

List of publications by Rūsiņš Mārtiņš Freivalds

Scientific publications:

- Monographs

1. R. Freivalds, D. Taimiņa, E.B. Kinber. *Fundamentals of Computers*. Kiev, Radianska skola, 1986 (in Russian)
2. A.P. Ershov, V.Monahov, R. Freivalds et al. *Teaching fundamentals of computers*. Moscow, Prosveshchenie, 1986 (in Russian)
3. A.P. Ershov, V.Monahov, R. Freivalds et al. *Teaching fundamentals of computers*. Kishinew, Lumina, 1987 (in Moldovian, translation of [2])
4. A.P. Ershov, V.Monahov, R. Freivalds et al. *Teaching fundamentals of computers*. Vilnius, Sviesa, 1987 (in Lithuanian, translation of [2])
5. R. Freivalds, D.Taimiņa, E.B.Kinber. *Basics of Computers. A manual for teachers*. Baku, Minpros, 1986 (in Azeri, translation from [2])

Edited books:

1. L. Arge and R. Freivalds (Eds.) Proceedings of the 10th Scandinavian Workshop on Algorithm Theory, Riga, Latvia, July 6-8, 2006, "Lecture Notes in Computer Science", Springer, 2009, v.4059.
2. R. Freivalds (Ed.) Proceedings of the 13th International Symposium, FCT 2001, Riga, Latvia, August 22-24, 2001, "Lecture Notes in Computer Science", Springer, 2009, v.2138.
3. R. Bonner and R. Freivalds (Ed.) *Quantum Computation and Learning*. Proceedings of the International Workshop "Quantum Computation and Learning", Riga, Latvia, September 11-13, 1999, Malardalen University Press.
4. R. Freivalds (Ed.) *Randomized Algorithms*. Proceedings of the International Workshop "Randomized Algorithms", Brno, Czech Republic, August 27-28, 1998, Aachen University Press.

- Papers in ISC scientific journals

1. R. Freivalds, M. Ozols, L. Mančinska. *Improved constructions of mixed state quantum automata*. "Theoretical Computer Science", 2009, v. 410, No. 20, p. 1923–1931.
2. R. Freivalds. *Amount of Nonconstructivity in Finite Automata*. "Lecture Notes in Computer Science", Springer, 2009, v.5642, p. 227-236.
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4. R. Tarasovs, R. Freivalds. *Group Input Machine*. "Lecture Notes in Computer Science", Springer, 2009, v.5404, p. 521–532.
5. R. Freivalds. *Non-Constructive Methods for Finite Probabilistic Automata*. "International Journal of Foundations of Computer Science", 2008, v. 19, No. 3, p. 565–580.
6. R. Freivalds, R. F. Bonner. *Quantum inductive inference by finite automata*. "Theoretical Computer Science", 2008, v. 397, No. 1-3, p. 70–76.
7. J. Bārzdiņš, R. Freivalds, C. H. Smith. *Learning with belief levels*. "Journal of Computer and System Sciences", 2008, v. 74, No.4, p. 527–545.
8. R. Freivalds. *Artin's Conjecture and Size of Finite Probabilistic Automata*. "Lecture Notes in Computer Science", Springer, 2008, v. 4800, p. 280–291.
9. R. Freivalds. *Super-Exponential Size Advantage of Quantum Finite Automata with Mixed States*. "Lecture Notes in Computer Science", Springer, 2008, v. 5369, p. 931–942.
10. R. Freivalds. *Non-constructive Methods for Finite Probabilistic Automata*. "Lecture Notes in Computer Science", Springer, 2007, v. 4588, p. 169–180.
11. R. Freivalds. *Hamming, Permutations and Automata*. "Lecture Notes in Computer Science", Springer, 2007, v. 4665, p. 18–29.
12. R. Agadzanyan, R. Freivalds. *Size of Quantum Finite State Transducers*. "Lecture Notes in Computer Science", Springer, 2007, v. 4362, p. 155–163.
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15. R. Ozols, R. Freivalds, J. Ivanovs, E. Kalniņa, L. Lāce, M. Miyakawa, H. Tatsumi, D. Taimiņa. *Boolean Functions with a Low Polynomial Degree and Quantum Query Algorithms*. "Lecture Notes in Computer Science", Springer, 2005, v. 3381, p. 408–412.
16. A. Bērziņa, A. Dubrovsky, R. Freivalds, L. Lāce, O. Scegulnaja. *Quantum Query Complexity for Some Graph Problems*. "Lecture Notes in Computer Science", Springer, 2004, v. 2932, p. 140–150.
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18. R. Freivalds, M. Karpinski, C. H. Smith, R. Wiehagen. *Learning by the Process of Elimination*. "Information and Computation", 2001, v. 176, No. 1, p. 37–50.
19. J. Bārzdiņš, R. Freivalds, C. H. Smith. *Towards Axiomatic Basis of Inductive Inference*. "Lecture Notes in Computer Science", Springer, 2001, v. 2138, p. 1–13.
20. R. F. Bonner, R. Freivalds, M. Kravtsev. *Quantum versus Probabilistic One-Way Finite Automata with Counter*. "Lecture Notes in Computer Science", Springer, 2001, v. 2234, p. 181–190.

