Lebenslauf

Persönliches

Name:	**Felix Brandt**
Geburtstag:	6. Juni 1973 (Freiburg im Breisgau, Deutschland)
Familienstand:	Verheiratet, zwei Kinder
Adresse:	Fakultät für Informatik (I18) Technische Universität München Boltzmannstr. 3 85748 Garching, Deutschland
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Forschungstätigkeit

2010–	**Professor (Technische Universität München (TUM))** Lehrstuhl für Decision Sciences and Systems: Extraordinariat Algorithmische Spieltheorie
2005–2010	**Emmy-Noether Nachwuchsgruppenleiter (Ludwig-Maximilians-Universität München (LMU))** Preference Aggregation in Multiagent Systems Group
2004–2005	**Postdoktoraler Forschungsaufenthalt (Stanford University, USA)** Multiagent Group (Prof. Yoav Shoham, Ph.D.)
2003–2004	**Postdoktoraler Forschungsaufenthalt (Carnegie Mellon University (CMU), USA)** Agent-Mediated Electronic Marketplaces Group (Prof. Tuomas Sandholm, Ph.D.)
1999–2003	**Wissenschaftlicher Mitarbeiter (TUM)** Lehrstuhl für Theoretische Informatik und Grundlagen der Künstlichen Intelligenz (Prof. Dr. Dr. h.c. mult. Wilfried Brauer)

Ausbildung

Januar 2010	**Habilitation, Informatik (LMU)** Titel der Habilitationsschrift: "*Tournament Solutions – Extensions of Maximality and their Applications to Decision-Making*" Gutacher: Prof. M. Hofmann, Ph.D., Prof. J.-F. Laslier, Prof. Dr. M. Schottenloher
August 2003	**Dr. rer. nat., Informatik, *summa cum laude* (TUM)** Titel der Dissertation: "*Fundamental Aspects of Privacy and Deception in Electronic Auctions*" Doktorvater: Prof. Dr. Dr. h.c. mult. W. Brauer, Zweitgutachter: Prof. Dr. M. Bichler
August 1998	**Diplom, Informatik (TUM)** Hauptfach: Informatik, Nebenfach: Mathematik Titel der Diplomarbeit: "*Example Selection for Learning in Automated Theorem Proving*"

Herausgebertätigkeit

2020–	**Managing Editor**: Social Choice and Welfare
2014–2017	**Associate Editor**: Journal of Artificial Intelligence Research
2011–2019	**Associate Editor**: Social Choice and Welfare
2011–	**Associate Editor**: ACM Transactions on Economics and Computation
2010–	**Associate Editor**: Journal of Autonomous Agents and Multiagent Systems
2008–2016	**Associate Editor**: Mathematical Social Sciences
2013–	**Editorial Board Member**: Intelligent Systems book series

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Bücher

1. F. Brandt, V. Conitzer, U. Endriss, J. Lang, and A. Procaccia, editors. *Handbook of Computational Social Choice*. Cambridge University Press, 2016.

Buchkapitel

9. F. Brandt, J. Hofbauer, and M. Strobel. Exploring the no-show paradox for Condorcet extensions. In M. Diss and V. Merlin, editors, *Evaluating Voting Systems with Probability Models: Essays by and in Honor of William Gehrlein and Dominique Lepelley*, Studies in Choice and Welfare. Springer-Verlag, 2020. Forthcoming.
8. F. Brandt, C. Geist, and M. Strobel. Analyzing the practical relevance of the Condorcet loser paradox and the agenda contraction paradox. In M. Diss and V. Merlin, editors, *Evaluating Voting Systems with Probability Models: Essays by and in Honor of William Gehrlein and Dominique Lepelley*, Studies in Choice and Welfare. Springer-Verlag, 2020. Forthcoming.
7. F. Brandt. Collective choice lotteries: Dealing with randomization in economic design. In J.-F. Laslier, H. Moulin, R. Sanver, and W. S. Zwicker, editors, *The Future of Economic Design*, Studies in Economic Design, pages 51–56. Springer-Verlag, 2019.
6. H. Aziz, F. Brandt, E. Elkind, and P. Skowron. Computational social choice: The first ten years and beyond. In B. Steffen and G. Woeginger, editors, *Computing and Software Science*, volume 10000 of *Lecture Notes in Computer Science (LNCS)*, chapter 48–65. Springer-Verlag, 2019.
5. F. Brandt. Rolling the dice: Recent results in probabilistic social choice. In U. Endriss, editor, *Trends in Computational Social Choice*, chapter 1, pages 3–26. AI Access, 2017.
4. F. Brandt, V. Conitzer, U. Endriss, J. Lang, and A. D. Procaccia. Introduction to computational social choice. In F. Brandt, V. Conitzer, U. Endriss, J. Lang, and A. D. Procaccia, editors, *Handbook of Computational Social Choice*, chapter 1. Cambridge University Press, 2016.
3. F. Brandt, M. Brill, and P. Harrenstein. Tournament solutions. In F. Brandt, V. Conitzer, U. Endriss, J. Lang, and A. D. Procaccia, editors, *Handbook of Computational Social Choice*, chapter 3. Cambridge University Press, 2016.

2. F. Brandt, V. Conitzer, and U. Endriss. Computational social choice. In G. Weiß, editor, *Multiagent Systems*, chapter 6, pages 213–283. MIT Press, 2nd edition, 2013.

1. F. Brandt. Auctions. In B. Rosenberg, editor, *Handbook of Financial Cryptography and Security*, chapter 2, pages 49–58. CRC Press, 2010.

Zeitschriftenartikel

46. F. Brandl, F. Brandt, and J. Hofbauer. Welfare maximization entices participation. *Games and Economic Behavior*, 14:308–314, 2019.

45. F. Brandl, F. Brandt, C. Geist, and J. Hofbauer. Strategic abstention based on preference extensions: Positive results and computer-generated impossibilities. *Journal of Artificial Intelligence Research*, 66:1031–1056, 2019.

44. F. Brandl and F. Brandt. Justifying optimal play via consistency. *Theoretical Economics*, 14:1185–1201, 2019.

43. F. Brandl and F. Brandt. Arrovian aggregation of convex preferences. *Econometrica*, 2019. Forthcoming.

42. G. Bachmeier, F. Brandt, C. Geist, P. Harrenstein, K. Kardel, D. Peters, and H. G. Seedig. k-majority digraphs and the hardness of voting with a constant number of voters. *Journal of Computer and System Sciences*, 105:130–157, 2019.

41. H. Aziz, F. Brandl, F. Brandt, P. Harrenstein, M. Olsen, and D. Peters. Fractional hedonic games. *ACM Transactions on Economics and Computation*, 7(2), 2019.

40. F. Brandt, M. Brill, H. G. Seedig, and W. Suksompong. On the structure of stable tournament solutions. *Economic Theory*, 65(2):483–507, 2018.

39. F. Brandt, M. Brill, and P. Harrenstein. Extending tournament solutions. *Social Choice and Welfare*, 51(2):193–222, 2018.

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

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

36. F. Brandt, P. Harrenstein, and H. G. Seedig. Minimal extending sets in tournaments. *Mathematical Social Sciences*, 87:55–63, 2017.

35. F. Brandt, C. Geist, and D. Peters. Optimal bounds for the no-show paradox via SAT solving. *Mathematical Social Sciences*, 90:18–27, 2017. Special Issue in Honor of Hervé Moulin.

34. S. Albers, M. Bichler, F. Brandt, P. Gritzmann, and R. Kolisch. Algorithmic Economics und Operations Research. *Informatik Spektrum*, 40(2):165–171, 2017. Special Issue "50 Jahre Informatik München".

33. F. Brandt, C. Geist, and P. Harrenstein. A note on the McKelvey uncovered set and Pareto optimality. *Social Choice and Welfare*, 46(1):81–91, 2016.

32. F. Brandt and C. Geist. Finding strategyproof social choice functions via SAT solving. *Journal of Artificial Intelligence Research*, 55:565–602, 2016.

31. F. Brandt, M. Brill, and W. Suksompong. An ordinal minimax theorem. *Games and Economic Behavior*, 95:107–112, 2016.

30. F. Brandt and M. Brill. Computing dominance-based solution concepts. *ACM Transactions on Economics and Computation*, 5(2), 2016.

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

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

27. F. Brandt, A. Dau, and H. G. Seedig. Bounds on the disparity and separation of tournament solutions. *Discrete Applied Mathematics*, 187:41–49, 2015.

