

# Curriculum Vitae of György Vaszil

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**Name:** György Vaszil  
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## Academic title, degree, qualification

2015 Habilitation, University of Debrecen  
2014 D.Sc., Hungarian Academy of Sciences  
2001 Ph.D., mathematics, Eötvös Loránd University, Budapest  
1994 M.Sc. mathematics-computer science, Eötvös Loránd University  
Budapest

## Positions

2011 - University of Debrecen, Faculty of Informatics  
2015 - Full professor  
2013 - Head of the Department of Computer Science  
2011 - 2015 Associate professor, Department of Computer Science  
1997 - 2011 Computer and Automation Research Institute of the Hungarian Academy of Sciences  
(MTA SZTAKI)  
2001 - 2011 Senior research associate, Theoretical Computer Science Research Group  
1997 - 2001 Research associate, Research Group on Modelling Multi-Agent Systems  
2008, April – September: “Wissenschaftlicher Mitarbeiter” at the University of Potsdam (Institut für  
Informatik, Professur für Informationsverarbeitung und Kommunikation,  
Prof. Helmut Jürgensen), Germany

## Research interests

Theoretical computer science, unconventional, nature motivated computational models and architectures, formal languages and automata theory.

## Publications

More than 130 scientific papers in international journals and conferences, with about 450 independent citations. See <https://vm.mtmt.hu/search/slist.php?AuthorID=10011531> for more details.

## Scholarships and awards

Award of the Hungarian Academy of Sciences, 2021.

Return Scholarship of the Alexander von Humboldt Foundation, Germany, November 2006 - October, 2007.

Research scholarship of the Alexander von Humboldt Foundation, Germany, to spend 12 months at the Research Group Theoretical Computer Science (Prof. Jürgen Dassow),

Otto-von-Guericke-University, Magdeburg, Germany, September, 2005 - August, 2006. Bolyai János research scholarship of the Hungarian Academy of Sciences, 2001 - 2004.

Ph.D. fellowship of the Eötvös Lorand University, Budapest, 1994 - 1997.

TEMPUS fellowship to study one semester at the University of Paderborn, Germany, April - August, 1993.

*Awards of the Computer and Automation Research Institute of the Hungarian Academy of Sciences:* Award of the institute in 2009, 2005 and 2001; Young researchers' award in 1999; Ph.D. student award in 1996.

## Research grants

### *Project leader:*

“Unconventional computational models and their applications” (Nemklasszikus számítási modellek és alkalmazásaik), NKFIH (National Research, Development and Innovation Office) TÉT\_16-1-2016-0193, Hungary - Japan, 2018-2019.

“Distributed models of molecular computation”, Hungarian Scientific Research Fund, “OTKA”, F037567, 2002 - 2005.

### *Participant:*

“Distributed models in unconventional computing”, Hungarian Scientific Research Fund, “OTKA”, K120558, 2016 - 2022 (principal investigator: Erzsébet Csuha-Varjú).

Future Internet Research, Services and Technology – FIRST, TÁMOP-4.2.2.C-11/1/KONV-2012-0001, Theoretical foundations of Future Internet (sub-project leader: Attila Pethő)

“Nature-motivated computational models in the theory of formal languages and automata”, Hungarian Scientific Research Fund, “OTKA”, K75952, 2008 - 2014 (principal investigator: Erzsébet Csuhanj-Varjú).

“Formal language theoretic models in bio-molecular computation”, bilateral cooperation project between the Hungarian Foundation for Research and Technological Innovation and EGIDE in France, TÉT F-19/04, 2005 - 2006 (Hungarian project leader: Erzsébet Csuhanj-Varjú, French project leader: Maurice Margenstern).

“Bio-inspired computation: Formal language theoretic models”, Hungarian Scientific Research Fund, “OTKA”, T042529, 2003 - 2006 (principal investigator: Erzsébet Csuhanj-Varjú).

“MolCoNet, a Thematic Network in Molecular Computing”, European Commission, Information Society Technologies Program, IST-2001-32008, 2001 - 2004 (Hungarian team leader: Erzsébet Csuhanj-Varjú).

“Models of multi-agent systems”, bilateral cooperation project between the Hungarian Ministry of Education and the Federal Ministry of Education and Research in Germany, TÉT D-35/00, 2000 - 2002 (Hungarian project leader: Erzsébet Csuhanj-Varjú, German project leader: Jürgen Dassow).

“Nature-motivated computational models”, Hungarian Scientific Research Fund, “OTKA”, T029615, 1999 - 2002 (principal investigator: Erzsébet Csuhanj-Varjú).

“Computation by trees”, Hungarian Ministry of Education, MKM 665/97, 1997 – 1998 (principal investigator: Zoltán Fülöp).

## **Invited Speaker**

Workshop on Reaction Systems, satellite workshop of UCNC 2023, March 14 and 17, 2023, University of North Florida, USA

Workshop on Efficient Algorithms, Automata and Data Structures - EAADS 2019, November 20-21, 2019, Kosice, Slovakia.

