

Part B. Progress report

B1. CRP progress and scientific highlights (max. 1500 words)

1. The collaborative work (c.400-750 words)

- a. With reference to the CRP objectives and work plan, describe the work undertaken by the CRP and the contribution of each Individual Project to the collaboration in terms of its specific expertise and tasks/responsibilities. How closely did the partners work together?

This collaborative research project addressed key issues in computational social choice, an interdisciplinary field of study at the interface of social choice theory and computer science. Computational social choice is concerned with the application of computational techniques to the study of social choice mechanisms, such as voting rules and fair division protocols, and with the integration of social choice paradigms into computing. The project bundled the expertise of some of the most active researchers in the field, who have worked on different aspects of computational social choice in the past, and who have come to this area from very different backgrounds: theoretical computer science, artificial intelligence, logic, economics, and political science.

There have been a number of fruitful collaborations between members of this CRP (both IPs and APs) that resulted in joint publications (see Section B.4). For example, research visits by PI Rothe at PI Rosenschein's group in Jerusalem, by AP Elkind at PI Brandt's group in Munich, by AP Lang at Brandt's group, and by AP Lang at PI Rothe's group (all of whom did not collaborate before the LogICCC project) resulted in joint papers. Similarly, new collaborations between the IPs of Brandt and Rothe and Brandt and Hemaspaandra (involving PhD students funded by the LogICCC project) resulted in one joint publication each.

Besides these new collaborations, there are ongoing intense and renewed collaborations between project partners such as those between Amsterdam (PI Endriss) and Paris (PIs Lang and Maudet), Duesseldorf (PI Rothe) and Rochester (APs Hemaspaandra), Jerusalem (PI Rosenschein) and Durham (AP Conitzer), Paris (PI Lang) and Durham (AP Conitzer), Singapore (AP Elkind) and Jerusalem (PI Rosenschein), and Paris (PI Lang) and Singapore (AP Elkind) as witnessed by the new publications listed in Section B.4. Most of these collaborations involved extensive research visits such as a three-month stay of PI Rothe in Rochester in 2009 and a three month-long research visits of APs Hemaspaandra in Europe (Duesseldorf in March, Jerusalem in June, and Munich in July, all funded by an NSF grant that is tied to the CFSC projec). Furthermore, in 2011, Markus Brill (a PhD student of PI Brandt) visited AP Laslier for one month sponsored by the ParisTech-TUM cooperation program and Daniele Porello (a post-doc of PI Endriss) visited APs Lang and Maudet for three weeks. Even if a visit did not immediately yield a joint publication, the discussions and exchange of views and opinions that took place at these gatherings proved to be very valuable for further research.

Since our CRP was concerned with topics at the intersection of social choice theory and computer science, it is highly interdisciplinary. The project brought together researchers from economics and computer science and some of our collaborators are political scientists and mathematicians. While there are not yet joint publications between the economists and the computer scientists involved in the project, there have been several individual meetings and collaborations. For instance, PI Brandt visited AP Laslier at the Laboratoire d'Econométrie of the Ecole Polytechnique Paris in 2009 and early 2010. Furthermore, APs Hemaspaandra, PI Rothe and one of his LogICCC-funded students co-authored a chapter on "Computational Aspects of Approval Voting" in the forthcoming Handbook of Approval Voting edited by the economists of our CRP (Laslier and Sanver). The interdisciplinarity of this CRP is further highlighted by the scope of journals where our findings have been published (see Section A.5), which ranges from economics (e.g., Journal of Economic Theory) to logic (Mathematical Logic Quarterly), artificial intelligence (e.g., AI Journal), theoretical computer science (e.g., TCS), and philosophy (Synthese).

2. Scientific highlights (c.400-750 words)

- a. Describe the scientific highlights and main achievements of the CRP. What has been the most significant/valuable contribution to knowledge (e.g. results, breakthroughs)?

The Amsterdam group has studied applications of logic in a number of areas in social choice theory. One strand of work concerns the first computational study of the framework of judgment aggregation, which deals with the aggregation of propositions expressed in a logical language. We have established the computational complexity of problems such as computing the collective judgment, of manipulating a judgment aggregation procedure, and of checking whether consistency of the outcome can be guaranteed for a given set of propositions. A second line of work concerns the modelling of preferences using logic-based languages. In cooperation with the group at LAMSADE, we have investigated the properties of the framework of weighted goals for preference representation in great detail. We have also extended this framework using the tools of linear logic to allow for a better modelling of domains exhibiting multiplicity of items. This has applications in fair division and combinatorial auctions.

The group in Jerusalem investigated the problem of coalitional manipulation in elections; we put forward efficient algorithms for the problem in Borda, maximin and plurality with runoff voting, and analysed their windows of error. Specifically, given an instance on which an algorithm fails, we bounded the additional power the manipulators need in order to succeed. In other work, we investigated the possibility of stabilising a coalitional game by using external payments (the minimal necessary such payments is called "the cost of stability"). We proved general bounds on the cost of stability in several classes of games and provided a detailed algorithmic study of the cost of stability in weighted voting games. We also extended our model and results to games with coalition structures.

The Düsseldorf group studied the computational complexity of control, manipulation, and bribery in a variety of models. Among the main achievements are the identification of natural voting rules (namely, Bucklin, fallback voting, and sincere-strategy preference-based approval voting) whose winners can be identified in polynomial time, but that have the broadest computational control resistance currently known to hold. In addition, the complexity issues regarding control, bribery, and microbribery have been completely settled for the entire family of Llull/Copeland voting rules. For single-peaked electorates in a variety of voting rules, we showed that complexity shields for manipulation and control may evaporate, stay in place, or can even be erected, depending on the given scenario. Other topics studied in Düsseldorf include cake-cutting algorithms, probabilistic lobbying, and the complexity of some variants of the possible winner problem.

The group in Munich investigated the axiomatics and computational aspects of concepts and voting rules that are based on pairwise majority comparisons. We proposed a systematic methodology for defining such concepts using the notions of qualified subsets, von Neumann-Morgenstern stable sets and Schwartz retentive sets, and studied their relationship to rationalizability and strategyproofness. On the computational side, we obtained preprocessing techniques via modular decomposition, intractability results, efficient algorithms, and heuristics in this context. Particularly noteworthy is an NP-hardness proof of computing the tournament equilibrium set as well as resolving an important open problem associated with this concept.

During the course of this project, Jean-Francois Laslier and Remzi Sanver finalised the edition of the "Handbook on Approval Voting" (published by Springer) with several chapters written by one or more project members. A special workshop, attended by researchers inside and outside the project, was organised in Palaiseau (France) on the occasion of the book's release.

Members of the project consortium also organised a Dagstuhl seminar on "Computational Foundations of Social Choice" (March 2010), two international workshops on Computational Social Choice (September 2008 and September 2010) and an IJCAI workshop on Social Choice and Artificial Intelligence (July 2011), and edited three special issues of international journals on computational social choice.

- b. List up to five of your CRP's most significant joint publications (i.e. involving co-authors from at least two IPs in your CRP or co-authors from other CRPs in the programme).

