# **Victor Lempitsky**

**Research interests:** computer vision, biomedical imaging, pattern recognition, machine learning, image processing

lempitsky@skoltech.ru http://sites.skoltech.ru/compvision/ members/vilem/

> 22-1-75 Ostrovityanova str. Moscow, 117321, Russia

+7 916 391-47-73 (mobile)

## Education

October 2007	<b>PhD ("kandidat nauk")</b> . Thesis title: "Methods for 3D Reconstruction Based on Graph Cuts". Supervisors: Prof. Yury Boykov (University of Western Ontario), Prof. A.V. Mikhalev (Moscow State University).
2004-2007	PhD student, Department of Mathematics and Mechanics, Moscow State University.
June 2004	<b>Specialist (MS equivalent)</b> in Applied Mathematics (with honours), Department of Mathematics and Mechanics, Moscow State University. Supervisor: Dr. D. Ivanov (Moscow State University).
1999-2004	Student, Department of Mathematics and Mechanics, Moscow State University
1995-1999	High-school student, Moscow South-West Gymnasium (№1543).

#### **Work Experience**

September 2012 –	Assistant professor at Skolkovo Institute of Science and Technology, leading the computer vision group.
December 2012 – August 2013	Visiting scholar at <b>Massachusetts Institute of Technology</b> . Research in medical imaging. Participation in the preparation and development of the postgraduate course on optimization.
September 2011 – August 2012	<b>Expert</b> in computer vision at <b>Yandex</b> . Duties: supervision of postgraduate students working on computer vision projects; prototyping computer vision and image search systems; lecturing at <b>Data Analysis School</b> (master program).
November 2009 – July 2011	<b>Postdoc</b> -researcher, <u>Visual Geometry Group</u> , Dept. of Engineering Science, <b>University</b> of Oxford, UK. Research in image classification, pattern recognition, automated object counting in biomedical images.
July 2009 – August 2011	<b>Consultant</b> for <b>Microsoft Research</b> projects in Russia. Research projects: object detection, text detection in natural images, single-view reconstruction.
October 2007 – September 2009	<b>Postdoc</b> , <u>Machine Learning and Perception</u> , <b>Microsoft Research Cambridge</b> , UK. Research in discrete optimization, photo and medical image segmentation, object detection in images.
September 2006 – December 2006	Intern, <u>Machine Learning and Perception</u> , Microsoft Research Cambridge, UK. Research in graph-based optimization in computer vision problems.
January 2006 – June 2006	Visiting researcher, <u>Vision Research Group</u> , University of Western Ontario, London, Canada. Research in graph-based 3D reconstruction.

September 2000 – December 2005 Student researcher, then junior researcher, Computer Graphics group, Department of Mathematics, **Moscow State University**. Research projects in computer graphics and image-based modeling.

## Accomplishments

- Number of citations in <u>Google Scholar</u>: 3207 (2989 since 2010), h-index = 26 Full statistics: <u>http://scholar.google.com/citations?user=gYYVokYAAAAJ</u>
- Area chair for ECCV 2012, CVPR 2015, ICCV 2015
- Outstanding reviewer at ECCV 2010, NIPS 2013
- Best paper award (as a first author) at FIMH'2009
- Invited editor for IJCV special issue

# **Student Supervision**

Current (PhD):

- **Carlos Arteta** PhD student at the University of Oxford working on biomedical image processing collaboration/joint supervision with profs. And rew Zisserman and Alison Noble.
- Artem Babenko PhD student at Moscow Institute of Physics and Technology working on large-scale multimedia retrieval systems.
- Yaroslav Ganin PhD student at Skolkovo Institute of Science and Technology
- Daniil Kononenko PhD student at Skolkovo Institute of Science and Technology
- Andrey Kuzmin PhD student at Skolkovo Institute of Science and Technology
- Vadim Lebedev PhD student at Skolkovo Institute of Science and Technology
- Evgeniya Ustinova PhD student at Skolkovo Institute of Science and Technology

