

## LIST OF PUBLICATIONS

**Sergey Nikolenko, Ph.D., Steklov Institute of Mathematics at St. Petersburg**

### **Journal papers**

1. K. Khrabrov, I. Shenbin, A. Ryabov, A. Tsypin, A. Telepov, A. Alekseev, A. Grishin, P. Strashnov, P. Zhilyaev, S.I. Nikolenko, A. Kadurin. nablaDFT: Large-Scale Conformational Energy and Hamiltonian Prediction benchmark and dataset. *Physical Chemistry Chemical Physics*, vol. 24, 2022, pp. 25853–25863
2. Q. Yang, A. Farseev, S.I. Nikolenko, A. Filchenkov. Do we behave differently on Twitter and Facebook: Multi-view social network user personality profiling for content recommendation. *Frontiers in Big Data*, vol. 5, 2022, pp. 931206.
3. I. Makarov, M. Bakhanova, S.I. Nikolenko, O. Gerasimova. Self-supervised recurrent depth estimation with attention mechanisms. *PeerJ Computer Science*, vol. 8, pp. e865, 2022.
4. A. Sokolova, A. Savchenko, S.I. Nikolenko. Open-set face identification with automatic detection of out-of-distribution images. *Computer Optics*, vol. 46, no. 5, 2022, pp. 801–807.
5. A. Davydow, P. Chuprikov, S.I. Nikolenko, K. Kogan. Competitive buffer management for packets with latency constraints. *Computer Networks*, vol. 189, no. 22, Article ID 107942, 2021
6. P. Chuprikov, A. Davydow, K. Kogan, S.I. Nikolenko, A.V. Siroткин. Formalization and taxonomy of compute-aggregate problems for cloud computing applications. *Computer Networks*, vol. 189, no. 22, Article ID 107915, 2021
7. E. Tutubalina, S.I. Nikolenko. Topic Models with Sentiment Priors Based on Distributed Representations. To appear in *Journal of Mathematical Sciences*. Russian version: *Zapiski nauchnyh seminarov POMI*, vol. 499, 2021, pp. 284–301.
8. R. Galinsky, A. Alekseev, S.I. Nikolenko. Word-based Russian text augmentation for character-level models. To appear in *Journal of Mathematical Sciences*. Russian version: *Zapiski nauchnyh seminarov POMI*, vol. 499, 2021, pp. 206–221.
9. E. Arkhangelskaya, S.I. Nikolenko. Deep Learning for Natural Language Processing: A Survey. To appear in *Journal of Mathematical Sciences*. Russian version: *Zapiski nauchnyh seminarov POMI*, vol. 499, 2021, pp. 137–205.
10. A. Alekseev, S.I. Nikolenko. Recovering Word Forms by Context for Morphologically Rich Languages. To appear in *Journal of Mathematical Sciences*. Russian version: *Zapiski nauchnyh seminarov POMI*, vol. 499, 2021, pp. 129–136.
11. L. Rappez, A. Rakhlin, A. Rigopoulos, S.I. Nikolenko, T. Alexandrov. DeepCycle reconstructs a cyclic cell cycle trajectory from unsegmented cell images using convolutional neural networks. *Molecular Systems Biology*, vol. 16, no. 10, 2020, pp. E9474
12. K. Kogan, D. Menikkumbura, G. Petri, Y. Noh, S.I. Nikolenko, A.V. Siroткин, P. Eugster. Towards Software-Defined Buffer Management. *IEEE Transactions on Networking*, vol. 28, no. 5, 2020, pp. 2337–2349

13. P. Chuprikov, S.I. Nikolenko, K. Kogan. Towards Declarative Self-Adapting Buffer Management. ACM SIGCOMM Computer Communication Review, vol. 50, no. 3, 2020, pp. 30–37
14. D. Polykovskiy, A. Zhebrak, B. Sanchez-Lengeling, S. Golovanov, O. Tatanov, S. Belyaev, R. Kurbanov, A. Artamonov, V. Aladinskiy, M. Veselov, A. Kadurin, S. Johansson, H. Chen, S. Nikolenko, A. Aspuru-Guzik, and A. Zhavoronkov. Molecular Sets (MOSES): A Benchmarking Platform for Molecular Generation Models. *Frontiers in Pharmacology*, vol. 11, 2020, Article ID 1931.
15. V. Demianiuk, S.I. Nikolenko, P. Chuprikov, K. Kogan. New Alternatives to Optimize Policy Classifiers. *IEEE Transactions on Networking*, vol. 28, no. 3, 2020, pp. 1088–1101
16. R. Shayakhmetov, M. Kuznetsov, A. Zhebrak, A. Kadurin, I. Baskov, S.I. Nikolenko, A. Aliper, D. Polykovskiy. Molecular Generation for Desired Transcriptome Changes with Adversarial Autoencoders. *Frontiers in Pharmacology*, vol. 11, Article ID 269, 2020
17. K. Ovchinnikova, A. Rakhlin, L. Stuart, S.I. Nikolenko, T. Alexandrov. ColocML: Machine learning quantifies co-localization between mass spectrometry images. *Bioinformatics*, Article ID btaa085, 2020
18. P. Chuprikov, S.I. Nikolenko, K. Kogan, A. Davydow. Priority Queueing for Packets with Two Characteristics. *IEEE Transactions on Networking*, vol. 26, no. 1, 2018, pp. 342–355
19. P. Eugster, A. Kesselman, K. Kogan, S.I. Nikolenko, A.V. Sirotkin. Admission Control in Shared Memory Switches. *Journal of Scheduling*, vol. 21, no. 5, 2018, pp. 533–543
20. E. Tutubalina, Z. Miftakhutdinov, S.I. Nikolenko, V. Malykh. Medical Concept Normalization in Social Media Posts with Recurrent Neural Networks. *Journal of Biomedical Informatics*, vol. 84, 2018, pp. 217
21. E. Tutubalina, S.I. Nikolenko. Exploring convolutional neural networks and topic models for user profiling from drug reviews. *Multimedia Tools and Applications*, vol. 77, no. 4, 2018, pp. 4791–4809
22. D. Kuzminykh, D. Polykovskiy, A. Kadurin, A. Zhebrak, I. Baskov, S.I. Nikolenko, R. Shayakhmetov, A. Zhavoronkov. 3D Molecular Representations Based on the Wave Transform for Convolutional Neural Networks. *Molecular Pharmaceutics*, vol. 15, no. 10, 2018, pp. 4378–4385
23. R. Nugmanov, E. Tutubalina, Z. Miftakhutdinov, T. Madzhidov, S.I. Nikolenko, I. Alimova, A. Tropsha. Exploring semantic analysis of biomedical texts for identification of drugs with similar therapeutic effects. *European Journal of Clinical Investigation*, vol. 48, no. 1, SI, 2018, pp. 217
24. K. Kogan, S.I. Nikolenko, P. Eugster, A. Shalimov, O. Rottenstreich. Efficient FIB Representations on Distributed Platforms. Accepted to *IEEE Transactions on Networking*, 2017.
25. P. Eugster, K. Kogan, S.I. Nikolenko, A.V. Sirotkin. Heterogeneous Packet Processing in Shared Memory Buffers. Published online ahead of print, *Journal of Parallel and Distributed Computing*, 2017.
26. A. Palmer, P. Phapale, I. Chernyavsky, R. Lavigne, D. Fay, A. Tarasov, V. Kovalev, J. Fuchser, S.I. Nikolenko, C. Pineau, M. Becker, T. Alexandrov. FDR-controlled metabolite annotation for high-resolution imaging mass spectrometry. *Nature Methods*, vol. 14,