1. D. Baumeister, F. Brandt, F. Fischer, J. Hoffmann, and J. Rothe. The complexity of computing minimal unidirectional covering sets. In Proceedings of the Seventh International Conference on Algorithms and Complexity (CIAC), number 6078 in Lecture Notes in Computer Science (LNCS), pages 299-310. Springer-Verlag, 2010.
2. P. Faliszewski, E. Hemaspaandra, L. Hemaspaandra, & J. Rothe: The Shield that Never Was: Societies with Single-Peaked Preferences are More Open to Manipulation and Control, *Information and Computation*, 209(2), 89–107, 2011. (Preliminary version presented at TARK 2009.)
3. J.-F. Laslier and M. R. Sanver (eds.): *Handbook on Approval Voting*. Springer-Verlag, Heiderlberg, 481 pages, 2010. (contains a chapter on “Computational Aspects of Approval Voting” by D. Baumeister, G. Erdelyi, E. Hemaspaandra, L. Hemaspaandra, and J. Rothe and a chapter on “Approval as an Intrinsic Part of Preference” by M. R. Sanver).
4. J. Uckelman, Y. Chevaleyre, U. Endriss, and J. Lang: Representing Utility Functions via Weighted Goals. *Mathematical Logic Quarterly*, 55(4):341-361, 2009.
5. L. Xia, M. Zuckerman, A. D. Procaccia, V. Conitzer, and J. S. Rosenschein: Complexity of Unweighted Coalitional Manipulation Under Some Common Voting Rules. Proceedings of the Twenty-First International Joint Conference on Artificial Intelligence (IJCAI 2009), pages 348-353, 2009.

B.2. Integration of the CRP in the programme (300-600 words)

1. Describe the contribution of your CRP to the EUROCORES programme. What was the place and role of the CRP in the framework of the programme? From a scientific perspective, how well integrated was your CRP in the programme? How would you describe the intensity of interaction between your CRP and other CRPs in the programme?

Our CRP was quite unique within this framework for simultaneously bringing a large number of both computer scientists and economists to the table. Certainly closest to our own CRP was the CRP on social software (SSEAC) with whom we organised a number of joint cross-CRP activities (see Section B.3).

PIs and APs of our CRP gave research presentation at joint LogICCC meetings in Prague (Czech Republic), Lyon (France), Chongqing (China), Aachen (Germany), Lille (France), Delhi (India), Rotterdam (Netherlands), and Berlin (Germany). Many of these lead to stimulating discussions only possible in a program as broad as EUROCORES.

2. Describe the benefit to your CRP of being part of the EUROCORES programme (e.g. achieving critical mass of expertise, scale and scope, visibility, collaborative opportunities, ideas, etc.).

In terms of concrete research, the other CRPs have only superficially influenced our CRP, which might be attributed to the fact our CRP is very large and we were constantly engaged in establishing new collaborations within our own CRP. Nevertheless, we greatly enjoyed to hear about the exciting views and ideas of the other LogICCC-related areas and look forward to possible collaborations. This is particularly true for the Amsterdam group led by PI Endriss, whose members took part in no less than nine cross-CRP events.

PI Endriss and his post-doc Daniele Porello also published two book chapters that highlight the relationship between logic and social choice theory (see Section B.4).

B.3. Cross-CRP networking, training and dissemination (max. 750 words)

1. Which networking/training/dissemination activities did you or your CRP members participate in? Indicate how many team members participated in each activity.

The list below contains all events from <http://www.esf.org/activities/eurocores/running-programmes/logiccc/events.html> in which at least one member of our CRP participated.

- **LogiCCC Launch Conference (10)**: Airiau, Baumeister, Brandt, Brill, Chevaleyre, Elkind, Laslier, Lindner, Rosenschein, Rothe
- **LogiCCC Meets China (3)**: Endriss, Grandi, Porello
- **Integrated working meeting GASICS-LINT-CFSC (3)**: Baumeister, Lindner, Rothe
- **Dialogues and Games (2)**: Maudet, Porello
- **MildiSoVa (16)**: Airiau, Aziz, Baumeister, Brandt, Brill, Endriss, Fischer, Grandi, Harrenstein, Laslier, Lindner, Meir, Porello, Rothe, Sanver, J Uckelman
- **COMSOC (22)**: Airiau, Aziz, Baumeister, Brandt, Brill, Conitzer, Elkind, Endriss, Erdelyi, Fischer, Grandi, Harrenstein, Lang, Laslier, Meir, Piras, Porello, Rothe, Sanver, Seedig, J Uckelman, Zohar (and perhaps even more)
- **Vague Quantities and Vague Quantifiers (1)**: Endriss
- **Sino-European Workshop in Logic, Language and Computation (1)**: Frank
- **LogiCCC Meets India (1)**: Endriss
- **RAMiCS (1)**: Brandt
- **LogiCCC Final Conference (7)**: Brandt, Brill, Endriss, Lang, Laslier, Porello, Rothe

2. **Networking activities.** Describe *the most important networking activity* for your CRP (in terms of impact, outcome, creation of synergy and cooperation within or outside the programme).

Clearly the most important networking activity for this CRP was the 3rd International Workshop on Computational Social Choice (COMSOC) organized by PI Rothe and AP Conitzer in Düsseldorf in September 2010. COMSOC-2010 was held in association and co-located with the COST Action "Algorithmic Decision Theory" in the program "European Cooperation in Science and Technology" of the ESF, allowing for a fruitful exchange of ideas between the participants of COMSOC-2010 and this COST Action. COMSOC-2010 was attended by 93 participants (9 among which were PIs/APs of this CRP) with different backgrounds such as political science, economics, theoretical computer science, artificial intelligence, and operations research. We were able to attract highly esteemed invited speakers from economics and political science, namely Gabrielle Demange (Paris School of Economics, France), Matthew O. Jackson (Stanford University, USA), Bettina Klaus (University of Lausanne, Switzerland), Herve Moulin (Rice University, USA), and Hannu Nurmi (University of Turku, Finland, AP of the SSEAC CRP).

Additionally, there was "LogiCCC Tutorial Day" where AP Conitzer and other invited guests such as Agnieszka Rusinowska of the LogiCCC CRP on social software gave tutorials.

Both the invited talks and the contributed, peer-reviewed papers cover a wide range of COMSOC topics, spanning complexity issues in winner determination for voting rules and tournament solutions as well as strategic manipulation; multiagent resource allocation, fairness, judgment aggregation, and cake-cutting algorithms; approximating voting rules; determining possible winners in elections and studying single-peaked electorates; coalition formation and cooperative game theory; mechanism design in social choice and mechanism design with payments; and matching problems in social choice as well as pure social choice and political science topics.

The next COMSOC workshop will be chaired by PI Brandt and Piotr Faliszewski (AGH University of Science and Technology, Poland) in 2012.

Another important networking activity was the Dagstuhl seminar “Computational Foundations of Social Choice” (same title as that of our CRP). Held in March 2010, the seminar brought together 44 researchers (including 10 PIs/APs from this CRP) who have worked on various aspects of computational social choice. Only half of the participants were computer scientists. Despite—or maybe because of—this heterogeneity, every talk was followed by a long and lively discussion. The seminar was organized by PI Brandt, APs Conitzer, Hemaspaandra, Laslier, and William S. Zwicker (Union College, USA).

Participants originated from 19 different countries with the majority being from France, Germany, and the USA. A wide variety of topics were discussed during the seminar. Common research themes that emerged included manipulability, approval voting, cake-cutting algorithms, tournaments, and abstention. PI Brandt and Zwicker are currently editing a special issue of the journal *Mathematical Social Sciences* consisting of work presented at this seminar.

Besides these, Daniele Porello (Amsterdam) co-organized the LogiCCC-sponsored meeting on Games and Dialogues in Lille in February 2010 and various members of the consortium have met and contributed talks during the LogiCCC-sponsored meeting between the CFSC, DiFoS, LINT, and VAAG projects in Amsterdam in March 2010.

3. **Training activities.** Describe *the most useful training activity* to date (workshop, course, school, etc.) undertaken by senior or junior researchers of your CRP.

