# Florian Brandl

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Contact	
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Positions	
2021–	<b>Argelander Professor</b> (associate professor with tenure), Department of Economics, University of Bonn
2021-	Bonn Junior Fellow, Hausdorff Center for Mathematics, University of Bonn
2021-	Research Affiliate, Global Priorities Institute, University of Oxford
2020–2021	Postdoctoral research scholar Department of Economics, Princeton University
2019–2020	Visiting postdoctoral scholar Department of Economics, Stanford University
2013–2018	Graduate student Department of Mathematics, Technical University of Munich
Education	
2018	Doctoral degree in Mathematics (summa cum laude) Department of Mathematics, Technical University of Munich Thesis title: Zero-Sum Games in Social Choice and Game Theory Thesis committee: Prof. Felix Brandt, Prof. Hervé Moulin, Prof. Clemens Puppe
2013	Master's degree in Mathematics Department of Mathematics, Technical University of Munich Thesis title: Efficiency and Incentives in Randomized Social Choice
2011	<b>Bachelor's degree in Mathematics</b> Department of Mathematics, Technical University of Munich Thesis title: <i>Existence of Stability in Hedonic Coalition Formation Games</i>

# Grants

2019–2021 DFG Research Fellowship

- 19. A natural adaptive process for collective decision-making. *Theoretical Economics*, 2024 (with F. Brandt).
- 18. The vigilant eating rule: A general approach for probabilistic economic design with constraints. *Games and Economic Behavior*, 135:168–187, 2022 (with H. Aziz).
- 17. Funding public projects: A case for the Nash product rule. *Journal of Mathematical Economics*, 99:102585, 2022 (with F. Brandt, M. Greger, D. Peters, C. Stricker, and W. Suksompong).
- 16. An analytical and experimental comparison of maximal lottery schemes. *Social Choice and Welfare*, 58(1):5–38, 2022 (with F. Brandt and C. Stricker).
- 15. Approval voting under dichotomous preferences: A catalogue of characterizations. *Journal of Economic Theory*, 205, 2022 (with D. Peters).
- 14. Belief-averaging and relative utilitarianism. *Journal of Economic Theory*, 198, 2021.
- 13. Arrovian aggregation of convex preferences. *Econometrica*, 88(2):799–844, 2020 (with F. Brandt).
- 12. Fractional hedonic games. *ACM Transactions on Economics and Computation*, 7(2):1–29, 2019 (with H. Aziz, F. Brandt, P. Harrenstein, M. Olsen, and D. Peters).
- 11. Justifying optimal play via consistency. *Theoretical Economics*, 14(4):1185–1201, 2019 (with F. Brandt).
- 10. Strategic abstention based on preference extensions: Positive results and computer-generated impossibilities. *Journal of Artificial Intelligence Research*, 66:1031–1056, 2019 (with F. Brandt, C. Geist, and J. Hofbauer).
- 9. Welfare maximization entices participation. *Games and Economic Behavior*, 14:308–314, 2019 (with F. Brandt and J. Hofbauer).
- 8. An axiomatic characterization of the Borda mean rule. *Social Choice and Welfare*, 52(4):685–707, 2019 (with D. Peters).
- 7. On the tradeoff between efficiency and strategyproofness. *Games and Economic Behavior*, 110:1–18, 2018 (with H. Aziz, F. Brandt, and M. Brill).
- 6. Proving the incompatibility of efficiency and strategyproofness via SMT solving. *Journal of the ACM*, 65(2):1–28, 2018 (with F. Brandt, M. Eberl, and C. Geist).
- 5. Two problems in max-size popular matchings. *Algorithmica*, 81(7):2738–2764, 2018 (with T. Kavitha).
- 4. The distribution of optimal strategies in symmetric zero-sum games. *Games and Economic Behavior*, 104:674–680, 2017.
- 3. Consistent probabilistic social choice. *Econometrica*, 84(5):1839–1880, 2016 (with F. Brandt and H. G. Seedig).
- 2. The impossibility of extending random dictatorship to weak preferences. *Economics Letters*, 141:44–47, 2016 (with F. Brandt and W. Suksompong).

1. Universal Pareto dominance and welfare for plausible utility functions. *Journal of Mathematical Economics*, 60:123–133, 2015 (with H. Aziz and F. Brandt).