- 2017, pp. 57–60.
- 27. A. Kadurin, S.I. Nikolenko, K. Khrabrov, A. Aliper, A. Zhavoronkov. druGAN: An Advanced Generative Adversarial Autoencoder Model for de Novo Generation of New Molecules with Desired Molecular Properties in Silico. *Molecular Pharmaceutics*, vol. 14, no. 9, 2017, pp. 3098–3104.
  - 28. K. Kogan, A. Lòpez-Ortiz, S.I. Nikolenko, A.V. Sirotkin. The Impact of Processing Order on Performance: A Taxonomy of Semi-FIFO Policies. *Journal of Computer and System Sciences*, vol. 88, 2017, pp. 220–235
  - 29. E. Tutubalina, S.I. Nikolenko. Combination of Deep Recurrent Neural Networks and Conditional Random Fields for Extracting Adverse Drug Reactions from User Reviews. *Journal of Healthcare Engineering*, vol. 2017, Article ID 9451342, 2017, 9 pp.
  - 30. S. Bodrunova, O. Koltsova, S. Koltsov, S.I. Nikolenko. Who's Bad? Attitudes Toward Resettlers From the Post-Soviet South Versus Other Nations in the Russian Blogosphere. *International Journal of Communication*, vol. 11, 2017, pp. 3242–3264.
  - 31. S.I. Nikolenko, O. Koltsova, S. Koltsov. Topic Modelling for Qualitative Studies. *Journal of Information Science*, vol. 43, no. 1, 2017, pp. 88–102.
  - 32. A. Alekseyev, S.I. Nikolenko. Word Embeddings of User Profiling in Online Social Networks. *Computación y Sistemas*, vol. 21, no. 2, 2017, pp. 203–226.
  - 33. E. Tutubalina, S.I. Nikolenko. Demographic Prediction based on User Reviews about Medications. *Computación y Sistemas*, vol. 21, no. 2, 2017, pp. 227–241.
  - 34. K. Kogan, A. Lòpez-Ortiz, S.I. Nikolenko, G. Scalosub, M. Segal. Large profits or fast gains: A Dilemma in Maximizing Throughput with Applications to Network Processors. *Journal of Network and Computer Applications*, vol. 74, 2016, pp. 31–43.
  - 35. S. Koltsov, S.I. Nikolenko, O. Koltsova. Gibbs sampler optimization for analysis of a granulated medium. *Technical Physics Letters*, vol. 42, no. 8, Springer, 2016, pp. 837–839
  - 36. K. Kogan, S.I. Nikolenko, O. Rottenstreich, W. Culhane, P. Eugster. Exploiting Order Independence for Scalable and Expressive Packet Classification. *IEEE Transactions on Networking*, vol. 24, no. 2, 2016, pp. 1251–1264.
  - 37. K. Kogan, A. Lòpez-Ortiz, S.I. Nikolenko, A.V. Sirotkin. Online Scheduling FIFO Policies with Admission and Push-Out. *Theory of Computing Systems*, vol. 58, no. 2, 2016, pp. 322–344.
  - 38. D. Ignatov, S.I. Nikolenko, T. Abaev, J. Poelmans. Online Recommender System for Radio Station Hosting Based on Information Fusion and Adaptive Tag-Aware Profiling. *Expert Systems with Applications*, vol. 55, pp. 546–558, 2016.
  - 39. O. Koltsova, S. Koltsov, S.I. Nikolenko. Communities of co-commenting in the Russian LiveJournal and their topical coherence. *Internet Research*, vol. 26, no. 3, 2016, pp. 710–732.
  - 40. M. Apishev, S. Koltsov, O. Koltsova, S.I. Nikolenko, K. Vorontsov. Mining Ethnic Content Online with Additively Regularized Topic Models. *Computacion y Sistemas*, vol. 20, no. 3, 2016, pp. 387–403.
  - 41. S. Koltsov, S.I. Nikolenko, O. Koltsova. Gibbs sampler optimization for analysis of a granulated medium. *Technical Physics Letters*, vol. 42, no. 8, Springer, 2016, pp. 837–839

42. R. Leon-Zayas, M. Novotny, S. Podell, C. Shepard, E. Berkenpas, S.I. Nikolenko, P.A. Pevzner, E. Lasken, D. Bartlett. Single Cells within the Puerto Rico Trench Suggest Hadal Adaptation of Microbial Lineages. *Applied and Environmental Microbiology*, vol. 81, no. 24, 2015, pp. 8265–8276.
43. T. Alexandrov, I. Chernyavsky, M. Becker, F. von Eggeling, S.I. Nikolenko. Analysis and Interpretation of Imaging Mass Spectrometry Data by Clustering Mass-to-Charge Images According to Their Spatial Similarity. *Analytical Chemistry*, vol. 85 (23), pp. 11189–11195, 2013.
44. S.I. Nikolenko, A.I. Korobeynikov, M.A. Alekseyev. BayesHammer: Bayesian clustering for error correction in single-cell sequencing. *BMC Genomics*, vol. 14, Suppl. 1, S7, 2013.
45. S.I. Nikolenko, D. Tugaryov. A Complete One-Way Function based on a Finite Rank Free ( $Z \times Z$ )-module. *Journal of Mathematical Sciences*, vol. 192, no. 3, pp. 307–315, 2013. Russian version: *Zapiski nauchnyh seminarov POMI* (Journal of Mathematical Sciences), vol. 402, 2012, pp. 91–107.
46. A.P. Davydow, S.I. Nikolenko. Circuit Complexity of Linear Functions: Gate Elimination and Feeble Security. *Journal of Mathematical Sciences*, vol. 188, no. 1, pp. 35–43, 2013. Russian version: *Zapiski nauchnyh seminarov POMI* (Journal of Mathematical Sciences), vol. 399, 2012, pp. 65–87.
47. E.A. Hirsch, O. Melanich, S.I. Nikolenko. Feebly Secure Cryptographic Primitives. *Journal of Mathematical Sciences*, vol. 188, no. 1, pp. 17–34, 2013. Russian version: *Zapiski nauchnyh seminarov POMI* (Journal of Mathematical Sciences), vol. 399, 2012, pp. 32–64.
48. D.Yu. Grigoriev, S.I. Nikolenko. Continuous hard-to-invert functions and biometric authentication. *Groups – Complexity – Cryptology*, vol. 4, no. 1, pp. 19–32, 2012.
49. E.A. Hirsch, O. Melanich, S.I. Nikolenko. Feebly Secure Cryptographic Primitives. *Journal of Mathematical Sciences*, vol. 188, no. 1, pp. 17–34, 2013. Russian version: *Zapiski nauchnyh seminarov POMI* (Journal of Mathematical Sciences), vol. 399, 2012, pp. 32–64.
50. A.P. Davydow, S.I. Nikolenko. Circuit Complexity of Linear Functions: Gate Elimination and Feeble Security. *Journal of Mathematical Sciences*, vol. 188, no. 1, pp. 35–43, 2013. Russian version: *Zapiski nauchnyh seminarov POMI* (Journal of Mathematical Sciences), vol. 399, 2012, pp. 65–87.
51. A. Bankevich, S. Nurk, D. Antipov, A.A. Gurevich, M. Dvorkin, A.S. Kulikov, V.M. Lesin, S.I. Nikolenko, S. Pham, A.D. Prjibelski, A.V. Pyshkin, A.V. Sirotkin, N. Vyahhi, G. Tesler, M.A. Alekseyev, and P.A. Pevzner. SPAdes: A New Genome Assembly Algorithm and Its Applications to Single-Cell Sequencing. *Journal of Computational Biology*, May 2012, vol. 19, no. 5, pp. 455–477.
52. S. I. Nikolenko, N. Semenov, K. Zainoulline. Motivic decomposition of anisotropic varieties of type F4 into generalized Rost motives. *Journal of K-Theory*, vol. 3, 2009, pp. 85–102.
53. A. Kojevnikov, S.I. Nikolenko. On Complete One-Way Functions. *Problems of Information Transmission*, vol. 45, no. 2, 2009, pp. 101–118.
54. C. A. Pshenichny, S. I. Nikolenko, R. Carniel, P. A. Vaganov, Z. V. Khrabrykh, V. P.

