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Education

- 1998–2002** PhD, Department of Computer Science and Computer Learning Research Centre, Royal Holloway, University of London. Dissertation: The Aggregating Algorithm and Predictive Complexity.
- 1993–1998** MSc in Mathematics and Applied Mathematics, Department of Mechanics and Mathematics, Lomonosov Moscow State University, Russia. Specialisation: mathematical logic and theory of algorithms. Average grade 4.97 of 5; a distinction ('red diploma') awarded.
- 1993** Attestat (Certificate of Secondary School Education) school No. 35 with advanced teaching of English, Moscow, Russia. Average grade 5 of 5; a gold medal awarded.

Training

- 2005** Certificate in Academic Practice in Teaching and Learning, Royal Holloway, University of London.

Employment

- 2003–now** Lecturer, Department of Computer Science and Computer Learning Research Centre, Royal Holloway, University of London;
- 2001–2003** Research Assistant, Department of Computer Science, Royal Holloway, University of London;
- 1997** translating parts of the book 'Introduction to Algorithms' by T. Cormen, C. Leiserson, and R. Rivest into Russian. Moscow Center for Continuous Mathematical Education, Russia.

Professional Membership

since 2005 The Higher Education Academy, UK, Practitioner.

Examining and External Service

2007 an external member of the panel evaluating a proposed MSc programme, University of Ulster;

2005 an examiner of the PhD dissertation by Daniil Ryabko, Department of Computer Science, Royal Holloway, University of London.

Program Committee Membership

2007 The 18th International Conference on Algorithmic Learning Theory, ALT 2007.

Reviewing

- a book proposal for the Springer-Verlag;
- journal papers for Theoretical Computer Science, Journal of Computer and System Sciences, and Machine Learning;
- papers for the annual international conferences COLT (Computational Learning Theory), ALT (Algorithmic Learning Theory), and STACS (Theoretical Aspects of Computer Science).

Grants and Awards

2007–now co-investigator on the EPSRC grant EP/F002998 ‘Practical competitive prediction’;

2001–2003 funded by the EPSRC grant GR/R46670 ‘Complexity Approximation Principle and Predictive Complexity: Analysis and Applications’, of which grant I was a co-author of the proposed research;

1998–2001 PhD funded by the Overseas Research Scholarship Award;

1999 E. Mark Gold Award for the best student paper at the 10th International Conference on Algorithmic Learning Theory held in Tokyo, Japan.

13 April 2008

Appendix: List of Publications

Refereed Journals:

1. Y. Kalnishkan and M. V. Vyugin. The weak aggregating algorithm and weak mixability. To appear in *Journal of Computer and System Sciences*, doi:10.1016/j.jcss.2007.08.003.
2. Y. Kalnishkan, V. Vovk, and M. V. Vyugin. How many strings are easy to predict? *Information and Computation*, 201: 55–71 (2005).
3. Y. Kalnishkan, V. Vovk, and M. V. Vyugin. Loss functions, complexities, and the Legendre transformation. *Theoretical Computer Science*, 313(2): 195-207 (2004).
4. Y. Kalnishkan. General linear relations among different types of predictive complexity. *Theoretical Computer Science*, 271: 181–200 (2002).

Refereed Conference Proceedings:

5. S. Busuttill and Y. Kalnishkan. Online Regression Competitive with Changing Predictors. In *Algorithmic Learning Theory, 18th International Conference, ALT 2007, Proceedings*, vol. 4754 of *Lecture Notes in Computer Science*, pages 181–195. Springer, 2007.
6. S. Busuttill and Y. Kalnishkan. Weighted Kernel Regression for Predicting Changing Dependencies. In *Machine Learning: ECML 2007, 18th European Conference on Machine Learning*, vol. 4701 of *Lecture Notes in Computer Science*, pages 535–542. Springer, 2007.
7. Y. Kalnishkan, V. Vovk and M. V. Vyugin. Generalised Entropy and Asymptotic Complexities of Languages. In *Learning Theory, 20th Annual Conference on Learning Theory, COLT 2007*, vol. 4539 of *Lecture Notes in Computer Science*, pages 293–307, Springer 2007.
8. Y. Kalnishkan and M. V. Vyugin. The Weak Aggregating Algorithm and weak mixability. In *Learning Theory, Proceedings of the 18th Annual Conference (COLT 2005)*, vol. 3559 of *Lecture Notes in Artificial Intelligence*, Springer, 2005.
9. Y. Kalnishkan, V. Vovk, and M. V. Vyugin. A criterion for the existence of predictive complexity for binary games. In *Algorithmic Learning Theory, 15th International Conference, ALT 2004, Proceedings*, vol. 3244 of *Lecture Notes in Artificial Intelligence*, Springer, 2004.

10. A. Gammernan, Y. Kalnishkan, and V. Vovk. On-line prediction with kernels and the Complexity Approximation Principle. In *Uncertainty in Artificial Intelligence*, Proceedings of the Twentieth Conference, AUAI press, 2004.
 11. Y. Kalnishkan, V. Vovk, and M. V. Vyugin. How many strings are easy to predict? In *16th Annual Conference on Learning Theory (COLT) and 7th Annual Workshop on Kernel Machines, Proceedings*, vol. 2777 of *Lecture Notes in Artificial Intelligence*, Springer, 2003.
 12. Y. Kalnishkan and M. V. Vyugin. On the absence of predictive complexity for some games. In *Algorithmic Learning Theory 13th International Conference, ALT 2002*, vol. 2533 of *Lecture Notes in Artificial Intelligence*, Springer, 2002.
 13. Y. Kalnishkan and M. V. Vyugin. Mixability and the existence of weak complexities. In *Computational Learning Theory 15th Annual Conference, COLT 2002*, vol. 2533 of *Lecture Notes in Artificial Intelligence*, Springer, 2002.
 14. Y. Kalnishkan, M. V. Vyugin, and V. Vovk. Loss functions, complexities, and the Legendre transformation. In *Algorithmic Learning Theory 12th International Conference, ALT 2001*, vol. 2225 of *Lecture Notes in Artificial Intelligence*, Springer, 2001.
 15. Y. Kalnishkan. Complexity approximation principle and Rissanen's approach to real-valued parameters. In *Machine Learning: ECML 2000, 11th European Conference on Machine Learning*, vol. 1810 of *Lecture Notes in Artificial Intelligence*, Springer, 2000.
 16. Y. Kalnishkan. General linear relations among different types of predictive complexity. In *Algorithmic Learning Theory, 10th International Conference, ALT'99*, vol. 1720 of *Lecture Notes in Artificial Intelligence*, Springer, 1999.
 17. Y. Kalnishkan. Linear relations between square-loss and Kolmogorov complexity. In *Proceedings of the Twelfth Annual Conference on Computational Learning Theory*, Assoc. for Computing Machinery, 1999.
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