# **Publications in Peer-Reviewed Conference Proceedings**

- 13. Efficient, fair, and incentive-compatible healthcare rationing. In *Proceedings* of the 22nd ACM Conference on Economics and Computation (ACM-EC), 103–104, 2021 (with H. Aziz).
- 12. Funding public projects: A case for the Nash product rule. In *Proceedings of the 17th International Conference on Web and Internet Economics (WINE)*, 2021 (with F. Brandt, M. Greger, D. Peters, C. Stricker, and W. Suksompong).
- 11. Distribution rules under dichotomous preferences: Two out of three ain't bad. In *Proceedings of the 22nd ACM Conference on Economics and Computation (ACM-EC)*, 158–179, 2021 (with F. Brandt, D. Peters, and C. Stricker).
- 10. An analytical and experimental comparison of maximal lottery schemes. In *Proceedings of the 27th International Joint Conference on Artificial Intelligence (IJ-CAI)*, 114–120, 2018 (with F. Brandt and C. Stricker).
- 9. Random assignment with optional participation. In *Proceedings of the 16th International Conference on Autonomous Agents and Multiagent Systems (AA-MAS)*, 326–334, 2017 (with F. Brandt and J. Hofbauer).
- 8. Popular matchings with multiple partners. In *Proceedings of the 37th IARCS Annual Conference on Foundations of Software Technology and Theoretical Computer Science (FSTTCS)*, Leibniz International Proceedings in Informatics (LIPIcs), 19:1–19:15. LZI, 2017 (with T. Kavitha).
- 7. Proving the incompatibility of efficiency and strategyproofness via SMT solving. In *Proceedings of the 25th International Joint Conference on Artificial Intelligence (IJCAI)*, 116–122, 2016 (with F. Brandt and C. Geist).
- 6. Strategic abstention based on preference extensions: Positive results and computer-generated impossibilities. In *Proceedings of the 24th International Joint Conference on Artificial Intelligence (IJCAI)*, 18–24, 2015 (with F. Brandt, C. Geist, and J. Hofbauer).
- 5. Incentives for participation and abstention in probabilistic social choice. In *Proceedings of the 14th International Conference on Autonomous Agents and Multiagent Systems (AAMAS)*, 1411–1419, 2015 (with F. Brandt and J. Hofbauer).
- 4. Fractional hedonic games: Individual and group stability. In *Proceedings of the 14th International Conference on Autonomous Agents and Multiagent Systems (AAMAS)*, 1219–1227, 2015 (with F. Brandt and M. Strobel).
- 3. On the incompatibility of efficiency and strategyproofness in randomized social choice. In *Proceedings of the 28th AAAI Conference on Artificial Intelligence (AAAI)*, 545–551, 2014 (with H. Aziz and F. Brandt).
- 2. Universal Pareto dominance and welfare for plausible utility functions. In *Proceedings of the 15th ACM Conference on Economics and Computation (ACM-EC)*, 331–332, 2014 (with H. Aziz and F. Brandt).

1. Existence of stability in hedonic coalition formation games. In *Proceedings of the 11th International Conference on Autonomous Agents and Multiagent Systems (AAMAS)*, 763–770, 2012 (with H. Aziz).

## **Working Papers**

- 3. An axiomatic characterization of Nash equilibrium. 2024 (with F. Brandt).
- 2. Patience ensures fairness. 2024 (with A. Mackenzie).
- 1. Efficient, fair, and incentive-compatible healthcare rationing. 2021 (with H. Aziz).

#### **Seminar Talks**

- 2024 University of New South Wales, Vienna Workshop on Social Choice and Fairness: Connecting Theory, Experiments and Applications
- 2023 University of Montreal, Concordia University, SAET Conference, MSRI Workshop "Randomization, Neutrality, and Fairness", Karlsruhe Institute of Technology
- 9th Oxford Workshop on Global Priorities Research, University of Hong Kong, Bielefeld University
- SET: Seminars in Economic Theory, Virtual Conference on Social Choice Theory and Applications, Oxford Workshop on Global Priorities Research, D-TEA 2021, New Directions in Social Choice, Hausdorff Center for Mathematics Symposium, ETH, Bilkent University, COMSOC online seminar
- 2020 California Institute of Technology, Princeton University, Cornell University
- 2019 Stanford University

### **Referring Journals**

ACM Transactions on Economics and Computation (TEAC), Algorithmica (ALGO), American Economic Journal: Microeconomics (AEJ-Micro), American Economic Review: Insights (AERI), Econometrica (ECMA), Economic Theory (ET), Erkenntnis, Games and Economic Behavior (GEB), International Journal of Game Theory (IJGT), Journal of Artificial Intelligence Research (JAIR), Journal of Economic Theory (JET), Journal of Political Economy (JPE), Mathematical Social Sciences (MSS), Mathematics of Operations Research (MOR), Operations Research (OR), Review of Economic Studies (ReStud), Social Choice and Welfare (SCW), Theoretical Economics (TE), Theory and Decision (THEO)

# **Program Committee Memberships**

24th ACM Conference on Economics and Computation (ACM-EC), 2023 (area chair), 9th International Workshop on Computational Social Choice (COMSOSC), 2023, 23rd ACM Conference on Economics and Computation

(ACM-EC), 2022, 21st ACM Conference on Economics and Computation (ACM-EC), 2020, 27th International Joint Conference on Artificial Intelligence (IJCAI), 2018, 26th International Joint Conference on Artificial Intelligence (IJCAI), 2017, 25th International Joint Conference on Artificial Intelligence (IJCAI), 2016

# **Referring Conferences**

27th International Joint Conference on Artificial Intelligence (IJCAI), 2018, 11th International Symposium on Algorithmic Game Theory (SAGT), 2018, 26th International Joint Conference on Artificial Intelligence (IJCAI), 2017, 15th International Conference on Autonomous Agents and Multiagent Systems (AAMAS), 2016, 6th International Workshop on Computational Social Choice (COMSOSC), 2016, 25th International Joint Conference on Artificial Intelligence (IJCAI), 2016, 14th International Conference on Autonomous Agents and Multiagent Systems (AAMAS), 2015, 4th International Conference on Algorithmic Decision Theory (ADT), 2015, 6th Workshop on Cooperative Games in Multiagent Systems (COOPMAS), 2015, 15th ACM Conference on Economics and Computation (ACM-EC), 2014

# **Teaching**

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2022	Course "Algorithmic Economics" (Master level)
2022-2024	Course "Decision Theory" (Master level)
2022	Course "Microeconomics II" (PhD level)
2021	Course "Topics in Microeconomic Theory" (PhD level)
2017–2018	Seminar "Markets, Algorithms, Incentives, and Networks" (Bachelor/Master level)
2016	Course "Algorithmic Game Theory" (Bachelor/Master level, teaching assistant)
2015	Seminar "Computational Social Choice" (Bachelor/Master level)
2014–2018	Seminar "Economics and Computation" (Master level)
2013–2019	Course "Computational Social Choice" (Master level, Teaching assistant)
2014–2024	Supervision of 10 Bachelor and Master theses