

CURRICULUM VITAE

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Academic and Professional Qualifications

- Certificate of University Professor issued by the French Ministry of National Education and Culture, valid from May 1992, No 9212701766.
- Diploma of mathematician, summa cum laude, Leningrad State University, June 1963, No 150925.
- Candidate of physical and mathematical sciences (PhD), Leningrad Division of Steklov Mathematical Institute of the Academy of Sciences of USSR, state diploma MΦM No 007297, Moscow, 28/06/1967.
- Doctor of physical and mathematical sciences (Dr. Nat. Sci.), Steklov Mathematical Institute of the Academy of Sciences of USSR in Moscow, state diploma ΦM No 001243, Moscow, 13/02/1981.
- Title of Senior Researcher, certificate issued by the Presidium of the Academy of Sciences of USSR, CH No 007151, Moscow, 07/04/1983.
- Title of Professor of Chair of Programming, certificate issued by the State Committee of National Education of USSR, IIP No 010648, Moscow, 04/07/1991.

Chronological Employment History

- ★ 1963-1965: Interne Researcher at Leningrad Division of Steklov Mathematical Institute of the Academy of Sciences of USSR.
- ★ 1965-1977: Researcher at Leningrad Division of Steklov Mathematical Institute of the Academy of Sciences of USSR.
- ★ 1977-1982: Senior Researcher at Leningrad Division of Steklov Mathematical Institute of the Academy of Sciences of USSR.
- ★ 1982-1993: Head of Laboratory of Theory of Algorithms at Institute of Informatics and Automation of the Academy of Sciences of USSR, Leningrad, USSR.
- ★ 1981-1986 (part time): Professor of Chair of Programming at Leningrad Polytechnical Institute, Leningrad, USSR.
- ★ 1987-1992 (part time): Professor and Head of Chair of Programming at Leningrad State University, Leningrad, USSR.
- ★ 1992-1993: invited professor at the University of Poitiers, France.
- ★ 09/1993-08/2009: professor (*'classe exceptionnelle'*) at the University Paris-East (Paris 12), France.

★ 09/2009-: Emeritus Professor at the University Paris-East (Paris 12), France.

Teaching Record

My *recent teaching* (lectures and practical work, including application of software):

- Program development (life cycle, UML, Abstract State Machines (ASM), graphical interface in Java)
- Specification languages, including real-time aspects (ASM, Event-B, ITU SDL, SDL RT)
- Distributed Algorithms

My *prior teaching* (in anti-chronological order):

- Foundations of security (recent)
- Validation and Security of Software (recent)
- Logic
- Computational Complexity
- Foundations of Data Bases
- Theory of Computation
- Discrete Mathematics
- Programming
- Operating systems

Organizational Activity Related to Teaching. As professor at Leningrad Polytechnical Institute, Leningrad State University and at University Paris-East (Paris 12) I radically modernized computer science curriculum in all these institutions.

At Leningrad State University I created a Department of Computer Science that is very competitive. It has 50 vacancies per year (250 students altogether) and usually the number of candidates is 3 times greater than the number of vacancies. Its student team was a world champion at Annual ACM International Collegiate Programming Contest in 2000 and 2001.

At the University Paris-East, where computer science was an option of mathematics at my arrival in 1993, I was the main designer of full scale program in computer science.

The latest is a **master program in computer systems security** that is a success. This master program is aimed at real problems of practical security, and teaching is supported by a portable laboratory that was created due to me, and that is used by students for experimental study of security problems. Now we are discussing a joint program in security with other European universities.

In the 60ies and 70ies I organized student seminars at Leningrad State University (now Saint Petersburg University). Yury Matiyassevich (who solved the 10th Hilbert problem) got his first results on Post systems at such a seminar. Later Dmitry Grigoriev (my best ‘full scale student’) got his results in complexity, that are now in textbooks, being a third year student.

Research/Applied Work

Current Research Topics:

- Verification and specification of hard real-time abstract state machines.
- Quantitative evaluation of information leak and of robustness of security policies.
- Smooth algorithms and problems.