The most significant training activity organized by our CRP was the LogiCCC tutorial day on September 13th, 2010. Tutorials by AP Conitzer, Agnieszka Rusinowska (an AP from the SSEAC CRP), Nicolaus Tidemann, and Toby Walsh were followed by a special LogiCCC session with talks by other LogiCCC members, Rudolf Berghammer and Stefan Bolus (SSEAC), José Luis García-Lapresta and David Pérez-Román (SSEAC), and Sara L. Uckelman (DiFos) and Joel Uckelman (CFSC); see also <http://ccc.cs.uni-duesseldorf.de/COMSOC-2010/tutorial.shtml>.

On top of that, PIs Brandt, Endriss, Rothe and APs Maudet, Lang, Conitzer, Elkind provided invited tutorials on computational social choice at a variety of conferences and workshops such as EASSS, AAMAS, AAI, ECAI, and ACM-EC.

4. **Dissemination activities.** Describe the *most valuable dissemination activity (or activities)* your team undertook, with respect to (i) the scientific community and (ii) the wider public. Describe the outcome and impact of these activities in terms of promoting your field of research and the EUROCORES programme.

The LogiCCC program is mentioned in the Acknowledgements of most of our publications. In addition, there have been two journal special issues devoted to computational social choice, both of which are co-edited by members of this CRP: a special issue of *Mathematical Logic Quarterly* on “Logic and Complexity in Computational Social Choice” co-edited by PI Rothe and a special issue of the *Journal of Autonomous Agents and Multiagent Systems* on “Computational Social Choice” edited by AP Lang and AP Elkind. There will be a third special issue devoted to this topic in *Mathematical Social Sciences* co-edited by PI Brandt.

Finally, as mentioned above, the tutorials of the COMSOC-2010 workshop were held on a “LogiCCC Tutorial Day” (<http://ccc.cs.uni-duesseldorf.de/COMSOC-2010/tutorial.shtml>).

5. List the cross-CRP activities your CRP organised or co-organised.

- LogiCCC Meets China
- Integrated working meeting GASICS-LINT-CFSC
- Dialogues and Games
- MILDISOVA
- COMSOC
- LogiCCC Meets India
- RAMiCS

B.4. Publications, dissemination and outreach

Important: *In your lists, include only those publications which resulted to a significant extent from work undertaken in the framework of the CRP or from collaboration with other CRPs. Note that all such publications should bear an acknowledgement of the LogICCC programme.*

In addition:

- List *all* authors.
- Identify with an asterisk (*) publications which acknowledge the EUROCORES programme.
- Underline publications/presentations involving co-authors from at least two IPs within your CRP.
- **Mark in bold publications/presentations involving co-authors from other CRPs in the programme.**

Publications

- Articles

Peer-reviewed articles in journals (published, in press or submitted)

We only list journal papers that have been published or accepted for publication. Since APs were strongly integrated into our CRP and in many cases also supported by their national funding organizations, we underlined all publications involving co-authors from at least two IPs or APs.

F. Aleskerov, D. Karabekyan, R. Sanver, and V. Yakuba. On the manipulability of voting rules: the case of 4 and 5 alternatives. *Mathematical Social Sciences*. To appear.

D. İriş and İ. Özkal-Sanver. Manipulation via endowments in university-admission problem. *Economics Bulletin*. To appear.

İ. Özkal-Sanver. Minimal conversely consistent extension of the men-optimal solution. *Social Choice and Welfare*. To appear.

R. Sanver and W. Zwicker. Monotonicity properties and their adaptation to irresolute social choice rules. *Social Choice and Welfare*. To appear.

E. Elkind, P. Faliszewski, and A. Slinko. Rationalizations of Condorcet-Consistent Rules via Distances of Hamming Type. *Social Choice and Welfare*. To appear.

D. Porello. Incompatibility semantics from agreement. *Philosophia*. To appear.

I. Ö. Sanver and D. Nizamogullari. Stability and coalitional efficiency of partitions in matching problems. *Theory and Decision*. To appear.

V. Conitzer. Should Social Network Structure Be Taken into Account in Elections? *Mathematical Social Sciences*. To appear.

L. Xia and V. Conitzer. Determining Possible and Necessary Winners under Common Voting Rules Given Partial Orders. *Journal of Artificial Intelligence Research*, 41:25–67, 2011.

P. Faliszewski, E. Hemaspaandra, L. Hemaspaandra, and J. Rothe. The Shield that Never Was: Societies with Single-Peaked Preferences are More Open to Manipulation and Control. *Information and Computation*, 209(2):89–107, 2011.

- C. Geist and U. Endriss. Automated Search for Impossibility Theorems in Social Choice Theory: Ranking Sets of Objects. *Journal of Artificial Intelligence Research*, 40:143–174, 2011.
- F. Brandt and P. Harrenstein. Set-rationalizable choice and self-stability. *Journal of Economic Theory*, 146(4):1721–1731, 2011.
- F. Brandt. Minimal stable sets in tournaments. *Journal of Economic Theory*, 146(4):1481–1499, 2011.
- J. Farfel and V. Conitzer. Aggregating Value Ranges: Preference Elicitation and Truthfulness. *Autonomous Agents and Multi-Agent Systems*, 22(1):127–150, 2011.
- P. Pasin. Strong Nash implementability via critical profiles. *İktisat, İşletme ve Finans Dergisi*, 26(303):85–101, 2011.
- H. Aziz, Y. Bachrach, E. Elkind, and M. Paterson. False-name Manipulations in Weighted Voting Games. *Journal of Artificial Intelligence Research*, 40:57–93, 2011.
- P. Faliszewski, E. Hemaspaandra, and L. Hemaspaandra. Multimode Control Attacks on Elections. *Journal of Artificial Intelligence Research*, 40:305–351, 2011.
- G. Chalkiadakis, E. Elkind, E. Markakis, M. Polukarov, and N. Jennings. Exploring Stability of Overlapping Coalitions. *Journal of Artificial Intelligence Research*, 39:179–216, 2010.
- Y. Bachrach, E. Markakis, E. Resnick, A. D. Procaccia, J. S. Rosenschein, and A. Saberi. Approximating Power Indices: Theoretical and Empirical Analysis. *Autonomous Agents and Multiagent Systems*, 20(2):105–122, 2010.
- V. Conitzer. Comparing Multiagent Systems Research in Combinatorial Auctions and Voting. *Annals of Mathematics and Artificial Intelligence (AMAI)*, 58(3):239–259, 2010.
- İ. Özkal-Sanver and R. Sanver. A new monotonicity condition for tournament solutions. *Theory and Decision*, 69(3):439–452, 2010.
- D. Porello. Ranking Judgments in Arrow's Settings. *Synthese*, 173(2):199–210, 2010.
- D. Porello. Logica, preferenze e deliberazione. Un modello logico dei processi deliberativi. *Sistemi Intelligenti*, XXII(1):49–64, 2010.
- 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.
- F. Brandt and P. Harrenstein. Characterization of dominance relations in finite coalitional games. *Theory and Decision*, 69(2):233–256, 2010.
- Y. Chevaleyre, U. Endriss, and N. Maudet. Simple Negotiation Schemes for Agents with Simple Preferences: Sufficiency, Necessity and Maximality. *Autonomous Agents and Multiagent Systems*, 20(2):234–259, 2010.
- F. Brandt, F. Fischer, and P. Harrenstein. The computational complexity of choice sets. *Mathematical Logic Quarterly*, 55(4):444–459, 2009.
- F. Brandt. Some remarks on Dodgson's voting rule. *Mathematical Logic Quarterly*, 55(4):460–463, 2009.
- E. Elkind, L. A. Goldberg, P. W. Goldberg, and M. Wooldridge. A Tractable and Expressive Class of Marginal Contribution Nets and Its Applications. *Mathematical Logic Quarterly*, 55(4):362–376, 2009.
- R. Sanver and W. Zwicker. One-Way Monotonicity as a Form of Strategy-Proofness. *International Journal of Game Theory*, 38(4):553–574, 2009.