- Moukhachov, V. L. Akimova-Shterkhun, A. A. Rezyapkin. The Event Bush as a Semantic-based Numerical Approach to Natural Hazard Assessment (Exemplified by Volcanology). Computers and Geosciences, vol. 35, issue 5, May 2009, pp. 1017-1034. doi:10.1016/j.cageo.2008.01.009
55. E. A. Hirsch, A. Kojevnikov, A. S. Kulikov, S. I. Nikolenko. Complexity of Semialgebraic Proofs with Restricted Degree of Falsity. Journal of Satisfiability, vol. 6, pp. 53-69, 2008.
  56. D.Yu. Grigoriev, A. Kojevnikov, S.I. Nikolenko. Algebraic Cryptography: New Constructions and Their Security against Provable Break. St. Petersburg Mathematical Journal, vol. 20, no. 6, 2008, pp. 119-147. Russian version: Algebra i analiz, vol. 20, no. 6, pp. 119-147.
  57. N.A. Vavilov, S.I. Nikolenko. A2-proof of structure theorems for Chevalley groups of type F4, St. Petersburg Mathematical Journal, vol 20, no. 4, 2009, pp. 527-551. Russian version: Algebra i Analiz, vol. 20, no. 4, 2008, pp. 27-63.
  58. M.R. Gavrilovich, S.I. Nikolenko, N.A. Vavilov. Structure of Chevalley Groups: the Proof from the Book. Journal of Mathematical Sciences, vol. 140, no. 5, 2007, pp. 626-645. Russian version: Zapiski nauchnyh seminarov POMI, vol. 330, 2006, pp. 36-76.
  59. S.I. Nikolenko. Hard satisfiable instances for DPLL-type algorithms. Journal of Mathematical Sciences, vol. 293, p. 139-149, 2003. Russian version: Zapiski nauchnyh seminarov POMI, vol. 293, pp. 139-148.

## **Books and textbooks**

60. S. I. Nikolenko. Synthetic Data for Deep Learning. Springer, 2021. 348 p.
61. A. L. Tulupyev, S. I. Nikolenko, A. V. Sirotkin. Fundamentals of Bayesian network theory. Textbook. St. Petersburg: St. Petersburg State University Press, 2019 (in Russian). 399 p.
62. S. I. Nikolenko, A. A. Kadurin, E. O. Arkhangelskaya. Deep Learning. St. Petersburg: Piter, 2018 (in Russian).
63. A.L. Tulupyev, S.I. Nikolenko, A.V. Sirotkin. Bayesian Networks: A Probabilistic Logic Approach. St.-Petersburg, Nauka, 2006 (in Russian). 604 p.
64. S.I. Nikolenko, A.L. Tulupyev. Learning Systems. Moscow, MCCME Press, 2009 (in Russian). 288 p.
65. A. L. Tulupyev, S. I. Nikolenko, A. V. Sirotkin. Bayesian Belief Networks: Logical-Probabilistic Inference in Acyclic Directed Graphs. St.-Petersburg State University Publishing, 2009 (in Russian). 400 p.
66. S. I. Nikolenko. Provably Secure Constructions in Cryptography. Lambert Academic Publishing, 2011.
67. S.I. Nikolenko. Mechanism design theory. Moscow, INTUIT, 2009 (in Russian). 207 p.
68. S.I. Nikolenko, A.L. Tulupyev. Machine learning: a textbook. St. Petersburg, SPSU IFMO, 2008. 221 p.
69. S.I. Nikolenko, A.L. Tulupyev. Machine learning: a textbook. Material for self-education. St. Petersburg, SPSU IFMO, 2008. 252 p.
70. S.I. Nikolenko, A.L. Tulupyev. Machine learning: a textbook. Practical exercises. St. Petersburg, SPSU IFMO, 2008. 116 p.

71. S.I. Nikolenko, E.O. Stepanov. Mathematical logic and the theory of algorithms: a textbook. St. Petersburg, SPSU IFMO, 2008. 176 p.
72. S.I. Nikolenko, E.O. Stepanov. Mathematical logic and the theory of algorithms: a textbook. Material for self-education. St. Petersburg, SPSU IFMO, 2008. 119 p.
73. S.I. Nikolenko, E.O. Stepanov. Mathematical logic and the theory of algorithms: a textbook. Practical exercises. St. Petersburg, SPSU IFMO, 2008. 56 p.

## **Book chapters**

74. L.N. Tuzova, D.V. Tuzoff, S.I. Nikolenko, A.S. Krasnov. Teeth and Landmarks Detection and Classification Based on Deep Neural Networks. Computational Techniques for Dental Image Analysis, IGI Global, 2019, pp. 129–150.
75. S.I. Nikolenko, K. Kogan. Single and Multiple Buffer Processing. Encyclopaedia of Algorithms, Springer, 2014, pp. 1–9.
76. S.I. Nikolenko. Provably secure cryptographic constructions. In J. Sen (ed.), Cryptography and Security in Computing, InTech publishing, 2012, pp. 3-22.
77. G.E. Mints, S.I. Nikolenko. History of the Leningrad (St. Petersburg) School of Constructive Mathematics and Proof Theory. Logic in Central and Eastern Europe: History, Science and Discourse. University Press of America, 2011, pp. 380–387.
78. S.I. Nikolenko. The Markov School in the 21st Century. Logic in Central and Eastern Europe: History, Science and Discourse. University Press of America, 2011, pp. 388–427.