#### Past (PhD and MS):

- **Dr. Yuning Chai** PhD (DPhil) student at the University of Oxford working on fine-grained image categorization *joint supervision with Prof. Andrew Zisserman*.
- Dmitry Maryin –master student at Higher School of Economics, Faculty of Informatics, Moscow
- **Renat Nasyrov** master student at Higher School of Economics, Faculty of Informatics, Moscow.
- Vladimir Tkachev –master student at Higher School of Economics, Faculty of Informatics, Moscow.
- Ilya Vorontsov 1<sup>st</sup> year master student at Moscow Institute of Physics and Technology.
- Ben Mather a master student at the University of Oxford 2010-2011 *joint supervision with Dr. Matthew Blaschko*.
- Olga Barinova PhD intern (3 months) at Microsoft Research Cambridge 2009 *joint supervision with Dr. Pushmeet Kohli.*
- Vincent Vidal PhD intern (2 months) at Microsoft Research Cambridge 2009 *joint supervision with Dr. Pushmeet Kohli.*
- Juergen Gall PhD intern (3 months) at Microsoft Research Cambridge 2008.
- Anastassia Abrashitova a final-year undergraduate student at Moscow State University 2007.
- Nina Ivanova a final-year undergraduate student at Moscow State University 2006.

#### Service

- Student admission committee @ Skoltech: member, leading the IT track
- Policy Review committee @ Skoltech: member
- Area chair at the ICCV 2015 conference
- Area chair at the CVPR 2015 conference

- Area chair at the ECCV 2012 conference
- Editor of the special issue of the International Journal of Computer Vision (IJCV) for the best papers of EMMCVPR conference (Volume 104, Issue 3, September 2013).
- Co-organizer for Conference on Energy Minimization Methods in Computer Vision (EMMCVPR), Saint-Petersburg, July 2011
- Co-organizer of Microsoft Summer School in Computer Vision, Moscow, August 2011.
- Conference program committee member:
  - IEEE International Conference on Computer Vision (ICCV 2007, 2009, 2011, 2013)
  - IEEE Conference on Computer Vision and Pattern Recognition (CVPR 2007, 2008, 2009, 2011, 2012, 2014)
  - European Conference on Computer Vision (ECCV 2008, 2010, 2014)
  - o Conference on Neural Information Processing Systems (NIPS 2010, 2011, 2012, 2013, 2014)
  - o Conference on Energy Minimization Methods in Computer Vision (EMMCVPR 2009)
  - Graphicon (2008, 2009, 2010, 2011, 2012)
  - British Machine Vision Conference (BMVC 2009)
  - o Indian Conference on Computer Vision, Graphics, Image Processing (ICVGIP 2010)
- Regularly reviewing for journals (several papers each year):
  - o Transactions on Pattern Analysis and Machine Intelligence (TPAMI)
  - International Journal on Computer Vision (IJCV)
- Has also reviewed manuscripts for:
  - SIAM Journal on Imaging Sciences (SIIMS)
  - Journal on Signal Image and Video Processing
  - o Journal of Mathematical Imaging and Vision (JMIV)
  - Image and Vision Computing (IVC)
  - o Journal of Visual Communication and Image Representation (JVIC)
  - $\circ$  ~ IEEE Transactions on Transactions on Geoscience and Remote Sensing

#### Grants received

- Russian Ministry of Education and Science, 3 year grant for 2014-2016, 4.33 mln RUR (worth 135K USD at the moment of the call)
- Yandex PhD position award (half of the stipend + all other expenses)
- Yandex PhD position award (full stipend of a PhD student + all associated expenses)
- Quantum Systems (sponsored research on range data registration), 500K RUR
- Skoltech Innovation program award (~4.5 mln RUR over 1.5 years 2015-2016)
- CISCO research award (100K USD), awarded then withdrawn due to Russia-US tensions

## Publications – Top-tier conferences

#### (ICCV, CVPR, ECCV, NIPS, ICML MICCAI)

**Note:** in computer vision and biomedical image analysis, the proceedings of ICCV, CVPR, ECCV, NIPS, ICML and MICCAI conferences represent the main pathway for the dissemination of new research results. All entries correspond to full papers (passed through double-blind peer review).