M. Zuckerman, A. D. Procaccia, and J. S. Rosenschein. Algorithms for the Coalitional Manipulation Problem. *Artificial Intelligence Journal*, 173(2):392–412, 2009.

E. Hemaspaandra, L. Hemaspaandra, and J. Rothe. Hybrid Elections Broaden Complexity-Theoretic Resistance to Control. *Mathematical Logic Quarterly*, 55(4):397–424, 2009.

G. Erdélyi, M. Nowak, and J. Rothe. Sincere-Strategy Preference-Based Approval Voting Fully Resists Constructive Control and Broadly Resists Destructive Control. *Mathematical Logic Quarterly*, 55(4):425–443, 2009.

E. Elkind, L. A. Goldberg, P. W. Goldberg, and M. Wooldridge. On the computational complexity of weighted voting games. *Annals of Mathematics and Artificial Intelligence*, 56(2):109–131, 2009.

P. Faliszewski, E. Hemaspaandra, L. Hemaspaandra, and J. Rothe. Llull and Copeland Voting Computationally Resist Bribery and Constructive Control. *Journal of Artificial Intelligence Research*, 35:275–341, 2009.

G. Erdélyi, L. Hemaspaandra, J. Rothe, and H. Spakowski. Frequency of Correctness versus Average Polynomial Time. *Information Processing Letters*, 109(16):946–949, 2009.

G. Erdélyi, L. Hemaspaandra, J. Rothe, and H. Spakowski. Generalized Juntas and NP-Hard Sets. *Theoretical Computer Science*, 410(38–40):3995–4000, 2009.

P. Faliszewski, E. Hemaspaandra, and L. Hemaspaandra. How Hard Is Bribery in Elections? *Journal of Artificial Intelligence Research*, 35:485–532, 2009.

P. Faliszewski and L. Hemaspaandra. The Complexity of Power-Index Comparison. *Theoretical Computer Science*, 410(1):101–107, 2009.

C. Homan and L. Hemaspaandra. Guarantees for the Success Frequency of an Algorithm for Finding Dodgson-Election Winners. *Journal of Heuristics*, 15(4):403–423, 2009.

J. Lang and L. Xia. Sequential composition of voting rules in multi-issue domains. *Mathematical Social Sciences* 57(3): 304–324, 2009.

Published contributions to international conferences

S. Bouveret and J. Lang. A General Elicitation-Free Protocol for Allocating Indivisible Goods. In *Proceedings of the 22nd International Joint Conference on Artificial Intelligence (IJCAI)*, pages 73–78, Barcelona, Spain, July 2011.

Y. Chevaleyre, J. Lang, N. Maudet, and J. Monnot. Compilation and communication protocols for voting rules with a dynamic set of candidates. In *Proceedings of the 13th Conference on Theoretical Aspects of Rationality and Knowledge (TARK)*, pages 153–160, Groningen, The Netherlands, July 2011.

J. Lang, G. Pigozzi, M. Slavkovik, and L. van der Torre. Judgment aggregation rules based on minimization. In *Proceedings of the 13th Conference on Theoretical Aspects of Rationality and Knowledge (TARK)*, pages 238–246, Groningen, The Netherlands, July 2011.

L. Xia, J. Lang and J. Monnot. Possible Winners When New Alternatives Join: New Results Coming Up! In *Proceedings of the 10th International Conference on Autonomous Agents and Multiagent Systems (AAMAS)*, Taipei, Taiwan, May 2011.

I. Schlotter, E. Elkind, and P. Faliszewski. Campaign Management under Approval-Driven Voting Rules. In *Proceedings of the 25th AAAI Conference on Artificial Intelligence (AAAI)*, San Francisco, USA, August 2011.

E. Iarovski, L. Yu, E. Elkind, and M. Wilson. The Complexity of Safe Manipulation under Scoring Rules. In *Proceedings of the 22nd International Joint Conference on Artificial Intelligence (IJCAI)*, Barcelona, Spain, July 2011.

Y. Zick, A. Skopalik, and E. Elkind. Shapley value as a Function of the Quota in Weighted Voting Games. In Proceedings of the 22nd International Joint Conference on Artificial Intelligence (IJCAI), Barcelona, Spain, July 2011.

S. Obraztsova and E. Elkind. On the Complexity of Voting Manipulation under Randomized Tie-Breaking. In Proceedings of the 22nd International Joint Conference on Artificial Intelligence (IJCAI), Barcelona, Spain, July 2011.

Y. Bachrach, E. Elkind, and P. Faliszewski. Coalitional Voting Manipulation: A Game-Theoretic Perspective. In Proceedings of the 22nd International Joint Conference on Artificial Intelligence (IJCAI), Barcelona, Spain, July 2011.

E. Elkind, J. Lang, and A. Saffidine. Choosing collectively optimal sets of alternatives based on the Condorcet criterion. In Proceedings of the 22nd International Joint Conference on Artificial Intelligence (IJCAI), Barcelona, Spain, July 2011.

E. Elkind, P. Faliszewski, and A. Slinko. Homogeneity and Monotonicity of Distance-Rationalizable Voting Rules. In Proceedings of the 10th International Conference on Autonomous Agents and Multiagent Systems (AAMAS), Taipei, Taiwan, May 2011.

S. Obraztsova, E. Elkind, and N. Hazon. Ties Matter: Complexity of Voting Manipulation Revisited. In Proceedings of the 10th International Conference on Autonomous Agents and Multiagent Systems (AAMAS), Taipei, Taiwan, May 2011.

A. Rey and J. Rothe. Bribery in Path-Disruption Games. In Proceedings of the 2nd International Conference on Algorithmic Decision Theory (ADT), pages 247–261. DIMACS Center, Rutgers University, USA, October 2011.

D. Baumeister, G. Erdélyi, and J. Rothe. How Hard is it to Bribe the Judges? A Study of the Complexity of Bribery in Judgment Aggregation. In Proceedings of the 2nd International Conference on Algorithmic Decision Theory (ADT), pages 1–15, DIMACS Center, Rutgers University, USA, October 2011.

M. Roos, J. Rothe, and B. Scheuermann. How to Calibrate the Scores of Biased Reviewers by Quadratic Programming. In Proceedings of the 25th AAAI Conference on Artificial Intelligence (AAAI), pages 255–260, San Francisco, USA, August 2011.

G. Erdélyi, L. Piras, and J. Rothe. The Complexity of Voter Partition in Bucklin and Fallback Voting: Solving Three Open Problems. In Proceedings of the 10th International Joint Conference on Autonomous Agents and Multiagent Systems (AAMAS), pages 837–844, Taipei, Taiwan, May 2011.

D. Baumeister, M. Roos, and J. Rothe. Computational Complexity of Two Variants of the PossibleWinner Problem. In Proceedings of the 10th International Joint Conference on Autonomous Agents and Multiagent Systems (AAMAS), pages 853–860, Taipei, Taiwan, May 2011.

H. Aziz and B. de Keijzer. Complexity of coalition structure generation. In Proceedings of the 10th International Joint Conference on Autonomous Agents and Multi-Agent Systems (AAMAS), pages 191–198, Taipei, Taiwan, May 2011.

H. Aziz, F. Brandt, and P. Harrenstein. Pareto optimality in coalition formation. In Proceedings of the 4th International Symposium on Algorithmic Game Theory (SAGT), Salerno, Italy, October 2011.