Theorietage 2017, Automaten und Formale Sprachen, September 18 -22, 2017, Bonn, Germany

24. Theorietag Automaten und Formale Sprachen, September 23-25, 2014, Potsdam, Germany.

12th International Conference on Membrane Computing, CMC12, August 23-26, 2011, Fontainebleau, France.

18. Theorietag Automaten und Formale Sprachen, September 30 - October 2, 2008, Wetttenberg-Launsbach bei Giessen, Germany.

Colloquium on the Occasion of the 50th Birthday of Victor Mitrana, June 26, 2008, Magdeburg, Germany.

10th International Workshop on Descriptive Complexity of Formal Systems, DCFS~2008, July 16-18, 2008, Charlottetown, Canada.

ESF Workshop on Automata and Formal Languages for DNA Computation and Bioinformatics, October 18-20, 2006, Como, Italy.

International Workshop Grammar Systems 2000, July 3-7, 2000, Bad Ischl, Austria.

## **International experience**

Six months as the member of the scientific staff at the University of Potsdam, Germany, April - September, 2008.

Twelve months as a visiting researcher at the Otto-von-Guericke-University Magdeburg, Germany, with a research scholarship of the Alexander von Humboldt Foundation, 2006 - 2007.

One month as a visiting researcher at the Otto-von-Guericke-University Magdeburg and the University of Potsdam, Germany, 2001.

One month as a visiting researcher at the University of Turku, 1998.

One semester as an M.S. student at the University of Paderborn, Germany, April - August, 1993.

Talks at seminars at several universities, including the University of Opava (Czech Republic), the University of Sevilla and the University Rovira i Virgili in Tarragona (Spain), and the universities in Potsdam, Tübingen, Stuttgart, and Magdeburg (Germany).

## **Professional activities**

### *Member of the editorial board:*

Publicationes Mathematicae (imp. Factor in 2022: 0,698, SCImago in 2021: Q2)

### *Member of the steering committee:*

Conference on Machines, Computations and Universality, MCU, a biennial conference series with the 9th edition in 2022

International Conference on Membrane Computing, CMC, a yearly conference series with the 23th edition in 2022

### *Program committee chair:*

Informatics in Higher Education (Informatika a Felsőoktatásban - IF 2014), Debrecen, August 27-29, 2014

*Program committee co-chair:*

12th International Workshop on Non-Classical Models of Automata and Applications (NCMA 2022) Debrecen, August 26 - 27, 2022

24th International Conference on Descriptive Complexity of Formal Systems (DCFS 2022), Debrecen, August 29 - 31, 2022

9th Conference on Machines, Computations and Universality (MCU 2022), Debrecen, August 31 - September 2, 2022

International Conference on Membrane Computing (ICMC 2021), Debrecen and Chengdu, China, August 25-26, 2021, online session

15th International Conference on Automata and Formal Languages (AFL 2017), Debrecen, September 4-6, 2017

8<sup>th</sup> Workshop on Non-Classical Models of Automata and Applications (NCMA 2016), Debrecen, August 29-30, 2016

13th International Conference on Membrane Computing (CMC13), Budapest, August 28-31, 2014

*Organizer and program committee chair:*

International Workshop Automata for Molecular and Cellular Computing, ACMC'07, Budapest, August 31, 2007

*Program committee member:*

25th International Conference on Developments in Language Theory (DLT 2021), Porto, Portugal

Information technologies -- Applications and Theory 2021 (ITAT 2021), Workshop on Natural Computing, Helpa, Czechia

23rd International Conference on Descriptive Complexity of Formal Systems (DCFS 2021 proceedings only)

11th International Conference on Applied Informatics (ICAI 2020), Eger, Hungary

Information technologies -- Applications and Theory 2020 (ITAT 2020), Workshop on Natural Computing, Oravská Lesná, Czechia

13th Joint Conference on Mathematics and Computer Science (MaCS 2020), Budapest, Hungary

International Conference on Membrane Computing (ICMC 2020), Wien, Austria and Ulanbatar, Mongolia, online

The International Conference on Membrane Computing - Asian Branch (ACMC 2019), Xiamen, China

11th International Workshop on Non-Classical Models of Automata and Applications (NCMA 2019), Valencia, Spain

20th Conference on Membrane Computing (CMC 20), Curtea de Arges, Romania, 2019

24th International Conference on Implementation and Application of Automata (CIAA 2019), Kosice, Slovakia

10th Workshop on Non-Classical Models of Automata and Applications (NCMA 2018), Kosice, Slovakia

18th International Conference on Membrane Computing (CMC 18), Bradford, UK

9th Workshop on Non-Classical Models of Automata and Applications (NCMA 2017), Prague, Czech Republic

10th International Conference on Applied Informatics (ICAI 2017), Eger, Hungary

LAFL 2016 : Special Session LEARNING, AGENTS AND FORMAL LANGUAGES of PAAMS 16 , Sevilla, Spain

21st International Conference on Implementation and Application of Automata (CIAA 2016), Seoul, Korea, 2016. július 19 – 22.

