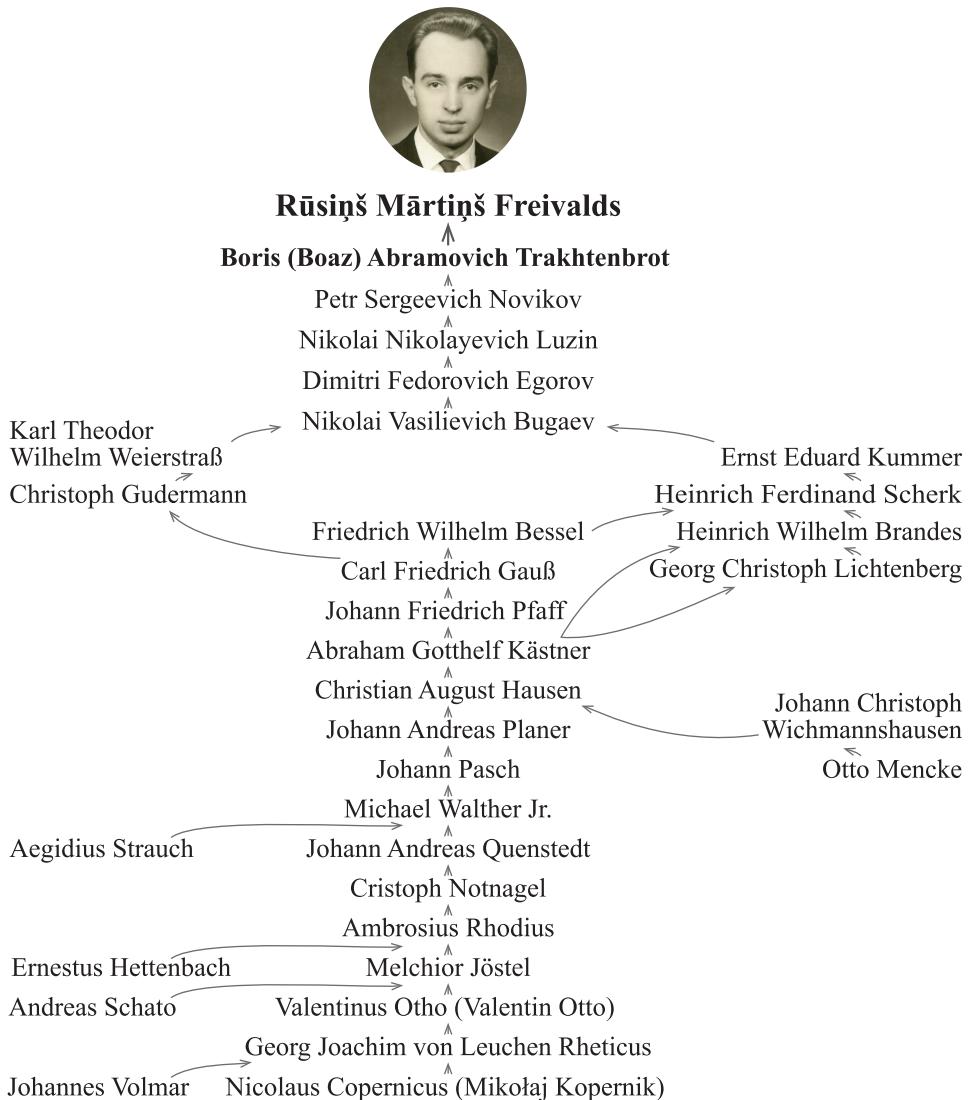


Rūsiņš Mārtiņš Freivalds: Academic Genealogy and Selected Publications

1. Freivalds' Academic Genealogy¹



¹ Cf. Mathematics Genealogy Project (<http://genealogy.math.ndsu.nodak.edu>)

2. Freivalds' Progeny

Professor Freivalds has supervised 20 doctoral students, and their academic progeny consists of 6 students. As such, it could be argued that Freivalds currently has 26 academic descendants.