21. R. Freivalds, A. Winter. *Quantum Finite State Transducers*. "Lecture Notes in Computer Science", Springer, 2001, v. 2234, p. 233–242.
22. A. Ambainis, K. Apsītis, R. Freivalds, C. H. Smith. *Hierarchies of probabilistic and team FIN-learning*. "Theoretical Computer Science", 2001, v. 261, No. 1, p. 91–117.
23. Kalvis Apsītis, Rusins Freivalds, Raimonds Simanovskis, Juris Smotrovs. *Closedness properties in ex-identification*. "Theoretical Computer Science", 2001, v. 268, No. 2, p. 367–393.
24. Andris Ambainis, Rūsiņš Freivalds and Carl H. Smith. *Inductive Inference with Procrastination: Back to Definitions*. Fundamenta Informaticae, Vol. 40, pp. 1-16, 1999.
25. Andris Ambainis, Richard Bonner, Rūsiņš Freivalds, Marats Golovkins and Marek Karpinski. *Quantum Finite Multitape Automata*. "Lecture Notes in Computer Science", Springer, 1999, v.1725, p. 336-344.
26. Kalvis Apsītis, Setsuo Arikawa, Rūsiņš Freivalds, Eiju Hirowatari and Carl H. Smith. *On the inductive inference of recursive real-valued functions*. "Theoretical Computer Science", 1999, vol. 219, No. 1, p. 3-17.
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35. J. Kaņeps, D. Geidmanis, and R. Freivalds. *Tally languages accepted by Monte Carlo pushdown automata*. "Lecture Notes in Computer Science", Springer, 1997, v.1269, p.183-192
36. A.Ambainis, R. Freivalds, and M. Karpinski. *Weak and strong recognition by 2-way randomized automata*. "Lecture Notes in Computer Science", Springer, 1997, v.1269, p.171-182
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- Other scientific papers

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CURRICULUM VITAE

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1992 Full Member of the Latvia Academy of Science

Scientific honours:

2003 Grand Medal of the Latvia Academy of Sciences

2003 Award of the Latvia Academy of Sciences and GRINDEX Corporation

2000 Eižens Āriņš Prize of the Latvia Academy of Sciences

1986 Honorary scientist of Latvia SSR

1976 Latvia YCL prize for the work "Theory of Inductive Inference"

Pedagogical honours:

2007 Prize "Best Professor of all departments" at the 1st Poll in the University of Latvia

Employment:

1992- Professor, University of Latvia

1990-1991 Professor, Chief Scientific Associate in Institute of Mathematics and Computer Science, University of Latvia

1985-1990	Professor, Deputy Director of Computing Center, Latvian State University
1975-1985	Head of Laboratory, Computing Center, Latvian State University
1971-1975	Senior Scientific Associate, Computing Center, Latvian State University
1965-1966	Assistant, Faculty of Physics and Mathematics, Latvian State University

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2009	Kyoto University, Japan
2006	Tsukuba Technical University, Japan
2005	Cornell University, USA
1996	Mälardalens University, Eskilstuna, Sweden
1994	University of Bonn, Germany
1994	National University of Singapore
1993	Electrotechnical Laboratory, Tsukuba, Japan
1991	Humboldt University, Berlin, Germany
1980	Kalinin State University, Kalinin, USSR

Chair of Program Committee:

- 10th Scandinavian Workshop on Algorithm Theory SWAT 2006, (Riga, Latvia, 2006)
- 13th International Symposium "Fundamentals of Computation Theory" (Riga, Latvia, 2001)
- International workshop "Quantum Computation and Learning" (Sundbyholms Slott, Sweden, 2000)
- International workshop "Quantum Computation and Learning" (Riga, Latvia, 1999)
- International workshop "Randomized Algorithms" (Brno, Czech Republic, 1998)

Membership in Program Committees:

- 13th World Computer Congress (Hamburg, Germany, 1994)
- International Symposium on Theoretical Aspects of Computer Science (Lübeck, Germany, 1997)
- International Colloquia "Automata, Languages and Programming" (Paderborn, Germany, 1996; Lund, Sweden, 1993)

