

References

- [1] Scott Aaronson and Andrew Drucker. Advice coins for classical and quantum computation. In Luca Aceto, Monika Henzinger, and Jiří Sgall, editors, *Proceedings of the 38th International Colloquium on Automata, Languages and Programming, ICALP'2011, Part I (Zurich, Switzerland, July 4-8, 2011)*, volume 6755 of *LNCS*, pages 61–72. Springer-Verlag, Berlin-Heidelberg, 2011.
- [2] Mohammad Ali Abam, Mark de Berg, and Amirali Khosravi. Piecewise-linear approximations of uncertain functions. In Frank Dehne, John Iacono, and Jörg-Rüdiger Sack, editors, *Proceedings of the 12th International Symposium on Algorithms and Data Structures, WADS'2011 (New York, NY, USA, August 15-17, 2011)*, volume 6844 of *LNCS*, pages 1–12. Springer-Verlag, Berlin-Heidelberg, 2011.
- [3] Zachary Abel, Erik D. Demaine, Martin L. Demaine, Sarah Eisenstat, Jayson Lynch, Tao B. Schardl, and Isaac Shapiro-Elowitz. Folding equilateral plane graphs. In Takao Asano, Shin-ichi Nakano, Yoshio Okamoto, and Osamu Watanabe, editors, *Proceedings of the 22nd International Symposium on Algorithms and Computation, ISAAC'2011 (Yokohama, Japan, December 5-8, 2011)*, volume 7074 of *LNCS*, pages 574–583. Springer-Verlag, Berlin-Heidelberg, 2011.
- [4] Ittai Abraham, Daniel Delling, Amos Fiat, Andrew V. Goldberg, and Renato F. Werneck. Vc-dimension and shortest path algorithms. In Luca Aceto, Monika Henzinger, and Jiří Sgall, editors, *Proceedings of the 38th International Colloquium on Automata, Languages and Programming, ICALP'2011, Part I (Zurich, Switzerland, July 4-8, 2011)*, volume 6755 of *LNCS*, pages 690–699. Springer-Verlag, Berlin-Heidelberg, 2011.
- [5] Sergey Abrahamyan and Melsik Kyureghyan. A recurrent method for constructing irreducible polynomials over finite fields. In Vladimir P. Gerdt, Wolfram Koepf, Ernst W. Mayr, and Evgenii V. Vorozhtsov, editors, *Proceedings of the 13th International Workshop on Computer Algebra in Scientific Computing, CASC'2011 (Kassel, Germany, September 5-9, 2011)*, volume 6885 of *LNCS*, pages 1–9. Springer-Verlag, Berlin-Heidelberg, 2011.

- [6] S.A. Abramov, M.A. Barkatou, and E. Pflügel. Higher-order linear differential systems with truncated coefficients. In Vladimir P. Gerdt, Wolfram Koepf, Ernst W. Mayr, and Evgenii V. Vorozhtsov, editors, *Proceedings of the 13th International Workshop on Computer Algebra in Scientific Computing, CASC'2011 (Kassel, Germany, September 5-9, 2011)*, volume 6885 of *LNCS*, pages 10–24. Springer-Verlag, Berlin-Heidelberg, 2011.
- [7] Eyal Ackerman, Radoslav Fulek, and Csaba D. Tóth. On the size of graphs that admit polyline drawings with few bends and crossing angles. In Ulrik Brandes and Sabine Cornelsen, editors, *Proceedings of the 18th International Symposium on Graph Drawing, GD'2010 (Konstanz, Germany, September 21-24, 2010)*, volume 6502 of *LNCS*, pages 1–12. Springer-Verlag, Berlin-Heidelberg, 2011.
- [8] Anna Adamaszek, Artur Czumaj, Andrzej Lingas, and Jakub Onufry Wojtaszczyk. Approximation schemes for capacitated geometric network design. In Luca Aceto, Monika Henzinger, and Jiří Sgall, editors, *Proceedings of the 38th International Colloquium on Automata, Languages and Programming, ICALP'2011, Part I (Zurich, Switzerland, July 4-8, 2011)*, volume 6755 of *LNCS*, pages 25–36. Springer-Verlag, Berlin-Heidelberg, 2011.
- [9] Abhijin Adiga, Jasine Babu, and L. Sunil Chandran. A constant factor approximation algorithm for boxicity of circular arc graphs. In Frank Dehne, John Iacono, and Jörg-Rüdiger Sack, editors, *Proceedings of the 12th International Symposium on Algorithms and Data Structures, WADS'2011 (New York, NY, USA, August 15-17, 2011)*, volume 6844 of *LNCS*, pages 13–24. Springer-Verlag, Berlin-Heidelberg, 2011.
- [10] Isolde Adler, Stavros G. Kolliopoulos, Philipp Klaus Krause, Daniel Lokshtanov, Saket Saurabh, and Dimitrios Thilikkos. Tight bounds for linkages in planar graphs. In Luca Aceto, Monika Henzinger, and Jiří Sgall, editors, *Proceedings of the 38th International Colloquium on Automata, Languages and Programming, ICALP'2011, Part I (Zurich, Switzerland, July 4-8, 2011)*, volume 6755 of *LNCS*, pages 110–121. Springer-Verlag, Berlin-Heidelberg, 2011.
- [11] Alexander Ageev, Yohann Benchetrit, András Sebő, and Zoltán Szigeti. An excluded minor characterization of seymour graphs. In Oktay

- Günlük and Gerhard J. Woeginger, editors, *Proceedings of the 15th International Conference on Integer Programming and Combinatorial Optimization, IPCO'2011 (New York, NY, USA, June 15-17, 2011)*, volume 6655 of *LNCS*, pages 1–13. Springer-Verlag, Berlin-Heidelberg, 2011.
- [12] Lauri Ahlroth, Olli Pottonen, and André Schumacher. Approximately uniform online checkpointing. In Bin Fu and Ding-Zhu Du, editors, *Proceedings of the 17th Annual International Conference on Computing and Combinatorics, COCOON'2011 (Dallas, TX, USA, August 14-16, 2011)*, volume 6842 of *LNCS*, pages 297–306. Springer-Verlag, Berlin-Heidelberg, 2011.
- [13] Hee-Kap Ahn, Sang Won Bae, Christian Knauer, Mira Lee, Chan-Su Shin, and Antoine Vigneron. Generating realistic roofs over a rectilinear polygon. In Takao Asano, Shin-ichi Nakano, Yoshio Okamoto, and Osamu Watanabe, editors, *Proceedings of the 22nd International Symposium on Algorithms and Computation, ISAAC'2011 (Yokohama, Japan, December 5-8, 2011)*, volume 7074 of *LNCS*, pages 60–69. Springer-Verlag, Berlin-Heidelberg, 2011.
- [14] Hee-Kap Ahn, Sang-Sub Kim, Christian Knauer, Lena Schlipf, Chan-Su Shin, and Antoine Vigneron. Covering and piercing disks with two centers. In Takao Asano, Shin-ichi Nakano, Yoshio Okamoto, and Osamu Watanabe, editors, *Proceedings of the 22nd International Symposium on Algorithms and Computation, ISAAC'2011 (Yokohama, Japan, December 5-8, 2011)*, volume 7074 of *LNCS*, pages 50–59. Springer-Verlag, Berlin-Heidelberg, 2011.
- [15] Kook Jin Ahn and Sudipto Guha. Linear programming in the semi-streaming model with application to the maximum matching problem. In Luca Aceto, Monika Henzinger, and Jiří Sgall, editors, *Proceedings of the 38th International Colloquium on Automata, Languages and Programming, ICALP'2011, Part II (Zurich, Switzerland, July 4-8, 2011)*, volume 6756 of *LNCS*, pages 526–538. Springer-Verlag, Berlin-Heidelberg, 2011.
- [16] Nir Ailon, Noa Avigdor-Elgrabli, Edo Liberty, and Anke van Zuylen. Improved approximation algorithms for bipartite correlation clustering.

- In Camil Demetrescu and Magnús M. Halldórsson, editors, *Proceedings of the 19th Annual European Symposium on Algorithms, ESA'2011, (Saarbrücken, Germany, September 5-9, 2011)*, volume 6942 of *LNCS*, pages 25–36. Springer-Verlag, Berlin-Heidelberg, 2011.
- [17] Saeed Alaei, Mohammad T. Hajiaghayi, Vahid Liaghat, Dan Pei, and Barna Saha. Adcell: Ad allocation in cellular networks. In Camil Demetrescu and Magnús M. Halldórsson, editors, *Proceedings of the 19th Annual European Symposium on Algorithms, ESA'2011, (Saarbrücken, Germany, September 5-9, 2011)*, volume 6942 of *LNCS*, pages 311–322. Springer-Verlag, Berlin-Heidelberg, 2011.
- [18] Muhammad Jawaherul Alam, Therese Biedl, Stefan Felsner, Andreas Gerasch, Michael Kaufmann, and Stephen G. Kobourov. Linear-time algorithms for hole-free rectilinear proportional contact graph representations. In Takao Asano, Shin-ichi Nakano, Yoshio Okamoto, and Osamu Watanabe, editors, *Proceedings of the 22nd International Symposium on Algorithms and Computation, ISAAC'2011 (Yokohama, Japan, December 5-8, 2011)*, volume 7074 of *LNCS*, pages 281–291. Springer-Verlag, Berlin-Heidelberg, 2011.
- [19] Juan Gerardo Alcázar. Topology of families of implicit algebraic surfaces depending on a parameter. In Vladimir P. Gerdt, Wolfram Koepf, Ernst W. Mayr, and Evgenii V. Vorozhtsov, editors, *Proceedings of the 13th International Workshop on Computer Algebra in Scientific Computing, CASC'2011 (Kassel, Germany, September 5-9, 2011)*, volume 6885 of *LNCS*, pages 25–36. Springer-Verlag, Berlin-Heidelberg, 2011.
- [20] Liliana Alcón, Luerbio Faria, Celina M.H. de Figueiredo, and Marisa Gutierrez. Split clique graph complexity. In Petr Kolman and Jan Kratochvíl, editors, *Proceedings of the 37th International Workshop on Graph-Theoretic Concepts in Computer Science, WG'2011 (Teplá Monastery, Czech Republic, June 21-24, 2011)*, volume 6986 of *LNCS*, pages 11–22. Springer-Verlag, Berlin-Heidelberg, 2011.
- [21] Eric Allender, Luke Friedman, and William Gasarch. Limits on the computational power of random strings. In Luca Aceto, Monika Henzinger, and Jiří Sgall, editors, *Proceedings of the 38th International Colloquium on Automata, Languages and Programming, ICALP'2011*,