Prior Research Topics:

- automatics theorem proving (design and implementation) (1962–1968)
- recursive analysis (1962–1969)
- complexity of real-time string-matching problems (1967–1981)(*break-through results*)
- theoretical aspects of computational complexity (1970–1992)
- graph grammars and their applications for development of efficient algorithms (1979–1983) (*innovative ideas*)

- applied expert systems (1983–1989)
- syntax fault tolerance (1990–1993)
- algorithms for shortest paths amidst semi-algebraic obstacles (1990–2003)
- complexity of Markov Decision Processes (1993–1998)
- proof search based on patterns (1991–1993; resuming nowadays)

Best results:

- * Break-through results in real-time string-matching **1**[23, 22], **1**[19, 20].
- * New idea in using graph grammars **1**[17], **4**[2].
- * New entropy ideas in evaluation inference systems **1**[15].
- * New approach to describing decidable classes of verification of hard real-time systems **1**[3, 4, 8, 7].
- * New approach to quantitative evaluation of information leak and robustness of security policies execution **2**[2].

Research Grants. During the period of my management of the laboratory of Algorithmics, Complexity and Logic the Ministerial funding was multiplied by two and a half. Besides that, I participated or headed many grants of international cooperation with Israel, Russia, Romania, Ukraine. In USSR I headed several applied projects on expert systems and acoustic signals interpretation in the 80ies.

Recent Ph theses:

- * M. Arapinis. *Security of cryptographic protocols: decidability and reducibility results*. University Paris-Est (Paris 12), December 20, 2008.
- * C. Enea. *Abstraction technique in the verification of concurrent systems* University Paris 12, January 08, 2008.
- * A. Verchinine. *Mobile code security in terms of types. Application to Java language*. University Paris 11 (Paris-Sud), September 28, 2005.

Invited Speaker at more than 25 national and international conferences, ICM'83 (International Congress of Mathematicians) including; the most recent are CSL'2005 Conference, PAuL'2006 Workshop associated to LICS.

Graduate Advisor and Advisees:

Advisor: N. A. Shanin.

Some advisees: D. Grigoriev (Professor of Penn State University, now at CNRS, Rennes, France; invited speaker at ICM'1986), A. Chistov (Senior Researcher at the Steklov Mathematical Institute in St. Petersburg, Academy of Sciences of Russia; invited speaker at ICM'1990), A. Beltiukov (Professor and former Dean at Udmurtia University, Russia), S. Baranoff (Professor, Chief Software Architect, St. Petersburg Software Development (Motorola), St. Petersburg).

Distinctions

- Distinction as one of the best results of the year, (1981 or 1982, I do not remember exactly) of Steklov Mathematical Institute of Academy of Sciences of USSR; for the results **1**[19, 20].
- Several local research prizes of Leningrad Division of Steklov Mathematical Institute of Academy of Sciences of USSR, 1967–1981.
- Invited 45 minutes talk at International Congress of Mathematicians, 1983, Warsaw. Results **1**[19, 20, 17].

International Workshop LCCS'2001 (Logic and Complexity in Computer Science, September 2001) on the occasion of my 60th anniversary with invited speakers such as M. Gromov (IHES, France) A. Razborov (IAS Princeton and Steklov Institute), Y. Matiyasevich (Steklov Institute,

St. Petersburg) and others, was a great honor for me (see also a special issue of Theoretical Computer Science, vol. 303, No. 1, 2003).

Organizational Activities related to research:

- 1967-1992: Organizer and Head of Leningrad Seminar on Computational Complexity . Among its 9 permanent members by the beginning of the 90ies, four were invited speakers at International Congresses of Mathematicians. All the members of the seminar and many others that were formed at the seminar, hold senior research and academic positions in USA, France, Russia, UK (see also my memoirs 4[1]).

- 1982–1992: Founder and head of Laboratory of Theory of Algorithms, Institute of Informatics and Automation of the Academy of Sciences of USSR, Leningrad, USSR.

- 1997-2006: Founder and Head of Laboratory of Algorithmic, Complexity and Logic at the University Paris-East (Paris 12). (In French universities head of laboratory is a public service, not paid for).

- 1995–1998: Co-organizer with M. Gromov (I.H.E.S.) of Seminar on Combinatorial and Computational Complexity at Poincaré Institute in Paris.