## **Patents**

79. E. Tutubalina, S.I. Nikolenko. Topic models with sentiment priors based on distributed representations. Patent no. US11379668B2, 2022. Granted on July 5, 2022.
80. G. Sterkin, I. Anokhin, T. Khakhulin, A. Kharlamov, D. Korzhenkov, V. Lempitsky, S.I. Nikolenko, A. Silvestrov, P. Solovev. Plausible dayscale timelapse generation method and computing device. Patent no. WO2021096191A1, 2021. Patent no. US20220270304A1, 2022.
81. S.I. Nikolenko, Y. Behzadi. System and method for adaptive generation using feedback from a trained model. Patent no. US20200320351A1, 2020
82. S.I. Nikolenko, Y. Behzadi. System and method for domain adaptation using synthetic data. Patent no. US20200320347A1, 2020
83. P. Ostyakov, R. Suvorov, E. Logacheva, O. Khomenko, S.I. Nikolenko. Joint unsupervised object segmentation and inpainting. Patent no. WO2020101246A1, 2020.

## **Proceedings of international conferences**

84. E. Tulchinskii, K. Kuznetsov, L. Kushnareva, D. Cherniavskii, S.I. Nikolenko, I. Piontkovskaya, S. Barannikov, E. Burnaev. Intrinsic Dimension Estimation for Robust Detection of AI-Generated Texts. Proceedings of the 37th Conference on Neural Information Processing Systems (NeurIPS 2023), 2023

85. E. Tulchinskii, K. Kuznetsov, L. Kushnareva, D. Cherniavskii, S. Barannikov, I. Piontkovskaya, S.I. Nikolenko, E. Burnaev. Topological Data Analysis for Speech Processing. Proceedings of the 24th INTERSPEECH (INTERSPEECH 2023), 2023, pp. 311–315
86. K. Yakovlev, A. Podolskiy, A. Bout, S.I. Nikolenko, I. Piontkovskaya. GEC-DePenD: Non-Autoregressive Grammatical Error Correction with Decoupled Permutation and Decoding. Proceedings of the 61st Annual Meeting of the Association for Computational Linguistics (Volume 1: Long Papers) (ACL 2023), 2023, pp. 1546–1558
87. D. Abulkhanov, N. Sorokin, S.I. Nikolenko, V. Malykh. LAPCA: Language-Agnostic Pretraining with Cross-Lingual Alignment. Proceedings of the 46th International ACM SIGIR Conference on Research and Development in Information Retrieval (SIGIR 2023), 2023, pp. 2098–2102
88. K. Yakovlev, G. Polyakov, I. Alimova, A. Podolskiy, A. Bout, S.I. Nikolenko, I. Piontkovskaya. Sinkhorn Transformations for Single-Query Postprocessing in Text-Video Retrieval. Proceedings of the 46th International ACM SIGIR Conference on Research and Development in Information Retrieval (SIGIR 2023), 2023, pp. 2394–2398
89. A. Alekseev, S.I. Nikolenko, G. Kabaeva. Benchmarking Multi-Label Topic Classification in Kyrgyz Language. Proceedings of the The 11th International Conference on Analysis of Images, Social Networks and Texts (AIST 2023)
90. V. Lomshakov, S. Kovalchuk, M. Omelchenko, S.I. Nikolenko, A. Aliev. Fine-Tuning Large Language Models for Answering Programming Questions with Code Snippets. Proceedings of the International Conference on Computational Science 2023 (ICCS 2023), 2023, pp. 171–179
91. Q. Yang, C. Tzelepis, S.I. Nikolenko, I. Patras, A. Farseev. "Just To See You Smile": SMILEY, a Voice-Guided GAN. Proceedings of the Sixteenth ACM International Conference on Web Search and Data Mining (WSDM 2023), 2023, pp. 1196–1199
92. A. Huang, Q. Yang, S.I. Nikolenko, M. Ongpin, I. Gossoudarev, N.Y. Duong, K. Lepikhin, S. Vishnyakov, Y. Chu-Farseeva, A. Farseev. SoCraft: Advertiser-level Predictive Scoring for Creative Performance on Meta. Proceedings of the Sixteenth ACM International Conference on Web Search and Data Mining (WSDM 2023), 2023, pp. 1132–1135
93. A. Alekseev, Z. Miftakhutdinov, E. Tutubalina, A. Shelmanov, V. Ivanov, V. Kokh, A. Nesterov, M. Avetisian, A. Chertok, S.I. Nikolenko. Medical Crossing: a Cross-lingual Evaluation of Clinical Entity Linking. Proceedings of the Thirteenth Language Resources and Evaluation Conference (LREC 2022), 2022, pp. 4212–4220
94. Q. Yang, S.I. Nikolenko, A. Huang, A. Farseev. Personality-Driven Social Multimedia Content Recommendation. Proceedings of the 30th ACM International Conference on Multimedia (MM 2022), 2022, pp. 7290–7299
95. A. Nesterov, G. Zubkova, Z. Miftakhutdinov, V. Kokh, E. Tutubalina, A. Shelmanov, A. Alekseev, M. Avetisian, A. Chertok, S.I. Nikolenko. RuCCoN: Clinical Concept Normalization in Russian. Findings of the Association for Computational Linguistics: ACL 2022, pp. 239–245
96. A. Davydow, S.I. Nikolenko, V. Demianiuk, P. Chuprikov, K. Kogan. SRPT-based Congestion Control for Flows with Unknown Sizes. 2021 IFIP Networking Conference (IFIP Networking) (IFIP Networking), 2021, pp. 1–10

