**Štruktúrovaný profesijný životopis uchádzača v anglickom jazyku:**

**Structured professional CV of the applicant in English language:**

**Ing. Michal Hospodár, PhD.**

**Personal data:**

Work address: Grešákova 6, 040 01 Košice, Slovakia

Email address: [hospodar@saske.sk](mailto:hospodar@saske.sk)

Phone number: +421 904 738 269

**Education:**  
2015-2019: PhD student, Mathematical Institute, Slovak Academy of Sciences, Košice  
2009-2014: Faculty of Electrical Engineering and Informatics, Technical University, Košice   
2001-2009: St. Thomas Aquinas High School, Zbrojničná 3, Košice  
  
**Academic degrees:**  
PhD. 2019 Mathematical Institute, Slovak Academy of Sciences  
 PhD. thesis: Descriptional complexity of formal systems  
 Supervisor: Galina Jirásková  
Ing. 2014 Faculty of Electrical Engineering and Informatics, Technical University, Košice

Diploma thesis: Formal description and modeling of network routing using linear logic and game semantics

Supervisor: Valerie Novtizká  
  
**Work:**  
2023-present: Senior research fellow, Mathematical Institute, Slovak Academy of Sciences, Košice  
2019-2023: Research fellow, Mathematical Institute, Slovak Academy of Sciences, Košice  
2017-2018: Research stay, Institute of Computer Science, University of Giessen (Germany)  
2015-2019: PhD student, Mathematical Institute, Slovak Academy of Sciences, Košice  
  
**Research interests:**  
deterministic, nondeterministic and alternating finite automata  
state complexity of regular languages and operations   
subclasses of regular languages  
accepting state complexity  
cut operation

**Students I have supervised and reviewed (with the year of defense):**  
2024: Roland Horváth (Faculty of Science, P. J. Šafárik University in Košice, Bc. supervisor)

2022: Dominika Pališínová (Faculty of Science, P. J. Šafárik University in Košice, RNDr. reviewer)

2021: Viktor Olejár (Faculty of Science, P. J. Šafárik University in Košice, Mgr. supervisor)

2020: Peter Brecher (Faculty of Electrical Engineering and Informatics, TU Košice, Bc. reviewer)

**Lists of publications:**

<https://dblp.org/pid/182/6122.html>

<https://orcid.org/0000-0002-1752-544X>

<https://www.webofscience.com/wos/author/record/15151728> (ID: DUY-1325-2022)

<https://www.scopus.com/authid/detail.uri?authorId=57221836845>

<https://www.sav.sk/?lang=en&doc=user-org-user&user_no=10212&action=publications>

**Invited talks and talks at seminars:**

**List of selected talks:**

1. [Operational complexity in subregular classes](https://doi.org/10.1007/978-3-031-40247-0_11). CIAA 2023, Famagusta, Cyprus
2. [Operations on subregular languages and nondeterministic state complexity](https://doi.org/10.1007/978-3-031-13257-5_9). DCFS 2022, Debrecen, Hungary. Extended version in Theor. Comput. Sci., vol. 972, 23 p. (2023)
3. [Descriptional complexity of power and positive closure on convex languages](https://doi.org/10.1007/978-3-030-23679-3_13). CIAA 2019, Košice, Slovakia. Extended version in Theor. Comput. Sci., vol. 870, p. 53-74 (2021)
4. [The range of state complexities of languages resulting from the cut operation](https://doi.org/10.1007/978-3-030-13435-8_14). LATA 2019, St. Petersburg, Russia
5. [Operations on Boolean and alternating finite automata](https://doi.org/10.1007/978-3-319-90530-3_16). CSR 2018, Moscow, Russia
6. [Concatenation on deterministic and alternating automata](https://www.dropbox.com/sh/al0cxf6s7ukq5xj/AADi7LDOvr8ozUayyqYKTV74a/P08/NCMA2016P08.pdf). NCMA 2016, Debrecen, Hungary. Extended version in RAIRO Inform. Theor. Appl., vol. 52, p. 153-168 (2018)

**Research stays:**

September 2017 – January 2018: Institute of Computer Science, University of Giessen, Germany

**Membership in program committees and reviewing:**

Member of program committee:

* 25th International Conference on Descriptional Complexity of Formal Systems DCFS 2023, Potsdam, Germany

Subreviewer:

* 12th International Workshop on Non-Classical Models of Automata and Applications NCMA 2022, Debrecen, Hungary
* 28th International Conference on Tools and Algorithms for the Construction and Analysis of Systems TACAS 2022, Munich, Germany
* 25th International Conference on Developments in Language Theory DLT 2021, Porto, Portugal

**Membership in organizing committees of conferences:**

NCMA 2018, DCFS 2019, CIAA 2019 (all three in Košice, Slovakia)

**Membership in scientific grants:**

VEGA 2/0096/23 “Automata and formal languages: Descriptional and computational complexity”, 2023 – 2026, co-principal investigator

VEGA 2/0132/19 “Descriptional and computational complexity of formal languages”, 2019 – 2022, co-principal investigator

APVV-15-0091 “Effective algorithms, automata and data structures” (EAADS), 2016 – 2020

VEGA 2/0084/15 “Descriptional complexity of formal systems”, 2015 – 2018

**Awards:**

2020 – 2021: Štefan Schwarz Prize for young mathematicians under 30 years (divided 2nd – 3rd place)

**Popularization activities:**

7. 11. 2019, \_ 7. 11. 2018, \_ 10. 11. 2016: talks at the Day of Open Doors at the Mathematical Institute of the Slovak Academy of Sciences in Košice

Košice, 22. 12. 2023