- 1. Y. Ganin and V. Lempitsky. **Unsupervised Domain Adaptation by Backpropagation**, International Conference on Machine Learning (ICML), Lille, 2015
- 2. D. Kononenko and V. Lempitsky. Learning To Look Up: Realtime Monocular Gaze Correction Using Machine Learning, IEEE Computer Vision and Pattern Recognition (CVPR), Boston MA, 2015
- 3. A. Babenko and V. Lempitsky. **Tree Quantization for Large-Scale Similarity Search and Classification**, IEEE Computer Vision and Pattern Recognition (CVPR), Boston MA, 2015

- 4. A. Babenko, A. Slesarev, A. Chigorin and V. Lempitsky. **Neural Codes for Image Retrieval**, European Conference on Computer Vision (ECCV), Zurich, 2014
- 5. C. Arteta, V. Lempitsky, A. Noble, and A. Zisserman. Interactive Object Counting, European Conference on Computer Vision (ECCV), Zurich, 2014
- 6. A. Babenko, V. Lempitsky. Additive Quantization for Extreme Vector Compression, IEEE Computer Vision and Pattern Recognition (CVPR), Columbus OH, 2014 (*Acceptance ratio* = 29.9%)
- Y.Chai, V. Lempitsky, and A. Zisserman. Symbiotic Segmentation and Part Localization for Fine-Grained Categorization, IEEE International Conference on Computer Vision (ICCV), Sydney, 2013 (Acceptance ratio = 27.8%)
- C. Arteta, V. Lempitsky, A. Noble, and A. Zisserman. Learning to Detect Partially Overlapping Instances, IEEE Computer Vision and Pattern Recognition (CVPR), Portland OR, 2013 (Acceptance ratio = 25.2%)
- Y. Chai, E. Rahtu, V. Lempitsky, L. Van Gool, A. Zisserman. TriCoS: A Tri-level Class-Discriminative Co-Segmentation Method for Image Classification. European Conference on Computer Vision (ECCV), Florence, Italy, 2012. (Acceptance ratio = 27.4%)
- 10. T. Novikova, O. Barinova, P. Kohli, V. Lempitsky. Large-lexicon attribute-consistent text recognition in natural images. European Conference on Computer Vision (ECCV), Florence, Italy, 2012. (Acceptance ratio = 27.4%)
- C. Arteta, V. Lempitsky, A. Noble, A. Zisserman. Learning Non-overlapping Stable Regions to Detect Cells. Medical Image Computing and Computer Assisted Intervention (MICCAI'2012), Nice, France, 2012, (Acceptance ratio = 32.0%)
- 12. A. Babenko, V. Lempitsky. **The Inverted Multi-Index.** IEEE Computer Vision and Pattern Recognition (CVPR), pp. 3069 3076, Providence, RI, 2012. (*Acceptance ratio* = 24.3%)
- V. Lempitsky, A. Vedaldi, and A. Zisserman. Pylon Model for Semantic Segmentation. Advances in Neural Information Processing Systems (NIPS), 9 pp., Granada, Spain, 2011. (Acceptance ratio = 21.7%)