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, Groningen, The Netherlands, July 2011.

F. Brandt. Group-strategyproof irresolute social choice functions. In Proceedings of the 22nd International Joint Conference on Artificial Intelligence (IJCAI), pages 79–84, Barcelona, Spain, July 2011.

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, Barcelona, Spain, July 2011.

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, Barcelona, Spain, July 2011.

H. Aziz, F. Brandt, and H. G. Seedig. Stable partitions in additively separable hedonic games. In Proceedings of the 10th International Joint Conference on Autonomous Agents and Multi-Agent Systems (AAMAS), pages 183–190, Taipei, Taiwan, May 2011.

R. Meir, S. Almagor, A. Michaely, and J. S. Rosenschein. Tight Bounds for Strategyproof Classification. In Proceedings of the 10th International Joint Conference on Autonomous Agents and Multiagent Systems (AAMAS), pages 319–326, Taipei, Taiwan, May 2011.

M. Zuckerman, O. Lev, and J. S. Rosenschein. An Algorithm for the Coalitional Manipulation Problem under Maximin. In Proceedings of the 10th International Joint Conference on Autonomous Agents and Multiagent Systems (AAMAS), pages 845–852, Taipei, Taiwan, May 2011.

R. Meir, J. S. Rosenschein, and E. Malizia. Subsidies, Stability, and Restricted Cooperation in Coalitional Games. In Proceedings of the 22nd International Joint Conference on Artificial Intelligence (IJCAI), pages 301–306, Barcelona, Spain, July 2011.

M. Zuckerman, P. Faliszewski, V. Conitzer, and J. S. Rosenschein. An NTU Cooperative Game Theoretic View of Manipulating Elections. In Proceedings of the 7th Workshop on Internet and Network Economics (WINE), Singapore, December 2011.

U. Endriss, S. Kraus, J. Lang, and M. Wooldridge. Designing Incentives for Boolean Games. In Proceedings of the 10th International Joint Conference on Autonomous Agents and Multiagent Systems (AAMAS), 2011.

S. Airiau, U. Endriss, U. Grandi, D. Porello, and J. Uckelman. Aggregating Dependency Graphs into Voting Agendas in Multi-Issue Elections. In Proceedings of the 22nd International Joint Conference on Artificial Intelligence (IJCAI), Barcelona, Spain, 2011.

D. Porello and U. Endriss. Ontology Merging as Social Choice. In Proceedings of the 12th International Workshop on Computational Logic in Multiagent Systems (CLIMA), 2011.

U. Endriss. Applications of Logic in Social Choice Theory (invited contribution). In Proceedings of the 12th International Workshop on Computational Logic in Multiagent Systems (CLIMA), 2011.

L. Xia, V. Conitzer, and J. Lang. Strategic Sequential Voting in Multi-Issue Domains and Multiple-Election Paradoxes. In Proceedings of the Twelfth ACM Conference on Electronic Commerce (EC), San Jose, CA, USA, June 2011.

V. Conitzer, T. Walsh, and L. Xia. Dominating Manipulations in Voting with Partial Information. In Proceedings of the 25th AAAI Conference on Artificial Intelligence (AAAI), San Francisco, CA, USA, August 2011.

L. Xia and V. Conitzer. A Maximum Likelihood Approach towards Aggregating Partial Orders. In Proceedings of the 22nd International Joint Conference on Artificial Intelligence (IJCAI), Barcelona, Spain, July 2011.

V. Conitzer, J. Lang, and L. Xia. Hypercubewise Preference Aggregation in Multi-issue Domains. In Proceedings of the 22nd International Joint Conference on Artificial Intelligence (IJCAI), Barcelona, Spain, July 2011.

Y. Chevaleyre, J. Lang, N. Maudet, and J. Monnot. Possible Winners when New Candidates Are Added: The Case of Scoring Rules. In Proceedings of the 24th AAAI Conference on Artificial Intelligence (AAAI), Atlanta, GA, USA, July 2010.

E. Elkind and P. Faliszewski. Approximation Algorithms for Campaign Management. In Proceedings of the 6th International Workshop On Internet And Network Economics (WINE), Stanford, CA, USA, December 2010.

N. Hazon and E. Elkind. Complexity of Safe Strategic Voting. In Proceedings of the 3rd International Symposium on Algorithmic Game Theory (SAGT), Athens, Greece, October 2010.

E. Elkind, P. Faliszewski, and A. Slinko. Good Rationalizations of Voting Rules. In Proceedings of the 24th AAAI Conference on Artificial Intelligence (AAAI), Atlanta, GA, USA, July 2010.

E. Elkind, P. Faliszewski, and A. Slinko. Cloning in Elections. In Proceedings of the 24th AAAI Conference on Artificial Intelligence (AAAI), Atlanta, GA, USA, July 2010.

Y. Desmedt and E. Elkind. Equilibria of Plurality Voting with Abstentions. In Proceedings of the 11th ACM Conference on Electronic Commerce (EC), Cambridge, MA, USA, June 2010.

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, Atlanta, GA, USA, July 2010.

R. Meir, M. Polukarov, J. S. Rosenschein, and N. R. Jennings. Convergence to Equilibria of Plurality Voting. In Proceedings of the 24th AAAI Conference on Artificial Intelligence (AAAI), pages 823–828, Atlanta, GA, USA, July 2010.

R. Meir, Y. Bachrach, and J. S. Rosenschein. Minimal Subsidies in Expense Sharing Games. In Proceedings of the 3rd International Symposium on Algorithmic Game Theory (SAGT), pages 347–358, Athens, Greece, October 2010.

D. Porello and U. Endriss. Modelling Multilateral Negotiation in Linear Logic. In Proceedings of the 19th European Conference on Artificial Intelligence (ECAI), 2010.

V. Conitzer, N. Immorlica, J. Letchford, K. Munagala, and L. Wagman. False-Name-Proofness in Social Networks. In Proceedings of the 6th Workshop on Internet and Network Economics (WINE), pages 209–221, Stanford, CA, USA, December 2010.

L. Xia and V. Conitzer. Strategy-proof Voting Rules over Multi-issue Domains with Restricted Preferences. In Proceedings of the 6th Workshop on Internet and Network Economics (WINE), pages 402–414, Stanford, CA, USA, December 2010.

L. Xia and V. Conitzer. Stackelberg Voting Games: Computational Aspects and Paradoxes. In Proceedings of the 24th AAAI Conference on Artificial Intelligence (AAAI), pages 921–926, Atlanta, GA, USA, July 2010.

L. Xia and V. Conitzer. Compilation Complexity of Common Voting Rules. In Proceedings of the 24th AAAI Conference on Artificial Intelligence (AAAI), pages 915–920, Atlanta, GA, USA, July 2010.

L. Xia, V. Conitzer, and A. D. Procaccia. A Scheduling Approach to Coalitional Manipulation. In Proceedings of the Eleventh ACM Conference on Electronic Commerce (EC), pages 275–284, Cambridge, MA, USA, June 2010.

A. Rey and J. Rothe. Merging and Splitting for Power Indices in Weighted Voting Games and Network Flow Games on Hypergraphs. In Proceedings of the 5th European Starting AI Researcher Symposium (STAIRS), pages 277–289, Lisbon, Portugal, August 2010.

A. Rey and J. Rothe. Complexity of Merging and Splitting for the Probabilistic Banzhaf Power Index in Weighted Voting Games. In Proceedings of the 19th European Conference on Artificial Intelligence (ECAI), pages 1021–1022, Lisbon, Portugal, August 2010.

