

RNDr. Martin Černý

✉ cerny@kam.mff.cuni.cz

🌐 <http://kam.mff.cuni.cz/~cerny>



Research Interests

- 📖 Game Theory
- 📖 Interval linear algebra

Education

- 2021 – Now 📖 **Ph.D. in Computer Science** at Charles University.
Focus: *Incomplete cooperative games*.
- 2019 – 2021 📖 **M.Sc. in Computer Science** at Charles University.
Thesis title: *Cooperative games with partial information*.
- 2016 – 2019 📖 **Bc. in Computer Science** at Charles University.
Thesis title: *Interval matrices with Monge property*.

Research Publications

Journal Articles

- 1 M. Černý, J. Bok, D. Hartman, and M. Hladík, “Positivity and convexity in incomplete cooperative games,” *Annals of Operations Research*, 2024.
- 2 J. Bok and M. Černý, “1-convex extensions of incomplete cooperative games and the average value,” *Theory and Decisions*, 2023. 🔗 DOI: 10.1007/s11238-023-09946-8.
- 3 M. Černý and M. Grabisch, “Incomplete cooperative games with player-centered information,” *Discrete Applied Mathematics*, 2023. 🔗 DOI: 10.1016/j.dam.2023.12.007.
- 4 M. Černý, “Interval matrices with monge property,” *Applications of Mathematics*, vol. 65, no. 5, pp. 619–643, Sep. 2020. 🔗 DOI: 10.21136/am.2020.0370-19.

Conference Proceedings

- 1 F. Úradník, D. Sychrovský, J. Černý, and M. Černý, “Reducing optimism bias in incomplete cooperative games,” in *Proceedings of the 23rd International Conference on Autonomous Agents and Multi-Agent Systems*, 2024.
- 2 M. Hladík and M. Černý, “Weak and strong consistency of an interval comparison matrix,” Springer, Cham, Nov. 2020, pp. 15–25. 🔗 DOI: 10.1007/978-3-030-62509-2_2.

Workshops


- 1 F. Úradník, D. Sychrovský, J. Černý, and M. Černý, *Optimal querying of superadditive set functions to minimize ambiguity*, Presented at the 4th workshop on Graphs and more Complex structures for Learning and Reasoning (GCLR), 2024.

Teaching experience

Lectures

2021 – Now  **Cooperative game theory** (introduced)

Seminars

2020 – Now  **Cooperative game theory seminar** (introduced)

2023 / 2024  **Programming in ChatGPT** (introduced)


Tutorials


2019 – Now  **Linear Algebra I & II** (standard & advanced tutorials)

2022 / 2023  **Applications of Linear Algebra in Combinatorics**

21/22, 23/24  **Matroid Theory**


Supervised students

2024  **Master's student:** David Ryzák.
Thesis title: *Stochastic cooperative games.*


2023  **Undergraduate:** Kateřina Kuncová.
Thesis title: *Emergency response in town Žebrák.*

Research stays

2024  **Vrije Universiteit Amsterdam**, Amsterdam, Netherlands.
visiting prof. René van den Brink in *March 2024.*


2023  **University of Southern Denmark**, Odense, Denmark.
visiting prof. Peter Sudhölter and Ryan Tierney in *November - December 2023.*


2022  **Université Paris 1 Panthéon-Sorbonne**, Paris, France.
visiting prof. Michel Grabisch in *November 2022 - January 2023.*

2021  **HTWG Konstanz**, Konstanz, Germany.
visiting prof. Jürgen Garloff in *November 2021.*


Miscellaneous Experience

Awards and Achievements


2023  **The Best Teaching Assistant** of the Computer Science Section
Faculty of Mathematics and Physics, Charles University.

2021  **Dean's Award for best diploma thesis** for *Cooperative games with partial information.*
Faculty of Mathematics and Physics, Charles University.

Summer schools

2024  **Games and Artificial Intelligence Multidisciplinary Summer School.**
a week long summer school organized by Université de Lorraine in Metz, France.

Skills

Languages  Czech (Native), English (C1), Swedish (B1), German (A2-B1).

Coding  Python, \LaTeX .