- Y. Chai, V. Lempitsky, and A. Zisserman. BiCoS: A Bi-level Co-Segmentation Method for Image Classification. International Conference on Computer Vision (ICCV), 8 pp., Barcelona, 2011, (Acceptance ratio = 24.0%)
- 15. V. Lempitsky, A. Zisserman. Learning to Count Objects in Images. Advances in Neural Information Processing Systems (NIPS), 9 pp., Vancouver, 2010. (Spotlight presentation / acceptance ratio = 6.0%)
- O. Barinova, V. Lempitsky, P. Kohli. On the Detection of Multiple Object Instances using Hough Transforms. IEEE Computer Vision and Pattern Recognition (CVPR), pp. 1-8, San Francisco, 2010. (Oral presentation / Acceptance ratio = 4.5%)
- V. Lempitsky. Surface Extraction from Binary Volumes with Higher-Order Smoothness. IEEE Computer Vision and Pattern Recognition (CVPR), pp. 1-8, San Francisco, 2010. (Acceptance ratio = 26.8%)
- 18. O. Barinova, V. Lempitsky, E. Tretiak, P. Kohli. **Geometric parsing in Man-Made Environments.** European Conference on Computer Vision (ECCV), Heraclion, Crete, 2010. (*Acceptance ratio* = 27.4%)
- V. Lempitsky, P. Kohli, C. Rother, and T. Sharp. Image Segmentation with A Bounding Box Prior. IEEE International Conference on Computer Vision (ICCV), Kyoto, 2009. (Oral presentation / Acceptance ratio = 3.1%)
- J. Gall and V. Lempitsky. Class-specific Hough Forests for Object Detection. IEEE Conference on Computer Vision and Pattern Recognition (CVPR), pp. 1-8, Miami, 2009. (Oral presentation / Acceptance ratio = 4.2%)
- V. Lempitsky, A. Blake, C. Rother. Image Segmentaion by Branch-and-Mincut. In Proc. European Conference on Computer Vision (ECCV), vol. 4, pp. 15-29, Marseille, 2008. (Oral presentation / Acceptance ratio = 4.6%)
- V. Lempitsky, S. Roth, C. Rother. Fusion Flow: Discrete-Continuous Optimization for Optical Flow Estimation. IEEE Conference on Computer Vision and Pattern Recognition (CVPR), pp. 1-8, Anchorage, 2008. (Acceptance ratio = 31.9%)
- V. Lempitsky, C. Rother, A. Blake. LogCut Efficient Graph Cut Optimization for Markov Random Fields. IEEE International Conference on Computer Vision (ICCV), pp. 1-8, Rio de Janeiro, Brazil, 2007. (Acceptance ratio = 23.5%)
- 24. V. Lempitsky and Y. Boykov. **Global Optimization for Shape Fitting.** IEEE Conference on Computer Vision and Pattern Recognition (CVPR), pp. 1-8, Minneapolis, 2007. (*Acceptance ratio* = 28.2%)