- Part I (Zurich, Switzerland, July 4-8, 2011)*, volume 6755 of *LNCS*, pages 293–304. Springer-Verlag, Berlin-Heidelberg, 2011.
- [22] Eric Allender and Fengming Wang. On the power of algebraic branching programs of width two. In Luca Aceto, Monika Henzinger, and Jiří Sgall, editors, *Proceedings of the 38th International Colloquium on Automata, Languages and Programming, ICALP'2011, Part I (Zurich, Switzerland, July 4-8, 2011)*, volume 6755 of *LNCS*, pages 736–747. Springer-Verlag, Berlin-Heidelberg, 2011.
- [23] Rajeev Alur and Jyotirmoy V. Deshmukh. Nondeterministic streaming string transducers. In Luca Aceto, Monika Henzinger, and Jiří Sgall, editors, *Proceedings of the 38th International Colloquium on Automata, Languages and Programming, ICALP'2011, Part II (Zurich, Switzerland, July 4-8, 2011)*, volume 6756 of *LNCS*, pages 1–20. Springer-Verlag, Berlin-Heidelberg, 2011.
- [24] Victor Alvarez, David G. Kirkpatrick, and Raimund Seidel. Can nearest neighbor searching be simple and always fast? In Camil Demetrescu and Magnús M. Halldórsson, editors, *Proceedings of the 19th Annual European Symposium on Algorithms, ESA'2011, (Saarbrücken, Germany, September 5-9, 2011)*, volume 6942 of *LNCS*, pages 82–92. Springer-Verlag, Berlin-Heidelberg, 2011.
- [25] Mário S. Alvim, Miguel E. Andrés, Konstantinos Chatzikokolakis, and Catuscia Palamidessi. On the relation between differential privacy and quantitative information flow. In Luca Aceto, Monika Henzinger, and Jiří Sgall, editors, *Proceedings of the 38th International Colloquium on Automata, Languages and Programming, ICALP'2011, Part II (Zurich, Switzerland, July 4-8, 2011)*, volume 6756 of *LNCS*, pages 60–76. Springer-Verlag, Berlin-Heidelberg, 2011.
- [26] Amihoud Amir, Alberto Apostolico, Gad M. Landau, Avivit Levy, Moshe Lewenstein, and Ely Porat. Range lcp. In Takao Asano, Shinichi Nakano, Yoshio Okamoto, and Osamu Watanabe, editors, *Proceedings of the 22nd International Symposium on Algorithms and Computation, ISAAC'2011 (Yokohama, Japan, December 5-8, 2011)*, volume 7074 of *LNCS*, pages 683–692. Springer-Verlag, Berlin-Heidelberg, 2011.

- [27] Amihood Amir, Estrella Eisenberg, Avivit Levy, and Noa Lewenstein. Closest periodic vectors in l_p spaces. In Takao Asano, Shin-ichi Nakano, Yoshio Okamoto, and Osamu Watanabe, editors, *Proceedings of the 22nd International Symposium on Algorithms and Computation, ISAAC'2011 (Yokohama, Japan, December 5-8, 2011)*, volume 7074 of *LNCS*, pages 714–723. Springer-Verlag, Berlin-Heidelberg, 2011.
- [28] S. Anand, Naveen Garg, and Nicole Megow. Meeting deadlines: How much speed suffices? In Luca Aceto, Monika Henzinger, and Jiří Sgall, editors, *Proceedings of the 38th International Colloquium on Automata, Languages and Programming, ICALP'2011, Part I (Zurich, Switzerland, July 4-8, 2011)*, volume 6755 of *LNCS*, pages 232–243. Springer-Verlag, Berlin-Heidelberg, 2011.
- [29] Matthew Anderson, Dieter van Melkebeek, Nicole Schweikardt, and Luc Segoufin. Locality of queries definable in invariant first-order logic with arbitrary built-in predicates. In Luca Aceto, Monika Henzinger, and Jiří Sgall, editors, *Proceedings of the 38th International Colloquium on Automata, Languages and Programming, ICALP'2011, Part II (Zurich, Switzerland, July 4-8, 2011)*, volume 6756 of *LNCS*, pages 368–379. Springer-Verlag, Berlin-Heidelberg, 2011.
- [30] Ryuta Ando and Tomomi Matsui. Algorithm for single allocation problem on hub-and-spoke networks in 2-dimensional plane. In Takao Asano, Shin-ichi Nakano, Yoshio Okamoto, and Osamu Watanabe, editors, *Proceedings of the 22nd International Symposium on Algorithms and Computation, ISAAC'2011 (Yokohama, Japan, December 5-8, 2011)*, volume 7074 of *LNCS*, pages 474–483. Springer-Verlag, Berlin-Heidelberg, 2011.
- [31] Alexandr Andoni. Nearest neighbor search in high-dimensional spaces. In Filip Murlak and Piotr Sankowski, editors, *Proceedings of the 36th International Symposium on Mathematical Foundations of Computer Science, MFCS'2011 (Warsaw, Poland, August 22-26, 2011)*, volume 6907 of *LNCS*, pages 1–1. Springer-Verlag, Berlin-Heidelberg, 2011.
- [32] Serge N. Andrianov. A modular approach for beam lines design. In Vladimir P. Gerdt, Wolfram Koepf, Ernst W. Mayr, and Evgenii V. Vorozhtsov, editors, *Proceedings of the 13th International Workshop*

- on Computer Algebra in Scientific Computing, CASC'2011 (Kassel, Germany, September 5-9, 2011)*, volume 6885 of *LNCS*, pages 37–48. Springer-Verlag, Berlin-Heidelberg, 2011.
- [33] Patrizio Angelini, Till Bruckdorfer, Marco Chiesa, Fabrizio Frati, Michael Kaufmann, and Claudio Sgarcella. On the area requirements of euclidean minimum spanning trees. In Frank Dehne, John Iacono, and Jörg-Rüdiger Sack, editors, *Proceedings of the 12th International Symposium on Algorithms and Data Structures, WADS'2011 (New York, NY, USA, August 15-17, 2011)*, volume 6844 of *LNCS*, pages 25–36. Springer-Verlag, Berlin-Heidelberg, 2011.
- [34] Patrizio Angelini, Enrico Colasante, Giuseppe Di Battista, Fabrizio Frati, and Maurizio Patrignani. Monotone drawings of graphs. In Ulrik Brandes and Sabine Cornelsen, editors, *Proceedings of the 18th International Symposium on Graph Drawing, GD'2010 (Konstanz, Germany, September 21-24, 2010)*, volume 6502 of *LNCS*, pages 13–24. Springer-Verlag, Berlin-Heidelberg, 2011.
- [35] Patrizio Angelini, Giuseppe Di Battista, and Fabrizio Frati. Simultaneous embedding of embedded planar graphs. In Takao Asano, Shin-ichi Nakano, Yoshio Okamoto, and Osamu Watanabe, editors, *Proceedings of the 22nd International Symposium on Algorithms and Computation, ISAAC'2011 (Yokohama, Japan, December 5-8, 2011)*, volume 7074 of *LNCS*, pages 271–280. Springer-Verlag, Berlin-Heidelberg, 2011.
- [36] Patrizio Angelini, Fabrizio Frati, Markus Geyer, Michael Kaufmann, Tamara Mchedlidze, and Antonios Symvonis. Upward geometric graph embeddings into point sets. In Ulrik Brandes and Sabine Cornelsen, editors, *Proceedings of the 18th International Symposium on Graph Drawing, GD'2010 (Konstanz, Germany, September 21-24, 2010)*, volume 6502 of *LNCS*, pages 25–37. Springer-Verlag, Berlin-Heidelberg, 2011.
- [37] Patrizio Angelini, Markus Geyer, Michael Kaufmann, and Daniel Neuwirth. On a tree and a path with no geometric simultaneous embedding. In Ulrik Brandes and Sabine Cornelsen, editors, *Proceedings of the 18th International Symposium on Graph Drawing, GD'2010 (Konstanz, Germany, September 21-24, 2010)*, volume 6502 of *LNCS*, pages 38–49. Springer-Verlag, Berlin-Heidelberg, 2011.

- [38] Elaine Angelino, Michael T. Goodrich, Michael Mitzenmacher, and Justin Thaler. External-memory multimaps. In Takao Asano, Shin-ichi Nakano, Yoshio Okamoto, and Osamu Watanabe, editors, *Proceedings of the 22nd International Symposium on Algorithms and Computation, ISAAC'2011 (Yokohama, Japan, December 5-8, 2011)*, volume 7074 of *LNCS*, pages 384–394. Springer-Verlag, Berlin-Heidelberg, 2011.
- [39] Spyros Angelopoulos, Alejandro López-Ortiz, and Konstantinos Panagiotou. Multi-target ray searching problems. In Frank Dehne, John Iacono, and Jörg-Rüdiger Sack, editors, *Proceedings of the 12th International Symposium on Algorithms and Data Structures, WADS'2011 (New York, NY, USA, August 15-17, 2011)*, volume 6844 of *LNCS*, pages 37–48. Springer-Verlag, Berlin-Heidelberg, 2011.
- [40] Daniel Archambault, Helen C. Purchase, and Bruno Pinaud. Difference map readability for dynamic graphs. In Ulrik Brandes and Sabine Cornelsen, editors, *Proceedings of the 18th International Symposium on Graph Drawing, GD'2010 (Konstanz, Germany, September 21-24, 2010)*, volume 6502 of *LNCS*, pages 50–61. Springer-Verlag, Berlin-Heidelberg, 2011.
- [41] Felix Arends, Joël Ouaknine, and Charles W. Wampler. On searching for small kochen-specker vector systems. In Petr Kolman and Jan Kratochvíl, editors, *Proceedings of the 37th International Workshop on Graph-Theoretic Concepts in Computer Science, WG'2011 (Teplá Monastery, Czech Republic, June 21-24, 2011)*, volume 6986 of *LNCS*, pages 23–34. Springer-Verlag, Berlin-Heidelberg, 2011.
- [42] Evmorfia N. Argyriou, Michael A. Bekos, and Antonios Symvonis. Maximizing the total resolution of graphs. In Ulrik Brandes and Sabine Cornelsen, editors, *Proceedings of the 18th International Symposium on Graph Drawing, GD'2010 (Konstanz, Germany, September 21-24, 2010)*, volume 6502 of *LNCS*, pages 62–67. Springer-Verlag, Berlin-Heidelberg, 2011.
- [43] Esther M. Arkin, Claudia Dieckmann, Christian Knauer, Joseph S.B. Mitchell, Valentin Polishchuk, Schlipf, Lena, and Shang Yang. Convex transversals. In Frank Dehne, John Iacono, and Jörg-Rüdiger Sack,

