

# Curriculum Vitae

## Personal Data

Name	Jan Maly
Current Position	Erwin Schrödinger Fellow
Official Address	Institute for Logic, Language and Computation COMSOC Group University of Amsterdam
Research Areas	Computation Social Choice, Preference Representation, Logic
Website	<a href="http://www.dbai.tuwien.ac.at/staff/jmaly">http://www.dbai.tuwien.ac.at/staff/jmaly</a>

## Academic Positions

since 9/2021	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 Institute for Logic and Computation, TU Wien

## Higher Education

11/2016 – 9/2020	Doctoral studies in Computer Science Graduated as Doctor Technicae with distinction TU Wien, supervised by Stefan Woltran and Martin Lackner Thesis: “Ranking Sets of Objects: How to Deal with Impossibility Results”
10/2013 – 8/2016	Master in Mathematics with specialization in Logic Graduated as Master of Science with distinction University of Vienna Thesis: “Jan Krajíček’s Forcing Construction and Pseudo Proof Systems”
10/2009 – 9/2013	Bachelor in Mathematics with minor subject Philosophy Graduated as Bachelor of Science with distinction Julius-Maximilians-Universität Würzburg Thesis: “Unvollständigkeit und Unentscheidbarkeit”

## Research Grants

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€

## Teaching Experience

3/2021 – 9/2021 Preferences in Artificial Intelligence  
Lecturer  
2/2018 – 9/2020 Algorithms and Data Structures  
Teaching assistant, 8h per week  
9/2016 – 2/2018 Data Modeling  
Teaching assistant, 8h per week  
4/2015 – 7/2015 Complexity Theory  
Tutor, 10h per week

## Research Visits

17/11/2019 – 1/12/2019 Ulle Endriss, COMSOC Group, University of Amsterdam  
04/11/2018 – 18/11/2019 Mirosław Trzuszczński, University of Kentucky  
16/03/2017 – 09/04/2017 Mirosław Trzuszczński, University of Kentucky

## Other Activities

Organizer First Vienna Workshop on Computational Social Choice  
Thesis Supervisor Stefan Forster (Bachelor Thesis), Pierre Mugisha (Bachelor Thesis), Thomas Klein Goldewijk (Master Thesis, co-supervision with Davide Grossi)  
Assisting Supervisor Michael Bernreiter (Master Thesis)  
PC member IJCAI 2022, AAMAS 2022, AAI 2022, IJCAI 2021, AAMAS 2021, AAI 2021  
Reviewer Autonomous Agents and Multi-Agent Systems (JAAMAS)  
Subreviewer JELIA 2021, IJCAI 2020, KI 2020, SAGT 2019, IEA/AIE-2019, STACS 2019, ICLP 2018

## Publications

### Conference Papers

- [1] 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)*. to appear. AAAI Press, 2022.

- [2] 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.
- [3] 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.
- [4] 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.
- [5] 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.
- [6] 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.
- [7] 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.
- [8] 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] 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.
- [2] 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.
- [3] 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.
- [4] 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.

### Workshop Papers

- [1] Martin Lackner and Jan Maly. “Perpetual Voting: The Axiomatic Lens”. In: *The Eighth International Workshop on Computational Social Choice (COMSOC-2021)*. Accepted for oral presentation. 2021.

- [2] Michael Bernreiter, Jan Maly, and Stefan Woltran. “Encoding Choice Logics in ASP”. In: *Proceedings of the 13th Workshop on Answer Set Programming and Other Computing Paradigms, affiliated with the 36th International Conference on Logic Programming*, AAAI Press, 2020, pp. 2152–2159.
- [3] Clemens Gangl, Martin Lackner, Jan Maly, and Stefan Woltran. “Aggregating Expert Opinions in Support of Medical Diagnostic Decision-Making”. In: *Knowledge Representation for Health Care/ProHealth, KR4HC 2019*. Position Paper. 2019, pp. 56–62.
- [4] Jan Maly and Stefan Woltran. “A New Logic for Jointly Representing Hard and Soft Constraints”. In: *The Second Workshop on Logics for Reasoning about Preferences, Uncertainty, and Vagueness, PRUV@IJCAR 2018*. Vol. 2157. CEUR Workshop Proceedings. CEUR-WS.org, 2018.
- [5] Jan Maly and Stefan Woltran. “Ranking Specific Sets of Objects”. In: *Datenbanksysteme für Business, Technologie und Web (BTW 2017), 17. Fachtagung des GI-Fachbereichs „Datenbanken und Informationssysteme“ (DBIS), Workshopband*. Vol. P-266. LNI. GI, 2017, pp. 193–201.