- V. Lempitsky and D. Ivanov. Seamless Mosaicing of Image-Based Texture Maps. In Proc. IEEE Conference on Computer Vision and Pattern Recognition (CVPR), pp. 1-6, Minneapolis, 2007. (Acceptance ratio = 28.2%)
- C. Rother, V. Kolmogorov, V. Lempitsky, M. Szummer. Optimizing binary MRFs via extended roof duality. In Proc. IEEE Conference on Computer Vision and Pattern Recognition (CVPR), pp. 1-8, Minneapolis, 2007. (Oral presentation / Acceptance ratio = 4.8%)
- V. Lempitsky, Y. Boykov, D. Ivanov. Oriented visibility for Multiview Reconstruction. In Proc. European Conference on Computer Vision (ECCV), vol. 3, pp. 225-237, Graz, 2006. (Acceptance ratio = 21.4%)

## **Publications – Journals**

- A. Kuzmin, A. Zakrzewski, B. Anthony, and V. Lempitsky. Multi-frame Elastography Using Handheld Force-Controlled Ultrasound Probe. IEEE Transactions on Ultrasonics, Ferroelectrics and Frequency Control, accepted (JCR impact-factor = 1.503).
- 29. C. Arteta, V. Lempitsky, A. Noble, and A. Zisserman. **Detecting Overlapping Instances in Microscopy Images Using Extremal Region Trees**, Medical Image Analysis, accepted (*JCR impact-factor* = 3.681).
- 30. A. Babenko and V. Lempitsky. **The Inverted Multi-Index**, IEEE Transactions on Pattern Analysis and Machine Intelligence (TPAMI), accepted *(JCR 2010 impact-factor = 5.308)*.
- O. Barinova, V. Lempitsky, P. Kohli. On the Detection of Multiple Object Instances using Hough Transforms. IEEE Transactions on Pattern Analysis and Machine Intelligence (TPAMI), vol. 34, No. 9, pp. 1773-1784, 2012. (JCR 2010 impact-factor = 5.308, invited to the special issue for best papers of CVPR'2010)
- V. Lempitsky, A. Blake, C. Rother. Branch-and-Mincut: Global Optimization for Image Segmentation with High-Level Priors. Journal of Mathematical Imaging and Vision (JMIV), vol. 44, No. 3, pp. 315-329, 2012 (JCR 2010 impact-factor = 1.285)
- 33. E. Tretiak, O. Barinova, P. Kohli, V. Lempitsky. **Geometric Parsing in Man-Made Environments.** International Journal of Computer Vision (IJCV), vol. 97, No. 3, pp. 305-321, 2012. (*JCR 2010 impact-factor* = 5.151)
- 34. J. Gall, A. Yao, N. Razavi, L. Van Gool, V. Lempitsky. Hough Forests for Object Detection, Tracking, and Action Recognition. IEEE Transactions on Pattern Analysis and Machine Intelligence (TPAMI), vol. 33, No. 11, 2188-2202, 2011. (JCR 2010 impact-factor = 5.308. Selected as a spotlight paper for the November 2011 issue)
- V. Lempitsky, C. Rother, S. Roth, A. Blake. Fusion Move for Markov Random Field Optimization. IEEE Transactions on Pattern Analysis and Machine Intelligence (TPAMI), vol. 32, no. 8, pp. 1392-1405, August, 2010. (JCR 2010 impact-factor = 5.308)
- 36. V.S. Lempitskii, Minimal graph cuts on network subgraphs, Uspekhi Matematicheskih Nauk (Communications of Moscow Mathematical Society), 62:4(376) (2007), 165–166. (JCR 2010 impact-factor = 0.496)
- V. Zhislina, D. Ivanov, V. Kuriakin, V. Lempitsky, E. Martinova, K. Rodyushkin, T. Firsova, A. Khropov, A. Shokurov: Creating and Animating Personalized Head Models from Digital Photographs and Video. Programming and Computer Software 30(5): 242-257 (2004). (*JCR 2010 impact-factor = 0.145*)

## Publications – Edited volume

- Boykov, Y.; Kahl, F.; Lempitsky, V.; Schmidt, F.R. (Eds.) Energy Minimization Methods in Computer Vision and Pattern Recognition (Proceedings of 8th International Conference, EMMCVPR 2011, St. Petersburg, Russia). Series: Lecture Notes in Computer Science, Vol. 6819. Springer, 2011
- 39. Yuri Boykov, Fredrik Kahl, Victor S. Lempitsky, Frank R. Schmidt: **Guest Editorial: Energy Optimization Methods**. International Journal of Computer Vision 104(3): 221-222 (2013)

## Publications – Book chapters

- 40. J. Gall, V. Lempitsky, **Class-specific Hough Forests for Object Detection.** Invited chapter in "Decision Forests for Classification, Regression, Density Estimation, Manifold Learning and Semi-Supervised Learning", A. Criminisi, J. Shotton, E. Konukoglu (eds.), Springer (*to appear*)
- 41. V. Lempitsky, A. Blake, C. Rother. **Exact optimization for Markov Random Fields with global parameters.** Invited chapter in "Advances in Markov Random Fields for Vision and Image Processing", A.Blake, P.Kohli, C. Rother (eds.), MIT Press, 2011.
- 42. V. Lempitsky, C. Rother, S. Roth, A. Blake. **Fusion Move for Markov Random Field Optimization.** Invited chapter in "Advances in Markov Random Fields for Vision and Image Processing", A.Blake, P.Kohli, C. Rother (eds.), MIT Press, 2011.