- editors, *Proceedings of the 12th International Symposium on Algorithms and Data Structures, WADS'2011 (New York, NY, USA, August 15-17, 2011)*, volume 6844 of *LNCS*, pages 49–60. Springer-Verlag, Berlin-Heidelberg, 2011.
- [44] Boris Aronov and Muriel Dulieu. How to cover a point set with a v-shape of minimum width. In Frank Dehne, John Iacono, and Jörg-Rüdiger Sack, editors, *Proceedings of the 12th International Symposium on Algorithms and Data Structures, WADS'2011 (New York, NY, USA, August 15-17, 2011)*, volume 6844 of *LNCS*, pages 61–72. Springer-Verlag, Berlin-Heidelberg, 2011.
- [45] Boris Aronov, Muriel Dulieu, and Ferran Hurtado. Witness rectangle graphs. In Frank Dehne, John Iacono, and Jörg-Rüdiger Sack, editors, *Proceedings of the 12th International Symposium on Algorithms and Data Structures, WADS'2011 (New York, NY, USA, August 15-17, 2011)*, volume 6844 of *LNCS*, pages 73–85. Springer-Verlag, Berlin-Heidelberg, 2011.
- [46] Sanjeev Arora. Semidefinite programming and approximation algorithms: A survey. In Takao Asano, Shin-ichi Nakano, Yoshio Okamoto, and Osamu Watanabe, editors, *Proceedings of the 22nd International Symposium on Algorithms and Computation, ISAAC'2011 (Yokohama, Japan, December 5-8, 2011)*, volume 7074 of *LNCS*, pages 6–9. Springer-Verlag, Berlin-Heidelberg, 2011.
- [47] Sanjeev Arora and Rong Ge. New algorithms for learning in presence of errors. In Luca Aceto, Monika Henzinger, and Jiří Sgall, editors, *Proceedings of the 38th International Colloquium on Automata, Languages and Programming, ICALP'2011, Part I (Zurich, Switzerland, July 4-8, 2011)*, volume 6755 of *LNCS*, pages 403–415. Springer-Verlag, Berlin-Heidelberg, 2011.
- [48] V. Arvind and Johannes Köbler. Canonizing hypergraphs under abelian group action. In Bin Fu and Ding-Zhu Du, editors, *Proceedings of the 17th Annual International Conference on Computing and Combinatorics, COCOON'2011 (Dallas, TX, USA, August 14-16, 2011)*, volume 6842 of *LNCS*, pages 444–455. Springer-Verlag, Berlin-Heidelberg, 2011.

- [49] Yuichi Asahiro, Kenta Kanmera, and Eiji Miyano. $(1 + \epsilon)$ -competitive algorithm for online ovsf code assignment with resource augmentation. In Bin Fu and Ding-Zhu Du, editors, *Proceedings of the 17th Annual International Conference on Computing and Combinatorics, COCOON'2011 (Dallas, TX, USA, August 14-16, 2011)*, volume 6842 of *LNCS*, pages 259–270. Springer-Verlag, Berlin-Heidelberg, 2011.
- [50] Andrei Asinowski, Gill Barequet, Ronnie Barequet, and Günter Rote. Proper n -cell polycubes in $n - 3$ dimensions. In Bin Fu and Ding-Zhu Du, editors, *Proceedings of the 17th Annual International Conference on Computing and Combinatorics, COCOON'2011 (Dallas, TX, USA, August 14-16, 2011)*, volume 6842 of *LNCS*, pages 180–191. Springer-Verlag, Berlin-Heidelberg, 2011.
- [51] Ioannis Atsonios, Olivier Beaumont, Nicolas Hanusse, and Yusik Kim. On power-law distributed balls in bins and its applications to view size estimation. In Takao Asano, Shin-ichi Nakano, Yoshio Okamoto, and Osamu Watanabe, editors, *Proceedings of the 22nd International Symposium on Algorithms and Computation, ISAAC'2011 (Yokohama, Japan, December 5-8, 2011)*, volume 7074 of *LNCS*, pages 504–513. Springer-Verlag, Berlin-Heidelberg, 2011.
- [52] Yu Hin Au and Levent Tunçel. Complexity analyses of bienstock-zuckerberg and lasserre relaxations on the matching and stable set polytopes. In Oktay Günlük and Gerhard J. Woeginger, editors, *Proceedings of the 15th International Conference on Integer Programming and Combinatorial Optimization, IPCO'2011 (New York, NY, USA, June 15-17, 2011)*, volume 6655 of *LNCS*, pages 14–26. Springer-Verlag, Berlin-Heidelberg, 2011.
- [53] Christopher Auer, Christian Bachmaier, Franz Josef Brandenburg, Wolfgang Brunner, and Andreas Gleißner. Plane drawings of queue and deque graphs. In Ulrik Brandes and Sabine Cornelsen, editors, *Proceedings of the 18th International Symposium on Graph Drawing, GD'2010 (Konstanz, Germany, September 21-24, 2010)*, volume 6502 of *LNCS*, pages 68–79. Springer-Verlag, Berlin-Heidelberg, 2011.
- [54] Christopher Auer and Andreas Gleißner. Characterizations of deque and queue graphs. In Petr Kolman and Jan Kratochvíl, editors, *Pro-*

- ceedings of the 37th International Workshop on Graph-Theoretic Concepts in Computer Science, WG'2011 (Teplá Monastery, Czech Republic, June 21-24, 2011)*, volume 6986 of *LNCS*, pages 35–46. Springer-Verlag, Berlin-Heidelberg, 2011.
- [55] Per Austrin and Subhash Khot. A simple deterministic reduction for the gap minimum distance of code problem. In Luca Aceto, Monika Henzinger, and Jiří Sgall, editors, *Proceedings of the 38th International Colloquium on Automata, Languages and Programming, ICALP'2011, Part I (Zurich, Switzerland, July 4-8, 2011)*, volume 6755 of *LNCS*, pages 474–485. Springer-Verlag, Berlin-Heidelberg, 2011.
- [56] David Avis, Kazuo Iwama, and Daichi Paku. Verifying nash equilibria in pagerank games on undirected web graphs. In Takao Asano, Shin-ichi Nakano, Yoshio Okamoto, and Osamu Watanabe, editors, *Proceedings of the 22nd International Symposium on Algorithms and Computation, ISAAC'2011 (Yokohama, Japan, December 5-8, 2011)*, volume 7074 of *LNCS*, pages 415–424. Springer-Verlag, Berlin-Heidelberg, 2011.
- [57] Yossi Azar, Iftah Gamzu, and Ran Roth. Submodular max-sat. In Camil Demetrescu and Magnús M. Halldórsson, editors, *Proceedings of the 19th Annual European Symposium on Algorithms, ESA'2011, (Saarbrücken, Germany, September 5-9, 2011)*, volume 6942 of *LNCS*, pages 323–334. Springer-Verlag, Berlin-Heidelberg, 2011.
- [58] Yossi Azar, Ori Gurel-Gurevich, Eyal Lubetzky, and Thomas Moscibroda. Optimal discovery strategies in white space networks. In Camil Demetrescu and Magnús M. Halldórsson, editors, *Proceedings of the 19th Annual European Symposium on Algorithms, ESA'2011, (Saarbrücken, Germany, September 5-9, 2011)*, volume 6942 of *LNCS*, pages 713–722. Springer-Verlag, Berlin-Heidelberg, 2011.
- [59] Yoram Bachrach. The least-core of threshold network flow games. In Filip Murlak and Piotr Sankowski, editors, *Proceedings of the 36th International Symposium on Mathematical Foundations of Computer Science, MFCS'2011 (Warsaw, Poland, August 22-26, 2011)*, volume 6907 of *LNCS*, pages 36–47. Springer-Verlag, Berlin-Heidelberg, 2011.
- [60] Paolo Baldan, Fabio Gadducci, and Pawel Sobociński. Adhesivity is not enough: Local church-rosser revisited. In Filip Murlak and Pi-

- otr Sankowski, editors, *Proceedings of the 36th International Symposium on Mathematical Foundations of Computer Science, MFCS'2011 (Warsaw, Poland, August 22-26, 2011)*, volume 6907 of *LNCS*, pages 48–59. Springer-Verlag, Berlin-Heidelberg, 2011.
- [61] Aritra Banik, Bhaswar B. Bhattacharya, and Sandip Das. Optimal strategies for the one-round discrete voronoi game on a line. In Bin Fu and Ding-Zhu Du, editors, *Proceedings of the 17th Annual International Conference on Computing and Combinatorics, COCOON'2011 (Dallas, TX, USA, August 14-16, 2011)*, volume 6842 of *LNCS*, pages 213–224. Springer-Verlag, Berlin-Heidelberg, 2011.
- [62] Nikhil Bansal and Joel Spencer. Deterministic discrepancy minimization. In Camil Demetrescu and Magnús M. Halldórsson, editors, *Proceedings of the 19th Annual European Symposium on Algorithms, ESA'2011, (Saarbrücken, Germany, September 5-9, 2011)*, volume 6942 of *LNCS*, pages 408–420. Springer-Verlag, Berlin-Heidelberg, 2011.
- [63] Vince Bárány, Balder ten Cate, and Luc Segoufin. Guarded negation. In Luca Aceto, Monika Henzinger, and Jiří Sgall, editors, *Proceedings of the 38th International Colloquium on Automata, Languages and Programming, ICALP'2011, Part II (Zurich, Switzerland, July 4-8, 2011)*, volume 6756 of *LNCS*, pages 356–367. Springer-Verlag, Berlin-Heidelberg, 2011.
- [64] Luis Barba, Matias Korman, Stefan Langerman, and Rodrigo I. Silveira. Computing the visibility polygon using few variables. In Takao Asano, Shin-ichi Nakano, Yoshio Okamoto, and Osamu Watanabe, editors, *Proceedings of the 22nd International Symposium on Algorithms and Computation, ISAAC'2011 (Yokohama, Japan, December 5-8, 2011)*, volume 7074 of *LNCS*, pages 70–79. Springer-Verlag, Berlin-Heidelberg, 2011.
- [65] Jérémy Barbay, Johannes Fischer, and Gonzalo Navarro. Lrm-trees: Compressed indices, adaptive sorting, and compressed permutations. In Raffaele Giancarlo and Giovanni Manzini, editors, *Proceedings of the 22nd Annual Symposium on Combinatorial Pattern Matching, CPM'2011 (Palermo, Italy, June 27-29, 2011)*, volume 6661 of *LNCS*, pages 285–298. Springer-Verlag, Berlin-Heidelberg, 2011.