97. A. Savchenko, A. Alekseev, S. Kwon, E. Tutubalina, E. Myasnikov, S.I. Nikolenko. Ad Lingua: Text Classification Improves Symbolism Prediction in Image Advertisements. 28rd International Conference on Computational Linguistics (COLING 2020), 2020, pp. 1886–1892
98. G. Sterkin, T. Khakhulin, D. Korzhenkov, I. Anokhin, A. Kharlamov, P. Solovev, A. Silvestrov, S.I. Nikolenko, V. Lempitsky. High-Resolution Daytime Translation Without Domain Labels. 2020 IEEE Conference on Computer Vision and Pattern Recognition (CVPR 2020), 2020.
99. I. Shenbin, A. Alekseyev, E. Tutubalina, V. Malykh, S.I. Nikolenko. RecVAE: A New Variational Autoencoder for Top-N Recommendations with Implicit Feedback. 13th International Conference on Web Search and Data Mining (WSDM 2020), 2020, pp. 528–536
100. A. Alekseev, S.I. Nikolenko. Recognizing Preferred Grammatical Gender in Russian Anonymous Online Confessions. 23rd International Conference on Text, Speech, and Dialogue (TSD 2020), Lecture Notes in Computer Science, vol. 12284, 2020, pp. 222–230
101. M. Panin, S.I. Nikolenko. Rendering Atmospheric Clouds with Latent Space Light Probes. 12th ACM SIGGRAPH Conference and Exhibition on Computer Graphics & Interactive Techniques in Asia (SIGGRAPH ASIA 2019), 2019, pp. 21–24
102. D. Nikulin, A. Ianina, V. Aliev, S.I. Nikolenko. Free-Lunch Saliency via Attention in Atari Agents. ICCV 2019 Workshop «Interpreting and Explaining Visual Artificial Intelligence Models» (ICCVW 2019), 2019
103. A. Rakhlin, A.A. Shvets, A.A. Kalinin, A. Tiulpin, V.I. Iglovikov, S.I. Nikolenko. Breast Tumor Cellularity Assessment using Deep Neural Networks. ICCV 2019 Workshop «Visual Recognition for Medical Images» (ICCVW 2019), 2019
104. V. Demianiuk, S. Gorinsky, S.I. Nikolenko, K. Kogan. Robust Distributed Monitoring of Traffic Flows. 27th IEEE International Conference on Network Protocols (ICNP 2019), 2019, pp. 1–11
105. A. Alekseyev, E. Tutubalina, V. Malykh, S.I. Nikolenko. Improving unsupervised neural aspect extraction for online discussions using out-of-domain classification. 7th International Symposium on Language and Knowledge Engineering (LKE 2019), 2019.
106. S. Golovanov, R. Kurbanov, S.I. Nikolenko, K. Truskovskyi, A. Tselousov, T. Wolf. Large-Scale Transfer Learning for Natural Language Generation. 57th Annual Meeting of the Association for Computational Linguistics (ACL 2019), 2019, pp. 6053–6058
107. J. Atwood, Y. Halpern, P. Baljekar, E. Breck, D. Sculley, P. Ostyakov, S.I. Nikolenko, I. Ivanov, R. Solovyev, W. Wang, M. Skalic. The Inclusive Images Competition. The NeurIPS '18 Competition, Springer Series on Challenges in Machine Learning, 2019, pp. 155–186
108. S. Golovanov, A. Tselousov, R. Kurbanov, S.I. Nikolenko. Lost in Conversation: A Conversational Agent Based on the Transformer and Transfer Learning. The NeurIPS '18 Competition, Springer Series on Challenges in Machine Learning, 2019, pp. 295–315
109. A. Alekseyev, S.I. Nikolenko, E. Tutubalina, I. Shenbin, V. Malykh. AspeRa: Aspect-Based Rating Prediction Model. 41st European Conference on Information Retrieval (ECIR 2019), Lecture Notes in Computer Science, vol. 11438, 2019, pp. 163–171
110. V. Demianiuk, K. Kogan, S.I. Nikolenko. Approximate Classifiers with Controlled Accuracy.

38th IEEE International Conference on Computer Communications (INFOCOM 2019), 2019, pp. 2044–2052

111. V. Malykh, A. Alekseyev, S.I. Nikolenko, E. Tutubalina, I. Shenbin. Wear the Right Head: Comparing Strategies for Encoding Sentences for Aspects Extraction. 8th International Conference on Analysis of Images, Social networks and Texts (AIST 2019), 2019.
112. D. Polykovskiy, D. Soloviev, S.I. Nikolenko. Concorde: Morphological Agreement in Conversational Models. 10th Asian Conference on Machine Learning (ACML 2018), Proceedings of Machine Learning Research, vol. 95, 2018, pp. 407–421
113. V. Demianiuk, S.I. Nikolenko, P. Chuprikov, K. Kogan. New Alternatives to Optimize Policy Classifiers. 26th IEEE International Conference on Network Protocols (ICNP 2018), 2018, pp. 121–131
114. A. Rakhlin, A. Davydow, S.I. Nikolenko. Land Cover Classification From Satellite Imagery With U-Net and Lovasz-Softmax Loss. Proc. IEEE Conference on Computer Vision and Pattern Recognition 2018 Workshops (CVPR 2018 Workshops), 2018, pp. 262–266.
115. S. Golovanov, R. Kurbanov, A. Artamonov, A. Davydow, S.I. Nikolenko. Building Detection From Satellite Imagery Using a Composite Loss Function. Proc. IEEE Conference on Computer Vision and Pattern Recognition 2018 Workshops (CVPR 2018 Workshops), 2018, pp. 229–232.
116. A. Davydow, S.I. Nikolenko. Land Cover Classification With Superpixels and Jaccard Index Post-Optimization. Proc. IEEE Conference on Computer Vision and Pattern Recognition 2018 Workshops (CVPR 2018 Workshops), 2018, pp. 280–284.
117. V. Demianiuk, S. Gorinsky, S.I. Nikolenko, K. Kogan. Distributed Counting along Lossy Paths Without Feedback. 25th International Colloquium on Structural Information and Communication Complexity (SIROCCO 2018), Lecture Notes in Computer Science, vol. 11685, 2018, pp. 30–33
118. P. Chuprikov, A. Davydow, K. Kogan, S.I. Nikolenko, A.V. Sirotkin. Formalizing Compute-Aggregate Problems in Cloud Computing. 25th International Colloquium on Structural Information and Communication Complexity (SIROCCO 2018), 2018, pp. 377–391
119. P. Chuprikov, K. Kogan, S.I. Nikolenko. How to implement complex policies on existing network infrastructure. Proc. 4th Symposium on SDN Research (SOSR 2018), ACM, 2018, pp. 1–8
120. K. Kogan, S.I. Nikolenko, V. Demianiuk, P. Chuprikov, A.P. Davydow. Personal Insights on Three Research Directions in Networked Systems. Proc. 10th International Conference on Communication Systems and Networks (COMSNETS 2018), IEEE, 2018.
121. S.I. Nikolenko, K. Kogan, A. Fernández Anta. Network Simplification Preserving Bandwidth and Routing Capabilities. Proc. 2017 IEEE International Conference on Computer Communications (INFOCOM 2017), 2017.
122. A.P. Davydow, P. Chuprikov, S.I. Nikolenko, K. Kogan. Throughput Optimization with Latency Constraints. Proc. 2017 IEEE International Conference on Computer Communications (INFOCOM 2017), 2017.
123. P. Chuprikov, K. Kogan, S.I. Nikolenko. General Ternary Bit Strings on Commodity Longest-Prefix-Match Infrastructures. Proc. 25th IEEE International Conference on Network Protocols (ICNP 2017), 2017.