Community and Professional Service

Member of: ACM (senior member), IEEE CS, EATCS, St. Petersburg Mathematical Society, Scholars Club of St.Petersburg Steklov Institute for Mathematics of Russian Academy of Sciences

Recent Professional Activities: Member of Program and Steering Committees of Abstract State Machines International Workshops (PC co-Chair for ASM'05), PC member of CSIT conferences, MMM-ACNS-05,07, CSR'06, 08 (Chair of Technology Track PC), LFCS'07, 09.

PUBLICATIONS

1. Journals

- [1] A. Slissenko and P. Vasilyev. Simulation of timed abstract state machines with predicate logic model-checking. *J. of Universal Computer Science*, 14(12):1984–2006, 2008.
- [2] D. Beauquier, A. Rabinovich, and A. Slissenko. A logic of probability with decidable model-checking. *Journal of Logic and Computation*, 16(4):461–487, July 2006.
- [3] D. Beauquier and A. Slissenko. Periodicity based decidable classes in a first order timed logic. *Annals of Pure and Applied Logic*, 139(1–3):43–73, 2006.
- [4] A. Slissenko. A logic framework for verification of timed algorithms. *Fundamenta Informaticae*, 62(1):29–67, 2004.
- [5] D. Burago, D. Grigoriev, and A. Slissenko. Approximating shortest path for the skew lines problem in time doubly logarithmic in $1/\epsilon$. *Theoretical Computer Science*, 315(2–3):371–404, 2004.
- [6] D. Beauquier, A. Rabinovich, Y. Hirshfeld, and A. Slissenko. The probability nesting game. *Electronic Notes in Theoretical Computer Science*, 68(2), 2002.
- [7] D. Beauquier and A. Slissenko. Decidable verification for reducible timed automata specified in a first order logic with time. *Theoretical Computer Science*, 275(1–2):347–388, March 2002.
- [8] D. Beauquier and A. Slissenko. A first order logic for specification of timed algorithms: Basic properties and a decidable class. *Annals of Pure and Applied Logic*, 113(1–3):13–52, 2002.
- [9] D. Grigoriev and A. Slissenko. Computing minimum-link path in a homotopy class amidst semi-algebraic obstacles in the plane. *St. Petersburg Math. J.*, 10(2):315–332, 1999.
- [10] D. Beauquier and A. Slissenko. Polytime model checking for timed probabilistic computation tree logic. *Acta Informatica*, 35:645–664, 1998.
- [11] D. Burago, A. de Rougemont, and A. Slissenko. On the complexity of partially observed markov decision processes. *Theoret. Comput. Sci.*, 157(1):161–183, 1996.
- [12] A. Slissenko. On fault tolerance of syntax. *Theoret. Comput. Sci.*, 119(1):215–222, 1993.
- [13] A. Slissenko. A view on recent years of research in theoretical computer science in the former soviet union. *RAIRO, Technique et science informatique*, 12(1):9–28, 1993.
- [14] J. Heintz, T. Krick, A. Slissenko, and P. Solernó. Finding shortest paths around semi-algebraic obstacles in the plane. *J. of Math. Sci.*, 70(4):1944–1949, 1994. Russian original in: *Zapiski Nauchnykh Seminarov LOMI*, 192:164–174, 1991.
- [15] A. Slissenko. On measures of information quality of knowledge processing systems. *Information Sciences: An International Journal*, 57–58:389–402, 1991.
- [16] S. Lavrov, A. Slissenko, and G. Tseitin. Curriculum for informatics and system programming. Project. *Microprocessor Devices and Systems*, 4:20–28, 1985. (In Russian.).
- [17] A. Slissenko. Context-free grammars as a tool for describing polynomial-time subclasses of hard problems. *Inform. Process. Lett.*, 14(2):52–56, 1982.