International Workshop "Algorithmic Learning Theory" (Tokyo, Japan, 1993)
Workshop "Computational Learning Theory" (Santa Barbara, USA, 1992)
Second European Conference "Computational Learning Theory" (Barcelona, Spain, 1995)
International Symposia "Mathematical Foundations of Computer Science" (Prague, Czechoslovakia, 1992; Rytro, Poland, 1989; Bratislava, Slovakia, 1997 and 2000)
Scandinavian Workshop on Algorithm Theory (Stockholm, Sweden, 1998)
International Symposium "Fundamentals of Computation Theory" (Iasi, Rumania, 1999)

Invited lectures:

MEMICS 2009, Fifth Doctoral Workshop on Mathematical and Engineering Methods in Computer Science (Znojmo, Czech Republic, 2009)
Estonian Theory Days at Jöulumäe, (Jöulumäe, Estonia, 2008)
SAGE'2007 (Zurich, Switzerland)
International Symposium "Mathematical Foundations of Computer Science" MFCS'2005 (Gdansk, Poland, 2005)
CIAA'2005, Nice, France
NATO Advanced Study Institute "Structural Theory of Automata, Semigroups and Universal Algebra" (Université de Montréal, Canada, July 7-18, 2003)
Conference "General Theory of Information Transfer" at the Center for Interdisciplinary Research (Bielefeld, Germany, November 4-9, 2002)
Workshop on Quantum Computer Theory (Turin, Italy, 2001)
2nd Bielefeld Workshop on Quantum Information and Complexity (Bielefeld, Germany, 2000)
International workshop "Molecular Computing and Quantum Computing" (Vienna, Austria, 2000)
"Quantum Day" (University of Nice, France, 2000)
Bielefeld Workshop on Quantum Information and Complexity (Bielefeld, Germany, 1999)
Sixth Fenno-Ugric Symposium on Software Technology (Sagadi, Estonia, 1999)
25th Conference on Current Trends in Theory and Practice of Informatics "SOFSEM'98" (Jasna, Slovakia, 1998)
22nd International Colloquium "Automata, Languages and Programming" ICALP'95 (Szeged, Hungary, 1995)
3rd Annual Workshop on Computational Learning Theory (Rochester, USA, 1990)
Symposium on Algorithms (later called COCOON) (Tokyo, Japan, 1990)
Symposia on Mathematical Foundations of Computer Science (Gdansk, Poland, 2005; High Tatras, Czechoslovakia, 1986; High Tatras, Czechoslovakia, 1981; Jadvisin, Poland, 1974)

Symposia on Fundamentals of Computer Science (Linkoping, Sweden, 1983;
Kazan, USSR, 1988)

USSR conferences on Mathematical Cybernetics (Saratov, 1985; Irkutsk, 1987

USSR conference on Mathematical Logics (Kishinew, 1978)

Regular conference talks:

14th International Conference on Implementation and Application of Automata
CIAA 2009 Sydney, Australia

35th International Conference on Current Trends in Theory and Practice of
Computer Science SOFSEM 2009, Špindleruv Mlyn, Czech Republic

The 19th International Symposium on Algorithms and Computation (ISAAC
2008) Gold Coast, Australia

11th International Conference "Development of Language Theory" DLT 2007,
Turku, Finland

33rd International Conference on Current Trends in Theory and Practice of
Computer Science SOFSEM 2007, Harrachov, Czech Republic

31st International Conference on Current Trends in Theory and Practice of Com-
puter Science SOFSEM 2005, Liptovsky Jan, Slovak Republic

30th International Conference on Current Trends in Theory and Practice of
Computer Science SOFSEM 2004, Merin, Czech Republic

28th International Conference on Current Trends in Theory and Practice of
Computer Science SOFSEM 2001, Piestany, Slovak Republic

26th International Conference on Current Trends in Theory and Practice of
Computer Science SOFSEM 1999, Milovy, Czech Republic

Mathematical Foundations of Computer Science 1998, 23rd International Sym-
posium, MFCS'98, Brno, Czech Republic

39th Annual Symposium on Foundations of Computer Science FOCS 1998, Palo
Alto, CA, USA

Algorithmic Learning Theory, 8th International Conference, ALT '97, Sendai,
Japan

International Workshop on Randomization and Approximation Techniques in
Computer Science, RANDOM'97, Bologna, Italy

Tenth Annual Conference on Computational Learning Theory (COLT 1997),
July 6-9, 1997, Nashville, Tennessee, USA

Logical Foundations of Computer Science, 4th International Symposium, LFCS'97,
Yaroslavl, Russia

Computational Learning Theory, Third European Conference, EuroCOLT '97,
Jerusalem, Israel

Algorithmic Learning Theory, 7th International Workshop, ALT '96, Sydney,
Australia