17th International Conference on Membrane Computing (CMC17) Milano, Olaszország, 2016. július 25–29.

7th Workshop on Non-Classical Models of Automata and Applications (NCMA 2015) Porto, Portugália, 2015. augusztus 31 - szeptember 1.

20th International Conference, Implementation and Application of Automata (CIAA 2015), Umeå, Svédország, 2015. augusztus 18 – 21.

16th International Conference on Membrane Computing (CMC16), Valencia, Spanyolország, 2015. augusztus 17-21.

7th Workshop on Membrane Computing and Biologically Inspired Process Calculi (MeCBIC 2014), Bukarest, Románia, 2014. szeptember 16.

15th International Conference on Membrane Computing (CMC 15), Prága, Csehország, 2014. augusztus 20-22.

19th International Conference on Implementation and Application of Automata (CIAA 2014), Giessen, Németország, 2014. július 30-augusztus 2.

6th Workshop on Non-Classical Models of Automata and Applications (NCMA 2014), Kassel, Németország, 2014. július 28-29.

14th International Conference Automata and Formal Languages (AFL 2014), Szeged, 2014. május 27-29.

9th International Conference on Applied Informatics (ICAI 2014), Eger, 2014. január 29-február 1.

14th International Conference on Membrane Computing (CMC 14), 2013. augusztus 20-23, Chisinau, Moldova.

5th International Workshop on Non-Classical Models of Automata and Applications (NCMA 2013), Umea, Svédország, 2013. augusztus 13 - 14.

2nd International Workshop on Learning, Agents and Formal Languages (LAFLang), Barcelona, Spanyolország, 2013. február 15 - 18.

14th International Workshop Descriptive Complexity of Formal Systems (DCFS 2012), 2012. július 23-25. Braga, Portugália.

11th IEEE International Conference on Computer and Information Technology (CIT 2011), 2011. augusztus 31 - szeptember 2. Pafos, Cyprus.

1st International Workshop on Learning, Agents and Formal Languages (LAFLang), 2011. augusztus 22. Lyon, Franciaország.

5th International Conference on Language and Automata Theory and Applications (LATA 2011), 2011. május 26 - 31. Tarragona, Spanyolország.

1st International Work-Conference on Linguistics, Biology and Computer Science: Interplays (LBCSI 2011), 2011. március 14 - 19. Tarragona, Spanyolország.

5th International ICST Conference on Bio-Inspired Models of Network, Information, and Computing Systems (Bionetics 2010), 2010. december 1 - 3. Boston, MA, USA, special track on Artificial Life and Bio-inspired Robotics (ALBR 2010).

2nd Workshop on Non-Classical Models of Automata and Applications (NCMA 2010), 2010. augusztus 23 - 24. Jena, Németország.

12th International Workshop Descriptive Complexity of Formal Systems (DCFS 2010), 2010. augusztus 8 - 10. Saskatoon, Kanada.

10th IEEE International Conference on Computer and Information Technology (CIT-10), 2010. június 29 - július 1. Bradford, UK.

1st International Workshop on Computing Languages with Multi-Agent Systems and Bio-Inspired Devices (LAMAS 2010), 2010. január 23 - 24. Valencia, Spanyolország.

3rd International Workshop on Non-Classical Formal Languages in Linguistics (ForLing~2009), 2009. június 10 - 12. Salamanca, Spanyolország.

11th IEEE International Conference on High Performance Computing and Communications (HPCC-09), 2009. június 25 - 27. Seoul, Korea.

10th IEEE International Conference on High Performance Computing and Communications (HPCC-08), biological/molecular computing track, 2008. szeptember 25 - 27. Dalian, Kína.

2nd International Workshop on Non-Classical Formal Languages in Linguistics (ForLing~2008), 2008. szeptember 19 - 20. Tarragona, Spanyolország.

9th Workshop on Membrane Computing (WMC9), 2008. július 28 - 31. Edinburgh, UK.

12th International Conference on Automata and Formal Languages (AFL 2008), 2008. május 27-30. Balatonfüred.

4th International Conference on Current Trends in Theory and Practice of Computer Science (SOFSEM 08), „computing by nature” track, 2008. január 19 - 25. Nový Smokovec, Szlovákia.

2nd International Workshop on Formal Models (WFM '07), 2007. április 23- 25. Hradec nad Moravicí, Csehország.

*Membership in professional societies:*

European Molecular Computing Consortium

Computability in Europe (CIE)

IFIP Working Group 1.2 on Descriptive Complexity

*Elected member:*

Committee on Information Science of the III. Section of Mathematics of the Hungarian Academy of Sciences, vice chair

Doctoral Committee of the III. Section of Mathematics of the Hungarian Academy of Sciences, secretary