- [18] A. Slissenko. Complexity problems of theory of computation. *Russian Mathematical Surveys*, 36(6):23–125, 1981. Russian original in: *Uspekhi Matem. Nauk*, 36(2):21–103, 1981.
- [19] A. Slissenko. Detection of periodicities and string-matching in real time. *J. of Soviet Mathematics*, 22(3):1316–1386, 1983. Russian original in: *Zapiski Nauchnykh Seminarov LOMI*, 105:62–173, 1981.
- [20] A. Slissenko. Finding in real time of all the periodicities in a word. *Soviet Mathematical Doklady*, 21(2):392–295, 1980. Russian original in: *Doklady Akademii Nauk SSSR*, 251(1):48–51, 1980.
- [21] A. Slisenko (Slissenko). Finite approach to the problem of optimizing theorem-proving algorithms. *J. of Soviet Mathematics*, 10(4):597–603, 1978. Russian original in: *Zapiski Nauchnykh Seminarov LOMI*, 49:123–130, 1975.
- [22] A. Slisenko (Slissenko). A simplified proof of real-time recognizability of palindromes on turing machines. *J. of Soviet Mathematics*, 15(1):68–77, 1981. Russian original in: *Zapiski Nauchnykh Seminarov LOMI*, 68:123–139, 1977.
- [23] A. Slisenko (Slissenko). Recognizing a symmetry predicate by multihead turing machines with input. *Proc. Steklov Inst. of Mathematics*, 129:25–208, 1976. Russian original in: *Trudy Matematicheskogo Instituta Akademii Nauk SSSR*, 129:30–202, 1973.
- [24] A. Slisenko (Slissenko). A property of enumerable sets containing 'complexly deducible' formulas. *J. of Soviet Mathematics*, 1(1):126–131, 1973. Russian original in: *Zapiski Nauchnykh Seminarov LOMI*, 20:200–207, 1971.
- [25] A. Slisenko (Slissenko). Some questions of approximation of maximal continuity regulators. *Proc. Steklov Inst. of Mathematics*, 113, 1970. Russian original in: *Trudy Matematicheskogo Instituta Akademii Nauk SSSR*, 113:73–78, 1970.
- [26] A. Slisenko (Slissenko). The construction of maximal continuity regulators for constructive functions. *Proc. Steklov Inst. of Mathematics*, 93:269–317, 1967. Russian original in: *Trudy Matematicheskogo Instituta Akademii Nauk SSSR*, 93:208–249, 1967.
- [27] A. Slisenko (Slissenko). Arithmetical operations on certain sets of duplexes. *Proc. Steklov Inst. of Mathematics*, 93:241–267, 1967. Russian original in: *Trudy Matematicheskogo Instituta Akademii Nauk SSSR*, 93:187–207, 1967.
- [28] A. Slisenko (Slissenko). On constructive non-separable spaces. *Proc. Steklov Inst. of Mathematics*, 72, 1964. Russian original in: *Trudy Matematicheskogo Instituta Akademii Nauk SSSR*, 72:533–536, 1964.
- [29] A. Slisenko (Slissenko). An example of non-discontinuous but not continuous constructive operator in a metric space. *Proc. Steklov Inst. of Mathematics*, 72, 1964. Russian original in: *Trudy Matematicheskogo Instituta Akademii Nauk SSSR*, 72:524–532, 1964.
- [30] A. Slisenko (Slissenko). On some algorithmic problems, concerning arithmetical operations on duplexes. *Proc. Steklov Inst. of Mathematics*, 72, 1964. Russian original in: *Trudy Matematicheskogo Instituta Akademii Nauk SSSR*, 72:488–523, 1964.
- [31] A. Slisenko (Slissenko). On some algorithmic problems, concerning arithmetical operations on duplexes. *Soviet Mathematical Doklady*, 152(2), 1963. Russian original in: *Doklady Akademii Nauk SSSR*, 152(2):292–295, 1963.