- Kaspars Balodis:** Unconventional Finite Automata and Algorithms (2016)
- Taisija Miščenko-Slatenkova:** Quantum Query Algorithms (2013)
- Alina Vasiljeva:** Complexity of Quantum Algorithms and Communication Protocols (2012)
- Rubens Agadžanjans:** A Complexity of Quantum Query Algorithms (2011)
- Oksana Ščeguļnaja-Dubrovska:** Models of Quantum Computation (2011)
- Ilze Dzelme-Bērziņa:** Quantum Finite Automata and Logic (2010)
- Vasilijs Kravcevs:** Quantum Algorithm Complexity (2008)
- Lelde Lāce:** Quantum Query Algorithms (2008)
- Arnolds Ķikusts:** Recognition of Regular Languages by Quantum Finite Automata (2006)
- Maksims Kravcevs:** Computational Power of Quantum and Probabilistic Automata (2006)
- Marats Golovkins:** Quantum Automata and Quantum Computing (2003)
- Dainis Geidmanis:** Alternating and Probabilistic Automata over a Single-Letter Alphabet (1999)
- Juris Smotrovs:** Closedness Properties in Inductive Inference (1999)
- Andris Ambainis:** Inductive Inference and Constructive Ordinals (1997)
- Aleksandrs Belovs (2014)
- Nikolajs Nahimovs (2013)
- Dmitrijs Kravčenko (2013)
- Juris Vīksna:** Inductive Inference with Deterministic and Probabilistic Strategies (1994)
- Natalja Kurbatova (2008)
- Jānis Kaņeps:** Languages Accepted by Two-Way Probabilistic Finite Automata (Представимость языков в двусторонних конечных вероятностных автоматах) (1991)
- Daina Taimiņa:** Behavior of Different Types of Automata and Turing Machines on Infinite Words (Поведение различных типов машин, работающих на бесконечных словах) (1990)
- Māris Alberts:** Comparative Analysis of Computational Complexity of Alternating and Probabilistic Turing Machines (Сравнительный анализ сложности вычислений альтернирующих и вероятностных машин Тьюринга) (1989)
- Agnis Andžāns:** Behavior of Deterministic and Probabilistic Automata in Labyrinths (Поведение детерминированных и вероятностных автоматов в лабиринтах) (1987)
- Ilze France (2005)
- Līga Ramāna (2004)
- Efim Kinber:** Frequency Computation of Functions and Frequency Enumeration of Sets. (Частотное вычисление функций и частотное перечисление множеств) (1974)

3. List of Selected Publications by Rūsiņš Mārtiņš Freivalds²

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. Kishinev, Lumina, 1987 (in Moldovan, 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. Rusins Martins Freivalds, Gregor Engels, Barbara Catania: SOFSEM 2016: Theory and Practice of Computer Science - 42nd International Conference on Current Trends in Theory and Practice of Computer Science, Harrachov, Czech Republic, January 23-28, 2016, Proceedings. "Lecture Notes in Computer Science", Springer, 2016, vol. 9587, ISBN 978-3-662-49191-1
2. Rusins Martins Freivalds, Gregor Engels, Barbara Catania, Roman Spánek, Martin Rimnac: Proceedings of Student Research Forum Papers and Posters at SOFSEM 2016 co-located with 42nd International Conference on Current Trends in Theory and Practice of Computer Science (SOFSEM 2016), January 23-28, 2016, Harrachov, Czech Republic. "CEUR Workshop Proceedings", vol. 1548, CEUR-WS.org 2016, ISBN: 978-80-87136-22-5
3. Cristian S. Calude, Rusins Freivalds, Kazuo Iwama: Computing with New Resources - Essays Dedicated to Jozef Gruska on the Occasion of His 80th Birthday. "Lecture Notes in Computer Science", Springer, 2014, vol. 8808, ISBN 978-3-319-13349-2
4. Fedor V. Fomin, Rusins Freivalds, Marta Z. Kwiatkowska, David Peleg: Automata, Languages, and Programming - 40th International Colloquium, ICALP 2013, Riga, Latvia, July 8-12, 2013, Proceedings, Part I. "Lecture Notes in Computer Science", Springer, 2013, vol. 7965, ISBN 978-3-642-39205-4
5. Fedor V. Fomin, Rusins Freivalds, Marta Z. Kwiatkowska, David Peleg: Automata, Languages, and Programming - 40th International Colloquium, ICALP 2013, Riga, Latvia, July 8-12, 2013, Proceedings, Part II. "Lecture Notes in Computer Science", Springer, 2013, vol. 7966, ISBN 978-3-642-39211-5

² Professor Rūsiņš Mārtiņš Freivalds' (Rusins Martins Freivalds) scientific career developed under various political and, consequently, linguistic and cultural circumstances. This explains why his papers were signed with some variations. He sometimes modified his surname Freivalds as Freivald and transcribed it in Russian as Фрейвалд. According to the Russian tradition, a patrimonial name had to be added. Due to this rule some of Prof. Freivalds papers were signed as R. V. Freivald, and Rusin-Martin Visvaldovich Freivald (Р. В. Фрейвалд, Русинь-Мартынь Висвалдович Фрейвалд).

