

# List of Publications

György Vaszil

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## Edited volumes, journal issues

- [1] E. Csuhaj-Varjú and Gy. Vaszil, editors. *Special Issue - Automata for Cellular and Molecular Computing, ACMC'07. International Journal of Foundations of Computer Science* 19(5), 2008. 95 pp.
- [2] Gy. Vaszil, editor. *International Workshop, Automata for Cellular and Molecular Computing, Budapest, August 31, 2007, Proceedings*, Budapest, 2007. MTA SZTAKI. 160 pp.
- [3] E. Csuhaj-Varjú, Gh. Păun, and Gy. Vaszil, editors. *Special Issue on Developments in Grammar Systems. Fundamenta Informaticae*, 76(3), 2007. 180 pp.
- [4] E. Csuhaj-Varjú and Gy. Vaszil, editors. *Grammar Systems Week 2004, Budapest, Hungary, July 5-8, 2004, Proceedings*, Budapest, 2004. MTA SZTAKI. 330 pp.
- [5] E. Csuhaj-Varjú, C. Kintala, D. Wotschke, and Gy. Vaszil, editors. *Descriptive Complexity of Formal Systems, 5th International Workshop, Budapest, Hungary, July 12-14, 2003, Proceedings*, Budapest, 2003. MTA SZTAKI. 314 pp.

## Journal papers, contributions to books

- [6] E. Csuhaj-Varjú, T. Masopust, and Gy. Vaszil. Blackhole pushdown automata. *Fundamenta Informaticae*, accepted.
- [7] E. Csuhaj-Varjú, M. Oswald, and Gy. Vaszil. PC grammar systems with clusters of components. *International Journal of Foundations of Computer Science*, 22(1):203–212, 2011.
- [8] J. Dassow and Gy. Vaszil. On the number of active symbols in Lindenmayer systems. *International Journal of Foundations of Computer Science*, 22(1):223–235, 2011.
- [9] Gy. Vaszil. On the parallelizability of languages accepted by P automata. In J. Kelemen and A. Kelemenová, editors, *Computation, Cooperation, and Life. Essays Dedicated to Gheorghe Păun on the Occasion of His 60th Birthday*, volume 6610 of *Lecture Notes in Computer Science*, pages 170–178. Springer Verlag, Berlin Heidelberg, 2011.
- [10] E. Csuhaj-Varjú, J. Dassow, and Gy. Vaszil. Variants of competence-based derivations in CD grammar systems. *International Journal of Foundations of Computer Science*, 21(4):549–569, 2010.
- [11] E. Csuhaj-Varjú, M. Oswald, and Gy. Vaszil. P automata. In Gh. Păun, G. Rozenberg, and A. Salomaa, editors, *The Oxford Handbook of Membrane Computing*, chapter 6, pages 144–167. Oxford University Press, 2010.
- [12] E. Csuhaj-Varjú and Gy. Vaszil. P automata. *Scholarpedia*, 5(4):9344, 2010.

- [13] E. Csuhaj-Varjú and Gy. Vaszil. Scattered context grammars generate any recursively enumerable language with two nonterminals. *Information Processing Letters*, 110(20):902–907, 2010.
- [14] L. Ciencialová, E. Csuhaj-Varjú, A. Kelemenová, and Gy. Vaszil. Variants of P colonies with very simple cell structure. *International Journal of Computers Communication and Control*, 4(3):224–233, 2009.
- [15] E. Csuhaj-Varjú, T. Masopust, and Gy. Vaszil. Cooperating distributed grammar systems with permitting grammars as components. *Romanian Journal of Information Science and Technology*, 12(2):175–189, 2009.
- [16] K. A. Lázár, E. Csuhaj-Varjú, A. Lőrincz, and Gy. Vaszil. Dynamically formed clusters of agents in eco-grammar systems. *International Journal of Foundations of Computer Science*, 20(2):293–311, 2009.
- [17] E. Csuhaj-Varjú, Gh. Păun, Gy. Vaszil, A. Di Nola, and M. J. Pérez-Jiménez. Editing configurations of P systems. *Fundamenta Informaticae*, 82(1-2):29–46, 2008.
- [18] E. Csuhaj-Varjú, Gh. Păun, and Gy. Vaszil. Tissue-like P systems with dynamically emerging requests. *International Journal of Foundations of Computer Science*, 19(3):729–745, 2008.
- [19] E. Csuhaj-Varjú and Gy. Vaszil. (Mem)brane automata. *Theoretical Computer Science*, 404(1-2):52–60, 2008.
- [20] E. Csuhaj-Varjú, M. Margenstern, Gy. Vaszil, and S. Verlan. On small universal antiport P systems. *Theoretical Computer Science*, 372(2-3):152–164, 2007.
- [21] E. Csuhaj-Varjú, Gh. Păun, and Gy. Vaszil. Grammar systems versus membrane computing: The case of CD grammar systems. *Fundamenta Informaticae*, 76(3):271–292, 2007.
- [22] E. Csuhaj-Varjú, I. Petre, and Gy. Vaszil. Self-assembly of strings and languages. *Theoretical Computer Science*, 374(1-3):74–81, 2007.
- [23] M. H. Ter Beek, E. Csuhaj-Varjú, Gy. Vaszil, and M. Holzer. On competence in CD grammar systems with parallel rewriting. *International Journal of Foundations of Computer Science*, 18(6):1425–1439, 2007.
- [24] Gy. Vaszil. Non-returning PC grammar systems generate any recursively enumerable language with eight context-free components. *Journal of Automata, Languages and Combinatorics*, 12(1-2):307–315, 2007.
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- [26] E. Csuhaj-Varjú, J. Kelemen, A. Kelemenová, Gh. Păun, and Gy. Vaszil. Computing with cells in environment: P colonies. *Journal of Multiple-Valued Logic and Soft Computing*, 12(3-4):201–215, 2006.