2. Proceeding of International Conferences

- [1] J. Cohen and A. Slissenko. Implementation of sturdy real-time abstract state machines by machines with delays. In *Proc. of the 6th Intern. Conf. on Computer Science and Information Technology (CSIT'2007), September 24–28, 2007, Yerevan, Armenia. Organized by National Academy of Science of Armenia*, pages 25–32. National Academy of Science of Armenia, 2007.
- [2] A. Slissenko. Probability and time in measuring security. In F. L. Tiplea E. Clarke, M. Minea, editor, *Proceeding of NATO Advanced Research Workshop: Verification of Infinite-State Systems with Applications to Security (VISSAS 2005), Timișoara, March 17–22, 2005*, pages 169–183. IOS Press, 2006. NATO Security through Science Series. D : Information and Communication Security – Vol. 1.
- [3] J. Cohen and A. Slissenko. Implementation of reactive real-time abstract state machines by machines with delayed actions. In *Proc. of the 5th Intern. Conf. on Computer Science and Information Technology (CSIT'2005), September 19–23, 2005, Yerevan, Armenia. Organized by National Academy of Science of Armenia in cooperation with Test Technology Technical Council of IEEE Computer Society*, pages 48–53. National Academy of Science of Armenia, 2005. (Plenary talk.).
- [4] A. Slissenko. Verification in predicate logic with time: Algorithmic questions. In Luke Ong, editor, *Proc of the 14th Annual Conference (and 19th International Workshop) on Computer Science Logic (CSL 2005), Oxford, UK, 22–25 August 2005, Lect. Notes in Comput. Sci., vol. 3634*, pages 3–17. Springer-Verlag, 2005. (Invited talk.).
- [5] M. Arapinis and A. Slissenko. A pattern based language for programming of heuristics of proof search. In D. Petcu, V. Negru, D. Zaharie, and T. Jebelen, editors, *Proceeding of the 6th International Symposium on Symbolic and Numeric Algorithms for Scientific Computing (SYNASC-2004), September 26–30, 2004, Timisoara, Rumania — organized by West University of Timisoara, Romania, and Research Institute for Symbolic Computation Johannes Kepler University, Linz, Austria, September 26–30, 2004*, pages 400–411. Editura MIRTON, 2004. ISBN 973-661-441-7.
- [6] J. Cohen and A. Slissenko. On implementations of distributed real-time abstract state machines. In *Proc. of the 4th Intern. Conf. on Computer Science and Information Technology (CSIT'2003), September 22–26, 2003, Yerevan, Armenia. Organized by National Academy of Science of Armenia in cooperation with Test Technology Technical Council of IEEE Computer Society*, pages 13–18. National Academy of Science of Armenia, 2003. (Plenary talk.).
- [7] T. Essafi and A. Slissenko. A heuristic algorithm for proving the security property of some protocols. In *Proc. of the 4th Intern. Conf. on Computer Science and Information Technology (CSIT'2003), September 22–26, 2003, Yerevan, Armenia. Organized by National Academy of Science of Armenia in cooperation with Test Technology Technical Council of IEEE Computer Society*, pages 58–62. National Academy of Science of Armenia, 2003.
- [8] A. Slissenko. Complexity problems in the analysis of information systems security. In V. Gorodetsky, L. Popyack, and V. Skormin, editors, *Proc. of the 2nd Intern. Workshop on Mathematical Methods, Models and Architectures for Computer Networks Security (MMM-ACNS-2003), St.Petersburg, Russia, September 21–23, 2003, Lect. Notes in Comput. Sci., vol. 2776*, pages 48–57. Springer-Verlag, 2003. (Invited talk.).

