

Curriculum Vitae

Personal

Name **Florian Brandl**
Birth October 15, 1988, Viechtach, Germany
Address Department of Informatics (I18)
Technical University of Munich
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Research Positions

10/2018– Postdoctoral Associate, Technical University of Munich
10/2013–09/2018 Graduate student, Technical University of Munich

Education

09/2018 Doctoral degree in Mathematics (*summa cum laude*), Technical University of Munich
Thesis title: *Zero-Sum Games in Social Choice and Game Theory*
Thesis committee: Prof. Felix Brandt, Prof. Hervé Moulin, Prof. Clemes Puppe
09/2013 Master's degree in Mathematics, Technical University of Munich
Thesis title: *Efficiency and Incentives in Randomized Social Choice*
09/2011 Bachelor's degree in Mathematics, Technical University of Munich
Thesis title: *Existence of Stability in Hedonic Coalition Formation Games*

Research Visits

03/2018 Department of Computer Science, University of Oxford, Advisor: Prof. Edith Elkind
09/2016 Department of Computer Science, Carnegie Mellon University, Advisor: Prof. Ariel Procaccia
08/2016–10/2016 Department of Economics, Yale University, Advisor: Prof. Dirk Bergemann

Journal Articles

On the tradeoff between efficiency and strategyproofness. *Games and Economic Behavior*, 110:1–18, 2018, with H. Aziz, F. Brandt, and M. Brill.

Proving the incompatibility of efficiency and strategyproofness via SMT solving. *Journal of the ACM*, 65(2), 2018, with F. Brandt, M. Eberl, and C. Geist.

Welfare maximization entices participation. *Games and Economic Behavior*, 2018, with F. Brandt and J. Hofbauer. Forthcoming.

Two problems in max-size popular matchings. *Algorithmica*, 2018, with T. Kavitha. Forthcoming.

An axiomatic characterization of the Borda mean rule. *Social Choice and Welfare*, 2018, with D. Peters. Forthcoming.

The distribution of optimal strategies in symmetric zero-sum games. *Games and Economic Behavior*, 104:674–680, 2017.

Consistent probabilistic social choice. *Econometrica*, 84(5):1839–1880, 2016, with F. Brandt and H. G. Seedig.

The impossibility of extending random dictatorship to weak preferences. *Economics Letters*, 141:44–47, 2016, with F. Brandt and W. Suksompong.

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

Conference Articles

An analytical and experimental comparison of maximal lottery schemes. In *Proceedings of the 27th International Joint Conference on Artificial Intelligence (IJCAI)*, pages 114–120. IJCAI, 2018, with F. Brandt and C. Stricker. **Acceptance rate: 20%**

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), pages 19:1–19:15. LZI, 2018, with T. Kavitha. **Acceptance rate: 28%**

Random assignment with optional participation. In *Proceedings of the 16th International Conference on Autonomous Agents and Mul-*

tiagent Systems (AAMAS), pages 326–334. IFAAMAS, 2017, with F. Brandt and J. Hofbauer. **Acceptance rate: 26%**

Proving the incompatibility of efficiency and strategyproofness via SMT solving. In *Proceedings of the 25th International Joint Conference on Artificial Intelligence (IJCAI)*, pages 116–122. AAAI Press, 2016, with F. Brandt and C. Geist. **Acceptance rate: 24%**

Strategic abstention based on preference extensions: Positive results and computer-generated impossibilities. In *Proceedings of the 24th International Joint Conference on Artificial Intelligence (IJCAI)*, pages 18–24. AAAI Press, 2015, with F. Brandt, C. Geist, and J. Hofbauer. **Acceptance rate: 28%**

Incentives for participation and abstention in probabilistic social choice. In *Proceedings of the 14th International Conference on Autonomous Agents and Multiagent Systems (AAMAS)*, pages 1411–1419. IFAAMAS, 2015, with F. Brandt and J. Hofbauer. **Acceptance rate: 25%**

Fractional hedonic games: Individual and group stability. In *Proceedings of the 14th International Conference on Autonomous Agents and Multiagent Systems (AAMAS)*, pages 1219–1227. IFAAMAS, 2015, with F. Brandt and M. Strobel. **Acceptance rate: 25%**