#### Publications – Biomedical imaging conferences

- 43. G. Flaccavento, V. Lempitsky, I. Pope, P. Barber, A. Zisserman, A. Noble, B. Vojnovic. Learning to Count Cells: Applications to Lens-free Imaging of Large Fields. Workshop on Microscopic Image Analysis with Applications in Biology (MIAAB), Heidelberg, Germany, 2011.
- 44. V. Lempitsky, M. Verhoek, A. Noble, A. Blake. Random Forest Classication for Automatic Delineation of Myocardium in Real-time 3D Echocardiography. In Proc. International Symposium on Functional Imaging and Modeling of the Heart (FIMH), Nice, France, 2009. (Oral presentation / best paper award).

#### Publications – Other refereed publications

- 45. Y. Ganin and V. Lempitsky. N^4-Fields: Neural Network Nearest Neighbor Fields for Image Transforms, Asian Conference on Computer Vision (ACCV), oral presentation (4% acceptance rate), 2014
- 46. Sergey Milyaev, Olga Barinova, Tatiana Novikova, Pushmeet Kohli and Victor Lempitsky. **Image binarization for end-to-end text understanding in natural images**, International Conference on Document Analysis and Recognition (ICDAR), Washington DC, 2013
- 47. V. Gulshan, V. Lempitsky, and A. Zisserman. Humanising GrabCut: Learning to Segment humans Using the Kinect. Workshop on Consumer Depth Cameras for Computer Vision, Barcelona, 2011
- 48. K. Chatfield, V. Lempitsky, A. Vedaldi, and A. Zisserman. **The Devil Is in the Details: an Evaluation of Recent Feature Encoding Methods.** British Machine Vision Conference (BMVC), Dundee, 2011 (*best poster honourable mention*)
- 49. P. Kohli, V. Lempitsky, and C. Rother. **Uncertainty Driven Multi-Scale Optimization**. in Proc. of the Annual Symposium German Association for Pattern Recognition (DAGM), 2010.
- 50. Roth, S., Lempitsky, V., and Rother, C. 2009. **Discrete-Continuous Optimization for Optical Flow Estimation.** In Proc. Statistical and Geometrical Approaches To Visual Motion Analysis: international Dagstuhl Seminar, 2008.
- 51. Y. Boykov and V. Lempitsky. Form Photohulls to Photoflux Optimization. In proc. British Machine Vision Conference (BMVC), vol.3, pp.1149-1158, Edinburgh, UK, September 2006.
- 52. D. Ivanov, Ye. Kuzmin, V. Lempitsky. **Modeling with Spatial Patches.** In Proc. IEEE International Conference on Shape Modeling and Applications (SMI), pp. 75-82, Banff, Canada, May 2002.
- 53. V. Lempitsky, D. Ivanov, and Ye. Kuzmin. **Texturing Calibrated Head Model from Images.** Short paper proc. of EuroGraphics, September 2002, pp. 281-288.
- 54. V.Lempitsky, D.Ivanov, A.Shokurov, Ye.Fedotov and Ye.Kuzmin. **ImagiCAD: Experimental Image Based Modeling System.** GraphiCon-2005 Proc., Novosibirsk, pp. 29-34
- 55. A. Khropov, A. Shokurov, V. Lempitsky, and D. Ivanov. **Reconstruction of projective and metric** cameras for image triplets. GraphiCon-2004 Proc., pp. 143-146.
- 56. D. Ivanov, V. Lempitsky, A. Shokurov , A. Khropov, and Ye. Kuzmin. **Creating Personalized Head Models from Image Series.** GraphiCon-2003 Proc., pp. 93-99, 2003.
- 57. V. Lempitsky, D. Ivanov and Ye. Kuzmin. **High-Quality Head Model Calibration Pipeline.** Graphicon-2002 Proc., September 2002.