- [66] Gereon Bartel, Carsten Gutwenger, Karsten Klein, and Petra Mutzel. An experimental evaluation of multilevel layout methods. In Ulrik Brandes and Sabine Cornelsen, editors, *Proceedings of the 18th International Symposium on Graph Drawing, GD'2010 (Konstanz, Germany, September 21-24, 2010)*, volume 6502 of *LNCS*, pages 80–91. Springer-Verlag, Berlin-Heidelberg, 2011.
- [67] Sanjoy K. Baruah, Vincenzo Bonifaci, Gianlorenzo D'Angelo, Alberto Marchetti-Spaccamela, Suzanne van der Ster, and Leen Stougie. Mixed-criticality scheduling of sporadic task systems. In Camil Demetrescu and Magnús M. Halldórsson, editors, *Proceedings of the 19th Annual European Symposium on Algorithms, ESA'2011, (Saarbrücken, Germany, September 5-9, 2011)*, volume 6942 of *LNCS*, pages 555–566. Springer-Verlag, Berlin-Heidelberg, 2011.
- [68] Amitabh Basu, Gérard Cornuéjols, and Marco Molinaro. A probabilistic analysis of the strength of the split and triangle closures. In Oktay Günlük and Gerhard J. Woeginger, editors, *Proceedings of the 15th International Conference on Integer Programming and Combinatorial Optimization, IPCO'2011 (New York, NY, USA, June 15-17, 2011)*, volume 6655 of *LNCS*, pages 27–38. Springer-Verlag, Berlin-Heidelberg, 2011.
- [69] Markus J. Bauer, Anthony J. Cox, and Giovanna Rosone. Lightweight bwt construction for very large string collections. In Raffaele Giancarlo and Giovanni Manzini, editors, *Proceedings of the 22nd Annual Symposium on Combinatorial Pattern Matching, CPM'2011 (Palermo, Italy, June 27-29, 2011)*, volume 6661 of *LNCS*, pages 219–231. Springer-Verlag, Berlin-Heidelberg, 2011.
- [70] Sebastian S. Bauer, Uli Fahrenberg, Line Juhl, Kim G. Larsen, Axel Legay, and Claus Thrane. Quantitative refinement for weighted modal transition systems. In Filip Murlak and Piotr Sankowski, editors, *Proceedings of the 36th International Symposium on Mathematical Foundations of Computer Science, MFCS'2011 (Warsaw, Poland, August 22-26, 2011)*, volume 6907 of *LNCS*, pages 60–71. Springer-Verlag, Berlin-Heidelberg, 2011.
- [71] Cristina Bazgan, Morgan Chopin, and Michael R. Fellows. Parameterized complexity of the firefighter problem. In Takao Asano, Shin-ichi

- Nakano, Yoshio Okamoto, and Osamu Watanabe, editors, *Proceedings of the 22nd International Symposium on Algorithms and Computation, ISAAC'2011 (Yokohama, Japan, December 5-8, 2011)*, volume 7074 of *LNCS*, pages 643–652. Springer-Verlag, Berlin-Heidelberg, 2011.
- [72] Malte Beecken, Johannes Mittmann, and Nitin Saxena. Algebraic independence and blackbox identity testing. In Luca Aceto, Monika Henzinger, and Jiří Sgall, editors, *Proceedings of the 38th International Colloquium on Automata, Languages and Programming, ICALP'2011, Part II (Zurich, Switzerland, July 4-8, 2011)*, volume 6756 of *LNCS*, pages 137–148. Springer-Verlag, Berlin-Heidelberg, 2011.
- [73] Djamel Belazzougui and Gonzalo Navarro. Alphabet-independent compressed text indexing. In Camil Demetrescu and Magnús M. Halldórsson, editors, *Proceedings of the 19th Annual European Symposium on Algorithms, ESA'2011, (Saarbrücken, Germany, September 5-9, 2011)*, volume 6942 of *LNCS*, pages 748–759. Springer-Verlag, Berlin-Heidelberg, 2011.
- [74] Rémy Belmonte, Petr A. Golovach, Pinar Heggernes, Pim van 't Hof, Marcin Kamiński, and Daniël Paulusma. Finding contractions and induced minors in chordal graphs via disjoint paths. In Takao Asano, Shin-ichi Nakano, Yoshio Okamoto, and Osamu Watanabe, editors, *Proceedings of the 22nd International Symposium on Algorithms and Computation, ISAAC'2011 (Yokohama, Japan, December 5-8, 2011)*, volume 7074 of *LNCS*, pages 110–119. Springer-Verlag, Berlin-Heidelberg, 2011.
- [75] Rémy Belmonte and Martin Vatshelle. Graph classes with structured neighborhoods and algorithmic applications. In Petr Kolman and Jan Kratochvíl, editors, *Proceedings of the 37th International Workshop on Graph-Theoretic Concepts in Computer Science, WG'2011 (Teplá Monastery, Czech Republic, June 21-24, 2011)*, volume 6986 of *LNCS*, pages 47–58. Springer-Verlag, Berlin-Heidelberg, 2011.
- [76] Michael Benedikt, Gabriele Puppis, and Cristian Riveros. The cost of traveling between languages. In Luca Aceto, Monika Henzinger, and Jiří Sgall, editors, *Proceedings of the 38th International Colloquium on Automata, Languages and Programming, ICALP'2011, Part*

II (Zurich, Switzerland, July 4-8, 2011), volume 6756 of *LNCS*, pages 234–245. Springer-Verlag, Berlin-Heidelberg, 2011.

- [77] Petra Berenbrink, Robert Elsässer, Tom Friedetzky, Lars Nagel, and Thomas Sauerwald. Faster coupon collecting via replication with applications in gossiping. In Filip Murlak and Piotr Sankowski, editors, *Proceedings of the 36th International Symposium on Mathematical Foundations of Computer Science, MFCS'2011 (Warsaw, Poland, August 22-26, 2011)*, volume 6907 of *LNCS*, pages 72–83. Springer-Verlag, Berlin-Heidelberg, 2011.
- [78] Annabell Berger, Christian Blaar, Andreas Gebhardt, Matthias Müller-Hannemann, and Mathias Schnee. Passenger flow-oriented train disposition. In Camil Demetrescu and Magnús M. Halldórsson, editors, *Proceedings of the 19th Annual European Symposium on Algorithms, ESA'2011, (Saarbrücken, Germany, September 5-9, 2011)*, volume 6942 of *LNCS*, pages 227–238. Springer-Verlag, Berlin-Heidelberg, 2011.
- [79] Rudolf Berghammer, Agnieszka Rusinowska, and Harrie de Swart. Computations on simple games using RELVIEW. In Vladimir P. Gerdt, Wolfram Koepf, Ernst W. Mayr, and Evgenii V. Vorozhtsov, editors, *Proceedings of the 13th International Workshop on Computer Algebra in Scientific Computing, CASC'2011 (Kassel, Germany, September 5-9, 2011)*, volume 6885 of *LNCS*, pages 49–60. Springer-Verlag, Berlin-Heidelberg, 2011.
- [80] Martin Bergner, Alberto Caprara, Fabio Furini, Marco E. Lübbecke, Enrico Malaguti, and Emiliano Traversi. Partial convexification of general mips by dantzig-wolfe reformulation. In Oktay Günlük and Gerhard J. Woeginger, editors, *Proceedings of the 15th International Conference on Integer Programming and Combinatorial Optimization, IPCO'2011 (New York, NY, USA, June 15-17, 2011)*, volume 6655 of *LNCS*, pages 39–51. Springer-Verlag, Berlin-Heidelberg, 2011.
- [81] Piotr Berman, Arnab Bhattacharyya, Elena Grigorescu, Sofya Raskhodnikova, David P. Woodruff, and Grigory Yaroslavtsev. Steiner transitive-closure spanners of low-dimensional posets. In Luca Aceto, Monika Henzinger, and Jiří Sgall, editors, *Proceedings of the 38th International Colloquium on Automata, Languages and Programming,*

- ICALP'2011, Part I (Zurich, Switzerland, July 4-8, 2011)*, volume 6755 of *LNCS*, pages 760–772. Springer-Verlag, Berlin-Heidelberg, 2011.
- [82] Piotr Berman, Arnab Bhattacharyya, Konstantin Makarychev, Sofya Raskhodnikova, and Grigory Yaroslavtsev. Improved approximation for the directed spanner problem. In Luca Aceto, Monika Henzinger, and Jiří Sgall, editors, *Proceedings of the 38th International Colloquium on Automata, Languages and Programming, ICALP'2011, Part I (Zurich, Switzerland, July 4-8, 2011)*, volume 6755 of *LNCS*, pages 1–12. Springer-Verlag, Berlin-Heidelberg, 2011.
- [83] Nathalie Bertrand, Patricia Bouyer, Thomas Brihaye, and Amélie Stainer. Emptiness and universality problems in timed automata with positive frequency. In Luca Aceto, Monika Henzinger, and Jiří Sgall, editors, *Proceedings of the 38th International Colloquium on Automata, Languages and Programming, ICALP'2011, Part II (Zurich, Switzerland, July 4-8, 2011)*, volume 6756 of *LNCS*, pages 246–257. Springer-Verlag, Berlin-Heidelberg, 2011.
- [84] Olaf Beyersdorff, Samir Datta, Meena Mahajan, Gido Scharfenberger-Fabian, KartEEK Sreenivasaiah, Michael Thomas, and Heribert Vollmer. Verifying proofs in constant depth. In Filip Murlak and Piotr Sankowski, editors, *Proceedings of the 36th International Symposium on Mathematical Foundations of Computer Science, MFCS'2011 (Warsaw, Poland, August 22-26, 2011)*, volume 6907 of *LNCS*, pages 84–95. Springer-Verlag, Berlin-Heidelberg, 2011.
- [85] Olaf Beyersdorff, Nicola Galesi, Massimo Lauria, and Alexander Razborov. Parameterized bounded-depth frege is not optimal. In Luca Aceto, Monika Henzinger, and Jiří Sgall, editors, *Proceedings of the 38th International Colloquium on Automata, Languages and Programming, ICALP'2011, Part I (Zurich, Switzerland, July 4-8, 2011)*, volume 6755 of *LNCS*, pages 630–641. Springer-Verlag, Berlin-Heidelberg, 2011.
- [86] Therese Biedl, Stéphane Durocher, Céline Engelbeen, Samuel Fiorini, and Maxwell Young. Faster optimal algorithms for segment minimization with small maximal value. In Frank Dehne, John Iacono,

