

# Curriculum Vitae

## Personal Data

Name	Jan Felix Maly
Current Position	Assistant Professor
Official Address	Institute for Data, Process and Knowledge Management WU Vienna University of Economics and Business, Vienna, Austria
Research Areas	Computational Social Choice, Preference Representation, Logic
Website	<a href="https://www.janmaly.de">https://www.janmaly.de</a>
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## Academic Positions

since 7/2024	Assistant Professor Semantic Systems Group Institute for Data, Process and Knowledge Management, WU Vienna University of Economics and Business
since 5/2024	Postdoctoral Researcher Institute for Logic and Computation, TU Wien
5/2023 – 4/2024	Principal Investigator Project: “A holistic analysis of participatory budgeting” funded by FWF (J-4581) Institute for Logic and Computation, TU Wien
9/2021 – 4/2023	Erwin Schrödinger Fellow Institute for Logic, Language and Computation, University of Amsterdam
9/2020 – 8/2021	Main responsible project assistant Project: “Algorithms for Sustainable Group Decision Making” funded by FWF (P31890), PI Martin Lackner Institute for Logic and Computation, TU Wien
9/2016 – 8/2020	University assistant and PhD student Graduated as Doctor Technicae with distinction TU Wien, supervised by Stefan Woltran and Martin Lackner Institute for Logic and Computation, TU Wien

## Research Grants

2024	Information and Communication Technology Call 2023 “Digital Humanism” Project: “Citizen Centered Democratic Innovation” Funded by WWTF under project number CT23-025 Period: 10/2024 – 9/2028 Grant Size: 594,596€
2024	Principle Investigator Project Project: “Fair online group decision making” Funded by FWF under project number PAT 7221724 Period: 10/2024 – 9/2027 Grant Size: 446,030€
2021	Erwin Schrödinger Fellowship Project: “A holistic analysis of participatory budgeting” Funded by FWF under project number J-4581 Period: 9/2021 – 4/2024 Grant Size: 149,440€

## Supervisor

PhD Thesis	Hanna Kern, Felicia Schmidt, Oliviero Nardi (co-supervisor). Simon Rey (co-supervisor), Michael Bernreiter (co-supervisor)
Master Thesis	Stefan Forster (ongoing, co-supervisor), Felicia Schmidt (co-supervisor), Thomas klein Goldewijk (co-supervisor), Michael Bernreiter (co-supervisor, received the ASAI Master Thesis Prize)
Bachelor Thesis	Valentin Veluppillai, Stefan Haas (ongoing), Kai Knauf, Stefan Forster, Pierre Mugisha

## Invited Talks

2025	Futurizing Democracy: Digital Turning Points – Current Threats and Creative Solutions (outreach)
2024	17th Symposium on Algorithmic Game Theory (invited tutorial)
2024	PB workshop @ 17th Meeting of the Society for Social Choice and Welfare (scientific talk)
2021	Austrian Computer Science Day 2021 (Young Expert Presentation)

## Other Activities

Co-Founder	European Network for Digital Democracy (Eddy)
Co-Organizer	Digital Democracy: Bridging Theory and Practice - 1st Conference of the EDDY Network, Second Vienna-Graz Workshop on (Computational) Social Choice, First Vienna Workshop on Computational Social Choice
Consultation	Consulted the municipality of Amsterdam on the effect of using different voting rules for the local Participatory Budgeting process
Awards	Dissertation prize of the City of Vienna
PC member	AAAI (since 2021), IJCAI (since 2021), AAMAS (since 2021), ECAI 2023, PRIMA 2022
Reviewer	Artificial Intelligence (AIJ), Journal of Artificial Intelligence Research (JAIR), Journal of Mathematical Psychology, SN Computer Science, Autonomous Agents and Multi-Agent Systems (JAAMAS), Mathematical Social Science (MSS), Journal of Mathematical Economics (JME), Philosophical Transactions of the Royal Society A (RSTA)

## Publications

### Preprints

- [1] Simon Rey and Jan Maly. “The (Computational) Social Choice Take on Indivisible Participatory Budgeting”. In: *ArXiv* 2303.00621 (2023).

### Conference Papers

- [1] Lars Bengel, Giovanni Buraglio, Jan Maly, and Kenneth Skiba. “An Extension-Based Argument-Ranking Semantics: Social Rankings in Abstract Argumentation”. In: *Proceedings of the Thirty-Ninth AAAI Conference on Artificial Intelligence (AAAI 2025)*. to appear. AAAI Press, 2025.
- [2] Jan Maly Adrian Haret Sophie Klumper and Guido Schäfer. “Committees and Equilibria: Multiwinner Approval Voting Through the Lens of Budgeting Games”. In: *Proceedings of the Twenty-Fifth ACM Conference on Economics and Computation (EC’24)*. 2024, pp. 51–70.
- [3] Michael Bernreiter, Jan Maly, Oliviero Nardi, and Stefan Woltran. “Combining Voting and Abstract Argumentation to Understand Online Discussions”. In: *Proceedings of the Twenty-Third International Conference on Autonomous Agents and Multiagent Systems (AAMAS 2024)*. 2024, pp. 170–179.
- [4] Martin Lackner, Jan Maly, and Oliviero Nardi. “Free-Riding in Multi-Issue Decisions”. In: *Proceedings of the Twenty-Second International Conference on Autonomous Agents and Multiagent Systems (AAMAS 2023)*. 2023, pp. 2040–2048.