26. F. Brandt, M. Brill, E. Hemaspaandra, and L. Hemaspaandra. Bypassing combinatorial protections: Polynomial-time algorithms for single-peaked electorates. *Journal of Artificial Intelligence Research*, 53:439–496, 2015.

25. F. Brandt. Set-monotonicity implies Kelly-strategyproofness. *Social Choice and Welfare*, 45(4):793–804, 2015.

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

23. F. Brandt, M. Brill, F. Fischer, and P. Harrenstein. Minimal retentive sets in tournaments. *Social Choice and Welfare*, 42(3):551–574, 2014.

22. H. Aziz, F. Brandt, M. Brill, and J. Mestre. Computational aspects of random serial dictatorship. *ACM SIGecom Exchanges*, 13(2):26–30, 2014.

21. F. Brandt, F. Fischer, and P. Harrenstein. On the rate of convergence of fictitious play. *Theory of Computing Systems*, 53(1):41–52, 2013. Special Issue on Algorithmic Game Theory.

20. F. Brandt, M. Chudnovsky, I. Kim, G. Liu, S. Norin, A. Scott, P. Seymour, and S. Thomassé. A counterexample to a conjecture of Schwartz. *Social Choice and Welfare*, 40(3):739–743, 2013.

19. D. Baumeister, F. Brandt, F. Fischer, J. Hoffmann, and J. Rothe. The complexity of computing minimal unidirectional covering sets. *Theory of Computing Systems*, 53(3):467–502, 2013.

18. H. Aziz, F. Brandt, and H. G. Seedig. Computing desirable partitions in additively separable hedonic games. *Artificial Intelligence*, 195:316–334, 2013.

17. H. Aziz, F. Brandt, and P. Harrenstein. Pareto optimality in coalition formation. *Games and Economic Behavior*, 82:562–581, 2013.

16. H. Aziz, F. Brandt, and M. Brill. The computational complexity of random serial dictatorship. *Economics Letters*, 121(3):341–345, 2013.

15. F. Brandt and P. Harrenstein. Set-rationalizable choice and self-stability. *Journal of Economic Theory*, 146(4):1721–1731, 2011.

14. F. Brandt, F. Fischer, and M. Holzer. Equilibria of graphical games with symmetries. *Theoretical Computer Science*, 412:675–685, 2011.

13. F. Brandt, M. Brill, F. Fischer, and J. Hoffmann. The computational complexity of weak saddles. *Theory of Computing Systems*, 49(1):139–161, 2011. Special Issue on Algorithmic Game Theory.

12. F. Brandt, M. Brill, F. Fischer, and P. Harrenstein. On the complexity of iterated weak dominance in constant-sum games. *Theory of Computing Systems*, 49(1):162–181, 2011. Special Issue on Algorithmic Game Theory.

11. F. Brandt. Minimal stable sets in tournaments. *Journal of Economic Theory*, 146(4):1481–1499, 2011.

10. F. Brandt and P. Harrenstein. Characterization of dominance relations in finite coalitional games. *Theory and Decision*, 69(2):233–256, 2010.

9. F. Brandt, F. Fischer, P. Harrenstein, and M. Mair. A computational analysis of the tournament equilibrium set. *Social Choice and Welfare*, 34(4):597–609, 2010.

8. F. Brandt, F. Fischer, and M. Holzer. Symmetries and the complexity of pure Nash equilibrium. *Journal of Computer and System Sciences*, 75(3):163–177, 2009.

7. F. Brandt, F. Fischer, P. Harrenstein, and Y. Shoham. Ranking games. *Artificial Intelligence*, 173(2):221–239, 2009.

6. F. Brandt, F. Fischer, and P. Harrenstein. The computational complexity of choice sets. *Mathematical Logic Quarterly*, 55(4):444–459, 2009. Special Issue on Computational Social Choice.

5. F. Brandt, M. Brill, F. Fischer, P. Harrenstein, and J. Hoffmann. Computing Shapley's saddles. *ACM SIGecom Exchanges*, 8(2), 2009.

4. F. Brandt. Some remarks on Dodgson's voting rule. *Mathematical Logic Quarterly*, 55(4):460–463, 2009. Special Issue on Computational Social Choice.

3. F. Brandt and T. Sandholm. On the existence of unconditionally privacy-preserving auction protocols. *ACM Transactions on Information and System Security*, 11(2), 2008.

2. F. Brandt and F. Fischer. Computing the minimal covering set. *Mathematical Social Sciences*, 56(2):254–268, 2008.

1. F. Brandt. How to obtain full privacy in auctions. *International Journal of Information Security*, 5(4):201–216, 2006.

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63. F. Brandt and A. Wilczynski. On the convergence of swap dynamics to Pareto-optimal matchings. In *Proceedings of the 15th International Conference on Web and Internet Economics (WINE)*, pages 100–113, **Acceptance rate: 32%**, 2019.

62. F. Brandt, J. Hofbauer, and M. Strobel. Exploring the no-show paradox for Condorcet extensions using Ehrhart theory and computer simulations. In *Proceedings of the 18th International Conference on Autonomous Agents and Multiagent Systems (AAMAS)*. **Acceptance rate: 24%**, IFAAMAS, 2019.

61. F. Brandt, C. Saile, and C. Stricker. Voting with ties: Strong impossibilities via SAT solving. In *Proceedings of the 17th International Conference on Autonomous Agents and Multiagent Systems (AAMAS)*, pages 1285–1293. **Acceptance rate: 25%**, IFAAMAS, 2018.

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

59. F. Brandt, J. Hofbauer, and M. Suderland. Majority graphs of assignment problems and properties of popular random assignments. In *Proceedings of the 16th International Conference on Autonomous Agents and Multiagent Systems (AAMAS)*, pages 335–343. **Acceptance rate: 26%**, IFAAMAS, 2017.

58. F. Brandl, F. Brandt, and J. Hofbauer. Random assignment with optional participation. In *Proceedings of the 16th International Conference on Autonomous Agents and Multiagent Systems (AAMAS)*, pages 326–334. **Acceptance rate: 26%**, IFAAMAS, 2017.

57. F. Brandt, C. Geist, and M. Strobel. Analyzing the practical relevance of voting paradoxes via Ehrhart theory, computer simulations, and empirical data. In *Proceedings of the 15th International Conference on Autonomous Agents and Multiagent Systems (AAMAS)*, pages 385–393. **Acceptance rate: 24%**, IFAAMAS, 2016.

56. F. Brandt, C. Geist, and D. Peters. Optimal bounds for the no-show paradox via SAT solving. In *Proceedings of the 15th International Conference on Autonomous Agents and Multiagent Systems (AAMAS)*, pages 314–322. **Acceptance rate: 24%**, IFAAMAS, 2016.

55. F. Brandl, F. Brandt, and C. Geist. 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. **Acceptance rate: 24%**, AAAI Press, 2016.

54. F. Brandt, G. Chabin, and C. Geist. Pnyx: A powerful and user-friendly tool for preference aggregation. In *Proceedings of the 14th International Conference on Autonomous Agents and Multiagent Systems (AAMAS)*, pages 1915–1916. **Demonstration paper acceptance rate: 75%**, IFAAMAS, 2015.

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

52. F. Brandl, F. Brandt, and J. Hofbauer. 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. **Acceptance rate: 25%**, IFAAMAS, 2015.

51. F. Brandl, F. Brandt, C. Geist, and J. Hofbauer. 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. **Acceptance rate: 28%**, AAAI Press, 2015.

50. F. Brandt, P. Harrenstein, and H. G. Seedig. Minimal extending sets in tournaments. In *Proceedings of the 13th International Conference on Autonomous Agents and Multiagent Systems (AAMAS)*, pages 1539–1540. **Short paper acceptance rate: 46%**, IFAAMAS, 2014.

49. F. Brandt and C. Geist. Finding strategyproof social choice functions via SAT solving. In *Proceedings of the 13th International Conference on Autonomous Agents and Multiagent Systems (AAMAS)*, pages 1193–1200. **Acceptance rate: 23%**, IFAAMAS, 2014.

48. F. Brandt, M. Brill, and P. Harrenstein. Extending tournament solutions. In *Proceedings of the 28th AAAI Conference on Artificial Intelligence (AAAI)*, pages 580–586. **Acceptance rate: 28%**, AAAI Press, 2014.