D. Baumeister and J. Rothe. Taking the Final Step to a Full Dichotomy of the Possible Winner Problem in Pure Scoring Rules. In Proceedings of the 19th European Conference on Artificial Intelligence (ECAI), pages 1019–1020, Lisbon, Portugal, August 2010.

D. Porello and U. Endriss. Modelling Combinatorial Auctions in Linear Logic. In Proceedings of the 12th International Conference on the Principles of Knowledge Representation and Reasoning (KR), 2010.

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), Rome, Italy, May 2010.

C. Lindner. A Market-Affected Sealed-Bid Auction Protocol. In Proceedings of the 6th Hellenic Conference on Artificial Intelligence (SETN), Athens, Greece, May 2010.

U. Endriss, U. Grandi, and D. Porello. Complexity of Judgment Aggregation: Safety of the Agenda. In Proceedings of the 9th International Joint Conference on Autonomous Agents and Multiagent Systems (AAMAS), Toronto, ON, Canada, May 2010.

H. Aziz, F. Brandt, and P. Harrenstein. Monotone cooperative games and their threshold versions. In Proceedings of the 9th International Joint Conference on Autonomous Agents and Multiagent Systems (AAMAS), Toronto, ON, Canada, May 2010.

F. Brandt, M. Brill, F. Fischer, and P. Harrenstein. Minimal retentive sets in tournaments. In Proceedings of the 9th International Joint Conference on Autonomous Agents and Multiagent Systems (AAMAS), Toronto, ON, Canada, May 2010.

M. Roos and J. Rothe. Complexity of Social Welfare Optimization in Multiagent Resource Allocation. In Proceedings of the 9th International Joint Conference on Autonomous Agents and Multiagent Systems (AAMAS), Toronto, ON, Canada, May 2010.

E. Elkind, P. Faliszewski, and A. Slinko. On the Role of Distances in Defining Voting Rules. In Proceedings of the 9th International Joint Conference on Autonomous Agents and Multiagent Systems (AAMAS), Toronto, ON, Canada, May 2010.

L. Xia, V. Conitzer, and J. Lang. Aggregating Preferences in Multi-Issue Domains by Using Maximum Likelihood Estimators. In Proceedings of the 9th International Joint Conference on Autonomous Agents and Multiagent Systems (AAMAS), Toronto, ON, Canada, May 2010.

G. Erdélyi and J. Rothe. Control Complexity in Fallback Voting. In Proceedings of Computing: the 16th Australasian Theory Symposium (CATS), Brisbane, Australia, January 2010.

I. Caragiannis, J. A. Covey, M. Feldman, C. M. Homan, C. Kaklamanis, N. Karanikolas, A. D. Procaccia, and J. S. Rosenschein. On the Approximability of Dodgson and Young Elections. In Proceedings of the ACM-SIAM Symposium on Discrete Algorithms (SODA), pages 1058–1067, New York, USA, January 2009.

E. Elkind and D. Pasechnik. Computing the Nucleolus of Weighted Voting Games. In Proceedings of the ACM-SIAM Symposium on Discrete Algorithms (SODA), New York, USA, January 2009.

Y. Bachrach, E. Elkind, R. Meir, D. Pasechnik, M. Zuckerman, J. Rothe, and J. S. Rosenschein. The Cost of Stability in Coalitional Games. The 2nd International Symposium on Algorithmic Game Theory (SAGT), pages 122–134, Paphos, Cyprus, October 2009.

P. Faliszewski, E. Hemaspaandra, L. Hemaspaandra, and J. Rothe. The Shield that Never Was: Societies with Single-Peaked Preferences are More Open to Manipulation and Control. In Proceedings of the 12th Conference on Theoretical Aspects of Rationality and Knowledge (TARK), pages 118–127, Palo Alto, USA, July 2009.

G. Erdélyi, H. Fernau, J. Goldsmith, N. Mattei, D. Raible, and J. Rothe. The Complexity of Probabilistic Lobbying. In Proceedings of the 1st International Conference on Algorithmic Decision Theory (ADT), pages 86–97, Venice, Italy, October 2009.

C. Lindner and J. Rothe. Degrees of Guaranteed Envy-Freeness in Finite Bounded Cake-Cutting Protocols. In Proceedings of the 5th Workshop on Internet & Network Economics (WINE), pages 149–159, Rome, Italy, December 2009.

D. Porello. Logic and Pragmatics: Linear Logic for Inferential Practice. In Proceedings of Towards an Analytic Pragmatism (TAP), CEUR Vol. 444, 2009.

D. Porello. Dimensioni di Voto e Coerenza. In Proceedings of the 6th Congress of the Italian Society of Cognitive Science (AISC), 2009.

E. Elkind, P. Faliszewski, and A. Slinko. On distance rationalizability of some voting rules. In Proceedings of the 12th Conference on Theoretical Aspects of Rationality and Knowledge (TARK), Palo Alto, USA, July 2009.

E. Elkind, P. Faliszewski, and A. Slinko. Swap Bribery. In Proceedings of the 2nd International Symposium on Algorithmic Game Theory (SAGT), Paphos, Cyprus, October 2009.

G. Chalkiadakis, E. Elkind, M. Polukarov, and N. Jennings. The Price of Democracy in Coalition Formation. In Proceedings of the 8th International Joint Conference on Autonomous Agents and Multiagent Systems (AAMAS), Budapest, Hungary, May 2009.

Y. Bachrach, R. Meir, M. Zuckerman, J. Rothe, and J. S. Rosenschein. The Cost of Stability in Weighted Voting Games (Extended Abstract). In Proceedings of the 8th International Joint Conference on Autonomous Agents and Multiagent Systems (AAMAS), pages 1289–1290, Budapest, Hungary, May 2009.

E. Elkind and M. Wooldridge. Hedonic Coalition Nets. In Proceedings of the 8th International Joint Conference on Autonomous Agents and Multiagent Systems (AAMAS), Budapest, Hungary, May 2009.

P. Faliszewski, E. Elkind, and M. Wooldridge. Boolean Combinations of Weighted Voting Systems. In Proceedings of the 8th International Joint Conference on Autonomous Agents and Multiagent Systems (AAMAS), Budapest, Hungary, May 2009.

G. Chalkiadakis, E. Elkind, and N. Jennings. Simple Coalitional Games with Beliefs. In Proceedings of the 21st International Joint Conference on Artificial Intelligence (IJCAI), Pasadena, CA, USA, July 2009.

U. Endriss, M. S. Pini, F. Rossi, and K. B. Venable. Preference Aggregation over Restricted Ballot Languages: Sincerity and Strategy-Proofness. In Proceedings of the 21st International Joint Conference on Artificial Intelligence (IJCAI), Pasadena, CA, USA, July 2009.

L. Xia, M. Zuckerman, A. D. Procaccia, V. Conitzer, and J. S. Rosenschein. Complexity of Unweighted Coalitional Manipulation Under Some Common Voting Rules. In Proceedings of the 21st International Joint Conference on Artificial Intelligence (IJCAI), pages 348–353, Pasadena, CA, USA, July 2009.

P. Faliszewski, E. Hemaspaandra, and L. Hemaspaandra. Multimode Control Attacks on Elections. In Proceedings of the 21st International Joint Conference on Artificial Intelligence (IJCAI), pages 128–133, Pasadena, CA, USA, July 2009.

V. Conitzer, J. Lang, and L. Xia. How Hard Is It to Control Sequential Elections via the Agenda? In Proceedings of the 21st International Joint Conference on Artificial Intelligence (IJCAI), pages 103–108, Pasadena, CA, USA, July 2009.