- [5] Jan Maly, Simon Rey, Ulle Endriss, and Martin Lackner. “Fairness in Participatory Budgeting via Equality of Resources”. In: *Proceedings of the Twenty-Second International Conference on Autonomous Agents and Multiagent Systems (AAMAS 2023)*. 2023, pp. 2031–2039.
- [6] Markus Brill, Stefan Forster, Martin Lackner, Jan Maly, and Jannik Peters. “Proportionality in Approval-Based Participatory Budgeting”. In: *Proceedings of the Thirty-Seventh AAAI Conference on Artificial Intelligence (AAAI 2023)*. AAAI Press, 2023, pp. 5524–5531.
- [7] Martin Lackner and Jan Maly. “Proportional Decisions in Perpetual Voting”. In: *Proceedings of the Thirty-Seventh AAAI Conference on Artificial Intelligence (AAAI 2023)*. AAAI Press, 2023, pp. 5722–5729.
- [8] Michael Bernreiter, Anela Lolic, Jan Maly, and Stefan Woltran. “Sequent Calculi for Choice Logics”. In: *Proceedings of the Eleventh International Joint Conference on Automated Reasoning (IJCAR 2022)*. Springer, 2022, pp. 331–349.
- [9] Jiehua Chen, Martin Lackner, and Jan Maly. “Participatory Budgeting with Donations and Diversity Constraints”. In: *Proceedings of the Thirty-Sixth AAAI Conference on Artificial Intelligence (AAAI 2022)*. 9323–9330. AAAI Press, 2022.
- [10] Martin Lackner, Jan Maly, and Simon Rey. “Fairness in Long-Term Participatory Budgeting”. In: *Proceedings of the Thirtieth International Joint Conference on Artificial Intelligence (IJCAI 2021)*. ijcai.org, 2021, pp. 299–305.
- [11] Michael Bernreiter, Jan Maly, and Stefan Woltran. “Choice Logics and Their Computational Properties”. In: *Proceedings of the Thirtieth International Joint Conference on Artificial Intelligence (IJCAI 2021)*. ijcai.org, 2021, pp. 1794–1800.
- [12] Martin Lackner and Jan Maly. “Approval-Based Shortlisting”. In: *Proceedings of the Twentieth International Conference on Autonomous Agents and Multiagent Systems (AAMAS 2021)*. ACM, 2021, pp. 737–745.
- [13] Martin Lackner, Jan Maly, and Simon Rey. “Fairness in Long-Term Participatory Budgeting”. In: *Proceedings of the Twentieth International Conference on Autonomous Agents and Multiagent Systems (AAMAS 2021)*. Extended Abstract. ACM, 2021, pp. 1566–1568.
- [14] Jan Maly and Johannes P. Wallner. “Ranking Sets of Defeasible Elements in Preferential Approaches to Structured Argumentation: Postulates, Relations, and Characterizations”. In: *Proceedings of the Thirty-Fifth AAAI Conference on Artificial Intelligence (AAAI 2021)*. AAAI Press, 2021, pp. 6435–6443.
- [15] Jan Maly. “Lifting Preferences over Alternatives to Preferences over Sets of Alternatives: The Complexity of Recognizing Desirable Families of Sets”. In: *Proceedings of the Thirty-Fourth AAAI Conference on Artificial Intelligence (AAAI 2020)*. AAAI Press, 2020, pp. 2152–2159. DOI: 10.1609/aaai.v34i02.5590.
- [16] Jan Maly, Mirosław Truszczyński, and Stefan Woltran. “Preference Orders on Families of Sets - When Can Impossibility Results Be Avoided?” In: *Proceedings of the Twenty-Seventh International Joint Conference on Artificial Intelligence (IJCAI 2018)*. ijcai.org, 2018, pp. 433–439. DOI: 10.24963/ijcai.2018/60.

## Journal Papers

- [1] Michael Bernreiter, Anela Lolic, Jan Maly, and Stefan Woltran. “Sequent Calculi for Choice Logics”. In: *Journal of Automated Reasoning* 68.8 (2024).
- [2] Martin Lackner and Jan Maly. “Approval-Based Shortlisting”. In: *Social Choice and Welfare* (2023).
- [3] Michael Bernreiter, Jan Maly, and Stefan Woltran. “Choice Logics and Their Computational Properties”. In: *Artificial Intelligence* (2022), 311: 103755.
- [4] Jan Maly. “Ranking Sets of Objects: The Complexity of Avoiding Impossibility Results”. In: *Journal of Artificial Intelligence Research (JAIR)* 73 (2022), pp. 1–65. DOI: 10.1613/jair.1.13030.
- [5] Jan Maly, Mirosław Truszczyński, and Stefan Woltran. “Preference Orders on Families of Sets - When Can Impossibility Results Be Avoided?” In: *Journal of Artificial Intelligence Research (JAIR)* 66 (2019), pp. 1147–1197. DOI: 10.1613/jair.1.11879.
- [6] Jan Maly and Moritz Müller. “A remark on pseudo proof systems and hard instances of the satisfiability problem”. In: *Mathematical Logic Quarterly* 64.6 (2018), pp. 418–428. DOI: 10.1002/malq.201700009.
- [7] Jan Maly and Stefan Woltran. “Ranking Specific Sets of Objects”. In: *Datenbank-Spektrum* 17.3 (2017), pp. 255–265. DOI: 10.1007/s13222-017-0264-7.