

Curriculum Vitae of Andrei A. Ardentov

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Personal Data

Born: April 24, 1987, in Pereslavl-Zalessky, USSR.

Citizenship: Russia.

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Education: Ph.D. in technical sciences, Program Systems Institute, Russian Academy of Science, 2012 (supervisor Prof. Yu. L. Sachkov),

M.S. in applied mathematics, University of Pereslavl, 2004 (supervisor Prof. Yu. L. Sachkov).

Foreign Languages: English.

Positions: Junior researcher, Program Systems Institute, Russian Academy of Science, since 2012.
Engineer, Program Systems Institute, Russian Academy of Science, since 2006.

Research Interests: Sub-Riemannian geometry, optimal control theory, reconstruction of images, Euler's elasticae and their applications.

Teaching Experience

Teacher of Algebra in University of Pereslavl, 2012-2013.

Grants

Research grants from the Russian Foundation for Basic Research, Russian Government (since 2006).

Publications

Papers in Reviewed Journals

1. Extremal Paths in the Nilpotent sub-Riemannian Problem on the Engel Group (Subcritical Case of Pendulum Oscillations). *Journal of Mathematical Sciences*, Vol. 199, No.5, 2014, 481-487.
2. (with A. P. Mashtakov, Yu. L. Sachkov) Parallel Algorithm and Software for Image Inpainting via Sub-Riemannian Minimizers on the Group of Rototranslations. *Numerical Mathematics: Theory, Methods and Applications*, Vol. 6, No. 1. (2013), pp. 95-115.
3. (with Yu. L. Sachkov) Conjugate points in nilpotent sub-Riemannian problem on the Engel group. *Journal of Mathematical Sciences*, 2013; 195(3): 369390.
4. (with I. Yu. Beschatny, A. P. Mashtakov, A. Yu. Popov, Yu. L. Sachkov, E. F. Sachkova) Algorithms for evaluation position and orientation of UAV (in Russian). *Programmnye Sistemy: Teoriya i Prilozheniya*, 3:3 (2012), 2339.
5. Euler's elasticae interface in Mathematica (in Russian). *Programmnye Sistemy: Teoriya i Prilozheniya*, 3:1 (2012), 3150.
6. (with Yu. L. Sachkov) Extremal trajectories in a nilpotent sub-Riemannian problem on the Engel group. *Sbornik: Mathematics*, 2011, 202:11, 15931615.
7. (with Yu. L. Sachkov) Antropomorphic recovery of corrupted images via methods of sub-Riemannian geometry (in Russian). *Programmnye Sistemy: Teoriya i Prilozheniya*, 2:4 (2011), 315.
8. (with Yu. L. Sachkov, A. P. Mashtakov) Parallel algorithm and software for recovery of isophotes for corrupted images (in Russian). *Programmnye Sistemy: Teoriya i Prilozheniya*, 1:1 (2010), 320.
9. (with Yu.L. Sachkov) Parallel algorithms and programs for modelling of euler elasticae (in Russian), *Program products and systems*, 2009, No. 4, 71-73.
10. (with Yu. L. Sachkov, V. M. Kasimov, A. P. Mashtakov) Reconstruction of images via variational principle (in Russian), *Program products and systems*, 2009, No. 4, 126-127.
11. (with Yu. L. Sachkov) Solution of Eulers elastic problem. *Automation and Remote Control*, 2009, Vol. 70, No. 4, 633-643.