Grammatical Inference: Learning Syntax from Sentences, 3rd International Colloquium, ICGI-96, Montpellier, France

13th Annual Symposium on Theoretical Aspects of Computer Science STACS 96, Grenoble, France

Computational Learning Theory COLT'95, Santa Cruz, CA, USA

Computational Learning Theory COLT'94, Montreal, Canada

Computational Learning Theory COLT'93, Santa Cruz, CA, USA

Computational Learning Theory COLT'92, Pittsburgh, Pennsylvania, USA

17th International Colloquium "Automata, Languages and Programming" ICALP'90, Madrid, Spain

9th USSR conference on mathematical logics, Leningrad, USSR

8th USSR conference on theoretical cybernetics", Gorkij, USSR

1st World Congress of the Bernoulli Society on Mathematical Statistics and Theory of Probability, 1986, Tashkent, USSR

International Symposium "Mathematical Foundations of Computer Science" MFCS'84, Prague, Czechoslovakia

World Computer Congress (IFIP Congress'83), Paris, France

International Symposium "Fundamentals of Computation Theory" FCT'83, Kazan, USSR

IFIP Congress'77, 1977, Toronto, Canada

USSR conference on synthesis, testing, verification and debugging of programs, 1986, Riga, USSR

7th USSR conference on theoretical cybernetics", 1985, Irkutsk, USSR

7th USSR Symposium on Mathematical Logics, 1984, Novosibirsk, USSR

Conference on methods of mathematical logics, 1983, Tallinn, USSR

3rd USSR Symposium on probabilistic automata, 1983, Kazan, USSR

USSR conference on synthesis, testing and debugging of programs, 1981, Riga, USSR

Conference on mathematical logics in artificial intelligence, 1980, Vilnius, USSR

Conference on randomness and randomized search, 1980, Kemerovo, USSR

5th USSR Symposium on Mathematical Logics, 1979, Novosibirsk, USSR

USSR Symposium on artificial intelligence and automatization of research, 1978, Kiev, USSR

2nd USSR symposium on probabilistic automata, 1976, Tbilisi, USSR

7th USSR symposium on logics and scientific methodology, 1976, Kiev, USSR

4th USSR Symposium on Mathematical Logics, 1976, Kishinev, USSR

3rd USSR Symposium on Mathematical Logics, 1974, Novosibirsk, USSR

International Symposium on Discrete Systems, 1974, Riga, USSR

2nd USSR Symposium on Mathematical Logics, 1972, Moscow, USSR

1st USSR conference on theoretical cybernetics, 1969, Novosibirsk, USSR
1st USSR Symposium on Mathematical Logics, 1969, Alma-Ata, USSR
International Conference on Artificial Intelligence, 1968, Tashkent, USSR
8th USSR colloquium on algebra, 1967, Riga, USSR

Lectures outside the University of Latvia:

Kyoto University, Japan (2005, 2007, 2009)
Hokaido University, Japan (2008)
Tokyo Institute of Technology, Japan (1993)
University of Osaka, Japan (1993)
Electrotechnical Laboratory, Tsukuba, Japan (1990, 1993)
Hitachi Research center, Japan (1990, 1993)
Fujitsu Research Center, Japan (1990, 1993)
NEC Research Center, Japan (1993)
Cornell University, USA (1990, 1994, 2002, 2005)
University of California in Berkeley, USA (1993, 2000)
University of Washington in Seattle, USA (1993)
Duke University, USA (1994)
University of Pittsburgh, USA (1994)
University of Cincinnati, USA (2000)
University of Maryland, USA (1990, 1993, 1995, 1998)
University of Boston, USA (1995)
Rochester University, USA (1990)
New Mexico State University, USA (1993)
University of Delaware, USA (1995)
University of Wisconsin-Madison, USA (1998)
University of Montreal, Canada (1993)
University of Bonn, Germany (1993, 1994)
Humboldt University, Berlin, Germany (1980, 1988)
Technical University of Berlin, Germany (1991)
Technical University of Munich, Germany (1991)
University of Kaiserslautern, Germany (1997)
University of Paderborn, Germany (1996)
University of Greifswald, Germany (1980, 1997)
Friedrich-Schiller University, Jena, Germany (1980, 1997)
University of Tübingen, Germany (1999)