- and Jörg-Rüdiger Sack, editors, *Proceedings of the 12th International Symposium on Algorithms and Data Structures, WADS'2011 (New York, NY, USA, August 15-17, 2011)*, volume 6844 of *LNCS*, pages 86–97. Springer-Verlag, Berlin-Heidelberg, 2011.
- [87] Therese Biedl and Lesvia Elena Ruiz Velázquez. Orthogonal cartograms with few corners per face. In Frank Dehne, John Iacono, and Jörg-Rüdiger Sack, editors, *Proceedings of the 12th International Symposium on Algorithms and Data Structures, WADS'2011 (New York, NY, USA, August 15-17, 2011)*, volume 6844 of *LNCS*, pages 98–109. Springer-Verlag, Berlin-Heidelberg, 2011.
- [88] Ondřej Bílka, Jozef Jirásek, Pavel Klavík, Martin Tancer, and Jan Volec. On the complexity of planar covering of small graphs. In Petr Kolman and Jan Kratochvíl, editors, *Proceedings of the 37th International Workshop on Graph-Theoretic Concepts in Computer Science, WG'2011 (Teplá Monastery, Czech Republic, June 21-24, 2011)*, volume 6986 of *LNCS*, pages 83–94. Springer-Verlag, Berlin-Heidelberg, 2011.
- [89] Philip Bille and Inge Li Gørtz. Substring range reporting. In Raffaele Giancarlo and Giovanni Manzini, editors, *Proceedings of the 22nd Annual Symposium on Combinatorial Pattern Matching, CPM'2011 (Palermo, Italy, June 27-29, 2011)*, volume 6661 of *LNCS*, pages 299–308. Springer-Verlag, Berlin-Heidelberg, 2011.
- [90] Jonathan Billington and Guy Edward Gallasch. On parametric steady state analysis of a generalized stochastic petri net with a fork-join subnet. In Lars M. Kristensen and Laure Petrucci, editors, *Proceedings of the 32nd International Conference on Applications and Theory of Petri Nets, PETRI NETS'2011 (Newcastle, UK, June 20-24, 2011)*, volume 6709 of *LNCS*, pages 268–287. Springer-Verlag, Berlin-Heidelberg, 2011.
- [91] Markus Bläser and Radu Curticapean. The complexity of the cover polynomials for planar graphs of bounded degree. In Filip Murlak and Piotr Sankowski, editors, *Proceedings of the 36th International Symposium on Mathematical Foundations of Computer Science, MFCS'2011 (Warsaw, Poland, August 22-26, 2011)*, volume 6907 of *LNCS*, pages 96–107. Springer-Verlag, Berlin-Heidelberg, 2011.

- [92] Markus Bläser, Bodo Manthey, and B.V. Raghavendra Rao. Smoothed analysis of partitioning algorithms for euclidean functionals. In Frank Dehne, John Iacono, and Jörg-Rüdiger Sack, editors, *Proceedings of the 12th International Symposium on Algorithms and Data Structures, WADS'2011 (New York, NY, USA, August 15-17, 2011)*, volume 6844 of *LNCS*, pages 110–121. Springer-Verlag, Berlin-Heidelberg, 2011.
- [93] Thomas Bläsius, Marcus Krug, Ignaz Rutter, and Dorothea Wagner. Orthogonal graph drawing with flexibility constraints. In Ulrik Brandes and Sabine Cornelsen, editors, *Proceedings of the 18th International Symposium on Graph Drawing, GD'2010 (Konstanz, Germany, September 21-24, 2010)*, volume 6502 of *LNCS*, pages 92–104. Springer-Verlag, Berlin-Heidelberg, 2011.
- [94] Michel Blockelet and Sylvain Schmitz. Model checking coverability graphs of vector addition systems. In Filip Murlak and Piotr Sankowski, editors, *Proceedings of the 36th International Symposium on Mathematical Foundations of Computer Science, MFCS'2011 (Warsaw, Poland, August 22-26, 2011)*, volume 6907 of *LNCS*, pages 108–119. Springer-Verlag, Berlin-Heidelberg, 2011.
- [95] Adrian Bock, Elyot Grant, Jochen Könnemann, and Laura Sanità. The school bus problem the school bus problem is an np-hard vehicle routing problem in which the goal is to route buses that transport children to a school such that for each child, the distance travelled on the bus does not exceed the shortest distance from the child's home to the school by more than a given regret threshold. subject to this constraint and bus capacity limit, the goal is to minimize the number of buses required. in this paper, we give a polynomial time 4-approximation algorithm when the children and school are located at vertices of a fixed tree. as a byproduct of our analysis, we show that the integrality gap of the natural set-cover formulation for this problem is also bounded by 4. we also present a constant approximation for the variant where we have a fixed number of buses to use, and the goal is to minimize the maximum regret.on trees. In Takao Asano, Shin-ichi Nakano, Yoshio Okamoto, and Osamu Watanabe, editors, *Proceedings of the 22nd International Symposium on Algorithms and Computation, ISAAC'2011 (Yokohama, Japan, December 5-8, 2011)*, volume 7074 of *LNCS*, pages 10–19. Springer-Verlag, Berlin-Heidelberg, 2011.

- [96] Hans-Joachim Böckenhauer, Dennis Komm, Rastislav Kráľovič, and Richard Kráľovič. On the advice complexity of the k -server problem. In Luca Aceto, Monika Henzinger, and Jiří Sgall, editors, *Proceedings of the 38th International Colloquium on Automata, Languages and Programming, ICALP'2011, Part I (Zurich, Switzerland, July 4-8, 2011)*, volume 6755 of *LNCS*, pages 207–218. Springer-Verlag, Berlin-Heidelberg, 2011.
- [97] Hans L. Bodlaender, Bart M.P. Jansen, and Stefan Kratsch. Preprocessing for treewidth: A combinatorial analysis through kernelization. In Luca Aceto, Monika Henzinger, and Jiří Sgall, editors, *Proceedings of the 38th International Colloquium on Automata, Languages and Programming, ICALP'2011, Part I (Zurich, Switzerland, July 4-8, 2011)*, volume 6755 of *LNCS*, pages 437–448. Springer-Verlag, Berlin-Heidelberg, 2011.
- [98] Hans L. Bodlaender and Dieter Kratsch. Exact algorithms for kayles. In Petr Kolman and Jan Kratochvíl, editors, *Proceedings of the 37th International Workshop on Graph-Theoretic Concepts in Computer Science, WG'2011 (Teplá Monastery, Czech Republic, June 21-24, 2011)*, volume 6986 of *LNCS*, pages 59–70. Springer-Verlag, Berlin-Heidelberg, 2011.
- [99] Marijke H.L. Bodlaender, Cor A.J. Hurkens, and Gerhard J. Woeginger. The cinderella game on holes and anti-holes. In Petr Kolman and Jan Kratochvíl, editors, *Proceedings of the 37th International Workshop on Graph-Theoretic Concepts in Computer Science, WG'2011 (Teplá Monastery, Czech Republic, June 21-24, 2011)*, volume 6986 of *LNCS*, pages 71–82. Springer-Verlag, Berlin-Heidelberg, 2011.
- [100] Andrej Bogdanov, Akinori Kawachi, and Hidetoki Tanaka. Hard functions for low-degree polynomials over prime fields. In Filip Murlak and Piotr Sankowski, editors, *Proceedings of the 36th International Symposium on Mathematical Foundations of Computer Science, MFCS'2011 (Warsaw, Poland, August 22-26, 2011)*, volume 6907 of *LNCS*, pages 120–131. Springer-Verlag, Berlin-Heidelberg, 2011.
- [101] Stanislav Böhm and Stefan Göller. Language equivalence of deterministic real-time one-counter automata is nl -complete. In Filip Murlak and

- Piotr Sankowski, editors, *Proceedings of the 36th International Symposium on Mathematical Foundations of Computer Science, MFCS'2011 (Warsaw, Poland, August 22-26, 2011)*, volume 6907 of *LNCS*, pages 194–205. Springer-Verlag, Berlin-Heidelberg, 2011.
- [102] Benedikt Bollig, Aiswarya Cyriac, Paul Gastin, and Marc Zeitoun. Temporal logics for concurrent recursive programs: Satisfiability and model checking. In Filip Murlak and Piotr Sankowski, editors, *Proceedings of the 36th International Symposium on Mathematical Foundations of Computer Science, MFCS'2011 (Warsaw, Poland, August 22-26, 2011)*, volume 6907 of *LNCS*, pages 132–144. Springer-Verlag, Berlin-Heidelberg, 2011.
- [103] Béla Bollobás, David Pritchard, Thomas Rothvoß, and Alex Scott. Cover-decomposition and polychromatic numbers. In Camil Demetrescu and Magnús M. Halldórsson, editors, *Proceedings of the 19th Annual European Symposium on Algorithms, ESA'2011, (Saarbrücken, Germany, September 5-9, 2011)*, volume 6942 of *LNCS*, pages 799–810. Springer-Verlag, Berlin-Heidelberg, 2011.
- [104] Pierre Bonami. Lift-and-project cuts for mixed integer convex programs. In Oktay Günlük and Gerhard J. Woeginger, editors, *Proceedings of the 15th International Conference on Integer Programming and Combinatorial Optimization, IPCO'2011 (New York, NY, USA, June 15-17, 2011)*, volume 6655 of *LNCS*, pages 52–64. Springer-Verlag, Berlin-Heidelberg, 2011.
- [105] Rémi Bonnet. The reachability problem for vector addition system with one zero-test. In Filip Murlak and Piotr Sankowski, editors, *Proceedings of the 36th International Symposium on Mathematical Foundations of Computer Science, MFCS'2011 (Warsaw, Poland, August 22-26, 2011)*, volume 6907 of *LNCS*, pages 145–157. Springer-Verlag, Berlin-Heidelberg, 2011.
- [106] Paul Bonsma and Daniel Lokshantov. Feedback vertex set in mixed graphs. In Frank Dehne, John Iacono, and Jörg-Rüdiger Sack, editors, *Proceedings of the 12th International Symposium on Algorithms and Data Structures, WADS'2011 (New York, NY, USA, August 15-17, 2011)*, volume 6844 of *LNCS*, pages 122–133. Springer-Verlag, Berlin-Heidelberg, 2011.