124. P. Chuprikov, A.P. Davydow, K. Kogan, S.I. Nikolenko, A.V. Sirotkin. Planning in Compute-Aggregate Problems as Optimization Problems on Graphs. Proc. 25th IEEE International Conference on Network Protocols (ICNP 2017), 2017.
125. K. Kogan, D. Menikkumbura, G. Petri, Y. Noh, S.I. Nikolenko, A.V. Sirotkin, P. Eugster. A Programmable Buffer Management Platform. Proc. 25th IEEE International Conference on Network Protocols (ICNP 2017), 2017.
126. S.I. Nikolenko. Topic Quality Metrics Based on Distributed Word Representations. Accepted to Proc. 39th International ACM SIGIR Conference on Research and Development in Information Retrieval (SIGIR 2016), 2016, pp. 1029–1032.
127. P. Chuprikov, S.I. Nikolenko, K. Kogan. On Demand Elastic Capacity Planning for Service Auto-scaling. Proceedings of 2016 IEEE International Conference on Computer Communications (INFOCOM 2016), 2016.
128. K. Kogan, S.I. Nikolenko, P. Eugster, A. Shalimov, O. Rottenstreich. FIB Efficiency in Distributed Platforms. Proc. 24th IEEE International Conference on Network Protocols (ICNP 2016), 2016.
129. S.I. Nikolenko, K. Kogan, G. Retvari, E.R. Berczi-Kovacs, A. Shalimov. How to Represent IPv6 Forwarding Tables on IPv4 or MPLS Dataplanes. Proc. 2016 IEEE Conference on Computer Communications Workshops (INFOCOM WKSHPS): GI 2016: 9th IEEE Global Internet Symposium (IEEE GI 2016), 2016.
130. K. Kogan, D. Menikkumbura, G. Petri, Y. Noh, S.I. Nikolenko, P. Eugster. BASEL (Buffering Architecture SpEcification Language). Proc. 12th ACM/IEEE Symposium on Architectures for Networking and Communications Systems (ANCS 2016), 2016, pp. 69–74.
131. S. Koltsov, S.I. Nikolenko, O. Koltsova, S. Bodrunova. Stable Topic Modeling for Web Science: Granulated LDA. Proc. 8th ACM Conference on Web Science (WebSci '16), ACM, 2016, pp. 342–343.
132. N. Semenov, I. Zakhlebin, A. Tolmach, S.I. Nikolenko. Pseudo-Bimodal Community Detection in Twitter-Based Networks. Proc. 8th International Congress on Ultra Modern Telecommunications and Control Systems (ICUMT 2016), 2016.
133. S. Koltsov, S.I. Nikolenko, O. Koltsova, V. Filipov, S. Bodrunova. Stable Topic Modeling with Local Density Regularization. Proc. 3rd international conference on Internet Science (INSCI 2016), 2016.
134. E. Tutubalina, S.I. Nikolenko. Constructing Aspect-Based Sentiment Lexicons with Topic Modeling. Proc. 5th International Conference on Analysis of Images, Social Networks, and Texts (AIST 2016), 2016.
135. S.I. Nikolenko, A. Alekseyev. User Profiling in Text-Based Recommender Systems Based on Distributed Word Representations. Proc. 5th International Conference on Analysis of Images, Social Networks, and Texts (AIST 2016), 2016.
136. S.I. Nikolenko. ARTM vs. LDA: an SVD Extension Case Study. Proc. 5th International Conference on Analysis of Images, Social Networks, and Texts (AIST 2016), 2016.
137. M. Apishev, S. Koltsov, O. Koltsova, S.I. Nikolenko, K. Vorontsov. Additive Regularization for Topic Modeling in Sociological Studies of User-Generated Texts. Proc. 15th Mexican International Conference on Artificial Intelligence (MICAI 2016), 2016.

138. R. Galinsky, A. Alekseyev, S.I. Nikolenko. Improving Neural Network Models for Natural Language Processing in Russian with Synonyms. Proc. 5th conference on Artificial Intelligence and Natural Language (AINL 2016), 2016.
139. A. Alekseyev, S.I. Nikolenko. Predicting the Age of Social Network Users from User-Generated Texts with Word Embeddings. Proc. 5th conference on Artificial Intelligence and Natural Language (AINL 2016), 2016.
140. E. Tutubalina, S.I. Nikolenko. Automated Prediction of Demographic Information from Medical User Reviews. Proc. 4th International Conference on Mining Intelligence and Knowledge Exploration (MIKE 2016), 2016.
141. P. Chuprikov, K. Kogan, S.I. Nikolenko. Priority Queueing with Multiple Packet Characteristics. Proceedings of IEEE INFOCOM 2015, pp. 1418–1426.
142. P. Eugster, A. Kesselman, K. Kogan, S.I. Nikolenko, A.V. Sirotkin. Essential Traffic Parameters for Shared Memory Switch Performance. 22nd International Colloquium on Structural Information and Communication Complexity (SIROCCO 2015), Lecture Notes in Computer Science, vol. 9439, Springer, 2015, pp. 61–75.
143. E. Tutubalina, S.I. Nikolenko. Inferring Sentiment-Based Priors in Topic Models. Proc. 14th Mexican International Conference on Artificial Intelligence (MICAI 2015), Lecture Notes in Computer Science, vol. 9414, Springer, 2015, pp. 92–104.
144. S.I. Nikolenko. SVD-LDA: Topic Modeling for Full-Text Recommender Systems. Proc. 14th Mexican International Conference on Artificial Intelligence ( MICAI 2015), Lecture Notes in Computer Science, vol. 9414, Springer, 2015, pp. 67–79.
145. S.I. Nikolenko. A Probabilistic Rating System for Team Competitions with Individual Contributions. Proc. 4th International Conference on Analysis of Images, Social Networks, and Texts (AIST 2015), Communications in Computer and Information Science, vol. 542, Springer, 2015, pp. 3–13.
146. A. Semenov, A. Natekin, S.I. Nikolenko, P. Upravitelev, M. Trofimov, M. Kharchenko. Discerning Depression Propensity Among Participants of Suicide and Depression-Related Groups of Vk.com. Proc. 4th International Conference on Analysis of Images, Social Networks, and Texts (AIST 2015), Communications in Computer and Information Science, vol. 542, Springer, 2015, pp. 24–35.
147. I. Zakhlebin, A. Semenov, A. Tolmach, S.I. Nikolenko. Detecting Opinion Polarisation on Twitter by Constructing Pseudo-Bimodal Networks of Mentions and Retweets. Proc. 9th Russian Summer School in Information Retrieval (RUSSIR 2015), Communications in Computer and Information Science, vol. 573, Springer, 2015.
148. K. Kogan, S.I. Nikolenko, O. Rottenstreich, W. Culhane, P. Eugster. SAX-PAC (Scalable And eXpressive PAcket Classification). ACM SIGCOMM 2014, ACM Press, 2014, pp. 15–26.
149. P. Eugster, K. Kogan, S.I. Nikolenko, A.V. Sirotkin. Shared-Memory Buffer Management for Heterogeneous Packet Processing. 34th International Conference on Distributed Computing Systems (ICDCS 2014).
150. K. Kogan, S.I. Nikolenko, P. Eugster, E. Ruan. Strategies for Mitigating TCAM Space Bottlenecks. 22nd IEEE Annual Symposium on High-Performance Interconnects (HOTI 2014), IEEE, 2014, pp. 25–32
151. K. Kogan, A. Lòpez-Ortiz, S.I. Nikolenko, G. Scalosub. Balancing Work and Size with