- [9] D. Beauquier, A. Rabinovich, and A. Slissenko. A logic of probability with decidable model-checking. In J. Bradfield, editor, *Proc. of the 16th Int. Worksshop. on Comput. Sci. Logic (CSL'02) and 11th Annual Conference of the EACSL , September 22–25, 2002, Edinburgh, UK. Lect. Notes in Comput. Sci., vol. 2471*, pages 306–321. Springer-Verlag, 2002.
- [10] D. Beauquier, T. Crolard, A. Durand, and A. Slissenko. Impossibility of ‘essential’ real-time garbage collection in the general case. In *Proc. of the 3rd International Conf. on Computer Science and Information Technologies, September 17–22, 2001, Yerevan, Armenia*, pages 113–117. National Academy of Sciences of Armenia, 2001.
- [11] J. Cohen and A. Slissenko. On refinements of timed abstract state machines. In R. Moreno-Díaz and A. Quesada-Arencibia, editors, *Formal Methods and Tools for Computer Science, EUROCAST 2001, Extended Abstracts, Las Palmas de Gran Canaria, February 19–23, 2001*, pages 247–250. 20001 IUCTC Universidad de Las Palmas de Gran Canaria, 2001. ISBN 84-699-3971-8.
- [12] D. Beauquier and A. Slissenko. Verification of timed algorithms: Gurevich abstract state machines versus first order timed logic. In Y. Gurevich, P. Kutter, M. Odersky, and L. Thiele, editors, *Proc. of the Intern. Workshop on Abstract State Machines (ASM'2000), March 20–24, 2000, Switzerland, Monte Verita, Ticino*, pages 22–39. ETH, Zürich, 2000.
- [13] J. Cohen and A. Slissenko. On verification of refinements of timed distributed algorithms. In Y. Gurevich, P. Kutter, M. Odersky, and L. Thiele, editors, *Proc. of the Intern. Workshop on Abstract State Machines (ASM'2000), March 20–24, 2000, Switzerland, Monte Verita, Ticino. Lect. Notes in Comput. Sci., vol. 1912*, pages 34–49. Springer-Verlag, 2000.
- [14] D. Beauquier and A. Slissenko. Decidable classes of the verification problem in a timed predicate logic. In G. Ciobanu and Gh. Păun, editors, *Proc. of the 12th Intern. Symp. on Fundamentals of Computation Theory (FCT'99), Iași, Rumania, August 30 –September 3, 1999*, *Lect. Notes in Comput. Sci., vol. 1684*, pages 100–111. Springer-Verlag, 1999.
- [15] A. Slissenko. Minimizing entropy of knowledge representaion. In *Proc. of the 2nd International Conf. on Computer Science and Information Technologies, August 17–22, 1999, Yerevan, Armenia*, pages 2–6. National Academy of Sciences of Armenia, 1999.
- [16] D. Grigoriev and A. Slissenko. Polytime algorithm for the shortest path in a homotopy class amidst semi-algebraic obstacles in the plane. In O. Gloor, editor, *Proc. of the 1998 Int. ACM Symp. on Symbolic and Algebraic Computations (ISSAC'98)*, pages 17–24, Dresden, Germany, August 13–15 1998. ACM Press.
- [17] D. Grigoriev and A. Slissenko. Computing minimum-link path in a homotopy class amidst semi-algebraic obstacles in the plane. In T. Mora and H. Mattson, editors, *Proc. of the 12th Intern. Symp. on Applied Algebra, Algebraic Algorithms and Error-Correcting Codes (AAECC'12), Lect. Notes in Comput. Sci., vol. 1255*, pages 114–129, Toulouse, France, June 23–27, 1997 1997. Springer-Verlag.
- [18] D. Beauquier and A. Slissenko. The railroad crossing problem: Towards semantics of timed algorithms and their model-checking in high-level languages. In M. Bidoit and M. Dauchet, editors, *Proceedings of the 7th Intern. Symp. on Theory and Practice of Software Development (TAPSOFT'97), Lect. Notes in Comput. Sci., vol. 1214*, pages 201–212, Lille, France, April 14–18, 1997 1997. Springer-Verlag.
- [19] D. Beauquier, D. Burago, and A. Slissenko. On the complexity of finite memory policies for markov decision processes. In J. Wiedermann and P. Hájek, editors, *Proc. of the 20th Intern.*

- Symp. on Mathematical Foundations of Computer Science (MFCS'95), Lect. Notes in Comput. Sci., vol. 969*, pages 191–200, Prague, Czech Republic, August 28 – September 1, 1995 1995. Springer-Verlag.
- [20] A. Slissenko. Technological environment for expert systems development. In J. Alty and L. Mikulich, editors, *Industrial Applications of Artificial Intelligence, Proc. IFIP TC5/WG5.3 International Conference on Artificial Intelligence in CIM*, pages 172–175, Leningrad, USSR, April 16–18, 1990 1991. North-Holland.
 - [21] A. Slissenko. Linguistic considerations in devising effective algorithms. In *Proc. Intern. Congress of Mathematicians, August 16–24, 1983, Waszawa*, pages 347–357. ICM, Waszawa, 1984.
 - [22] G. Adel'son-Vel'ski and A. Slissenko. What can we do with problems of exhaustive search? In A. Ershov and D. Knuth, editors, *Proc. Intern. Symp. on Algorithms in Modern Mathematics and Computer Science, September 16–22, 1979, Lect. Notes Comput. Sci., vol. 122*, pages 315–342. Springer-Verlag, 1981.
 - [23] A. Slissenko. Computational complexity of string and graph identification. In *Proc. Intern. Symp. on Mathematical Foundations of Computer Science (MFCS'79), Lect. Notes Comput. Sci., vol. 74*, pages 182–190. Springer-Verlag, 1979.
 - [24] A. Slisenko (Slissenko). String-matching in real-time: Some properties of the data structure. In *Proc. Intern. Symp. on Mathematical Foundations of Computer Science (MFCS'78), Lect. Notes Comput. Sci., vol. 64*, pages 493–496. Springer-Verlag, 1978.
 - [25] A. Slisenko (Slissenko). Some algorithmic problems related to computational mathematics. In *Inter. Congres of Mathematicians, Moscow, 1966. Section 1, Mathematical Logic and Foundations of Mathematics. Abstracts*, pages 24–25. ICM, Moscow, 1966.