47. H. Aziz, F. Brandt, and P. Harrenstein. Fractional hedonic games. In *Proceedings of the 13th International Conference on Autonomous Agents and Multiagent Systems (AAMAS)*, pages 5–12. **Acceptance rate: 23%**, IFAAMAS, 2014.

46. H. Aziz, F. Brandl, and F. Brandt. 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. **Acceptance rate: 27%**, ACM Press, 2014.

45. H. Aziz, F. Brandl, and F. Brandt. 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. **Acceptance rate: 28%**, AAAI Press, 2014.

44. F. Brandt, P. Harrenstein, K. Kardel, and H. G. Seedig. It only takes a few: On the hardness of voting with a constant number of agents. In *Proceedings of the 12th International Conference on Autonomous Agents and Multiagent Systems (AAMAS)*, pages 375–382. **Acceptance rate: 22%**, IFAAMAS, 2013.

43. H. Aziz, F. Brandt, and P. Stursberg. On popular random assignments. In *Proceedings of the 6th International Symposium on Algorithmic Game Theory (SAGT)*, volume 8146 of *Lecture Notes in Computer Science (LNCS)*, pages 183–194. **Acceptance rate: 38%**, Springer-Verlag, 2013.

42. H. Aziz, F. Brandt, and M. Brill. On the tradeoff between economic efficiency and strategyproofness in randomized social choice. In *Proceedings of the 12th International Conference on Autonomous Agents and Multiagent Systems (AAMAS)*, pages 455–462. **Acceptance rate: 22%**, IFAAMAS, 2013.

41. H. Aziz, F. Brandt, and M. Brill. The computational complexity of random serial dictatorship. In *Proceedings of the 9th International Conference on Web and Internet Economics (WINE)*, volume 8289 of *Lecture Notes in Computer Science (LNCS)*, pages 24–25. **Acceptance rate: 24%**, Springer-Verlag, 2013.

40. F. Brandt and M. Brill. Computing dominance-based solution concepts. In *Proceedings of the 13th ACM Conference on Electronic Commerce (ACM-EC)*, page 233. **Acceptance rate: 33%**, ACM Press, 2012.

39. F. Brandt, M. Brill, and H. G. Seedig. On the fixed-parameter tractability of composition-consistent tournament solutions. In *Proceedings of the 22nd International Joint Conference on Artificial Intelligence (IJCAI)*, pages 85–90. **Oral presentation acceptance rate: 17%**, AAAI Press, 2011.

38. F. Brandt and M. Brill. Necessary and sufficient conditions for the strategyproofness of irresolute social choice functions. In *Proceedings of the 13th Conference on Theoretical Aspects of Rationality and Knowledge (TARK)*, pages 136–142. **Plenary presentation acceptance rate: 27%**, ACM Press, 2011.

37. F. Brandt. Group-strategyproof irresolute social choice functions. In *Proceedings of the 22nd International Joint Conference on Artificial Intelligence (IJCAI)*, pages 79–84. **Oral presentation acceptance rate: 17%**, AAAI Press, 2011.

36. H. Aziz, F. Brandt, and H. G. Seedig. Stable partitions in additively separable hedonic games. In *Proceedings of the 10th International Conference on Autonomous Agents and Multiagent Systems (AAMAS)*, pages 183–190. **Acceptance rate: 22%**, IFAAMAS, 2011.

35. H. Aziz, F. Brandt, and H. G. Seedig. Optimal partitions in additively separable hedonic games. In *Proceedings of the 22nd International Joint Conference on Artificial Intelligence (IJCAI)*, pages 43–48. **Acceptance rate: 30%**, AAAI Press, 2011.

34. H. Aziz, F. Brandt, and P. Harrenstein. Pareto optimality in coalition formation. In *Proceedings of the 4th International Symposium on Algorithmic Game Theory (SAGT)*, Lecture Notes in Computer Science (LNCS), pages 93–104. **Acceptance rate: 40%**, Springer-Verlag, 2011.

33. F. Brandt, F. Fischer, and M. Holzer. On iterated dominance, matrix elimination, and matched paths. In *Proceedings of the 27th International Symposium on Theoretical Aspects of Computer Science (STACS)*, Leibniz International Proceedings in Informatics (LIPIcs), pages 107–118. **Acceptance rate: 23%**, LZI, 2010.

32. F. Brandt, F. Fischer, and P. Harrenstein. On the rate of convergence of fictitious play. In *Proceedings of the 3rd International Symposium on Algorithmic Game Theory (SAGT)*, number 6386 in Lecture Notes in Computer Science (LNCS), pages 102–113. **Acceptance rate: 45%**, Springer-Verlag, 2010.

31. F. Brandt, M. Brill, E. Hemaspaandra, and L. Hemaspaandra. Bypassing combinatorial protections: Polynomial-time algorithms for single-peaked electorates. In *Proceedings of the 24th AAAI Conference on Artificial Intelligence (AAAI)*, pages 715–722. **Acceptance rate: 26%**, AAAI Press, 2010.

30. F. Brandt, M. Brill, F. Fischer, and P. Harrenstein. Minimal retentive sets in tournaments. In *Proceedings of the 9th International Conference on Autonomous Agents and Multiagent Systems (AAMAS)*, pages 47–54. **Acceptance rate: 23%**, IFAAMAS, 2010.

29. D. Baumeister, F. Brandt, F. Fischer, J. Hoffmann, and J. Rothe. The complexity of computing minimal unidirectional covering sets. In *Proceedings of the 7th International Conference on Algorithms and Complexity (CIAC)*, number 6078 in Lecture Notes in Computer Science (LNCS), pages 299–310. **Acceptance rate: 26%**, Springer-Verlag, 2010.

28. H. Aziz, F. Brandt, and P. Harrenstein. Monotone cooperative games and their threshold versions. In *Proceedings of the 9th International Conference on Autonomous Agents and Multiagent Systems (AAMAS)*, pages 1017–1024. **Acceptance rate: 23%**, IFAAMAS, 2010.

27. F. Brandt, M. Brill, F. Fischer, and J. Hoffmann. The computational complexity of weak saddles. In *Proceedings of the 2nd International Symposium on Algorithmic Game Theory (SAGT)*, volume 5814 of *Lecture Notes in Computer Science (LNCS)*, pages 238–249. **Acceptance rate: 50%**, Springer-Verlag, 2009.

26. F. Brandt, M. Brill, F. Fischer, and P. Harrenstein. On the complexity of iterated weak dominance in constant-sum games. In *Proceedings of the 2nd International Symposium on Algorithmic Game Theory (SAGT)*, volume 5814 of *Lecture Notes in Computer Science (LNCS)*, pages 287–298. **Acceptance rate: 50%**, Springer-Verlag, 2009.

25. F. Brandt, M. Brill, F. Fischer, and P. Harrenstein. Computational aspects of Shapley's saddles. In *Proceedings of the 8th International Conference on Autonomous Agents and Multiagent Systems (AAMAS)*, pages 209–216. **Full paper acceptance rate: 22%**, IFAAMAS, 2009.

24. F. Brandt, F. Fischer, and M. Holzer. Equilibria of graphical games with symmetries. In *Proceedings of the 4th International Workshop on Internet and Network Economics (WINE)*, volume 5385 of *Lecture Notes in Computer Science (LNCS)*, pages 198–209. **Acceptance rate: 32%**, Springer-Verlag, 2008.

23. F. Brandt, F. Fischer, P. Harrenstein, and M. Mair. A computational analysis of the tournament equilibrium set. In *Proceedings of the 23rd AAAI Conference on Artificial Intelligence (AAAI)*, pages 38–43. **Oral presentation acceptance rate: 24%**, AAAI Press, 2008.

22. F. Brandt and F. Fischer. On the hardness and existence of quasi-strict equilibria. In *Proceedings of the 1st International Symposium on Algorithmic Game Theory (SAGT)*, volume 4997 of *Lecture Notes in Computer Science (LNCS)*, pages 291–302. **Acceptance rate: 50%**, Springer-Verlag, 2008.

21. P. Harrenstein, F. Brandt, and F. Fischer. Commitment and extortion. In *Proceedings of the 6th International Conference on Autonomous Agents and Multiagent Systems (AAMAS)*, pages 108–115. **Oral presentation acceptance rate: 22%**, IFAAMAS, 2007.