- [107] Magnus Bordewich and Ross J. Kang. Rapid mixing of subset glauber dynamics on graphs of bounded tree-width. In Luca Aceto, Monika Henzinger, and Jiří Sgall, editors, *Proceedings of the 38th International Colloquium on Automata, Languages and Programming, ICALP'2011, Part I (Zurich, Switzerland, July 4-8, 2011)*, volume 6755 of *LNCS*, pages 533–544. Springer-Verlag, Berlin-Heidelberg, 2011.
- [108] Endre Boros, Khaled Elbassioni, Mahmoud Fouz, Vladimir Gurvich, Kazuhisa Makino, and Bodo Manthey. Stochastic mean payoff games: Smoothed analysis and approximation schemes. In Luca Aceto, Monika Henzinger, and Jiří Sgall, editors, *Proceedings of the 38th International Colloquium on Automata, Languages and Programming, ICALP'2011, Part I (Zurich, Switzerland, July 4-8, 2011)*, volume 6755 of *LNCS*, pages 147–158. Springer-Verlag, Berlin-Heidelberg, 2011.
- [109] Prosenjit Bose, Paz Carmi, Mirela Damian, Robin Flatland, Matthew J. Katz, and Anil Maheshwari. Switching to directional antennas with constant increase in radius and hop distance. In Frank Dehne, John Iacono, and Jörg-Rüdiger Sack, editors, *Proceedings of the 12th International Symposium on Algorithms and Data Structures, WADS'2011 (New York, NY, USA, August 15-17, 2011)*, volume 6844 of *LNCS*, pages 134–146. Springer-Verlag, Berlin-Heidelberg, 2011.
- [110] Ahmed Bouajjani, Roland Meyer, and Eike Möhlmann. Deciding robustness against total store ordering. In Luca Aceto, Monika Henzinger, and Jiří Sgall, editors, *Proceedings of the 38th International Colloquium on Automata, Languages and Programming, ICALP'2011, Part II (Zurich, Switzerland, July 4-8, 2011)*, volume 6756 of *LNCS*, pages 428–440. Springer-Verlag, Berlin-Heidelberg, 2011.
- [111] Christina Boucher. The bounded search tree algorithm for the CLOSEST STRING problem has quadratic smoothed complexity. In Filip Murlak and Piotr Sankowski, editors, *Proceedings of the 36th International Symposium on Mathematical Foundations of Computer Science, MFCS'2011 (Warsaw, Poland, August 22-26, 2011)*, volume 6907 of *LNCS*, pages 158–169. Springer-Verlag, Berlin-Heidelberg, 2011.
- [112] Marin Bougeret, Pierre Francois Dutot, Klaus Jansen, Christina Robenek, and Denis Trystram. Scheduling jobs on heterogeneous platforms. In Bin Fu and Ding-Zhu Du, editors, *Proceedings of the 17th*

Annual International Conference on Computing and Combinatorics, COCOON'2011 (Dallas, TX, USA, August 14-16, 2011), volume 6842 of *LNCS*, pages 271–283. Springer-Verlag, Berlin-Heidelberg, 2011.

- [113] François Boulier, François Lemaire, Michel Petitot, and Alexandre Sedoglavic. Chemical reaction systems, computer algebra and systems biology. In Vladimir P. Gerdt, Wolfram Koepf, Ernst W. Mayr, and Evgenii V. Vorozhtsov, editors, *Proceedings of the 13th International Workshop on Computer Algebra in Scientific Computing, CASC'2011 (Kassel, Germany, September 5-9, 2011)*, volume 6885 of *LNCS*, pages 73–87. Springer-Verlag, Berlin-Heidelberg, 2011.
- [114] François Boulier, François Lemaire, and Alexandre Sedoglavic. On the regularity property of differential polynomials modulo regular differential chains. In Vladimir P. Gerdt, Wolfram Koepf, Ernst W. Mayr, and Evgenii V. Vorozhtsov, editors, *Proceedings of the 13th International Workshop on Computer Algebra in Scientific Computing, CASC'2011 (Kassel, Germany, September 5-9, 2011)*, volume 6885 of *LNCS*, pages 61–72. Springer-Verlag, Berlin-Heidelberg, 2011.
- [115] P.C. Bouman, J.M. van den Akker, and J.A. Hoogeveen. Recoverable robustness by column generation. In Camil Demetrescu and Magnús M. Halldórsson, editors, *Proceedings of the 19th Annual European Symposium on Algorithms, ESA'2011, (Saarbrücken, Germany, September 5-9, 2011)*, volume 6942 of *LNCS*, pages 215–226. Springer-Verlag, Berlin-Heidelberg, 2011.
- [116] Olivier Bournez, Daniel S. Graça, and Amaury Pouly. Solving analytic differential equations in polynomial time over unbounded domains. In Filip Murlak and Piotr Sankowski, editors, *Proceedings of the 36th International Symposium on Mathematical Foundations of Computer Science, MFCS'2011 (Warsaw, Poland, August 22-26, 2011)*, volume 6907 of *LNCS*, pages 170–181. Springer-Verlag, Berlin-Heidelberg, 2011.
- [117] Simone Bova, Hubie Chen, and Matthew Valeriote. Generic expression hardness results for primitive positive formula comparison. In Luca Aceto, Monika Henzinger, and Jiří Sgall, editors, *Proceedings of the*

- 38th International Colloquium on Automata, Languages and Programming, ICALP'2011, Part II (Zurich, Switzerland, July 4-8, 2011)*, volume 6756 of *LNCS*, pages 344–355. Springer-Verlag, Berlin-Heidelberg, 2011.
- [118] Sylvia Boyd, René Sitters, Suzanne van der Ster, and Leen Stougie. Tsp on cubic and subcubic graphs. In Oktay Günlük and Gerhard J. Woeginger, editors, *Proceedings of the 15th International Conference on Integer Programming and Combinatorial Optimization, IPCO'2011 (New York, NY, USA, June 15-17, 2011)*, volume 6655 of *LNCS*, pages 65–77. Springer-Verlag, Berlin-Heidelberg, 2011.
- [119] Andreas Brandstädt and Raffaele Mosca. Dominating induced matchings for p_7 -free graphs in linear time. In Takao Asano, Shin-ichi Nakano, Yoshio Okamoto, and Osamu Watanabe, editors, *Proceedings of the 22nd International Symposium on Algorithms and Computation, ISAAC'2011 (Yokohama, Japan, December 5-8, 2011)*, volume 7074 of *LNCS*, pages 100–109. Springer-Verlag, Berlin-Heidelberg, 2011.
- [120] Tomáš Brázdil, Václav Brožek, Kousha Etessami, and Antonín Kučera. Approximating the termination value of one-counter mdps and stochastic games. In Luca Aceto, Monika Henzinger, and Jiří Sgall, editors, *Proceedings of the 38th International Colloquium on Automata, Languages and Programming, ICALP'2011, Part II (Zurich, Switzerland, July 4-8, 2011)*, volume 6756 of *LNCS*, pages 332–343. Springer-Verlag, Berlin-Heidelberg, 2011.
- [121] Tomáš Brázdil, Stefan Kiefer, Antonín Kučera, and Ivana Hutařová Vařeková. Runtime analysis of probabilistic programs with unbounded recursion. In Luca Aceto, Monika Henzinger, and Jiří Sgall, editors, *Proceedings of the 38th International Colloquium on Automata, Languages and Programming, ICALP'2011, Part II (Zurich, Switzerland, July 4-8, 2011)*, volume 6756 of *LNCS*, pages 319–331. Springer-Verlag, Berlin-Heidelberg, 2011.
- [122] Robert Brederick, André Nichterlein, Rolf Niedermeier, and Geevarghese Philip. Pattern-guided data anonymization and clustering. In Filip Murlak and Piotr Sankowski, editors, *Proceedings of the 36th International Symposium on Mathematical Foundations of Computer Science*,

MFCS'2011 (Warsaw, Poland, August 22-26, 2011), volume 6907 of *LNCS*, pages 182–193. Springer-Verlag, Berlin-Heidelberg, 2011.

- [123] Jürgen Bregenzer. Graphml-based exploration and evaluation of efficient parallelization alternatives for automation firmware. In Ulrik Brandes and Sabine Cornelsen, editors, *Proceedings of the 18th International Symposium on Graph Drawing, GD'2010 (Konstanz, Germany, September 21-24, 2010)*, volume 6502 of *LNCS*, pages 389–390. Springer-Verlag, Berlin-Heidelberg, 2011.
- [124] Dany Breslauer and Zvi Galil. Real-time streaming string-matching. In Raffaele Giancarlo and Giovanni Manzini, editors, *Proceedings of the 22nd Annual Symposium on Combinatorial Pattern Matching, CPM'2011 (Palermo, Italy, June 27-29, 2011)*, volume 6661 of *LNCS*, pages 162–172. Springer-Verlag, Berlin-Heidelberg, 2011.
- [125] Dany Breslauer, Roberto Grossi, and Filippo Mignosi. Simple real-time constant-space string matching. In Raffaele Giancarlo and Giovanni Manzini, editors, *Proceedings of the 22nd Annual Symposium on Combinatorial Pattern Matching, CPM'2011 (Palermo, Italy, June 27-29, 2011)*, volume 6661 of *LNCS*, pages 173–183. Springer-Verlag, Berlin-Heidelberg, 2011.
- [126] Thomas Brihaye, Laurent Doyen, Gilles Geeraerts, Joël Ouaknine, Jean-François Raskin, and James Worrell. On reachability for hybrid automata over bounded time. In Luca Aceto, Monika Henzinger, and Jiří Sgall, editors, *Proceedings of the 38th International Colloquium on Automata, Languages and Programming, ICALP'2011, Part II (Zurich, Switzerland, July 4-8, 2011)*, volume 6756 of *LNCS*, pages 416–427. Springer-Verlag, Berlin-Heidelberg, 2011.
- [127] Malte Brinkmeyer, Thasso Griebel, and Sebastian Böcker. Flipcut supertrees: Towards matrix representation accuracy in polynomial time. In Bin Fu and Ding-Zhu Du, editors, *Proceedings of the 17th Annual International Conference on Computing and Combinatorics, COCOON'2011 (Dallas, TX, USA, August 14-16, 2011)*, volume 6842 of *LNCS*, pages 37–48. Springer-Verlag, Berlin-Heidelberg, 2011.
- [128] Gerth Stølting Brodal, Pooya Davoodi, and S. Srinivasa Rao. Path minima queries in dynamic weighted trees. In Frank Dehne, John Iacono,

- and Jörg-Rüdiger Sack, editors, *Proceedings of the 12th International Symposium on Algorithms and Data Structures, WADS'2011 (New York, NY, USA, August 15-17, 2011)*, volume 6844 of *LNCS*, pages 290–301. Springer-Verlag, Berlin-Heidelberg, 2011.
- [129] Gerth Stølting Brodal and Konstantinos Tsakalidis. Dynamic planar range maxima queries. In Luca Aceto, Monika Henzinger, and Jiří Sgall, editors, *Proceedings of the 38th International Colloquium on Automata, Languages and Programming, ICALP'2011, Part I (Zurich, Switzerland, July 4-8, 2011)*, volume 6755 of *LNCS*, pages 256–267. Springer-Verlag, Berlin-Heidelberg, 2011.
- [130] Daniel G. Brown and Jakub Truszkowski. Fast error-tolerant quartet phylogeny algorithms. In Raffaele Giancarlo and Giovanni Manzini, editors, *Proceedings of the 22nd Annual Symposium on Combinatorial Pattern Matching, CPM'2011 (Palermo, Italy, June 27-29, 2011)*, volume 6661 of *LNCS*, pages 147–161. Springer-Verlag, Berlin-Heidelberg, 2011.
- [131] Wolfgang Brunner and Marco Matzeder. Drawing ordered $(k - 1)$ -ary trees on k -grids. In Ulrik Brandes and Sabine Cornelsen, editors, *Proceedings of the 18th International Symposium on Graph Drawing, GD'2010 (Konstanz, Germany, September 21-24, 2010)*, volume 6502 of *LNCS*, pages 105–116. Springer-Verlag, Berlin-Heidelberg, 2011.
- [132] Tobias Brunsch, Heiko Röglin, Cyriel Ruten, and Tjark Vredeveld. Smoothed performance guarantees for local search. In Camil Demetrescu and Magnús M. Halldórsson, editors, *Proceedings of the 19th Annual European Symposium on Algorithms, ESA'2011, (Saarbrücken, Germany, September 5-9, 2011)*, volume 6942 of *LNCS*, pages 772–783. Springer-Verlag, Berlin-Heidelberg, 2011.
- [133] Niv Buchbinder, Moran Feldman, Arpita Ghosh, and Joseph (Seffi) Naor. Frequency capping in online advertising. In Frank Dehne, John Iacono, and Jörg-Rüdiger Sack, editors, *Proceedings of the 12th International Symposium on Algorithms and Data Structures, WADS'2011 (New York, NY, USA, August 15-17, 2011)*, volume 6844 of *LNCS*, pages 147–158. Springer-Verlag, Berlin-Heidelberg, 2011.