L. Xia and V. Conitzer. Finite Local Consistency Characterizes Generalized Scoring Rules. In Proceedings of the 21st International Joint Conference on Artificial Intelligence (IJCAI), pages 336–341, Pasadena, CA, USA, July 2009.

S. Bouveret, U. Endriss, and J. Lang. Conditional Importance Networks: A Graphical Language for Representing Ordinal, Monotonic Preferences over Sets of Goods. In Proceedings of the 21st International Joint Conference on Artificial Intelligence (IJCAI), pages 67–72, Pasadena, CA, USA, July 2009.

L. Xia and J. Lang. A Dichotomy Theorem on the Existence of Efficient or Neutral Sequential Voting Correspondences. In Proceedings of the 21st International Joint Conference on Artificial Intelligence (IJCAI), pages 342–347, Pasadena, CA, USA, July 2009.

Y. Chevaleyre, J. Lang, N. Maudet, and G. Ravilly-Abadie. Compiling the votes of a subelectorate. In Proceedings of the 21st International Joint Conference on Artificial Intelligence (IJCAI), Pasadena, CA, USA, July 2009.

V. Conitzer, M. Rognlie, and L. Xia. Preference Functions That Score Rankings and Maximum Likelihood Estimation. In Proceedings of the 21st International Joint Conference on Artificial Intelligence (IJCAI), pages 109–115, Pasadena, CA, USA, July 2009.

Y. Bachrach, E. Elkind, R. Meir, D. Pasechnik, M. Zuckerman, J. Rothe, and J. S. Rosenschein. The Cost of Stability in Coalitional Games. The 2nd International Symposium on Algorithmic Game Theory (SAGT), pages 122–134, Paphos, Cyprus, October 2009.

P. Faliszewski, E. Hemaspaandra, and L. Hemaspaandra. Multimode Control Attacks on Elections. In Proceedings of the 21st International Joint Conference on Artificial Intelligence (IJCAI), pages 128–133, Pasadena, CA, USA, July 2009.

News & Views-type articles

F. Faliszewski, E. Hemaspaandra, and L. Hemaspaandra. Using Complexity to Protect Elections, Communications of the ACM, 53(11):74–82, 2010.

V. Conitzer. Making Decisions Based on the Preferences of Multiple Agents. Communications of the ACM, 53(3):84–94, 2010.

V. Conitzer and M. Yokoo. Using Mechanism Design to Prevent False-Name Manipulations. AI Magazine, Special Issue on Algorithmic Game Theory, 31(4):65–77, 2010.

Other articles (please define)

None.

- Books

As editor(s)

J.-F. Laslier and R. Sanver, editors. Handbook on Approval Voting, Springer, 2011.

As author(s) or author(s) of chapters

U. Endriss. Logic and Social Choice Theory. In J. van Benthem and A. Gupta, editors, Logic and Philosophy Today. College Publications. To appear.

F. Aleskerov, D. Karabekyan, R. Sanver, and V. Yakuba. On the degree of manipulability of multi-valued social choice rules. In M. Holler, A. Nohn and H. Vartiainen, editors, Homo Oeconomicus Special Issue Essays in Honor of Hannu Nurmi, pages 205–216, 2011.

J.-F. Laslier and R. Sanver. The basic approval voting game. In J.-F. Laslier and R. Sanver, editors, Handbook on Approval Voting, Studies in Choice and Welfare, pages 153–163. Springer, 2011.

R. Sanver. Approval as an intrinsic part of preference. In J.-F. Laslier and R. Sanver, editors, Handbook on Approval Voting, Studies in Choice and Welfare, pages 469–481. Springer, 2011.

D. Baumeister, G. Erdélyi, E. Hemaspaandra, L. Hemaspaandra, and J. Rothe. Computational Aspects of Approval Voting. In J.-F. Laslier and R. Sanver, editors, Handbook on Approval Voting, Studies in Choice and Welfare, pages 199–251. Springer, 2011.

J. Rothe, D. Baumeister, C. Lindner, and I. Rothe. Einführung in Computational Social Choice: Individuelle Strategien und kollektive Entscheidungen beim Spielen, Wählen und Teilen. Spektrum Akademischer Verlag, 2011.

D. Porello. Logic in social choice. In M. Cruciani, editor, Practice of Cognition: Recent Research in Cognitive Science, pages 161–174. Franco Angeli Edizioni, 2010.

P. Faliszewski, E. Hemaspaandra, L. Hemaspaandra, and J. Rothe. A Richer Understanding of the Complexity of Election Systems. In S. Ravi and S. Shukla, editors, Fundamental Problems in Computing: Essays in Honor of Professor Daniel J. Rosenkrantz, pages 375–406. Springer, 2009.

- Other

Please define (data products, video, etc.)

None.

Presentations in scientific meetings

- Oral presentations (indicate invited / keynote talks)

Every conference paper listed in the previous section was presented at an international conference. In addition, the following invited presentations (excluding seminar presentations) were given during the reporting period.

F. Brandt: Computational Foundations of Social Choice, LogiCCC Final Conference, Berlin, Germany, September 2011.

İ. Özkal-Sanver: Minimal conversely consistent extension of the men-optimal solution

(a) Workshop on Allocation Problems, Bilkent University, Ankara, Turkey, June 2011. Invited talk.

(b) Department seminar, Sabancı University, Istanbul, Turkey, May 2011. Invited talk.

B. Erdamar: Informational frameworks for individual and collective decision making, 7th Biannual Conference on Economic Design, Montreal, QC, Canada, June 2011.

B. Erdamar: Measuring Consensus in a Preference-Approval Context, Logic, Game Theory and Social Choice (LGS7), Bucharest, Romania, July 2011.

E. Elkind: Ties matter: complexity of voting manipulation revisited, Workshop on Innovations in Algorithmic Game Theory, Jerusalem, Israel, May 2011.

U. Endriss: Complexity of Judgment Aggregation, LogiCCC meets India Meeting, New Delhi, India, January 2011.

U. Endriss: Binary Aggregation, Dagstuhl Seminar on Reasoning about Interaction: From Game Theory to Logic and Back, Dagstuhl, Germany, March 2011.

U. Endriss: Computational Social Choice, Session on Computational Social Choice, European Future Technologies Conference and Exhibition (FET), Budapest, Hungary, May 2011.

U. Endriss: The Agenda Choice Problem in Multi-Issue Elections, Computational Social Choice Meeting, Hungarian Academy of Sciences, Budapest, Hungary, May 2011.

D. Porello: Dialogue Games and Incompatibility Semantics, International Colloquium on Normativity of Meaning, Prague, Czech Republic, May 2011.

U. Endriss: Sincerity and Manipulation under Approval Voting, Logic, Game Theory and Social Choice (LGS7), Bucharest, Romania, July 2011.

D. Porello: Justifying Preferences, Logic, Game Theory and Social Choice (LGS7), Bucharest, Romania, July 2011.

U. Endriss: Applications of Logic in Social Choice Theory, 12th International Workshop on Computational Logic in Multiagent Systems (CLIMA), Barcelona, July 2011. Invited talk.

U. Endriss: Binary Aggregation with Integrity Constraints, Workshop on New Developments in Judgement Aggregation and Voting Theory, Freudenstadt, Germany, September 2011. Invited talk.

D. Porello: Modelling Resource Allocation in Linear Logic, LogiCCC Final Conference, Berlin, September 2011.

D. Porello: Ontology Merging as Social Choice, Workshop on Ontologies and Lexical Semantics, Rome, October 2011. Invited talk.

L. Piras: The Complexity of Voter Partition in Bucklin and Fallback Voting: Solving Three Open Problems, 61. Theorietag: Workshop über Algorithmen und Komplexität, Trier, Germany, February 2011.

