9. I.V, V'yugin, *Irreducible stokes data set furnishing a counterexample to the generalized Riemann-Hilbert problem*, Mathematical Notes, Volume 82, Numbers 1-2, 267-271.
10. I.V. Vyugin, *Irreducible Fuchsian system with reducible monodromy representation*, Mathematical Notes, 2006, V. 80, N. 4, 478-484.
11. I.V. Vyugin, R.R. Gontsov, *Additional parameters in inverse problems of monodromy*, Sbornik: Mathematics, 2006, V. 197, N. 12, 1753-1773.
12. I.V. Vyugin, *Constructive Solvability Conditions for the Riemann–Hilbert Problem*, Mathematical Notes, 2005, V. 77, N. 5, 595-605.