- Bounded Buffers. Proc. 6th International Conference on Communication Systems and Networks (COMSNETS 2014), 2014, pp. 1–8
- 152. S. Koltcov, O. Koltsova, S.I. Nikolenko. Latent Dirichlet Allocation: Stability and Applications to Studies of User-Generated content. Proceedings of the 2014 ACM conference on Web science (WebSci 2014), pp. 161–165.
  - 153. S.I. Nikolenko, S. Koltsov, O. Koltsova. Measuring Topic Quality in Latent Dirichlet Allocation. Proc. Philosophy, Mathematics, Linguistics: Aspects of Interaction 2014 (PhML-2014), pp. 149–157.
  - 154. D. Ignatov, S.I. Nikolenko, T. Abaev, N. Konstantinova. Online recommender system for radio station hosting: experimental results revisited. Proceedings of 2014 IEEE/WIC/ACM International Joint Conferences on Web Intelligence (WI) and Intelligent Agent Technologies (IAT) (WIC 2014), 2014, pp. 229–236.
  - 155. K. Kogan, A. Lòpez-Ortiz, S.I. Nikolenko, A.V. Sirokin. Multi-Queued Network Processors for Packets with Heterogeneous Processing Requirements. Proc. 5th International Conference on Communication Systems and Networks (COMSNETS 2013), 2013, pp. 1–10 (IEEExplore).
  - 156. V.A. Leksin, S.I. Nikolenko. Semi-Supervised Tag Extraction in a Web Recommender System. Proc. 6th International Conference on Similarity Search and Applications (SISAP 2013), LNCS vol. 8199, pp. 206–212, 2013.
  - 157. K. Kogan, S.I. Nikolenko, S. Keshav, A. Lòpez-Ortiz. Efficient Demand Assignment in Multi-Connected Microgrids with a Shared Central Grid. Proc. 3rd IFIP Conference on Sustainable Internet and ICT for Sustainability 2013 (SustainIT 2013), 2013.
  - 158. S. Bodrunova, S. Koltcov, O. Koltsova, S.I. Nikolenko, A. Shimorina. Interval Semi-Supervised LDA: Classifying Needles in a Haystack. Proc. 12th Mexican International Conference on Artificial Intelligence (MICAI 2013), LNCS vol. 8625, pp. 265–274, 2013.
  - 159. K. Kogan, S.I. Nikolenko, S. Keshav, A. Lòpez-Ortiz. Efficient demand assignment in multi-connected microgrids. Proc. 4th Energy-Efficient Computing and Networking (e-Energy 2013), pp. 277–278.
  - 160. K. Kogan, S.I. Nikolenko, W. Culhane, P. Eugster, E. Ruan. Towards efficient implementation of packet classifiers in SDN/OpenFlow. Proc. 2nd ACM SIGCOMM Workshop on Hot Topics in Software Defined Networking (HotSDN 2013), pp. 153–154.
  - 161. K. Kogan, A. Lòpez-Ortiz, S.I. Nikolenko, A.V. Sirokin. A Taxonomy of Semi-FIFO Policies. Proc. 31st IEEE International Performance Computing and Communications Conference (IPCCC 2012), 2012, pp. 295–304.
  - 162. K. Kogan, A. Lòpez-Ortiz, S.I. Nikolenko, A.V. Sirokin, D. Tugaryov. FIFO Queueing Policies for Packets with Heterogeneous Processing, 1st Mediterranean Conference on Algorithms (MedAlg 2012), LNCS vol. 7659, pp. 248–260, 2012, arXiv:1204.5443v1 [cs.NI].
  - 163. I. Chernyavsky, T. Alexandrov, S.I. Nikolenko. A Two-Step Soft Segmentation Procedure for MALDI Imaging Mass Spectrometry Data. Proc. 18th German Conference in Bioinformatics (GCB-2012), OASics vol. 26, 2012, pp. 39–48.
  - 164. A. Fishkov, S.I. Nikolenko. A New Click Model for Relevance Prediction in Web Search. Proceedings of EEML 2012, an ICFCA 2012 workshop, 2012, pp. 45–54.

165. D. Ignatov, S.I. Nikolenko, V. Zaharchuk, A. Konstantinov. A New Recommender System for the Interactive Radio Network FMhost. Proceedings of EEML 2012, an ICFCA 2012 workshop, 2012, pp. 72–85.
166. S.I. Nikolenko, A.V. Sirotkin. A New Bayesian Rating System for Team Competitions. Proceedings of the 28th International Conference on Machine Learning (ICML 2011), pp. 601- 608.
167. A. Davydow, S. I. Nikolenko. Gate Elimination for Linear Functions and New Feebly Secure Constructions. Proceedings of the 6th Computer Science Symposium in Russia (CSR 2011), LNCS vol. 6651, pp. 148-161, 2011.
168. S.I. Nikolenko, A.V. Sirotkin. Extensions of the TrueSkill rating system. Proceedings of the 9th International Conference on Applications of Fuzzy Systems and Soft Computing (ICAFS 2010), pp. 151–160.
169. I. Gnilomedov, S.I. Nikolenko. Fuzzy computing via multiagent negotiations. Proceedings of the 9th International Conference on Applications of Fuzzy Systems and Soft Computing (ICAFS 2010), pp. 210–220.
170. I. Gnilomedov, S.I. Nikolenko. Agent-Based Economic Modeling with Finite State Machines. Proceedings of the 36th Annual Convention of the Society for the Study of Artificial Intelligence and Simulation of Behaviour (AISB 2010).
171. E. A. Hirsch, S. I. Nikolenko. A feebly secure trapdoor function. Proceedings of the 4th Computer Science Symposium in Russia (CSR 2009), LNCS vol. 5675, 2009, pp. 129-142.
172. A. Kojevnikov, S. I. Nikolenko. New Combinatorial Complete One-Way Functions. Proceedings of the 25th Symposium on Theoretical Aspects of Computer Science (STACS 2008), pp. 457-466, 2008.
173. C. A. Pshenichny, S. I. Nikolenko, R. Carniel, A. L. Sobissevitch et al. The Event Bush as a Potential Complex Methodology of Conceptual Modeling in Geosciences. Proceedings of iEMSs'08: International Congress on Environmental Modelling and Software, vol. 2, pp. 900-912, 2008.
174. S. I. Nikolenko, C. A. Pshenichny, R. Carniel. Learning Conditional Probabilities in Event Bushes with Temporal Labels. Proceedings of iEMSs'08: International Congress on Environmental Modelling and Software, 2008, vol. 1.
175. S. I. Nikolenko, C. A. Pshenichny, A. L. Sobissevich, A. V. Yakovlev. Spatial Volcanic Hazard Assessment by the Event Bush Method. XXIV IUGG General Assembly, July 02–13, 2007. Perugia, Italy.
176. E. A. Hirsch, S. I. Nikolenko. Simulating Cutting Planes proofs with restricted degree of falsity by Resolution. Proceedings of SAT'05, Lecture Notes in Computer Science, vol. 3569, 2005, pp. 135-142.
177. D. Grigoriev, A. Kojevnikov, S. I. Nikolenko. Invariant-Based Cryptosystems and Their Security Against Provable Worst-Case Break. Max-Planck-Institut fur Mathematik Preprint no. 158, 2007.
178. A. L. Tulupiyev, S. I. Nikolenko. Directed Cycles in Bayesian Belief Networks: Probabilistic Semantics and Consistency Checking Complexity. MICAI-2005 Proceedings, Lecture Notes in Artificial Intelligence vol. 3789, 2005, pp. 214-223.