20. F. Brandt, T. Sandholm, and Y. Shoham. Spiteful bidding in sealed-bid auctions. In *Proceedings of the 20th International Joint Conference on Artificial Intelligence (IJCAI)*, pages 1207–1214. **Acceptance rate: 34%**, Morgan Kaufmann, 2007.

19. F. Brandt, F. Fischer, and M. Holzer. Symmetries and the complexity of pure Nash equilibrium. In *Proceedings of the 24th International Symposium on Theoretical Aspects of Computer Science (STACS)*, volume 4393 of *Lecture Notes in Computer Science (LNCS)*, pages 212–223. **Acceptance rate: 15%**, Springer-Verlag, 2007.

18. F. Brandt, F. Fischer, P. Harrenstein, and Y. Shoham. A game-theoretic analysis of strictly competitive multiagent scenarios. In *Proceedings of the 20th International Joint Conference on Artificial Intelligence (IJCAI)*, pages 1199–1206. **Oral presentation acceptance rate: 15%**, Morgan Kaufmann, 2007.

17. F. Brandt, F. Fischer, and P. Harrenstein. The computational complexity of choice sets. In *Proceedings of the 11th Conference on Theoretical Aspects of Rationality and Knowledge (TARK)*, pages 82–91. **Oral presentation acceptance rate: 22%**, ACM Press, 2007.

16. F. Brandt and F. Fischer. PageRank as a weak tournament solution. In *Proceedings of the 3rd International Workshop on Internet and Network Economics (WINE)*, volume 4858 of *Lecture Notes in Computer Science (LNCS)*, pages 300–305. **Short paper acceptance rate: 66%**, Springer-Verlag, 2007.

15. F. Brandt and F. Fischer. Computational aspects of covering in dominance graphs. In *Proceedings of the 22nd AAAI Conference on Artificial Intelligence (AAAI)*, pages 694–699. **Oral presentation acceptance rate: 27%**, AAAI Press, 2007.

14. F. Brandt, F. Fischer, and Y. Shoham. On strictly competitive multi-player games. In *Proceedings of the 21st National Conference on Artificial Intelligence (AAAI)*, pages 605–612. **Oral presentation acceptance rate: 22%**, AAAI Press, 2006.

13. F. Brandt and T. Sandholm. Unconditional privacy in social choice. In *Proceedings of the 10th Conference on Theoretical Aspects of Rationality and Knowledge (TARK)*, pages 207–218. **Acceptance rate: 32%**, ACM Press, 2005.

12. F. Brandt and T. Sandholm. On correctness and privacy in distributed mechanisms. In *Revised selected papers from the 7th AAMAS Workshop on Agent-Mediated Electronic Commerce (AMEC)*, volume 3937 of *Lecture Notes in Artificial Intelligence (LNAI)*, pages 212–225, **Acceptance rate: 37%**, 2005.

11. F. Brandt and T. Sandholm. Efficient privacy-preserving protocols for multi-unit auctions. In *Proceedings of the 9th International Conference on Financial Cryptography and*

Data Security (FC), volume 3570 of *Lecture Notes in Computer Science (LNCS)*, pages 298–312. **Acceptance rate: 24%**, Springer-Verlag, 2005.

10. F. Brandt and T. Sandholm. Decentralized voting with unconditional privacy. In *Proceedings of the 4th International Conference on Autonomous Agents and Multiagent Systems (AAMAS)*, pages 357–364. **Acceptance rate: 24%**, ACM Press, 2005.

9. F. Brandt. Efficient cryptographic protocol design based on distributed El Gamal encryption. In *Proceedings of the 8th International Conference on Information Security and Cryptology (ICISC)*, volume 3935 of *Lecture Notes in Computer Science (LNCS)*, pages 32–47. **Acceptance rate: 18%**, Springer-Verlag, 2005.

8. F. Brandt and T. Sandholm. (Im)possibility of unconditionally privacy-preserving auctions. In *Proceedings of the 3rd International Conference on Autonomous Agents and Multiagent Systems (AAMAS)*, pages 810–817. **Acceptance rate: 24%**, IEEE Computer Society Press, 2004.

7. F. Brandt. Social choice and preference protection - Towards fully private mechanism design. In *Proceedings of the 4th ACM Conference on Electronic Commerce (ACM-EC)*, pages 220–221. **Short paper acceptance rate: 50%**, ACM Press, 2003.

6. F. Brandt. Fully private auctions in a constant number of rounds. In *Proceedings of the 7th Annual Conference on Financial Cryptography (FC)*, volume 2742 of *Lecture Notes in Computer Science (LNCS)*, pages 223–238. **Acceptance rate: 32%**, Springer-Verlag, 2003.

5. F. Brandt and G. Weiß. Vicious strategies for Vickrey auctions. In *Proceedings of the 5th International Conference on Autonomous Agents*, pages 71–72. **Short paper acceptance rate: 31%**, ACM Press, 2001.

4. F. Brandt and G. Weiß. Antisocial agents and Vickrey auctions. In *Intelligent Agents VIII*, volume 2333 of *Lecture Notes in Artificial Intelligence (LNAI)*, pages 335–347. **Acceptance rate: 45%**, Springer-Verlag, 2001.

3. F. Brandt. Cryptographic protocols for secure second-price auctions. In *Cooperative Information Agents V*, volume 2182 of *Lecture Notes in Artificial Intelligence (LNAI)*, pages 154–165. **Acceptance rate: 40%**, Springer-Verlag, 2001.

2. F. Brandt, W. Brauer, and G. Weiß. Task assignment in multiagent systems based on Vickrey-type auctioning and leveled commitment contracting. In *Cooperative Information Agents IV*, volume 1860 of *Lecture Notes in Artificial Intelligence (LNAI)*, pages 95–106. **Acceptance rate: 32%**, Springer-Verlag, 2000.

1. S. Schulz and F. Brandt. Using term space maps to capture search control knowledge in equational theorem proving. In *Proceedings of the 12th Florida Artificial Intelligence Research Society Conference (FLAIRS)*, pages 244–248. **Acceptance rate: 50%**, AAAI Press, 1999.

Begutachtete Artikel in informellen Tagungsbänden

20. F. Brandl, F. Brandt, D. Peters, C. Stricker, and W. Suksompong. Donor coordination: Collective distribution of individual contributions. In *Proceedings of the AAMAS Workshop on Games, Agents, and Incentives*, 2019.

19. F. Brandt, C. Saile, and C. Stricker. Voting with ties: Strong impossibilities via SAT

solving. In *Proceedings of the 7th International Workshop on Computational Social Choice (COMSOC)*, 2018.

18. F. Brandt, J. Hofbauer, and M. Strobel. Exploring the no-show paradox for Condorcet extensions using Ehrhart theory and computer simulations. In *Proceedings of the 7th International Workshop on Computational Social Choice (COMSOC)*, 2018.

17. F. Brandt, J. Hofbauer, and M. Suderland. Majority graphs of assignment problems and properties of popular random assignments. In *Proceedings of the 6th International Workshop on Computational Social Choice (COMSOC)*, 2016.

16. F. Brandt, C. Geist, and M. Strobel. Analyzing the practical relevance of voting paradoxes via Ehrhart theory, computer simulations, and empirical data. In *Proceedings of the 6th International Workshop on Computational Social Choice (COMSOC)*, 2016.

15. F. Brandl, F. Brandt, and C. Geist. Proving the incompatibility of efficiency and strategyproofness via SMT solving. In *Proceedings of the 6th International Workshop on Computational Social Choice (COMSOC)*, 2016.

14. F. Brandt and H. G. Seedig. On the discriminative power of tournament solutions. In *Proceedings of the 1st AAMAS Workshop on Exploring Beyond the Worst Case in Computational Social Choice (EXPLORE)*, 2014.

13. F. Brandt, C. Geist, and H. G. Seedig. Identifying k-majority digraphs via SAT solving. In *Proceedings of the 1st AAMAS Workshop on Exploring Beyond the Worst Case in Computational Social Choice (EXPLORE)*, 2014.

12. F. Brandt, M. Brill, and P. Harrenstein. Extending tournament solutions. In *Proceedings of the International Symposium on Artificial Intelligence and Mathematics (ISAIM)*, 2014.

11. F. Brandt and M. Brill. Necessary and sufficient conditions for the strategyproofness of irresolute social choice functions. In *Proceedings of the IJCAI Workshop on Social Choice and Artificial Intelligence*, 2011.