Hebrew University, Jerusalem, Israel (1990)
 Tel Aviv University, Israel (1990)
 Royal Technical University, Stockholm, Sweden (1996)
 Lund University, Sweden (1993, 1995)
 Mälardalens University, Eskilstuna, Sweden (1996)
 Linköping University, Sweden (1996)
 University of Turku, Finland (1976,1988,1992)
 University of Helsinki, Finland (1976,1988)
 University of Oulu, Finland (1976)
 Auckland University, New Zealand (1996)
 Charles University, Prague, Czech Republic (1972,1984,1988)
 University of Brno, Czech Republic (1972)
 Warsaw University, Poland (1974, 1985)
 Cracow University, Poland (1974)
 University of Lublin, Poland (1974)
 Bucharest University, Romania (1990)
 Moscow State University, Russia (1970, 1981, 1984)
 Novosibirsk State University, Russia (1970, 1984)
 Kazan State University, Russia (1978, 1985)
 Tallinn Technical University, Estonia (1979)
 Riga Technical University, Latvia (1981)
 Liepāja Pedagogical University, Latvia (1982)

Courses of lectures in the University of Latvia

1972-	Complexity of algorithms
1974-1975	Linear algebra
1975-1976	Theory of numberings
1992-	Theory of algorithms
1993-	Main notions of mathematics
1994-	Data protection and cryptography
1994-	Algorithms. automata and formal languages, 1
1994-	Algorithms. automata and formal languages, 2
2003-	Game theory
2004-	Quantum computers
2006-	Elliptic curve cryptography
2010-	GOOGLE search algorithms

Advising: Research direction

Doctoral theses (dates of defence)

1974	Efim Kinber
1983	Agnis Andžāns
1989	Māris Alberts
1990	Daina Taimiņa
1991	Jānis Kaņeps
1994	Juris Viksna
1997	Andris Ambainis
1999	Juris Smotrovs
1999	Dainis Geidmanis
2003	Marats Golovkins
2005	Maksim Kravtsev
2006	Arnolds Ķikusts
2008	Lelde Lāce
2008	Vasilijs Kravcevs

Master theses (dates of defence)

1994	Kalvis Apsītis
1995	Dace Gobleja
1995	Gints Tervits
1996	Juris Smotrovs
1996	Raimonds Simanovskis
1996	Gatis Gurckis
1997	Andris Ambainis
1998	Iveta Sala
1999	Marats Golovkins
1999	Antra Lukjanska
2000	Anda Rihtere
2000	Gunta Šlosberga
2000	Līna Bruzgule
2000	Indra Kozule
2001	Inga Zariņa
2001	Maksims Kravcevs
2002	Oksana Ščeguļnaja

2002	Andrejs Dubrovskis
2003	Aija Bērziņa
2004	Arnolds Ķikusts
2004	Vasilijs Kravcevs
2004	Ilya Germans
2004	Pēteris Lediņš
2005	Ludmila Čumika
2005	Elina Kalniņa
2005	Oļegs Podoljskis
2006	Ruben Agadzanyan
2007	Alina Dubrovska
2007	Taisija Miščenko-Slatenkova
2007	Ruslans Tarasovs

Prizes for students:

1972	Efim Kinber - a diploma in the Annual competition for the best student scientific paper of the USSR
1973	Agnis Andžāns - Prize of the Academy of Science of the Latvian SSR for the best student scientific paper
1975	Agnis Andžāns - Prize of the Academy of Science of the Latvian SSR for the best student scientific paper
1978	Lev Lisagor - Prize of the Academy of Science of the Latvian SSR for the best student scientific paper
1979	Vita Brēmere-Kāle - Prize of the Academy of Science of the Latvian SSR for the best student scientific paper
1992	Kalvis Apsītis - Charles Babbage Prize of the University of Latvia
1994	Andris Ambainis - Charles Babbage Prize of the University of Latvia
1995	Andris Ambainis - a special mentioning at the <i>Computing Research Association (U.S.A.)</i> Annual competition for the title of the best Computer Science undergraduate student
1996	Andris Ambainis - Charles Babbage Prize of the University of Latvia
1996	Andris Ambainis - <i>Young Scientist Award</i> from <i>Academia Europae</i>
1996	Andris Ambainis - Award for the best Bachelor thesis from <i>SWH Izglītībai, Zinātnei un Kultūrai</i>