- [134] Kevin Buchin, David Eppstein, Maarten Löffler, Martin Nöllenburg, and Rodrigo I. Silveira. Adjacency-preserving spatial treemaps. In Frank Dehne, John Iacono, and Jörg-Rüdiger Sack, editors, *Proceedings of the 12th International Symposium on Algorithms and Data Structures, WADS'2011 (New York, NY, USA, August 15-17, 2011)*, volume 6844 of *LNCS*, pages 159–170. Springer-Verlag, Berlin-Heidelberg, 2011.
- [135] Kevin Buchin, Bettina Speckmann, and Kevin Verbeek. Angle-restricted steiner arborescences for flow map layout. In Takao Asano, Shin-ichi Nakano, Yoshio Okamoto, and Osamu Watanabe, editors, *Proceedings of the 22nd International Symposium on Algorithms and Computation, ISAAC'2011 (Yokohama, Japan, December 5-8, 2011)*, volume 7074 of *LNCS*, pages 250–259. Springer-Verlag, Berlin-Heidelberg, 2011.
- [136] Kevin Buchin, Bettina Speckmann, and Sander Verdonschot. Optimizing regular edge labelings. In Ulrik Brandes and Sabine Cornelsen, editors, *Proceedings of the 18th International Symposium on Graph Drawing, GD'2010 (Konstanz, Germany, September 21-24, 2010)*, volume 6502 of *LNCS*, pages 117–128. Springer-Verlag, Berlin-Heidelberg, 2011.
- [137] Dzmityr A. Budzko and Alexander N. Prokopenya. On the stability of equilibrium positions in the circular restricted four-body problem. In Vladimir P. Gerdt, Wolfram Koepf, Ernst W. Mayr, and Evgenii V. Vorozhtsov, editors, *Proceedings of the 13th International Workshop on Computer Algebra in Scientific Computing, CASC'2011 (Kassel, Germany, September 5-9, 2011)*, volume 6885 of *LNCS*, pages 88–100. Springer-Verlag, Berlin-Heidelberg, 2011.
- [138] Binh-Minh Bui-Xuan, Pinar Heggernes, Daniel Meister, and Andrzej Proskurowski. A generic approach to decomposition algorithms, with an application to digraph decomposition. In Bin Fu and Ding-Zhu Du, editors, *Proceedings of the 17th Annual International Conference on Computing and Combinatorics, COCOON'2011 (Dallas, TX, USA, August 14-16, 2011)*, volume 6842 of *LNCS*, pages 331–342. Springer-Verlag, Berlin-Heidelberg, 2011.

- [139] Andrei A. Bulatov and Dániel Marx. Constraint satisfaction parameterized by solution size. In Luca Aceto, Monika Henzinger, and Jiří Sgall, editors, *Proceedings of the 38th International Colloquium on Automata, Languages and Programming, ICALP'2011, Part I (Zurich, Switzerland, July 4-8, 2011)*, volume 6755 of *LNCS*, pages 424–436. Springer-Verlag, Berlin-Heidelberg, 2011.
- [140] Laurent Bulteau, Guillaume Fertin, Minghui Jiang, and Irena Rusu. Tractability and approximability of maximal strip recovery. In Raffaele Giancarlo and Giovanni Manzini, editors, *Proceedings of the 22nd Annual Symposium on Combinatorial Pattern Matching, CPM'2011 (Palermo, Italy, June 27-29, 2011)*, volume 6661 of *LNCS*, pages 336–349. Springer-Verlag, Berlin-Heidelberg, 2011.
- [141] Laurent Bulteau, Guillaume Fertin, and Irena Rusu. Sorting by transpositions is difficult. In Luca Aceto, Monika Henzinger, and Jiří Sgall, editors, *Proceedings of the 38th International Colloquium on Automata, Languages and Programming, ICALP'2011, Part I (Zurich, Switzerland, July 4-8, 2011)*, volume 6755 of *LNCS*, pages 654–665. Springer-Verlag, Berlin-Heidelberg, 2011.
- [142] Jin-Yi Cai and Michael Kowalczyk. Spin systems on graphs with complex edge functions and specified degree regularities. In Bin Fu and Ding-Zhu Du, editors, *Proceedings of the 17th Annual International Conference on Computing and Combinatorics, COCOON'2011 (Dallas, TX, USA, August 14-16, 2011)*, volume 6842 of *LNCS*, pages 146–157. Springer-Verlag, Berlin-Heidelberg, 2011.
- [143] Gruiua Calinescu and Minming Li. Register loading via linear programming. In Frank Dehne, John Iacono, and Jörg-Rüdiger Sack, editors, *Proceedings of the 12th International Symposium on Algorithms and Data Structures, WADS'2011 (New York, NY, USA, August 15-17, 2011)*, volume 6844 of *LNCS*, pages 171–182. Springer-Verlag, Berlin-Heidelberg, 2011.
- [144] Victor Campos, Sulamita Klein, Rudini Sampaio, and Ana Silva. Two fixed-parameter algorithms for the cocoloring problem. In Takao Asano, Shin-ichi Nakano, Yoshio Okamoto, and Osamu Watanabe, editors, *Proceedings of the 22nd International Symposium on Algorithms and Computation, ISAAC'2011 (Yokohama, Japan, December*

5-8, 2011), volume 7074 of *LNCS*, pages 634–642. Springer-Verlag, Berlin-Heidelberg, 2011.

- [145] Domenico Cantone, Salvatore Cristofaro, and Simone Faro. Efficient matching of biological sequences allowing for non-overlapping inversions. In Raffaele Giancarlo and Giovanni Manzini, editors, *Proceedings of the 22nd Annual Symposium on Combinatorial Pattern Matching, CPM'2011 (Palermo, Italy, June 27-29, 2011)*, volume 6661 of *LNCS*, pages 364–375. Springer-Verlag, Berlin-Heidelberg, 2011.
- [146] Stefan Canzar, Khaled Elbassioni, Gunnar W. Klau, and Julián Mestre. On tree-constrained matchings and generalizations. In Luca Aceto, Monika Henzinger, and Jiří Sgall, editors, *Proceedings of the 38th International Colloquium on Automata, Languages and Programming, ICALP'2011, Part I (Zurich, Switzerland, July 4-8, 2011)*, volume 6755 of *LNCS*, pages 98–109. Springer-Verlag, Berlin-Heidelberg, 2011.
- [147] Luca Cardelli, Kim G. Larsen, and Radu Mardare. Modular markovian logic. In Luca Aceto, Monika Henzinger, and Jiří Sgall, editors, *Proceedings of the 38th International Colloquium on Automata, Languages and Programming, ICALP'2011, Part II (Zurich, Switzerland, July 4-8, 2011)*, volume 6756 of *LNCS*, pages 380–391. Springer-Verlag, Berlin-Heidelberg, 2011.
- [148] Sergiu Carpov, Jacques Carlier, Dritan Nace, and Renaud Sirdey. Task ordering and memory management problem for degree of parallelism estimation. In Bin Fu and Ding-Zhu Du, editors, *Proceedings of the 17th Annual International Conference on Computing and Combinatorics, COCOON'2011 (Dallas, TX, USA, August 14-16, 2011)*, volume 6842 of *LNCS*, pages 592–603. Springer-Verlag, Berlin-Heidelberg, 2011.
- [149] Olivier Carton, Thomas Colcombet, and Gabriele Puppis. Regular languages of words over countable linear orderings. In Luca Aceto, Monika Henzinger, and Jiří Sgall, editors, *Proceedings of the 38th International Colloquium on Automata, Languages and Programming, ICALP'2011, Part II (Zurich, Switzerland, July 4-8, 2011)*, volume 6756 of *LNCS*, pages 125–136. Springer-Verlag, Berlin-Heidelberg, 2011.
- [150] Luca Castelli Aleardi and Olivier Devillers. Explicit array-based compact data structures for triangulations. In Takao Asano, Shin-ichi

- Nakano, Yoshio Okamoto, and Osamu Watanabe, editors, *Proceedings of the 22nd International Symposium on Algorithms and Computation, ISAAC'2011 (Yokohama, Japan, December 5-8, 2011)*, volume 7074 of *LNCS*, pages 312–322. Springer-Verlag, Berlin-Heidelberg, 2011.
- [151] Katarína Cechlárová and Eva Jelínková. Approximability of economic equilibrium for housing markets with duplicate houses. In Petr Kolman and Jan Kratochvíl, editors, *Proceedings of the 37th International Workshop on Graph-Theoretic Concepts in Computer Science, WG'2011 (Teplá Monastery, Czech Republic, June 21-24, 2011)*, volume 6986 of *LNCS*, pages 95–106. Springer-Verlag, Berlin-Heidelberg, 2011.
- [152] André Chailloux, Iordanis Kerenidis, and Bill Rosgen. Quantum commitments from complexity assumptions. In Luca Aceto, Monika Henzinger, and Jiří Sgall, editors, *Proceedings of the 38th International Colloquium on Automata, Languages and Programming, ICALP'2011, Part I (Zurich, Switzerland, July 4-8, 2011)*, volume 6755 of *LNCS*, pages 73–85. Springer-Verlag, Berlin-Heidelberg, 2011.
- [153] Venkatesan T. Chakaravarthy, Amit Kumar, Sambuddha Roy, and Yogish Sabharwal. Resource allocation for covering time varying demands. In Camil Demetrescu and Magnús M. Halldórsson, editors, *Proceedings of the 19th Annual European Symposium on Algorithms, ESA'2011, (Saarbrücken, Germany, September 5-9, 2011)*, volume 6942 of *LNCS*, pages 543–554. Springer-Verlag, Berlin-Heidelberg, 2011.
- [154] Deeparnab Chakrabarty, Chandra Chekuri, Sanjeev Khanna, and Nitish Korula. Approximability of capacitated network design. In Oktay Günlük and Gerhard J. Woeginger, editors, *Proceedings of the 15th International Conference on Integer Programming and Combinatorial Optimization, IPCO'2011 (New York, NY, USA, June 15-17, 2011)*, volume 6655 of *LNCS*, pages 78–91. Springer-Verlag, Berlin-Heidelberg, 2011.
- [155] Deeparnab Chakrabarty and Chaitanya Swamy. Facility location with client latencies: Linear programming based techniques for minimum latency problems. In Oktay Günlük and Gerhard J. Woeginger, editors, *Proceedings of the 15th International Conference on Integer Programming and Combinatorial Optimization, IPCO'2011 (New York,*

NY, USA, June 15-17, 2011), volume 6655 of *LNCS*, pages 92–103. Springer-Verlag, Berlin-Heidelberg, 2011.