10. H. Aziz, F. Brandt, and P. Harrenstein. Pareto optimality in coalition formation. In *Proceedings of the IJCAI Workshop on Social Choice and Artificial Intelligence*, 2011.

9. F. Brandt, M. Brill, and H. G. Seedig. On the fixed-parameter tractability of composition-consistent tournament solutions. In *Proceedings of the 3rd International Workshop on Computational Social Choice (COMSOC)*, 2010.

8. F. Brandt, M. Brill, E. Hemaspaandra, and L. Hemaspaandra. Bypassing combinatorial protections: Polynomial-time algorithms for single-peaked electorates. In *Proceedings of the 3rd International Workshop on Computational Social Choice (COMSOC)*, 2010.

7. F. Brandt. Group-strategyproof irresolute social choice functions. In *Proceedings of the 3rd International Workshop on Computational Social Choice (COMSOC)*, 2010.

6. H. Aziz, F. Brandt, and H. G. Seedig. Optimal partitions in additively separable hedonic games. In *Proceedings of the 3rd International Workshop on Computational Social Choice (COMSOC)*, pages 271–282, 2010.

5. F. Brandt and P. Harrenstein. Dominance in social choice and coalitional game theory. In *Proceedings of the 8th Conference on Logic and the Foundations of Game and Decision Theory (LOFT)*, 2008.

4. F. Brandt, F. Fischer, P. Harrenstein, and M. Mair. A computational analysis of the tournament equilibrium set. In *Proceedings of the 2nd International Workshop on Computational Social Choice (COMSOC)*, 2008.

3. F. Brandt, F. Fischer, and P. Harrenstein. The computational complexity of choice sets. In *Proceedings of the 1st International Workshop on Computational Social Choice (COMSOC)*, 2006.

2. F. Brandt, T. Sandholm, and Y. Shoham. Spiteful bidding in sealed-bid auctions. In *Proceedings of the 7th IJCAI Workshop on Game Theoretic and Decision Theoretic Agents (GTDT)*, 2005.

1. F. Brandt. A verifiable, bidder-resolved auction protocol. In *Proceedings of the 5th AAMAS Workshop on Deception, Fraud and Trust in Agent Societies (Special Track on Privacy and Protection with Multi-Agent Systems)*, 2002.

Sonstige Veröffentlichungen

33. F. Brandt and W. S. Zwicker, editors. *Special Issue on Computational Foundations of Social Choice, Mathematical Social Sciences*, 64(1), 2012.

32. F. Brandt, V. Conitzer, L. A. Hemaspaandra, J.-F. Laslier, and W. S. Zwicker, editors. *Computational Foundations of Social Choice*. Dagstuhl Seminar Proceedings 10101, LZI, 2010.

31. F. Brandl and F. Brandt. Arrovian aggregation of convex preferences. Technical report, https://arxiv.org/abs/1703.05519, 2017.

30. H. Aziz, F. Brandl, F. Brandt, P. Harrenstein, M. Olsen, and D. Peters. Fractional hedonic games. Technical report, https://arxiv.org/abs/1705.10116, 2017.

29. F. Brandt, C. Geist, and D. Peters. Optimal bounds for the no-show paradox via SAT solving. Technical report, http://arxiv.org/abs/1602.08063, 2016.

28. F. Brandl, F. Brandt, and C. Geist. Proving the incompatibility of efficiency and strategyproofness via SMT solving. Technical report, http://arxiv.org/abs/1604.05692, 2016.

27. F. Brandt. Computational social choice (Invited tutorial). In *Proceedings of the 32nd International Symposium on Theoretical Aspects of Computer Science (STACS)*, Leibniz International Proceedings in Informatics (LIPIcs), page 19. LZI, 2015.

26. F. Brandl, F. Brandt, and H. G. Seedig. Consistent probabilistic social choice. Technical report, http://arxiv.org/abs/1503.00694, 2015.

25. F. Brandl, F. Brandt, and J. Hofbauer. Welfare maximization entices participation. Technical report, http://arxiv.org/abs/1508.03538, 2015.

24. F. Brandt, M. Brill, and W. Suksompong. An ordinal minimax theorem. Technical report, http://arxiv.org/abs/1412.4198, 2014.

23. F. Brandt and H. G. Seedig. A tournament of order 24 with two disjoint TEQ-retentive sets. Technical report, http://arxiv.org/abs/1302.5592, 2013.

22. H. Aziz, F. Brandt, and M. Brill. The computational complexity of random serial dictatorship. Technical report, http://arxiv.org/abs/1304.3169, 2013.

21. F. Brandt. Set-monotonicity implies Kelly-strategyproofness. Technical report, http://arxiv.org/abs/1005.4877, 2011.

20. F. Brandt. From Arrow's impossibility to Schwartz's tournament equilibrium set (Invited tutorial). In *Proceedings of the 12th International Conference on Relational and Algebraic Methods in Computer Science*, volume 6663 of *Lecture Notes in Computer Science (LNCS)*, pages 50–51. Springer-Verlag, 2011.

19. F. Brandt, M. Brill, E. Hemaspaandra, and L. Hemaspaandra. Bypassing combinatorial protections: Polynomial-time algorithms for single-peaked electorates. Technical Report UR CSD / TR955, University of Rochester, 2010.

18. H. Aziz, F. Brandt, and H. G. Seedig. Optimal partitions in additively separable hedonic games. Technical report, http://arxiv.org/abs/1005.4540, 2010.

17. F. Brandt and P. Harrenstein. Set-rationalizable choice and self-stability. Technical report, http://arxiv.org/abs/0910.3580, 2009.

16. F. Brandt. *Tournament Solutions – Extensions of Maximality and Their Applications to Decision-Making*. Habilitation Thesis, Faculty for Mathematics, Computer Science, and Statistics, University of Munich, 2009.

15. D. Baumeister, F. Brandt, F. Fischer, J. Hoffmann, and J. Rothe. The complexity of computing minimal unidirectional covering sets. Technical report, http://arxiv.org/abs/0901.3692, 2009.

14. F. Brandt, F. Fischer, and M. Holzer. On iterated dominance, matrix elimination, and matched paths. Technical Report TR08-077, Electronic Colloquium on Computational Complexity (ECCC), 2008.

13. F. Brandt. Minimal stable sets in tournaments. Technical report, http://arxiv.org/abs/0803.2138, 2008.

12. F. Brandt, F. Fischer, and M. Holzer. Equilibria of graphical games with symmetries. Technical Report TR07-136, Electronic Colloquium on Computational Complexity (ECCC), 2007.

11. F. Brandt, F. Fischer, and P. Harrenstein. Recognizing members of the Tournament Equilibrium set is NP-hard. Technical report, http://arxiv.org/abs/0711.2961, 2007.

10. F. Brandt, F. Fischer, and M. Holzer. Symmetries and the complexity of pure Nash equilibrium. Technical Report TR06-091, Electronic Colloquium on Computational Complexity (ECCC), 2006.

9. F. Brandt, T. Sandholm, and Y. Shoham. Spiteful bidding in sealed-bid auctions. In *Computing and Markets*, number 05011 in Dagstuhl Seminar Proceedings. Internationales Begegnungs- und Forschungszentrum (IBFI), Schloss Dagstuhl, Germany, 2005.

8. F. Brandt. Private public choice. Technical Report FKI-247-03, Department for Computer Science, Technical University of Munich (TUM), 2003. ISSN 0941-6358.

7. F. Brandt. *Fundamental Aspects of Privacy and Deception in Electronic Auctions*. Doctoral Thesis, Department for Computer Science, Technical University of Munich, 2003.

6. F. Brandt. Secure and private auctions without auctioneers. Technical Report FKI-245-02, Department for Computer Science, Technical University of Munich (TUM), 2002. ISSN 0941-6358.

5. F. Brandt and G. Weiß. Exploring auction-based leveled commitment contracting. Part III: Vickrey-type auctioning. Technical Report FKI-238-00, Department for Computer Science, Technical University of Munich (TUM), 2000. ISSN 0941-6358.
4. F. Brandt and G. Weiß. Exploring auction-based leveled commitment contracting. Part II: Dutch-type auctioning. Technical Report FKI-237-00, Department for Computer Science, Technical University of Munich (TUM), 2000. ISSN 0941-6358.
3. F. Brandt. Antisocial bidding in repeated Vickrey auctions. Technical Report FKI-241-00, Department for Computer Science, Technical University of Munich (TUM), 2000. ISSN 0941-6358.
2. F. Brandt and G. Weiß. Exploring auction-based leveled commitment contracting. Part I: English-type auctioning. Technical Report FKI-234-99, Department for Computer Science, Technical University of Munich (TUM), 1999. ISSN 0941-6358.
1. F. Brandt. Example selection for learning in automated theorem proving. Diploma Thesis, Department for Computer Science, Technical University of Munich, 1998.