- 1996 Juris Smotrovs - Award for the best Master thesis from *SWH Izglītībai, Zinātnei un Kultūrai*
- 1997 Juris Smotrovs - Award from the *International Federation for Information Processing (IFIP)* for the best student paper at the 3rd European Conference on Computational Learning Theory
- 1997 Atis Straujums - Charles Babbage Prize of the University of Latvia
- 1999 Juris Smotrovs - *Young Scientist Award* from the Latvia Academy of Science
- 1999 Maksims Kravcevs - Award for the best Bachelor thesis from *SWH Izglītībai, Zinātnei un Kultūrai*
- 1999 Arnolds Ķikusts - Charles Babbage Prize of the University of Latvia
- 2000 Marats Golovkins - *Young Scientist Award* from the Latvia Academy of Science
- 2000 Arnolds Ķikusts - Award for the best Bachelor thesis from *SWH Izglītībai, Zinātnei un Kultūrai*
- 2000 Anda Rihtere - Award for the best Master thesis from *SWH Izglītībai, Zinātnei un Kultūrai*
- 2000 Aija Bērziņa - Ada Lovelace Prize of the University of Latvia
- 2000 Māris Valdatš - Charles Babbage Prize of the University of Latvia
- 2000 Anda Rihtere - Werner von Siemens award for the best student research paper from Bremen University (Germany)
- 2000 Gunta Šlosberga - Werner von Siemens award for the best student research paper from Bremen University (Germany)
- 2001 Maksims Kravcevs - Award for the best Master thesis from *SWH Izglītībai, Zinātnei un Kultūrai*
- 2001 Aija Bērziņa - Award for the best Bachelor thesis from the *Recto of the University of Latvia*
- 2001 Oksana Ščeguļnaja - Ada Lovelace Prize of the University of Latvia
- 2001 Maksims Kravcevs - *Young Scientist Award* from the Latvia Academy of Science
- 2002 Oksana Ščeguļnaja - award for the best student research paper from Münster University (Germany)
- 2002 Gatis Midrijānis - Charles Babbage Prize of the University of Latvia
- 2002 Lelde Lāce - Ada Lovelace Prize of the University of Latvia
- 2003 Andrejs Dubrovskis - Charles Babbage Prize of the University of Latvia

2003	Ilze Dzelme - Ada Lovelace Prize of the University of Latvia
2004	Elina Kalniņa- Ada Lovelace Prize of the University of Latvia
2004	Raitis Ozols - Charles Babbage Prize of the University of Latvia
2004	Ilze Dzelme - <i>Young Scientist Award</i> from the Latvia Academy of Science
2005	Alina Dubrovskā - Ada Lovelace Prize of the University of Latvia
2005	Laura Mančinskā - Ada Lovelace Prize of the University of Latvia
2005	Aleksandrs Belovs - Charles Babbage Prize of the University of Latvia
2006	Alina Dubrovskā - Ada Lovelace Prize of the University of Latvia
2007	Taisija Miščenko-Slatenkova - Ada Lovelace Prize of the University of Latvia
2007	Agnese Zalcmane - Ada Lovelace Prize of the University of Latvia
2008	Sandra Zabarovskā - Ada Lovelace Prize of the University of Latvia
2008	Laura Mančinskā - <i>Young Scientist Award</i> from the Latvia Academy of Science
2009	Lauma Pretkalniņa - Ada Lovelace Prize of the University of Latvia

Editorial board of scientific journals:

1998-2006	"Computing and Informatics" (formerly "Computers and Artificial Intelligence"), a bimonthly journal published by Slovak Academy of Sciences
2006-	"E-Pasaule" , a bi-monthly computer journal in Latvia
2001-	"Latvijas Universitātes Raksti" , a half-yearly periodical for "long" scientific papers

Received grants:

2000-2002	Grant from European Commission for a joint research on Quantum Algorithms and Information Processing (Contract IST-1999-11234, project QAIF) - Principal Investigator of the Latvian team
1997-2000	Grant from Academy of Sweden for a joint research in Computer Science for the Mälardalens University and the University of Latvia - Principal Investigator of the Latvian team

- 1994-1995 Grant from Academy of Sweden for a joint research in Computer Science for the University of Lund and the University of Latvia - Principal Investigator of the Latvian team
- 1995-1998 Grant No. 9119540 from the National Science Foundation for co-operative research in inductive inference for the University of Maryland and the University of Latvia - Principal Investigator of the Latvian team
- 1992-1996 Grant No. 9119540 from the National Science Foundation for co-operative research in inductive inference for the University of Maryland and the University of Latvia - Principal Investigator of the Latvian team
- 2009-2012 Grant No. 09.1437 *Quantum automata and their complexity* from Latvia Council of Science - Principal Investigator
- 2005-2008 Grant No. 05.1528 *Quantum algorithms and their complexity* from Latvia Council of Science - Principal Investigator
- 2000-2003 Grant No. 01.0354 *Quantum automata and their capabilities* from Latvia Council of Science
- 1997-1999 Grant No. 96.0282 *Complexity of randomized algorithms* from Latvia Council of Science - Principal Investigator
- 1994-1996 Grant No. 93.599 *Mathematical principles of randomized algorithms in inductive inference* - Principal Investigator from Latvia Council of Science
- 1990-1993 Grant No. 90.619 *Randomized methods in inductive inference* from Latvia Council of Science - Principal Investigator

Activities:

- 1994-1996 Member of the Supervisory Council of the Latvian Academy of Science
- 1993-2003 Member of the Senate of the University of Latvia
- 1995-2001 Member of the Working Group WG 1.4 of the International Federation for the Information Processing (IFIP)

Citations:

Hirsch index is **20** according Google Scholar.
Hirsch index is **11** according ISI Web of Science (Thomson Reuters).

