Curriculum Vitae of Irina Martynova

CONTACT INFORMATION:

Name, Surname:	Irina Martynova
Address:	Department of Mathematical Sciences, University of Texas at Dallas
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EDUCATION AND DEGREES:

2003-2009	PhD in Mathematics program, Department of Mathematics, Voronezh State University, Russia, Title of the PhD thesis: *Geometric and numerical study of the dynamics of some oscillating models* Supervisor: Prof. M. Kamenskii. Date of the defense (viva): June 10, 2009. Official opponents: prof. E.I. Kugushev and prof. B.M. Darinskii Approved by the Russian Ministry for Education and Science: Nov 13, 2009.
2003-2001	M.Sc. in Applied Mathematics and Informatics program, Diploma of June 21, 2003, Department of Applied Mathematics and Informatics, Voronezh State University, Russia
1997-2001	B.Sc. in Mathematics program, Diploma of June 27, 2001, Department of Mathematics, Voronezh State University, Russia

EMPLOYMENT HISTORY:

Sep 2006-present (on maternity leave from Aug 2009 on)	Tenured Teaching Assistant, Faculty of Management and Informatics in technological systems, Voronezh State University Engineering Technologies, Russia
Sep 2007-May 2008	Teaching Assistant, Department of Mathematics, Voronezh State University, Russia
Sep 2007-May 2008	Lecturer, Modern Academy for the Humanities, Russia
Sep 1999-May 2002	Part-time teacher, High School N13, Voronezh, Russia

PARTICIPATION IN RESEARCH GRANTS:

2013-2015	Dynamics of mechanical system with coupled subsystems, Russian Foundation for Basic Research (RFBR) 13-01-00347, PI: V. Thai (Moscow, IPU)
2010-2011	Bifurcations in nonsmooth mechanical systems, President of Russian Federation Young Researcher grant MK-1530.2010.1 PI: O. Makarenkov (IPU)
2009-2011	Quasi-autonomous mechanical systems: oscillations, stability, bifurcations. Smooth and nonsmooth dynamics, RFBR 09-01-00468, PI: V. Thai (IPU)

TEACHING EXPERIENCE:

2007/2008	Mathematical analysis for 1st year undergraduates (252 hours), Modern Academy for the Humanities, Voronezh, Russia
2007/2008	Discrete mathematics for 1st year undergraduates (180 hours), Modern Academy for the Humanities, Voronezh, Russia
2007/2008	Mathematical logic for 1st year undergraduates (180 hours), Modern Academy for the Humanities, Voronezh, Russia
2007/2008	Informatics for 1st year undergraduates (180 hours), Modern Academy for the Humanities, Voronezh, Russia
2007/2008	Programming in Delphi for 2nd year undergraduates of the Department of Mathematics, Voronezh State University, Russia
2007/2008 Spring term	Discrete mathematics for 1st year undergraduates (130 hours), Voronezh State University of Engineering Technologies, Russia
2007/2008 Spring term	Computational mathematics for 2nd year undergraduates (130 hours), Voronezh State University of Engineering Technologies, Russia
2007/2008	Mathematical modeling for 3rd year undergraduates of the Faculty of Management and Informatics in technological systems (260 hours), Voronezh State University Engineering Technologies, Russia
2007/2008	Informatics for 1st year undergraduates (390 hours), Voronezh State University Engineering Technologies, Russia
2006/2007	Mathematical modeling for 3rd year undergraduates (356 hours) of the Faculty of Management and Informatics in technological systems, Voronezh State University of Engineering Technologies, Russia
2006/2007	Informatics for 1st year undergraduates (534 hours), Voronezh State University Engineering Technologies, Russia

JOURNAL PAPERS:

[1] O. Yu. Makarenkov, I. S. Martynova, Degenerate resonances and their stability in two-dimensional systems with small negative divergence. (Russian) Dokl. Akad. Nauk 447 (2012), no. 3, 262-264; translation in Dokl. Math. 86 (2012), no. 3, 784-786

[2] I. S. Martynova, O. Yu. Makarenkov, The study of the Duffing's equation through replacing cubic nonlinearity by a piecewise linear function, Bulletins of Voronezh State University 2 (2003) 201-202.

[3] I. S. Martynova, A geometric approach to study oscillations of phytoplankton in the mathematical model of shallow lagoon under the periodic change of the climate, Control systems and information technologies 4 (2008) 45-46.

BOOKS IN EDUCATION:

[1] L.A. Korobova, I.S. Martynova, S.N. Chernyaeva, Solving of linear programming problems in MathCad, Voronezh, 2010, 55p. (ISBN 978-5-89448-735-9)

[2] L.A. Korobova, I.S. Martynova, S.N. Chernyaeva, Modelling of typical technological processes in MathCad, Voronezh, 2009, 59p. (ISBN 978-5-89448-688-8)

[3] B.A. Tat'yankin, O.Yu. Makarenkov, T.V. Ivannikova, L.V. Zueva, I.S. Martynova Research in High Shcools, Moscow: 5 za Znania, 2007, 272p. (ISBN 978-5-98923-096-9)

CONFERENCE PROCEEDINGS:

I. S. Martynova, A note on Mawhin's theorem for the topological degree of Poincare maps of slightly nonlinear systems, International scientific conference "Modern problems of applied mathematics and mathematical modelling", February 2-7, 2009, 116-117.

I. S. Martynova, A Poincare map for ordinary differential equations with non-differentiable right-hand-parts, Proceedings of the XLV annular conference of Voronezh State Academy of Technology, March 22-26, 2007, 100-101.

I. S. Martynova, A geometric criterion for bifurcation of stable periodic solutions in some two-dimensional models, Proceedings of the International conference "Stability and oscillations of nonlinear control systems" STAB08, June 3-6, 2008, Moscow, 194-195.

I. S. Martynova, The existence and index of periodic solutions of the mathematical model of a lagoon, Proceedings of the Voronezh Mathematics Spring School, X Pontryagin readings, May 3-9, 2008, 141-142.

I. S. Martynova, On the global stability of periodic solutions of the prey-predator model, Proceedings of the International conference "Differential equations, theory of functions and applications", Bogolyubov's readings 2008, June 16-21, Kiev, 79.

I. S. Martynova, On the behavior of a piecewise-linear approximation of the Duffing's equation, Proceedings of Voronezh Mathematics Winter School, 2004, 79.

I. Martynova The spectral analysis of rotor dynamics, NATO Advanced Study Institut on Photopolarimetry in Remote Sensing, 2003, P.62.