Programmkomitee Mitgliedschaften

ACM EC	**ACM Conference on Economics and Computation**: 2020 *Senior PC* (Budapest, Hungary), 2019 (Phoenix, Arizona, USA), 2017 *Senior PC* (Cambridge, Massachusetts, USA), 2016 *Senior PC* (Maastricht, The Netherlands), 2014 *Senior PC* and *Chair of Best Paper Award Committee* (Palo Alto, USA), 2013 (Philadelphia, USA), 2011 *Senior PC* (San Jose, USA), 2010 (Boston, USA), 2008 (Chicago, USA), 2007 (San Diego, USA)
IJCAI	**International Joint Conference on Artificial Intelligence**: 2020 *Senior PC* (Yokohama, Japan), 2018 *Senior PC* (Stockholm, Sweden), 2017 (Melbourne, Australia), 2016 *Senior PC* (New York City, USA), 2015 *Senior PC* (Buenos Aires, Argentina), 2013 *Senior PC* (Beijing, China), 2011 *Senior PC* (Barcelona, Spain), 2009 (Pasadena, USA)
AAMAS	**International Joint Conference on Autonomous Agents and Multiagent Systems**: 2018 *Area Chair* (Stockholm, Sweden), 2016 (Singapore), 2015 (Istanbul, Turkey), 2012 *Senior PC* (Valencia, Spain), 2009 (Budapest, Hungary), 2008 *Senior PC* (Estoril, Portugal), 2007 (Honolulu, USA), 2006 (Hakodate, Japan)
AAAI	**AAAI Conference on Artificial Intelligence**: 2020 *Area Chair* (New York, USA), 2019 *Senior PC* (Honolulu, USA), 2010 *Senior PC* (Atlanta, USA), 2008 (Chicago, USA), 2007 (Vancouver, USA)
COMSOC	**International Workshop on Computational Social Choice**: 2016 (Toulouse, France), 2014 (Pittsburgh, USA), 2012 (Krakow, Poland), 2010 (Düsseldorf, Germany), 2008 (Liverpool, UK)
SAGT	**International Symposium on Algorithmic Game Theory**: 2018 (Beijing, China), 2015 (Saarbrücken, Germany), 2013 (Aachen, Germany), 2009 (Paphos, Cyprus)
SCW	**Meeting of the Society for Social Choice and Welfare**: 2014 (Boston, USA), 2012 (New Delhi, India)
EXPLORE	**Workshop on Exploring Beyond the Worst Case in Computational Social Choice**: 2016 (Singapore), 2014 (Paris, France)
CEC	**International IEEE Conference on E-Commerce Technology**: 2005 (Munich, Germany), 2004 (San Diego, USA)

AI^3	**AAMAS-IJCAI Workshop on Agents and Incentives in AI**: 2018 (Stockholm, Sweden)
ADT	**International Conference on Algorithmic Decision Theory**: 2015 (Kentucky, USA)
PRIMA	**International Conference on Principles and Practice of Multi-Agent Systems**: 2015 (Bertinoro, Italy)
STACS	**International Symposium on Theoretical Aspects of Computer Science**: 2012 (Paris, France)
VoteID	**International Conference on E-Voting and Identity**: 2011 (Tallinn, Estonia)
RAMiCS	**International Conference on Relational and Algebraic Methods in Computer Science**: 2011 (Rotterdam, The Netherlands)
ECAI	**European Conference on Artificial Intelligence**: 2010 (Lisbon, Portugal)
TARK	**Biennial Conference on Theoretical Aspects of Rationality and Knowledge**: 2009 (Palo Alto, USA)
SOFSEM	**International Conference on Current Trends in Theory and Practice of Computer Science (Special Track on Game Theoretic Aspects of E-Commerce)**: 2009 (Špindlerův Mlýn, Czech Republic)
CIA	**International Workshop on Cooperative Information Agents**: 2008 (Prague, Czech Republic)
M-PREF	**Multidisciplinary Workshop on Advances in Preference Handling**: 2008 (Montpellier, France)
WINE	**International Workshop on Internet and Network Economics**: 2007 (San Diego, USA)
EUMAS	**European Workshop on Multi-Agent Systems**: 2007 (Hammamet, Tunisia)
AMEC	**International Workshop on Agent-Mediated Electronic Commerce**: 2007 (Honolulu, USA)
CISC	**SKLOIS Conference on Information Security and Cryptology**: 2005 (Beijing, China)
FLAIRS	**Florida Artificial Intelligence Research Society Conference**: 2002 (Pensacola Beach, USA)

Gutachtertätigkeit: Wissenschaftsförderorganisationen und Universitäten

Alexander von Humboldt Stiftung (AvH), Deutsche Forschungsgemeinschaft (DFG), European Research Council (ERC), European Science Foundation (ESF) College of Expert Reviewers, Hebrew University of Jerusalem, Israel Science Foundation (ISF), MacArthur Foundation, National Science Foundation (NSF), Nederlandse Organisatie voor Wetenschappelijk Onderzoek (NWO), Norwegian Academy of Science and Letters, Österreichischer Akademischer Austauschdienst (OeAD), Oxford University, Servizio Ricerca Università della Svizzera italiana et Scuola universitaria professionale della Svizzera italiana (USI), Swiss National Science Foundation (SNSF), University of Auckland, U.S.-Israel Binational Science Foundation (BSF)

Gutachtertätigkeit: Zeitschriften

Annals of Operations Research, Autonomous Agents and Multi-Agent Systems, Artificial Intelligence, Discrete Applied Mathematics, Data & Knowledge Engineering,

Decision Support Systems, Discrete Mathematics, Econometrica, Economics Bulletin, Economic Theory, Fundamenta Informaticae, Games & Economic Behavior, Homo Oeconomicus, Information Processing Letters, INFORMS Journal on Computing, International Journal of Game Theory, International Journal of Pattern Recognition and Artificial Intelligence, Journal of AI Research, Journal of Economic Theory, Journal of Logic and Computation, Journal of Systems and Software, Journal of Zhejiang University Science, Mathematical Social Sciences, Mathematics of Operations Research, Operations Research, Public Choice, Research in Economics, SIAM Journal on Computing, Social Choice and Welfare, Theoretical Computer Science, Theoretical Economics, IEEE Transactions on Dependable and Secure Computing, IEEE Transactions on Knowledge and Data Engineering, Wirtschaftsinformatik

Gutachtertätigkeit: Konferenzen

30th AAAI Conference on Artificial Intelligence (AAAI 2016), 43rd ACM Symposium on Theory of Computing (STOC 2011), 3rd International Symposium on Algorithmic Game Theory (SAGT 2010), 27th International Symposium on Theoretical Aspects of Computer Science (STACS 2010), 34th International Colloquium on Automata, Languages and Programming (ICALP 2007), 24th International Symposium on Theoretical Aspects of Computer Science (STACS 2007), 20th International Joint Conference on Artificial Intelligence (IJCAI 2007), 20th National Conference on Artificial Intelligence (AAAI 2005), 6th Annual ACM Conference on Electronic Commerce (EC 2005), 25th German Conference on Artificial Intelligence (KI 2002), 15th European Conference on Artificial Intelligence (ECAI 2002), 19th International Conference on Machine Learning (ICML 2002), 5th International Workshop on Cooperative Information Agents (CIA 2001)

Drittmittelförderung

Dezember 2017 — **Collective Choice Lotteries: Dealing with Randomization in Voting, Matching, and Allocation**
Projektleiter, Finanzierung durch DFG Bewilligung BR 2312/12-1
Fördersumme: € 1.220.000

August 2015 — **An Axiomatic and Computational Study of Probabilistic Social Choice**
Projektleiter, Finanzierung durch DFG Bewilligung BR 2312/11-1
Fördersumme: € 502.408