Citations according Google Scholar:

1. Title: 1-way quantum finite automata: strengths, weaknesses and generalizations
Author(s): A Ambainis, R Freivalds
Source: Arxiv preprint quant-ph/9802062, 1998 - arxiv.org Published: 1998
Times Cited: 158

2. Title: Fast probabilistic algorithms
Author(s): R Freivalds
Source: Mathematical Foundations of Computer Science 1979
Proceedings, 8th Symposium, Olomouc, Czechoslovakia, September 37, 1979
Times cited: 94

3. Title: Probabilistic two-way machines
Author(s): R Freivalds
Source: Mathematical Foundations of Computer Science 1981: 10th Symposium
Strbske Pleso Published: 1981
Times Cited: 91

4. Title: On the role of procrastination for machine learning
Author(s): R Freivalds, CH Smith
Source: Annual Workshop on Computational Learning Theory
Proceedings of the fifth annual workshop on Computational learning theory
Pittsburgh, Pennsylvania, United States Pages: 363 - 376 Published: 1992
Times Cited: 82

5. Title: Finite identification of general recursive functions by probabilistic strategies.
Author(s): R Freivalds, R Wiehagen
Source: Proc. 2nd International Conference " Fundamentals of Computation
Theory "" , Berlin, Akademie. Pages: 138-145 Published: 1979
Times Cited: 57

6. Title: On the power of inductive inference from good examples
Author(s): R Freivalds, EB Kimber, R Wiehagen
Source: Theoretical Computer Science, vol. 110, No 1. Pages: 131-144 Published:
1993
Times cited: 48

7. Title: Inductive inference of recursive functions - qualitative theory
Author(s): Freivalds R
Source: LECTURE NOTES IN COMPUTER SCIENCE Volume: 502 Pages: 77-
110 Published: 1991

Times Cited: 48

8. Title: Probabilistic machines can use less running time

Author(s): FREIVALDS R

Source: "Information Processing'77" (Proc. IFIP Congress'77), North Holland,

Pages: 839-842 Published: 1977

Times cited: 47

9. Title: On the intrinsic complexity of learning

Author(s): R Freivalds, E Kinber, CH Smith

Source: Computational learning theory: second European Conference, Euro-

COLT '95 Pages: 154-168 Published: 1995

Times cited: 43

10. Title: On the power of probabilistic strategies in inductive inference

Author(s): R Wiehagen, R Freivalds, EB Kinber

Source: Theoretical Computer Science, vol.28, No 1-2, Pages: 111-133 Published:

1984

Times cited: 43

11. Title: Inductive Inference from Good Examples

Author(s): R Freivalds, EB Kinber, R Wiehagen

Source: Lecture Notes In Computer Science; Vol. 397 Proceedings of the Interna-

tional Workshop on Analogical and Inductive Inference Pages: 1 - 17 Published:

1989

Times cited: 36

12. Title: Running Time to Recognize Nonregular Languages by 2-Way Probabilistic Automata

Author(s): J Kaneps, R Freivalds

Source: Lecture Notes In Computer Science; Vol. 510 Proceedings of the 18th In-

ternational Colloquium on Automata, Languages and Programming Pages: 174

- 185 Published: 1991

Times cited: 30

13. Title: On the impact of forgetting on learning machines

Author(s): R Freivalds, E Kinber, CH Smith

Source: Journal of the ACM (JACM), vol. 42, No.6, Pages: 1146-1168 Published:

1995

Times cited: 29

14. Title: Lower space bounds for randomized computation

Author(s): R Freivalds, M Karpinski

Source: Lecture Notes In Computer Science; Vol. 820 Proceedings of the 21st

International Colloquium on Automata, Languages and Programming Pages:

580-592 Published: 1994
Times cited: 26

15. Title: Probabilities to accept languages by quantum finite automata
Author(s): A Ambainis, R Bonner, R Freivalds, A Kikusts
Source: Lecture Notes In Computer Science; Vol. 1627 Computing and Combinatorics Pages: 174-183
Published: 1999
Times cited: 26

16. Title: Co-learning of total recursive functions
Author(s): R Freivalds, M Karpinski, CH Smith
Source: Proceedings of the seventh annual conference on Computational learning theory New Brunswick, New Jersey, United States Pages: 190 - 197 Published: 1994
Times cited: 24

