

# List of Publications (2010–2014)

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## Books

- A. Meduna, P. Zemek. *Regulated Grammars and Automata*. Springer, New York, US, 690 pages, 2014.
- A. Meduna, P. Zemek. *Regulated Grammars and Their Transformations*. Faculty of Information Technology, Brno University of Technology, Brno, CZ, 239 pages, 2010.

## Book Chapters

- A. Meduna, P. Zemek. *One-Sided Random Context Grammars with Leftmost Derivations*. LNCS Festschrift Series: Languages Alive – Essays Dedicated to Jürgen Dassow on the Occasion of His 65th Birthday, Berlin-Heidelberg, DE, Springer, 2012, p. 160–173.

## International Journal Papers

- A. Meduna, L. Vrabel, P. Zemek. Solutions to four open problems concerning controlled pure grammar systems. *International Journal of Computer Mathematics* (in press).
- A. Meduna, P. Zemek. One-sided random context grammars with a limited number of right random context rules. *Theoretical Computer Science*. 516(1):127–132, 2014.
- A. Meduna, P. Zemek. Generalized one-sided forbidding grammars. *International Journal of Computer Mathematics*. 90(2):172–182, 2013.
- A. Meduna, P. Zemek. On the generation of sentences with their parses by propagating regular-controlled grammars. *Theoretical Computer Science*. 477(1):67–75, 2013.
- A. Meduna, P. Zemek. Left random context ETOL grammars. *Fundamenta Informaticae*. 123(3): 289–304, 2013.
- A. Meduna, P. Zemek. Controlled pure grammar systems. *Journal of Universal Computer Science*. 18(14):2024–2040, 2012.
- A. Meduna, P. Zemek. Jumping finite automata. *International Journal of Foundations of Computer Science*. 23(7):1555–1578, 2012.
- A. Meduna, P. Zemek. Nonterminal complexity of one-sided random context grammars. *Acta Informatica*. 49(2):55–68 2012.
- A. Meduna, P. Zemek. One-sided forbidding grammars and selective substitution grammars. *International Journal of Computer Mathematics*. 89(5):586–596, 2012.
- A. Meduna, P. Zemek. Workspace theorems for regular-controlled grammars. *Theoretical Computer Science*. 412(35):4604–4612, 2011.
- A. Meduna, P. Zemek. One-sided random context grammars. *Acta Informatica*. 48(3):149–163, 2011.
- L. Ďurфина, J. Křoustek, P. Zemek et al.: Design of a retargetable decompiler for a static platform-independent malware analysis. *International Journal of Security and Its Applications*. 5(4): 91–106, 2011.

## International Conference Papers

- L. Ďurfina, J. Křoustek, P. Zemek: Retargetable Machine-Code Decompilation in Your Web Browser, In: *WICT'13: 3rd IEEE World Congress on Information and Communication Technologies*, pp. 57–62, Hanoi, VN, 2013.
- L. Ďurfina, J. Křoustek, P. Zemek: Psyb0t Malware: A Step-by-Step Decompilation Case Study, In: *WCRE'13: 20th Working Conference on Reverse Engineering*, pp. 449–456, Koblenz, DE, 2013.
- A. Meduna, L. Vrábek, P. Zemek. An infinite hierarchy of language families resulting from stateless pushdown automata with limited pushdown alphabets. In: *DCFS'12: 14th International Workshop on Descriptive Complexity of Formal Systems*, pp. 236–243, Braga, PT, 2012.
- L. Ďurfina, J. Křoustek, P. Zemek et al.: Detection and recovery of functions and their arguments in a retargetable decompiler, In: *WCRE'12: 19th Working Conference on Reverse Engineering*, pp. 51–60, Kingston, Ontario, CA, 2012.
- L. Ďurfina, J. Křoustek, P. Zemek: Generic source code migration using decompilation, In: *ISC'12: 10th Annual Industrial Simulation Conference*, pp. 38–42, Brno, CZ, 2012.
- A. Meduna, L. Vrábek, P. Zemek. LL leftmost  $k$ -linear scattered context grammars. In: *SCLIT'11: Symposium on Computer Languages, Implementations and Tools*, pp. 833–836, Halkidiki, GR, 2011.
- A. Meduna, L. Vrábek, P. Zemek. On nondeterminism in programmed grammars. In: *AFL'11: 13th International Conference on Automata and Formal Languages*, pp. 316–328, Debrecen, HU, 2011.
- L. Ďurfina, J. Křoustek, P. Zemek et al.: Design of an automatically generated retargetable decompiler, In: *ECCS'11: 2nd European Conference of Computer Science*, pp. 199–204, Puerto de la Cruz, Tenerife, ES, 2011.
- L. Ďurfina, J. Křoustek, P. Zemek et al.: Advanced static analysis for decompilation using scattered context grammars, In: *ACC'11: Proceedings of the Applied Computing Conference*, pp. 164–169, Angers, FR, 2011.
- L. Ďurfina, J. Křoustek, P. Zemek et al.: Design of a retargetable decompiler for a static platform-independent malware analysis, In: *ISA'11: The 5th International Conference on Information Security and Assurance*, pp. 72–86, Brno, CZ, 2011.

## International Conference Posters/Presentations

- L. Ďurfina, J. Křoustek, P. Zemek et al.: On complex reconstruction of functions from binary executable files. In: *MEMICS'12: 8th Doctoral Workshop on Mathematical and Engineering Methods in Computer Science*, pp. 100–101, Brno, CZ, 2012.
- L. Ďurfina, J. Křoustek, P. Zemek et al.: Accurate recovery of functions in a retargetable decompiler. In: *RAID'12: The 15th International Symposium on Research in Attacks, Intrusions and Defenses*, pp. 390–392, Amsterdam, NL, 2012.
- L. Ďurfina, J. Křoustek, P. Zemek et al.: Design of a retargetable decompiler for a static platform-independent malware analysis, In: *MEMICS'11: 7th Doctoral Workshop on Mathematical and Engineering Methods in Computer Science*, pp. 114–114, Brno, CZ, 2011.

## Student Competition Papers

- P. Zemek. One-sided random context grammars: Established results and open problems. In: *Student EEICT 2013*, Brno, CZ, 2013.
- P. Zemek. Normal forms of one-sided random context grammars. In: *Student EEICT 2012*, Brno, CZ, 2012.
- P. Zemek. On the nonterminal complexity of left random context EOL grammars. In: *Student EEICT 2011*, Brno, CZ, 2011.