6. R. Freivalds: Proceedings of the MFCS & CSL 2010 Satellite Workshop on Randomized and Quantum Computation, Brno, Czech Republic, August 21-22, 2010. Faculty of Informatics, Masaryk University, 2010, ISBN 978-80-87342-08-4
7. L. Arge, R. Freivalds: Proceedings of the 10th Scandinavian Workshop on Algorithm Theory, Riga, Latvia, July 6-8, 2006. "Lecture Notes in Computer Science", Springer, 2006, vol. 4059, ISBN 978-3-540-35753-7
8. R. Freivalds: Proceedings of the 13th International Symposium, FCT 2001, Riga, Latvia, August 22-24, 2001. "Lecture Notes in Computer Science", Springer, 2001, vol. 2138, ISBN 978-3-540-42487-1
9. R. Bonner, R. Freivalds: Quantum Computation and Learning. Proceedings of the International Workshop "Quantum Computation and Learning", Riga, Latvia, September 11-13, 1999. Mälardalen University Press, 1999
10. R. Freivalds: Randomized Algorithms. Proceedings of the International Workshop "Randomized Algorithms", Brno, Czech Republic, August 27-28, 1998. Aachen University Press, 1998

Papers in ISI scientific journals

1. Christopher Hanrui Chak, Rusins Freivalds, Frank Stephan, Henrietta Tan Wan Yik: On block pumpable languages. "Theoretical Computer Science", 2016, vol. 609, Part 1, pp. 272-285
2. Rusins Freivalds: Ultrametric Algorithms and Automata. "Lecture Notes in Computer Science", Springer, 2015, vol. 9252, pp. 35-52, ISBN 978-3-319-21818-2
3. Cristian S. Calude, Rusins Freivalds, Sanjay Jain, Frank Stephan: Deterministic Frequency Pushdown Automata. "Journal of Universal Computer Science", 2015, vol. 21, No. 12, pp. 1563-1576
4. Taisia Mischenko-Slatenkova, Alina Vasilieva, Ilja Kucevalovs, Rusins Freivalds: Quantum Queries on Permutations. "Lecture Notes in Computer Science", Springer, 2015, vol. 9118, pp. 177-184, ISBN 978-3-319-19224-6
5. Kaspars Balodis, Janis Iraids, Rusins Freivalds: Structured Frequency Algorithms. "Lecture Notes in Computer Science", Springer, 2015, vol. 9252, pp. 50-61, ISBN 978-3-319-17141-8
6. Ilja Kucevalovs, Ojars Krasts, Rusins Freivalds, Thomas Zeugmann: On the Influence of Technology on Learning Processes. "Parallel Processing Letters", 2014, vol. 24, No. 2, pp. 63–79
7. Rusins Freivalds: Ultrametric Vs. Quantum Query Algorithms. "Lecture Notes in Computer Science", Springer, 2014, vol. 8890, pp. 1-10, ISBN 978-3-319-13748-3
8. Rūsiņš Freivalds, Thomas Zeugmann: Active Learning of Recursive Functions by Ultrametric Algorithms. "Lecture Notes in Computer Science", Springer, 2014, vol. 8327, pp. 246-257, ISBN 978-3-319-04297-8
9. Rusins Freivalds, Solvita Zarina: Visual Representation of von Koch Fractals. "Discrete Mathematics and Computer Science", Editura Academiei Române, 2014, pp. 153-163, ISBN 978-973-27-2470-5

10. Rūsiņš Freivalds: Ultrametric Finite Automata and Turing Machines. “Lecture Notes in Computer Science”, Springer, 2013, vol. 7907, pp. 1-11, ISBN 978-3-642-38770-8
11. Rūsiņš Freivalds, Thomas Zeugmann, Grant R. Pogosyan: On the Size Complexity of Deterministic Frequency Automata. “Lecture Notes in Computer Science”, Springer, 2013, vol. 7810, pp. 287-298, ISBN 978-3-642-37063-2
12. Agata Ciabattoni, Rusins Freivalds, Antonín Kucera, Igor Potapov, Stefan Szeider: Preface. “Fundamenta Informaticae”, 2013, vol. 123, No. 1, pp. v-vi
13. Abuzer Yakaryilmaz, Rusins Freivalds, A. C. Cem Say, Ruben Agadzanyan: Quantum computation with write-only memory. “Natural Computing”, 2012, vol. 11, No. 1, pp. 81-94
14. Rusins Freivalds: Ultrametric automata and Turing machines. “The EPiC Series in Computing”, 2012, vol. 10, pp. 98-112
15. Alina Vasilieva, Rusins Freivalds: Nondeterministic Query Algorithms. “Journal of Universal Computer Science”, 2011, vol. 17, No. 6, pp. 859-873
16. Rūsiņš Freivalds: Hartmanis-Stearns Conjecture on Real Time and Transcendence. “Lecture Notes in Computer Science”, Springer 2012, vol. 7160, pp. 105-119, ISBN 978-3-642-27653-8
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19. Rūsiņš Freivalds: Algorithmic Information Theory and Computational Complexity. “Lecture Notes in Computer Science”, Springer, 2011, vol. 7070, pp. 142-154, ISBN 978-3-642-44958-1
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35. R. Freivalds: Super-Exponential Size Advantage of Quantum Finite Automata with Mixed States. "Lecture Notes in Computer Science", Springer, 2008, vol. 5369, pp. 931–942
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38. R. Agadzanyan, R. Freivalds: Size of Quantum Finite State Transducers. "Lecture Notes in Computer Science", Springer, 2007, vol. 4362, pp. 155–163
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