17. Title: Prediction and synthesis in the limit for effectively enumerable classes of functions. Source: " Theory of Algorithms and Programs ", Riga, University of Latvia, v. 210, Pages: 101-111 Published: 1974
Times cited: 24

18. Title: Minimal nontrivial space complexity of probabilistic one-way Turing machines
Author(s): J Kaneps, R Freivalds
Source: Proceedings on Mathematical foundations of computer science Banska Bystrica, Czechoslovakia Pages: 355 - 361 Published: 1990
Times cited: 23

19. Title: Inductive inference of recursive functions: Complexity bounds
Author(s): R Freivalds, J Barzdins, K Podnieks
Source: Lecture Notes In Computer Science; Vol. 502 Baltic Computer Science Pages: 111-155
Published: 1991
Times cited: 23

20. Title: Trade-off among parameters affecting inductive inference
Author(s): R Freivalds, CH Smith, M Velauthapillai
Source: "Information and Computation ", vol. 82, No. 3 Pages: 323-343 Published: 1989
Times cited: 20

Citations according ISI Web of Science (Thomson Reuters):

1. Title: ON THE ROLE OF PROCRASTINATION IN MACHINE LEARNING
Author(s): FREIVALDS R, SMITH CH
Source: INFORMATION AND COMPUTATION Volume: 107 Issue: 2 Pages: 237-271 Published: DEC 1993
Times Cited: 51
2. Title: ON THE POWER OF INDUCTIVE INFERENCE FROM GOOD EXAMPLES
Author(s): FREIVALDS R, KINBER EB, WIEHAGEN R
Source: THEORETICAL COMPUTER SCIENCE Volume: 110 Issue: 1 Pages: 131-144 Published: MAR 15 1993
Times Cited: 23
3. Title: INDUCTIVE INFERENCE OF RECURSIVE FUNCTIONS - QUALITATIVE THEORY
Author(s): FREIVALDS R
Source: LECTURE NOTES IN COMPUTER SCIENCE Volume: 502 Pages: 77-110 Published: 1991
Times Cited: 23
4. Title: ON THE INTRINSIC COMPLEXITY OF LEARNING
Author(s): FREIVALDS R, KINBER E, SMITH CH
Source: INFORMATION AND COMPUTATION Volume: 123 Issue: 1 Pages: 64-71 Published: NOV 15 1995
Times Cited: 22
5. Title: ON THE POWER OF PROBABILISTIC STRATEGIES IN INDUCTIVE INFERENCE
Author(s): WIEHAGEN R, FREIVALDS R, KINBER EB
Source: THEORETICAL COMPUTER SCIENCE Volume: 28 Issue: 1-2 Pages: 111-133 Published: 1984
Times Cited: 19
6. Title: RUNNING TIME TO RECOGNIZE NONREGULAR LANGUAGES BY 2-WAY PROBABILISTIC-AUTOMATA
Author(s): KANEPS J, FREIVALDS R
Source: LECTURE NOTES IN COMPUTER SCIENCE Volume: 510 Pages: 174-185 Published: 1991
Times Cited: 14
7. Title: TRADE-OFF AMONG PARAMETERS AFFECTING INDUCTIVE INFERENCE

Author(s): FREIVALDS R, SMITH CH, VELAUTHAPILLAI M
Source: INFORMATION AND COMPUTATION Volume: 82 Issue: 3 Pages:
323-349 Published: SEP 1989
Times Cited: 14

8. Title: On the impact of forgetting on learning machines
Author(s): Freivalds R, Kinber E, Smith CH
Source: JOURNAL OF THE ACM Volume: 42 Issue: 6 Pages: 1146-1168 Pub-
lished: NOV 1995
Times Cited: 12

9. Title: COMPLETENESS TEST FOR PARTIAL FUNCTIONS OF LOGIC
ALGEBRA AND MANY-VALUED LOGICS
Author(s): FREIVALD RV
Source: DOKLADY AKADEMII NAUK SSSR 167 (6): 1249 1966
Times Cited: 12

10. Title: INDUCTIVE INFERENCE OF RECURSIVE FUNCTIONS - COMPLEXITY-
BOUNDS
Author(s): FREIVALDS R, BARZDINS J, PODNIEKS K
Source: LECTURE NOTES IN COMPUTER SCIENCE Volume: 502 Pages:
111-155 Published: 1991
Times Cited: 11

11. Title: INDUCTIVE INFERENCE AND COMPUTABLE ONE-ONE NUM-
BERINGS
Author(s): FREIVALDS R, KINBER EB, WIEHAGEN R
Source: ZEITSCHRIFT FUR MATHEMATISCHE LOGIK UND GRUNDLA-
GEN DER MATHEMATIK Volume: 28 Issue: 5 Pages: 463-479 Published: 1982
Times Cited: 11