D. Baumeister: Computational Complexity of Two Variants of the Possible Winner Problem, 61. Theorietag: Workshop über Algorithmen und Komplexität, Trier, Germany, February 2011.

V. Conitzer: Mechanism Design in Highly Anonymous Environments, Ben-Gurion University of the Negev, Beersheba, Israel, May 2011.

V. Conitzer: Solving Complete-Information Voting Games by Backward Induction.

(a) V CORE/Maastricht Workshop on Advances in Collective Choice, Maastricht, The Netherlands, April 2011.

(b) Tilburg University Social Choice Colloquium, Tilburg, The Netherlands, March 2011.

(c) University of Amsterdam ILLC Computational Social Choice Seminar, Amsterdam, The Netherlands, February 2011.

F. Brandt: From Arrow's Impossibility to Schwartz's Tournament Equilibrium Set, 12th International Conference on Relational and Algebraic Methods in Computer Science (RAMiCS), Rotterdam, The Netherlands, May 2011. Invited Talk.

F. Brandt: Tournament Solutions and Their Applications to Multiagent Decision Making, Eighth German Conference on Multi-Agent System Technologies (MATES), Leipzig, Germany, September 2010.

E. Elkind: Distance-rationalizability of voting rules, 9th Conference on Logic and the Foundations of Game and Decision Theory (LOFT), Toulouse, France, July 2010. Plenary talk.

E. Elkind: Equilibria of plurality voting with abstentions.

(a) Dagstuhl Seminar on Computational Social Choice, Dagstuhl, Germany, March 2010.

(b) Dagstuhl Seminar on Equilibrium Computation, Dagstuhl, Germany, April 2010.

U. Endriss: Complexity of Judgment Aggregation: Safety of the Agenda, 10th International Meeting of the Society for Social Choice and Welfare, Moscow, July 2010.

D. Porello: Verbalizing Voting Dimensions, 10th International Meeting of the Society for Social Choice and Welfare, Moscow, July 2010.

D. Porello: On the Elusive Notion of Meta-Agreement, Manchester Workshop in Political Theory, September 2010.

U. Endriss: Tutorial on Fair Division, COST-ADT Doctoral School on Computational Social Choice, Estoril, Portugal, April 2010.

V. Conitzer: New Results and Approaches in the Design of False-Name-Proof Mechanisms, Guanajuato Workshop on Prior-free Mechanism Design, May 2010.

V. Conitzer: False-name-proof voting in social networks, Dagstuhl Seminar on Computational Foundations of Social Choice, Dagstuhl, Germany, March 2010.

L. Xia: Strategic Sequential Voting in Multi-Issue Domains and Multiple-Election Paradoxes, Session on Hard Problems in Learning and Decision-Making, INFORMS Annual Meeting, 2010. Invited talk.

L. Xia: Stackelberg Voting Games: Computational Aspects and Paradoxes, INFORMS Annual Meeting 2010.

L. Xia: Unique game-theoretic outcomes for strategic voting with complete information,
(a) Dagstuhl Seminar on Computational Foundations of Social Choice, Dagstuhl, Germany, March 2010.
(b) Bertinoro Workshop on Frontiers in Mechanism Design, Bertinoro, Italy, March 2010.

G. Erdélyi: Control Complexity in Fallback Voting.

(a) 10th International Meeting of the Society for Social Choice and Welfare, Higher School of Economics, Moscow, Russia, July 2010.

(b) Artificial Intelligence Seminar, NICTA, Sydney, Australia, February 2010.

The Shield that Never Was: Societies with Single-Peaked Preferences are More Open to Manipulation and Control.

(a) Workshop "Advances on Approval Voting", Ecole Polytechnique, Paris, France, October 2010. (Presented by J. Rothe.)

(b) 10th International Meeting of the Society for Social Choice and Welfare, Higher School of Economics, Moscow, Russia, July 2010. (Presented by J. Rothe.)

(c) Dagstuhl Seminar on Computational Foundations of Social Choice, Dagstuhl, Germany, March 2010. (Presented by E. Hemaspaandra.)

(d) Workshop on algorithmic aspects of game theory and social choice, Auckland, New Zealand, February 2010. Invited talk. (Presented by J. Rothe.)

(e) Second New York Colloquium on Algorithms and Complexity, New York, USA, November 2009. (Presented by L. Hemaspaandra.)

D. Porello: Games and Dialogues in Proof Theory, LogICCC Meeting on Games and Dialogues, Lille, France, February 2010.

E. Elkind: Complexity of Safe Strategic Voting, Workshop on algorithmic aspects of game theory and social choice, Auckland, New Zealand, February 2010. Invited talk.

M. Brill: Minimal Retentive Sets in Tournaments.

(a) Dagstuhl Seminar on Computational Foundations of Social Choice, Dagstuhl, Germany, March 2010.

(b) Workshop on algorithmic aspects of game theory and social choice, Auckland, New Zealand, February 2010. Invited talk.

F. Brandt: Set-Rationalizable Choice and Self-Stability, Workshop on Choice Theory, Paris, France, January 2010. Invited talk.

J. Rothe: Computational Foundations of Social Choice: A Short Project Overview, 2nd GASICS Meeting, Aachen, Germany, October 2009.

D. Baumeister: A Computational Analysis of Minimal Unidirectional Covering Sets, 2nd GASICS Meeting, Aachen, Germany, October 2009.

U. Endriss: Logic and Social Choice Theory, LogICCC meets China Meeting, Chongqing, China, October 2009.

U. Grandi: Complexity of Judgment Aggregation, LogICCC meets China Meeting, Chongqing, China, October 2009.

E. Elkind: Voting: A View through the Algorithmic Lens, 10th International Conference on Electronic Commerce and Web Technologies, Linz, Austria, September 2009. Invited talk.

F. Brandt: Tournament Solutions, PHAC Workshop, Paris, France, June 2009. Invited talk.

E. Elkind: Distance Rationalizability of Voting Rules, PHAC Workshop, Paris, France, June 2009. Invited talk.

U. Endriss: Computational Social Choice, International Conference on Social Informatics (SocInfo), Warsaw, Poland, June 2009. Invited talk.

D. Baumeister: A Computational Analysis of Minimal Unidirectional Covering Sets, Research Meeting on Social Software and Computational Social Choice, Lyon, France, April 2009.

C. Lindner: Not Everyone Likes Mushrooms: Fair Division and Degrees of Guaranteed Envy-Freeness.

(a) MIDiSoVa Workshop, Amsterdam, The Netherlands, March 2010.

(b) Workshop on algorithmic aspects of game theory and social choice, Auckland, New Zealand, February 2010. Invited talk.

(c) Research Meeting on Social Software and Computational Social Choice, Lyon, France, April 2009.

(d) 2nd GASICS Meeting, Aachen, Germany, October 2009.

J. Rothe: Llull and Copeland Voting Computationally Resist Bribery and Control, Research Meeting on Social Software and Computational Social Choice, Lyon, France, April 2009.

F. Brandt and J. Rothe: Computational Foundations of Social Choice, LogICCC Launch Conference, Prague, Czech Republic, October 2008.

- Posters

D. Porello: Linear Logic for Bidding Languages, LogICCC meets China Meeting, Chongqing, China, October 2009.

- Other (*please define*)

None.

Public outreach

- Press releases

None.

- National / international newspaper articles (presenting your CRP or part of your work)

None.

- TV appearance

None.

- Radio appearance

None.

- Other (*please define*)

None.

Other activities / outputs

- Patents

None.

- Websites

None.

- Other (*please define*)

None.