58. V. Lempitsky, D. Ivanov, and Ye. Kuzmin. Adaptive Ray Tracing on Spatial Patches. GraphiCon-2001 Proc., 2001, pp. 47-53.

## Patents

5 US patents: 20110164819, 20080310743, 20110007933, 20100322525, 20100128984 1 Russian pattern application

# **Teaching Experience**

- Spring 2015 A course on representation and deep learning, Skolkovo Institute of Science and Technology
- Spring 2014 A course on large-scale computer vision, Skolkovo Institute of Science and Technology
- Fall 2013, Fall 2014 A course on optimization methods, Skolkovo Institute of Science and Technology
- Spring 2013 A course on **optimization methods**, **Massachusetts Institute of Technology** (jointly with *B. Anthony*)
- Fall 2012, Fall 2013 A course on Graphical Models at Yandex Data Analysis School (jointly with D. Vetrov)
- Fall 2011 A course on Structured Output Inference and Learning at Yandex Data Analysis School
- December 2011 invited tutorial on Structured Output Inference and Learning at the University of Oulu (a shortened version of the above, 8 hours in three days).
- September 2011 A mini-course on **Graph Algorithms in Computer Vision** at the Graphicon-2011 conference at **Moscow State University** (4 hours).
- May 2010 A mini-course on **Graph Algorithms in Computer Vision** at **Computer Science Club** PDMI RAS, Saint-Petersburg (5 hours).
- August 2001 Mini-course on computer graphics (**rendering**) for high school students at a multidisciplinary summer school.

# Talks, Presentations, Media

- Invited talk at the Heidelberg Workshop on Graphical Models, 2015 (scheduled)
- Talk at the "Workshop on Recent Trends in Computer Vision", Boston University, 2015
- Invited plenary talk at "Yet Another Conference" (YAC), Moscow, 2014
- Talk at Broad Institute of Harvard-MIT, Cambridge MA, 2013
- Talk at MIT seminar on computer vision, Cambridge MA, 2013
- Invited talk at "Second Workshop on Fine-Grained Visual Categorization", CVPR 2013, Portland OR, 2013
- Invited talk at École polytechnique fédérale de Lausanne(Computer vision group), Switzerland, 2012
- Invited talk at the Heidelberg University (Collaboratory for Image Processing), Germany, 2012
- Invited talk at "WebVision: The Workshop on Computer Vision for the Web", ECCV 2012 workshop, Florence, Italy, 2012
- Talk on "Writing a Computer Vision Paper", Computer Vision Summer School, Moscow, 2011
- Invited talk at Microsoft Research, Cambridge, UK, 2011
- Invited talk at the University of Bristol, UK, 2011
- Invited talk at IMT Lucca, Italy, 2011
- Invited talk at Computer Vision Colloquium, CMP Prague, 2010
- Invited talk in the series on "Information Retrieval and Data Analysis", Yandex-Microsoft Research, Moscow, 2010
- Talk at Microsoft Research Cambridge, 2006
- Presentations at the reading groups, Oxford University, 2009-2011
- Research presentations at Microsoft Research Cambridge 2007-2009

- Talks at research seminars, Moscow State University, 2007, 2008, 2009, 2010
- «Science 2.0» TV-show at channel «Russia 24», 2010

# Extra info

Date of birth: August, 5th, 1982

Languages spoken: Russian (native), English (fluent), French (basic).

**Programming languages/environments:** MATLAB (+various toolboxes), Python/NumPy, C/C++ (+OpenCV), Lua/Torch7

Publishing/presentation tools: LaTeX/pdfLaTeX, Microsoft PowerPoint.

References available on request