On the incompatibility of efficiency and strategyproofness in randomized social choice. In *Proceedings of the 28th AAAI Conference on Artificial Intelligence (AAAI)*, pages 545–551. AAAI Press, 2014, with H. Aziz and F. Brandt. **Acceptance rate: 28%**

Universal Pareto dominance and welfare for plausible utility functions. In *Proceedings of the 15th ACM Conference on Economics and Computation (ACM-EC)*, pages 331–332. ACM Press, 2014, with H. Aziz and F. Brandt. **Acceptance rate: 27%**

Existence of stability in hedonic coalition formation games. In *Proceedings of the 11th International Conference on Autonomous Agents and Multiagent Systems (AAMAS)*, pages 763–770. IFAAMAS, 2012, with H. Aziz. **Acceptance rate: 20%**

Working Papers

Fractional hedonic games. 2018, with H. Aziz, F. Brandt, P. Harrenstein, M. Olsen, and D. Peters. Working paper.

Arrovian aggregation of convex preferences. 2018, with F. Brandt. Working paper.

Justifying optimal play via consistency. 2018, with F. Brandt. Working paper.

Presented Talks

- 06/2018 “An Analytical and Experimental Comparison of Maximal Lottery Schemes”, 14th Meeting of the Society for Social Choice and Welfare (SSCW), 2018
- 03/2018 “Optimal Play Without Common Priors”, Department of Computer Science, University of Oxford
- 11/2017 “Arrovian Aggregation of Convex Preferences and Pairwise Utilitarianism”, Department of Economics and Management, Karlsruhe Institute of Technology
- 05/2017 “Arrovian Aggregation of Convex Preferences and Pairwise Utilitarianism”, Workshop on Decision: Theory, Experiments and Applications (D-TEA), 2017
- 09/2016 “Consistent Probabilistic Social Choice”, Department of Economics, Yale University
- 07/2016 “The Distribution of Optimal Strategies in Symmetric Zero-Sum Games”, 5th World Congress of the Game Theory Society (GAMES), 2016
- 07/2016 “Proving the Incompatibility of Efficiency and Strategyproofness via SMT Solving”, 25th International Joint Conference on Artificial Intelligence (IJCAI), 2016
- 06/2016 “Proving the Incompatibility of Efficiency and Strategyproofness via SMT Solving”, 6th International Workshop on Computational Social Choice (COMSOSC), 2016
- 06/2014 “Universal Pareto Dominance and Welfare for Plausible Utility Functions”, 12th Meeting of the Society for Social Choice and Welfare (SSCW), 2014
- 06/2014 “Universal Pareto Dominance and Welfare for Plausible Utility Functions”, 15th ACM Conference on Economics and Computation (ACM-EC), 2014

Program Committee Memberships

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 Journals

ACM Transactions on Economics and Computation (TEAC), Econometrica (ECMA), Games and Economic Behaviour (GEB), International Journal of Game Theory (IJGT), Journal of Economic Theory (JET), Mathematics of Operations Research (MOR), Social Choice and Welfare (SCW), Theoretical Economics (TE)

Referring Conferences

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

Teaching

2017–present	Seminar “Markets, Algorithms, Incentives, and Networks”
2016–present	Course “Algorithmic Game Theory” (Teaching assistant)
2015–present	Seminar “Computational Social Choice”
2014–present	Seminar “Economics and Computation”
2013–present	Course “Computational Social Choice” (Teaching assistant)

Student Projects

03/2018–07/2018	Dominik Spies, Web Tools for Pairwise Preference Aggregation Functions, Interdisciplinary project
11/2016–04/2017	Stefan Tilly, An Axiomatic Study of Parameterized Maximal Lottery Schemes, Master’s thesis
04/2016–12/2016	Maximilian Weininger, Acceptability of Social Choice Lotteries, Interdisciplinary project

- 10/2015–04/2017 Christian Stricker, An Asymptotic Study of the Axiomatic Properties of Social Decision Schemes, Master's thesis
- 01/2015–12/2015 Robert Havemann, Farsighted Stability Notions in Coalition Formation Games, Master's thesis
- 04/2014–09/2014 Martin Strobel, Fractional Hedonic Games - Individual and Group Stability Notions, Bachelor's thesis
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Garching, December 7, 2018