September 2011 — **Algorithmische Grundlagen der Social-Choice-Theorie**
Projektleiter, Finanzierung durch DFG Bewilligung BR 2312/10-1
Gemeinschaftsprojekt mit Jörg Rothe (Heinrich-Heine-Universität Düsseldorf), innerdeutsche Fortsetzung von BR 2312/6-1
Gesamtfördersumme: € 656.200, Individuelle Fördersumme: € 328.100

März 2011 — **Preferences over Sets in Coalition Formation and Strategic Voting**
Projektleiter, Finanzierung durch DFG Bewilligung BR 2312/9-1
Fördersumme: € 213.600

Oktober 2009 — **Algorithmic Game Theory**
Heisenberg-Professur, Finanzierung durch DFG Bewilligungen BR 2312/7-1 und BR 2312/7-2
Fördersumme: € 489.600

Juni 2008 **Computational Foundations of Social Choice**
Projektleiter und Sprecher, Koordination durch ESF (European Science Foundation), Finanzierung durch DFG, ESRC (Economic and Social Research Council), ISF (Israel Science Foundation), NWO (Nederlandse Organisatie voor Wetenschappelijk Onderzoek), NSF (National Science Foundation), TÜBITAK (Türkiye Bilimsel ve Teknolojik Araştirma Kurumu), Bewilligung BR 2312/6-1

Teilnehmer: Ulle Endriss (University of Amsterdam), Jeffrey Rosenschein (Hebrew University, Jerusalem), Jörg Rothe (University of Düsseldorf), Remzi Sanver (Istanbul Bilgi University), Vincent Conitzer (Duke University, Durham), Edith Elkind (University of Southampton), Edith Hemaspaandra (Rochester Institue of Technology), Lane Hemaspaandra (University of Rochester), Jérôme Lang (Université Paul Sabatier, Paris), Jean-François Laslier (École Polytechnique, Paris), Nicolas Maudet (Université Paris-Dauphine)
Gesamtfördersumme: € 1.689.206, Individuelle Fördersumme: € 478.850

Januar 2005 **Preference Aggregation in Multiagent Systems**
Projektleiter, Finanzierung durch DFG Bewilligungen BR 2312/3-1, BR 2312/3-2 und BR 2312/3-3
Fördersumme: € 1.010.273

August 2003 **The Design of Secure Public Choice Protocols**
Forschungsstipendium, Finanzierung durch DFG Bewilligung BR 2312/1-1
Fördersumme: € 67.408

Sonstiges

Reinhart Koselleck Projekt (DFG) (2017–)

Erste Heisenberg-Professur (DFG) im Fachgebiet Informatik (2010–2015)

Förderung im Aktionsplan Informatik (DFG), Sonderform des Emmy-Noether-Programms (2005–2010)

Gewähltes Mitglied des Rats der Society for Social Choice and Welfare (2016–2021)

Zweitmitgliedschaft in der TUM Fakultät für Mathematik (seit 2012)

TUM International School of Applied Mathematics Supervisory Award 2018 für herausragendes Engagement in der Betreuung von Promovierenden (1. Preis)

TUM TeachInf Awards 2014 and 2019 für "Computational Social Choice" (Beste Informatik-Veranstaltung im Wahlbereich)

TUM Informatik Preis für beste Lehre 2015, verliehen an Johannes Hofbauer (Tutor für "Algorithmic Game Theory")

Best student paper award ATAL 2001

Best paper award nomination AAMAS 2016 (vier von 550 eingereichten Papieren)

Best paper award nomination AAMAS 2010 (drei von 685 eingereichten Papieren)

Distinguished Senior Program Committee Member IJCAI 2018

3. Platz bei CASC-15, Unit Equality Division (CADE ATP (Automated Theorem Prover) System Competition, 1998)

Vorsitzender des Programmkommitees (gemeinsam mit H. Aziz, D. Manlove, and N. Mattei) EXPLORE 2016

Vorsitzender des Programmkommitees (gemeinsam mit P. Faliszewski) COMSOC 2012

Lenkungsausschuss der COMSOC Workshop Serie (2012–2016)

Organisation (gemeinsam mit V. Conitzer, L. Hemaspaandra, J.-F. Laslier, and W. Zwicker) des Dagstuhl-Seminars "Computational Foundations of Social Choice" (2010)

Teilnehmer der ICT COST Action IC1205 über "Computational Social Choice" (2012–2016)

Podiumsdiskussion Teilnehmer: "The Future of Negotiation" (ATAL 2001)

ParisTech Forschungsstipendium "Tournament Solutions" (Gemeinschaftsantrag mit Markus Brill und Jean-François Laslier, 2011)

Blog "Turing's invisible hand" (gemeinsam mit Michal Feldmann, Jason Hartline, Bobby Kleinberg, Kevin Leyton-Brown, Noam Nisan, and Vijay Vazirani, 2014–)

Ausgewählte Vorträge

Dezember 2019	"Arrovian Aggregation of Convex Preferences" (Invited Talk, International Conference on Mathematical Optimization for Fair Social Decisions: A tribute to Michel Balinski, Paris, France)
Juni 2019	"Consistent Probabilistic Social Choice" (Invited Talk, 20th ACM Conference on Economics and Computation, Phoenix, USA)
Mai 2018	"Practical Preferential Voting Rules" (Invited Talk, Symposium on "Mathematics and Politics: Democratic Decision Making", Hannover, Germany)
Juni 2017	"On The Tradeoff between Efficiency and Strategyproofness" (Dagstuhl-Seminar "Voting: Beyond Simple Majorities and Single-Winner Elections", Germany)
Mai 2017	"Consistent Probabilistic Social Choice" (Invited Talk, 5th Annual Workshop "Decision: Theory, Experiments and Applications", Paris, France)
Februar 2017	"On the Tradeoff Between Efficiency and Strategyproofness" (Keynote, 4th Day on Computational Game Theory, Zurich, Switzerland)
Februar 2017	"Economics and Computation" (Invited Tutorial, Center for Doctoral Studies in Informatics and its Applications, TUM)
Januar 2017	"Probabilistic Social Choice" (Invited Talk, Workshop on Decision Making and Contest Theory, Ein Gedi, Israel)
Dezember 2016	"Fishburn's Maximal Lotteries" (Invited Talk, Workshop on Mechanism Design, Singapore)
Dezember 2016	"On the Tradeoff between Efficiency and Strategyproofness" (Computer Science Seminar, National University of Singapore)
Oktober 2016	"Computational Social Choice" (Invited Tutorial, Autumn School on Computational Social Choice and Fair Division, St. Petersburg, Russia)
Juli 2016	"On the Tradeoff Between Efficiency and Strategyproofness" (5th World Congress of the Game Theory Society, Maastricht, The Netherlands)

November 2015	"Consistent Probabilistic Social Choice" (Algorithms Seminar, Oxford University, UK)
Juni 2015	"Fishburn's Maximal Lotteries: A randomized rule that is immune to splitting electorates, cloning alternatives, abstention, and crude manipulation" (Dagstuhl Seminar "Computational Social Choice: Theory and Applications", Germany)
März 2015	"Computational Social Choice" (Invited Tutorial, 32nd Symposium on Theoretical Aspects of Computer Science (STACS 2015), Munich, Germany)
Februar 2015	"Consistent Probabilistic Social Choice" (Micro-Theory Seminar, University of Glasgow, UK)
June 2014	"Consistent Social Choice Lotteries" (12th Meeting of the Society for Social Choice and Welfare, Boston, USA)
June 2014	"Axiomatic Social Choice Theory: From Arrow's Impossibility to Fishburn's Maximal Lotteries" (Tutorial, 15th ACM Conference on Economics and Computation (ACM-EC 2014), Palo Alto, USA)
November 2013	"The Tradeoff between Efficiency and Strategyproofness in Randomized Social Choice" (Dagstuhl-Seminar "Electronic Markets and Auctions", Germany)
Oktober 2013	"Consistent Social Choice Lotteries" (Keynote, Workshop on Mathematics of Electoral Systems: Voting, Apportioning and Districting, Budapest, Hungary)
November 2012	"Consistent Social Choice Lotteries" (Invited Talk, 6th Seminar on Ordered Structures in Games and Decisions, Paris, France)
März 2012	"The Tale of the Tournament Equilibrium Set" (Dagstuhl-Seminar "Computation and Incentives in Social Choice", Germany)
September 2011	"Computational Foundations of Social Choice" (ESF LogICCC Final Conference, Berlin, Germany)
Mai 2011	"From Arrow's Impossibility to Schwartz's Tournament Equilibrium Set" (Invited Tutorial, 12th International Conference on Relational and Algebraic Methods in Computer Science (RAMiCS 2011), Rotterdam, The Netherlands)
September 2010	"Tournament Solutions and Their Applications to Multiagent Decision Making" (Invited Talk, 8th German Conference on Multi-Agent System Technologies (MATES 2010), Leipzig, Germany)
Juli 2010	"Mini-Course: Computational Social Choice" (Invited Tutorial, Doctorate program "Program and Model Analysis", Munich, Germany)
April 2010	"From Arrow's Impossibility to Schwartz's Tournament Equilibrium Set" (Invited Talk, COST-ADT Doctoral School on Computational Social Choice, Estoril, Portugal)
Januar 2010	"Set-Rationalizable Choice and Self-Stability" (Invited Talk, Workshop on Choice Theory, Paris, France)
Juni 2009	"Tournament Solutions" (Invited Talk, Workshop on Preference Handling and Aggregation in Combinatorial Domains, Paris, France)
Oktober 2008	"Computational Foundations of Social Choice" (ESF LogICCC Launch Conference, Prague, Czech Republic)
Juli 2008	"Computational Properties of Quasi-Strict Equilibrium" (3rd World Congress of the Game Theory Society, Evanston, USA)