- [27] E. Csuhaj-Varjú and Gy. Vaszil. On a variant of parallel communicating grammar systems with communication by command. In K. G. Subramanian, K. Rangarajan, and M. Mukund, editors, *Formal Models, Languages and Applications*, volume 66 of *Series in Machine Perception and Artificial Intelligence*, pages 46–64. World Scientific, Singapore, 2006.
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- [29] J. Dassow and Gy. Vaszil. Multiset splicing systems. *BioSystems*, 74:1–7, 2004.
- [30] E. Csuhaj-Varjú, Gh. Păun, and Gy. Vaszil. PC grammar systems with five context-free components generate all recursively enumerable languages. *Theoretical Computer Science*, 299(1-3):785–794, 2003.
- [31] Gy. Vaszil. On the generative capacity of parallel communicating extended Lindenmayer systems. In C. Martín-Vide and V. Mitrana, editors, *Grammars and Automata for String Processing: From Mathematics and Computer Science to Biology and Back9*, volume 9 of *Topics in Computer Mathematics*, pages 99–107. Taylor & Francis, London, 2003.
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- [33] E. Csuhaj-Varjú and Gy. Vaszil. Parallel communicating grammar systems with incomplete information communication. *Grammars*, 5(3):153–176 (2003), 2002.
- [34] E. Csuhaj-Varjú and Gy. Vaszil. On context-free parallel communicating grammar systems: synchronization, communication, and normal forms. *Theoretical Computer Science*, 255(1-2):511–538, 2001.
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- [43] Gy. Vaszil. Parallel communicating grammar systems without a master. *Computers and Artificial Intelligence*, 15(2-3):185–198, 1996.

### Conference proceedings, invited papers

- [44] Gy. Vaszil. Automata-like membrane systems - A natural way to describe complex phenomena. In C. Campeanu and G. Pighizzini, editors, *10th International Workshop on Descriptive Complexity of Formal Systems, July 16-18, Charlottetown, PE, Canada, Proceedings*, pages 26–37. University of Prince Edward Island, 2008.
- [45] Gy. Vaszil. Multiset grammars, multiset automata and membrane systems. In J. Dassow and B. Truthe, editors, *Colloquium on the Occasion of the 50th Birthday of Victor Mitrana. Proceedings*, pages 1–10, Magdeburg, 2008. Otto-von-Guericke-Universität.
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- [47] Gy. Vaszil. Problems and recent results concerning parallel communicating Lindenmayer systems. In R. Freund and A. Kelemenová, editors, *Proceedings of the International Workshop Grammar Systems 2000*, pages 215–228, Opava, 2000. Silesian University at Opava.

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- [48] E. Csuhaj-Varjú, T. Masopust, and Gy. Vaszil. Blackhole state controlled regulated pushdown automata. In H. Bordihn, R. Freund, T. Hize, M Holzer, and F. Otto, editors, *Second Workshop on Non-Classical Models for Automata and Applications (NCMA 2010), August 23-24, 2010, Jena, Germany*, pages 45–56. Österreichische Computer Gesellschaft, 2010.
- [49] E. Csuhaj-Varjú, Gy. Vaszil, and S. Verlan. On generalized communicating P systems with one symbol. In M. Gheorghe, T. Hinze, and Gh. Păun, editors, *Proceedings of the Eleventh International Conference on Membrane Computing (CMC 11)*, pages 137–154, Jena, 2010. Pro Business GMBH.
- [50] E. Csuhaj-Varjú and Gy. Vaszil. On the size complexity of non-returning context-free PC grammar systems. In J. Dassow, G. Pighizzini, and B. Truthe, editors, *Proceedings Eleventh International Workshop on Descriptive Complexity of Formal Systems*, volume 3 of *Electronic Proceedings in Theoretical Computer Science*, pages 91–101. 2009.

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- [52] H. Bordihn and Gy. Vaszil. On leftmost derivations in CD grammar systems. In R. Loos, S. Z. Fazekas, and C. Martín-Vide, editors, *Pre-Proceedings of the 1st International Conference on Language and Automata Theory and Applications, LATA 2007*, pages 187–198, Tarragona, 2007. Universitat Rovira i Virgili.
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### Nonrefereed publications, technical reports

- [75] L. Cienciala, L. Ciencialová, E. Csuhaj-Varjú, and Gy. Vaszil. PCol automata: Recognizing strings with P colonies. In M. A. Martínez del Amor, Gh. Păun, I. Pérez Hurtado, and A. Riscos Núñez, editors, *Eighth Brainstorming Week on Membrane Computing, Sevilla, February 1-5, 2010*, RGNC Reports 1/2010, pages 65–76. Fénix Editora, 2010.
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- [79] E. Csuhaj-Varjú, A. Di Nola, Gh. Păun, M. J. Pérez-Jiménez, and Gy. Vaszil. Editing configurations of P systems. In M. A. Gutiérrez-Naranjo, A. Riscos-Núñez, F. J. Romero-Campero, and D. Sburlan, editors, *Third Brainstorming Week on Membrane Computing, Sevilla, January 31-February 4, 2005*, pages 131–154, Sevilla, 2005. Fénix Editora.
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- [81] E. Csuhaj-Varjú and Gy. Vaszil. New results and research directions concerning P automata, accepting P systems with communication only. In M. Cavaliere, C. Martín-Vide, and Gh. Păun, editors, *Brainstorming Week on Membrane Computing, Tarragona, February 5-11, 2003.*, pages 171–179, Tarragona, 2003. Report 26/03, Research Group on Mathematical Linguistics, Universitat Rovira i Virgili.