179. S. I. Nikolenko, A. V. Sirokin. Worst-case upper bounds for SAT: automated proof. Student Session Proceedings, 15th European Summer School in Logic, Language, and Information (ESSLLI 2003), pp. 225-232. Vienna, Austria, 2003.

### **Journal papers in untranslated Russian journals (VAK list)**

180. S.I. Nikolenko, D.V. Serdyuk, A.V. Sirokin. Bayesian rating systems with additional information on tournament results. SPIIRAS Proceedings, vol. 22, 2012, pp. 189–204.
181. A. Fishkov, S.I. Nikolenko. A survey of user behaviour models for search results ranking. SPIIRAS Proceedings, vol. 22, 2012, pp. 139–175.
182. I.I. Chernyavsky, T. Alexandrov, S.I. Nikolenko. Segmentation of MALDI imaging results based on graphical models. SPIIRAS Proceedings, vol. 21, 2012, pp. 120–142.
183. A. Fishkov, S.I. Nikolenko. SCM: a new user behaviour model for web search. SPIIRAS Proceedings, vol. 20, 2012, pp. 72–100.
184. I.A. Baltiysky, S.I. Nikolenko. Probabilistic Graphical Models of Harmony in Automated Music Analysis: a Survey. SPIIRAS Proceedings, vol. 17, 2011, pp. 174–196.
185. I.A. Baltiysky, S.I. Nikolenko. A Probabilistic Graphical Model for the Music Harmony Similarity Problem. SPIIRAS Proceedings, vol. 18, 2011, pp. 136–163.
186. C.A. Pshenichny, S.I. Nikolenko, A. V. Yakovlev. The event bush formalism for knowledge representation and probabilistic inference in geological hazard evaluation. Geoinformatics, no. 2, 2009, pp. 62–71.
187. A.L. Tulupyev, S.I. Nikolenko, D.A. Nikitin, A.V. Sirokin. A posteriori estimates of statement probabilities in intellectual informational systems: deterministic case. Priborostroenie, no. 11, 2006, pp. 35-39.
188. A.L. Tulupyev, S.I. Nikolenko, A.V. Sirokin. A posteriori probability estimates with probabilistic evidence in intellectual informational systems with interval probabilities. Priborostroenie, no. 11, 2006, pp. 39-44.
189. A.E. Paschenko, A.L. Tulupyev, S.I. Nikolenko. Modeling HIV infection spread based on last episodes of risky behaviour. Priborostroenie, 2006, vol. 49, no. 11, pp. 33-34.
190. A.L. Tulupyev, A.V. Sirokin, S.I. Nikolenko. Coordinated estimates of probabilities of statements in intellectual informational systems. Priborostroenie, no. 7, 2006, pp. 20-26.
191. I.A. Baltiysky, S.I. Nikolenko. Query-by-humming systems: a survey and an experimental platform. SPIIRAS Proceedings, 2008, no. 7, 2008, pp. 75–92.

### **Preprints and other publications**

192. S.I. Nikolenko. Synthetic Data for Deep Learning. ArXiv preprint 1909.11512 [cs.LG], 2019
193. S.I. Nikolenko, E. Tutubalina, Z. Miftakhutdinov, E. Beloded. CommentsRadar: Dive into Unique Data on All Comments on the Web. ArXiv preprint 1908.07069 [cs.IR], 2019
194. I. Bochkov, A. Davydow, N. Gaevoy, S.I. Nikolenko. New Competitiveness Bounds for the Shared Memory Switch. ArXiv preprint 1907.04399 [cs.NI], 2019
195. P. Ostyakov, S.I. Nikolenko. Adapting Convolutional Neural Networks for Geographical Domain Shift. ArXiv preprint 1901.06345 [cs.CV], 2019

196. K. Kogan, D. Menikkumbura, G. Petri, Y. Noh, S.I. Nikolenko, P. Eugster. BASEL (Buffering Architecture Specification Language). arXiv:1510.04235 [cs.NI], 2015.
197. D.I. Ignatov, S.I. Nikolenko, T. Abaev, J. Poelmans. Improving Quality Of Service For Radio Station Hosting: An Online Recommender System Based On Information Fusion. Working papers by NRU Higher School of Economics. Series MAN ``Management'', 2014, no. 31. SSRN: <http://ssrn.com/abstract=2542543>
198. O. Koltsova, S. Koltsov, S.I. Nikolenko. Comment-Based Discussion Communities in the Russian LiveJournal and Their Topical Coherence. Higher School of Economics Research Paper No. WP BRP 33/SOC/2013. Available at SSRN: <http://ssrn.com/abstract=2378312>
199. K. Kogan, A. Lòpez-Ortiz, S.I. Nikolenko, A.V. Sirokin, D. Tugaryov. FIFO Queueing Policies for Packets with Heterogeneous Processing, arXiv:1204.5443v1 [cs.NI], 2012.
200. S. Nikolenko, N. Semenov. Chow ring structure made simple. ArXiv preprint math.AG/0606335.
201. S. Nikolenko, N. Semenov, K. Zainoulline. Motivic decomposition of anisotropic varieties of type F4 and generalized Rost motives. ArXiv preprint math.AG/0502382.
202. S. S. Fedin, A. Kojevnikov, B. Konev, A. S. Kulikov, S. I. Nikolenko, V. P. Orevkov. First report on the semialgebraic prover. Препринты ПОМИ, 09/2004.
203. S. I. Nikolenko, C. A. Pshenichny. Temporal Assessment by Means of an Event Bush. Geophysical Research Abstracts, vol. 9, EGU2007-A-00497, 2007.
204. Pshenichny C. A., Nikolenko S. I., Carniel R., Vaganov P. A., Khrabrykh Z. V., Moukhachov, V. P., Akimova-Shterkhun V. L., Rezyapkin A. A., Yakovlev, A.V. 2007, The Event Bush as a Potential Core Methodology of Volcanic Hazard Assessment. – Abstracts, IUGG General Assembly XXIV 2007, Perugia, Italy; <http://www.iugg2007perugia.it/webbook/>
205. Moukhachov, V.P., and Pshenichny, C.A., 2007, First Results and Perspectives of Logical Modeling of Volcanic Eruptions. – Abstracts, IUGG General Assembly XXIV 2007, Perugia, Italy; <http://www.iugg2007perugia.it/webbook/>
206. Nikolenko, S. I., Pshenichny, C. A., and Sobisevitch, A.L. 2007, Spatial and Temporal Hazard Assessment by the Event Bush Method. – Abstracts, IUGG General Assembly XXIV 2007, Perugia, Italy; <http://www.iugg2007perugia.it/webbook/>