Juni 2008	"Minimal Stable Sets in Tournaments" (9th International Meeting of the Society for Social Choice and Welfare, Montréal, Canada)
Dezember 2007	"Computing the Minimal Covering Set" (Stanford University, Palo Alto, USA)
Oktober 2007	"The Computational Complexity of Tournament Solutions" (Dagstuhl-Seminar "Computational Issues in Social Choice", Germany)
Juni 2007	"Computational Aspects of Covering in Dominance Graphs" (5th International Conference on Logic, Game Theory, and Social Choice, Bilbao, Spain)
Januar 2007	"How to Aggregate Preferences Without Revealing Them" (Invited Talk, School of Computer and Communication Sciences, École Polytechnique Fédérale de Lausanne (EPFL), Switzerland)
Januar 2007	"Preference Aggregation in Multiagent Systems" (Invited Talk, Institut für Angewandte Informatik und Formale Beschreibungsverfahren, Universität Karlsruhe)
November 2006	"Spiteful Bidding in Sealed-Bid Auctions" (INFORMS Annual Meeting 2006, Pittsburgh, USA)
Juli 2006	"Spieltheorie in der Informatik" (Tag der Informatiklehrer, Munich, Germany)
Juli 2006	"Symmetries and Efficient Solvability in Multi-Player Games" (17th International Conference on Game Theory, Stony Brook, USA)
Juli 2006	"On Strictly Competitive Multi-Player Games" (17th International Conference on Game Theory, Stony Brook, USA)
November 2005	"How to Aggregate Preferences Without Revealing Them" (Invited Talk, International Doctoral Graduate School of Information Management and Market Engineering, University of Karlsruhe, Germany)
Januar 2005	"Spiteful Bidding in Sealed-Bid Auctions" (Dagstuhl-Seminar "Computing and Markets", Germany)
August 2002	"Kryptographische Protokolle für sichere Auktionen" (Invited Talk, Deutsches Forschungszentrum für Künstliche Intelligenz (DFKI), Saarbrücken, Germany)

Lehre

2019–	Vorlesung "Diskrete Strukturen" (einschließlich Tutorübung)
2017–2018	Vorlesung "Einführung in die Informatik 1" (gemeinsam mit H. Räcke, einschließlich Praktikum)
2016–	Seminar "Markets, Algorithms, Incentives, and Networks"
2015–	Seminar "Computational Social Choice"
2011–	Vorlesung "Algorithmic Game Theory" (einschließlich Tutorübung)
2011–	Seminar "Economics and Computation"
2007–	Vorlesung "Computational Social Choice" (einschließlich Tutorübung)
2006–	Seminar "Multiagent Systems"
2010–2011	Vorlesung "Perlen der Informatik III"

2008–2009	Vorlesung "Algorithmische Graphentheorie" (gemeinsam mit J. Johannsen, einschließlich Tutorübung)
2007	Vorlesung "Multiagentensysteme" (einschließlich Tutorübung)
2006	Hauptseminar "Spieltheorie"
2002–2003	Übungsleitung zur Vorlesung "Diskrete Strukturen I"
2002–2003	Proseminar "Einführung in die Methoden der Künstlichen Intelligenz"
2001–2002	Tutorübung zur Vorlesung "Diskrete Strukturen I"
2001	Tutorübung zur Vorlesung "Einführung in die Informatik IV"
2000–2001	Hauptseminar "Agenten in der Informatik"
1999–2001	Tutorübung zur Vorlesung "Einführung in die Informatik III"
1999–2003	Proseminar "UNIX-Tools"

Betreuung von Doktoranden

02/2020–	Lederer, Patrick (Informatik)
02/2019–	Bullinger, Martin (Mathematik)
06/2017–	Stricker, Christian (Mathematik)
05/2016–	Saile, Christian (Informatik)
07/2014–01/2019	Hofbauer, Johannes (Mathematik): "Should I Stay or Should I Go – The No-Show Paradox in Voting and Assignment" (Promotionskommission: Prof. Rudi Zagst (Vorsitzender), Prof. Felix Brandt, Prof. Vincent Merlin)
10/2013–09/2018	Brandl, Florian (Mathematik): "Zero-Sum Games in Social Choice and Game Theory" (Promotionskommission: Prof. Peter Gritzmann (Vorsitzender), Prof. Felix Brandt, Prof. Hervé Moulin, Prof. Clemens Puppe) Wissenschaftliche Anstellung nach der Promotion: post-doc (Stanford University)
01/2013–04/2016	Geist, Christian (Informatik): "Generating Insights in Social Choice Theory via Computer-aided Methods" (Promotionskommission: Prof. Javier Esparza (Vorsitzender), Prof. Felix Brandt, Prof. Tobias Nipkow)
03/2010–02/2015	Seedig, Hans Georg (Informatik): "Majority Relations and Tournament Solutions – A Computational Study" (Promotionskommission: Prof. Harald Räcke (Vorsitzender), Prof. Felix Brandt, Prof. Rolf Niedermeier)
10/2008–11/2012	Brill, Markus (Informatik): "Set-Valued Solution Concepts in Social Choice and Game Theory – Axiomatic and Computational Aspects" (Promotionskommission: Prof. Tobias Nipkow (Vorsitzender), Prof. Felix Brandt, Prof. Jérôme Lang) Promotionspreis des Bundes der Freunde der TUM 2013, Honorable Mention Artificial Intelligence Dissertation Award 2013 (ECCAI), nominiert für den GI-Dissertationspreis 2013, Feodor Lynen Stipendium 2013 (AvH), Emmy Noether Stipendium 2017 (DFG) Wissenschaftliche Anstellungen nach der Promotion: post-doc (Duke University), post-doc (Oxford University)

10/2005–07/2009	Fischer, Felix (Informatik): "Complexity Results for some Classes of Strategic Games" (Promotionskommission: Prof. Martin Hofmann (Vorsitzender), Prof. Lane Hemaspaandra, Priv.-Doz. Martin Lange, Prof. Martin Schottenloher) Wissenschaftliche Anstellungen nach der Promotion: post-doc (Harvard University), lecturer (University of Cambridge)

Betreuung von post-doktoralen Wissenschaftlern

02/2019–	Wilczynski, Anaëlle
04/2010–05/2012	Pyrga, Evangelia
09/2009–10/2012	Aziz, Haris IEEE's AI Ten to Watch 2016, Julius Career Award 2016, Chris Wallace Award for Outstanding Research 2017 Nachfolgende Anstellung: researcher (NICTA (now Data61) and University of New South Wales)
02/2009–12/2009	Sørensen, Troels Bjerre Nachfolgende Anstellungen: research fellow (University of Warwick), post-doc (Duke University)
02/2006–09/2012	Harrenstein, Paul Nachfolgende Anstellung: research assistant (Oxford University)

Weitere Betreuung von Nachwuchswissenschaftlern

2014–2019	Warut Suksompong (MIT, Stanford, Oxford), sechs Forschungsaufenthalte
2015–2019	Dominik Peters (Oxford, CMU), fünf Forschungsaufenthalte
2006–	Betreuung von über 50 Master- und Bachelorarbeiten

München, 20. Dezember 2019