3. Divers

- [1] J. Cohen and A. Slissenko. Stability of real-time abstract state machines under desynchronization. In J. P. Bowen P. Boca E. Börger, M. Butler, editor, *Proc. of the First Int. Conference on Abstract State Machines, B and Z (ABZ2008), September 16–18, 2008, London, UK. Lect. Notes in Comput. Sci., vol. 5238*, page 341. Springer-Verlag, 2008.
- [2] J. Cohen and A. Slissenko. Implementation of sturdy real-time abstract state machines by machines with delays. Technical Report TR-LACL-2008–02, University Paris 12, Laboratory for Algorithmics, Complexity and Logic (LACL), 2008. Submitted. Available at <http://www.univ-paris12.fr/lacl/>.
- [3] E. Börger and A. Slissenko. The abstract state machines method. *Fundamenta Informaticae*, 77(1–2):i–iii, 2007.
- [4] J. Cohen and A. Slissenko. On refinements of real-time distributed abstract state machines. Technical Report 2002–03, University Paris 12, Laboratory for Algorithmics, Complexity and Logic, 2002. Available at <http://www.univ-paris12.fr/lacl/>.
- [5] A. Slissenko. A logic framework for verification of timed distributed algorithms. Version of April 2001. Technical Report TR 2003–04, University Paris 12, Laboratory for Algorithmics, Complexity and Logic (LACL), 2003. Available at <http://www.univ-paris12.fr/lacl/>.

- [6] W. Schulte and A. Slissenko. ASM2001: Abstract state machine international workshop. *Bulletin of EATCS*, (74):246–248, 2001.
- [7] D. Beauquier, T. Crolard, and A. Slissenko. A predicate logic framework for mechanical verification of real-time Gurevich Abstract State Machines: A case study with PVS. Technical Report 00–25, University Paris 12, Department of Informatics, 2000. Available at <http://www.univ-paris12.fr/lacl/>.
- [8] A. Slissenko. ASM2000: Abstract state machine international workshop. *Bulletin of EATCS*, (71):219–220, 2000.
- [9] A. Slissenko. First St Petersburg Days of Logic and Computability. *Bulletin of EATCS*, (72):197–199, 2000.
- [10] D. Beauquier and A. Slissenko. Decidable verification for reducible timed automata specified in a first order logic with time. Technical Report 98–16, University Paris 12, Department of Informatics, 1998. 28 pages. Available at <http://www.univ-paris12.fr/lacl/>. Preliminary version of the paper in *Theor. Comput. Sci.*, **275**:1–2:347–388, 2002.
- [11] D. Beauquier and A. Slissenko. On semantics of algorithms with continuous time. Technical Report 96–15 (Revised Version), University Paris 12, Department of Informatics, 1997. 25 pages. Available at <http://www.univ-paris12.fr/lacl/>.
- [12] D. Beauquier and A. Slissenko. The railroad crossing problem: Towards semantics of timed algorithms and their model-checking in high-level languages. Technical Report 96–10, University Paris 12, Department of Informatics, 1996. 24 pages. Available at <http://www.univ-paris12.fr/lacl/>.
- [13] J. Heintz, T. Krick, A. Slissenko, and P. Solernó. Une borne inférieure pour la construction de chemins polygonaux dans R^n . In *Publications du département de mathématiques de l'Université de Limoges*, pages 94–100. Université de Limoges, 1993.
- [14] Yu. Matiyasevich, G. Mints, V. Orevkov, and A. Slissenko. Nikolai Aleksandrovich Shanin (on his seventieth birthday). *Russian Math. Surveys*, 45(1):239–240, 1990. Russian original in: *Uspekhi Matem. Nauk*, 45(1):205–206, 1990.
- [15] G. Davydov, Yu. Matiyasevich, G. Mints, V. Orevkov, N. Shanin, and A. Slissenko. Sergei Yuryevich Maslov. Obituary. *Uspekhi Matem. Nauk*, 39:239–240, 1984. (In Russian.).
- [16] S. Maslov, Yu. Matiyasevich, G. Mints, V. Orevkov, and A. Slissenko. Nikolai Aleksandrovich Shanin (on his sixtieth anniversary). *Uspekhi Matem. Nauk*, 35(2(212)):241–245, 1980. (In Russian.).

4. Books and Chapters in Books

- [1] A. Slissenko. St.Petersburg/Leningrad (1961-1998): From logic to complexity and further. In C. Calude, editor, *People and Ideas In Theoretical Computer Science*, pages 274–313. Springer-Verlag, 1998.
- [2] A. Slissenko. Diminishing search by the method of context-free decomposition. In R. Yusupov, editor, *Methods and Tools of Information Technology in Science and Industry*, pages 7–20. Nauka Publ. House, St.-Petersburg, 1992. (In Russian.).

- [3] V. Gorodetsky, A. Lebedev, and A. Slissenko. Man-machine interface as a tool of increasing the productivity of design and application of computer systems of knowledge processing. In *Special Purpose Expert Systems*. USSR Ministry of Defense, Moscow, 1989. Series: *Fundamental and Perspective Research in the Interests of the Defense*. (In Russian.).
- [4] V. Gorodetsky, A. Lebedev, and A. Slissenko. Problems of complexity and design of special purpose expert systems. In *Special Purpose Expert Systems*. USSR Ministry of Defense, Moscow, 1989. Series: *Fundamental and Perspective Research in the Interests of the Defense*. (In Russian.).
- [5] V. Gorodetsky, A. Lebedev, and A. Slissenko. Expert systems in modeling. In *Special Purpose Expert Systems*. USSR Ministry of Defense, Moscow, 1989. Series: *Fundamental and Perspective Research in the Interests of the Defense*. (In Russian.).
- [6] A. Slissenko. Towards the problem of analysis of logical and algorithmical structure of the systems of knowledge representation and processing. In *Theoretical Aspects and Tools of Applied Intellectual Systems*. Scientific Council for Cybernetics of the Acad. Sci. of the USSR, Moscow, 1989. Series: *Questions of Cybernetics*. (In Russian.).
- [7] G. Orlovsky and A. Slissenko. Artificial intelligence: an industrial point of view. In *Computers in Design and Manufacturing*. Mashinostroyeniye Publ. House, Leningrad, 1983. (In Russian.).
- [8] G. Davydov, S. Maslov, G. Mints, V. Orevkov, and A. Slisenko (Slissenko). A computer algorithm for the determination of deducibility on the basis of the inverse method. In J. Siekmann and G. Wrightson, editors, *The Automation of Reasoning 2. Classical Papers on Computational Logic 1967–1970*, pages 531–541. Springer-Verlag, 1983. Russian original in: *Zapiski Nauchnykh Seminarov LOMI*, 16:8–19, 1969.
- [9] N. Shanin, G. Davydov, S. Maslov, G. Mints, V. Orevkov, and A. Slisenko (Slissenko). A computer algorithm for the determination of deducibility on the basis of the inverse method. *Zapiski Nauchnykh Seminarov LOMI*, 16:8–19, 1969. In Russian.
- [10] A. Slisenko (Slissenko). On maximal continuity regulators of constructive functions. *Zapiski Nauchnykh Seminarov LOMI*, 4:201–208, 1967. In Russian. Translated into English in: *Seminars in Mathematics, V.A.Steklov Mathematical Institute, Leningrad*, Consultants Bureau, New York, 4:82–84, 1969.
- [11] N. Shanin, G. Davydov, S. Maslov, G. Mints, V. Orevkov, and A. Slisenko (Slissenko). An algorithm for machine search of a natural logical deduction in a propositional calculus. In J. Siekmann and G. Wrightson, editors, *The Automation of Reasoning I. Classical Papers on Computational Logic 1957–1966*, pages 424–483. Springer-Verlag, 1983.
- [12] N. Shanin, G. Davydov, S. Maslov, G. Mints, V. Orevkov, and A. Slisenko (Slissenko). *An Algorithm for Machine Search of a Natural Logical Deduction in a Propositional Calculus*. Nauka, Leningrad, 1965. 39p.

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