- [156] Sourav Chakraborty, David García-Soriano, and Arie Matsliah. Efficient sample extractors for juntas with applications. In Luca Aceto, Monika Henzinger, and Jiří Sgall, editors, *Proceedings of the 38th International Colloquium on Automata, Languages and Programming, ICALP'2011, Part I (Zurich, Switzerland, July 4-8, 2011)*, volume 6755 of *LNCS*, pages 545–556. Springer-Verlag, Berlin-Heidelberg, 2011.
- [157] Pierre Chambart, Alain Finkel, and Sylvain Schmitz. Forward analysis and model checking for trace bounded wsts. In Lars M. Kristensen and Laure Petrucci, editors, *Proceedings of the 32nd International Conference on Applications and Theory of Petri Nets, PETRI NETS'2011 (Newcastle, UK, June 20-24, 2011)*, volume 6709 of *LNCS*, pages 49–68. Springer-Verlag, Berlin-Heidelberg, 2011.
- [158] Erin W. Chambers, David Eppstein, Michael T. Goodrich, and Maarten Löffler. Drawing graphs in the plane with a prescribed outer face and polynomial area. In Ulrik Brandes and Sabine Cornelsen, editors, *Proceedings of the 18th International Symposium on Graph Drawing, GD'2010 (Konstanz, Germany, September 21-24, 2010)*, volume 6502 of *LNCS*, pages 129–140. Springer-Verlag, Berlin-Heidelberg, 2011.
- [159] Erin Wolf Chambers, Sándor P. Fekete, Hella-Franziska Hoffmann, Dimitri Marinakis, Joseph S.B. Mitchell, Venkatesh Srinivasan, Ulrike Stege, and Sue Whitesides. Connecting a set of circles with minimum sum of radii. In Frank Dehne, John Iacono, and Jörg-Rüdiger Sack, editors, *Proceedings of the 12th International Symposium on Algorithms and Data Structures, WADS'2011 (New York, NY, USA, August 15-17, 2011)*, volume 6844 of *LNCS*, pages 183–194. Springer-Verlag, Berlin-Heidelberg, 2011.
- [160] Ho-Leung Chan, Tak-Wah Lam, Lap-Kei Lee, Jiangwei Pan, Hing-Fung Ting, and Qin Zhang. Edit distance to monotonicity in sliding windows. In Takao Asano, Shin-ichi Nakano, Yoshio Okamoto, and Osamu Watanabe, editors, *Proceedings of the 22nd International*

Symposium on Algorithms and Computation, ISAAC'2011 (Yokohama, Japan, December 5-8, 2011), volume 7074 of *LNCS*, pages 564–573. Springer-Verlag, Berlin-Heidelberg, 2011.

- [161] Sze-Hang Chan, Tak-Wah Lam, Lap-Kei Lee, Chi-Man Liu, and Hing-Fung Ting. Sleep management on multiple machines for energy and flow time. In Luca Aceto, Monika Henzinger, and Jiří Sgall, editors, *Proceedings of the 38th International Colloquium on Automata, Languages and Programming, ICALP'2011, Part I (Zurich, Switzerland, July 4-8, 2011)*, volume 6755 of *LNCS*, pages 219–231. Springer-Verlag, Berlin-Heidelberg, 2011.
- [162] T.-H. Hubert Chan and Li Ning. Fast convergence for consensus in dynamic networks. In Luca Aceto, Monika Henzinger, and Jiří Sgall, editors, *Proceedings of the 38th International Colloquium on Automata, Languages and Programming, ICALP'2011, Part II (Zurich, Switzerland, July 4-8, 2011)*, volume 6756 of *LNCS*, pages 514–525. Springer-Verlag, Berlin-Heidelberg, 2011.
- [163] Timothy M. Chan and Vinayak Pathak. Streaming and dynamic algorithms for minimum enclosing balls in high dimensions. In Frank Dehne, John Iacono, and Jörg-Rüdiger Sack, editors, *Proceedings of the 12th International Symposium on Algorithms and Data Structures, WADS'2011 (New York, NY, USA, August 15-17, 2011)*, volume 6844 of *LNCS*, pages 195–206. Springer-Verlag, Berlin-Heidelberg, 2011.
- [164] Hsien-Chih Chang and Hsueh-I Lu. Computing the girth of a planar graph in linear time. In Bin Fu and Ding-Zhu Du, editors, *Proceedings of the 17th Annual International Conference on Computing and Combinatorics, COCOON'2011 (Dallas, TX, USA, August 14-16, 2011)*, volume 6842 of *LNCS*, pages 225–236. Springer-Verlag, Berlin-Heidelberg, 2011.
- [165] Steven Chaplick, Elad Cohen, and Juraj Stacho. Recognizing some subclasses of vertex intersection graphs of 0-bend paths in a grid. In Petr Kolman and Jan Kratochvíl, editors, *Proceedings of the 37th International Workshop on Graph-Theoretic Concepts in Computer Science, WG'2011 (Teplá Monastery, Czech Republic, June 21-24, 2011)*, volume 6986 of *LNCS*, pages 319–330. Springer-Verlag, Berlin-Heidelberg, 2011.

- [166] Krishnendu Chatterjee and Laurent Doyen. Energy and mean-payoff parity markov decision processes. In Filip Murlak and Piotr Sankowski, editors, *Proceedings of the 36th International Symposium on Mathematical Foundations of Computer Science, MFCS'2011 (Warsaw, Poland, August 22-26, 2011)*, volume 6907 of *LNCS*, pages 206–218. Springer-Verlag, Berlin-Heidelberg, 2011.
- [167] Cedric Chauve, Ján Maňuch, Murray Patterson, and Roland Wittler. Tractability results for the consecutive-ones property with multiplicity. In Raffaele Giancarlo and Giovanni Manzini, editors, *Proceedings of the 22nd Annual Symposium on Combinatorial Pattern Matching, CPM'2011 (Palermo, Italy, June 27-29, 2011)*, volume 6661 of *LNCS*, pages 90–103. Springer-Verlag, Berlin-Heidelberg, 2011.
- [168] Shiri Chechik. Fault-tolerant compact routing schemes for general graphs. In Luca Aceto, Monika Henzinger, and Jiří Sgall, editors, *Proceedings of the 38th International Colloquium on Automata, Languages and Programming, ICALP'2011, Part II (Zurich, Switzerland, July 4-8, 2011)*, volume 6756 of *LNCS*, pages 101–112. Springer-Verlag, Berlin-Heidelberg, 2011.
- [169] Yeow Meng Chee, Huaxiong Wang, and Liang Feng Zhang. Oblivious transfer and n -variate linear function evaluation. In Bin Fu and Ding-Zhu Du, editors, *Proceedings of the 17th Annual International Conference on Computing and Combinatorics, COCOON'2011 (Dallas, TX, USA, August 14-16, 2011)*, volume 6842 of *LNCS*, pages 627–637. Springer-Verlag, Berlin-Heidelberg, 2011.
- [170] Chandra Chekuri and Alina Ene. Submodular cost allocation problem and applications. In Luca Aceto, Monika Henzinger, and Jiří Sgall, editors, *Proceedings of the 38th International Colloquium on Automata, Languages and Programming, ICALP'2011, Part I (Zurich, Switzerland, July 4-8, 2011)*, volume 6755 of *LNCS*, pages 354–366. Springer-Verlag, Berlin-Heidelberg, 2011.
- [171] Changbo Chen and Marc Moreno Maza. Semi-algebraic description of the equilibria of dynamical systems. In Vladimir P. Gerdt, Wolfram Koepf, Ernst W. Mayr, and Evgenii V. Vorozhtsov, editors, *Proceedings of the 13th International Workshop on Computer Algebra in Scientific*

Computing, CASC'2011 (Kassel, Germany, September 5-9, 2011), volume 6885 of *LNCS*, pages 101–125. Springer-Verlag, Berlin-Heidelberg, 2011.

- [172] Danny Z. Chen and Haitao Wang. Efficient algorithms for the weighted k -center problem on a real line. In Takao Asano, Shin-ichi Nakano, Yoshio Okamoto, and Osamu Watanabe, editors, *Proceedings of the 22nd International Symposium on Algorithms and Computation, ISAAC'2011 (Yokohama, Japan, December 5-8, 2011)*, volume 7074 of *LNCS*, pages 584–593. Springer-Verlag, Berlin-Heidelberg, 2011.
- [173] Danny Z. Chen and Haitao Wang. An improved algorithm for reconstructing a simple polygon from the visibility angles. In Takao Asano, Shin-ichi Nakano, Yoshio Okamoto, and Osamu Watanabe, editors, *Proceedings of the 22nd International Symposium on Algorithms and Computation, ISAAC'2011 (Yokohama, Japan, December 5-8, 2011)*, volume 7074 of *LNCS*, pages 604–613. Springer-Verlag, Berlin-Heidelberg, 2011.
- [174] Danny Z. Chen and Haitao Wang. A nearly optimal algorithm for finding l_1 shortest paths among polygonal obstacles in the plane. In Camil Demetrescu and Magnús M. Halldórsson, editors, *Proceedings of the 19th Annual European Symposium on Algorithms, ESA'2011, (Saarbrücken, Germany, September 5-9, 2011)*, volume 6942 of *LNCS*, pages 481–492. Springer-Verlag, Berlin-Heidelberg, 2011.
- [175] Danny Z. Chen and Haitao Wang. New algorithms for 1-d facility location and path equipartition problems. In Frank Dehne, John Iacono, and Jörg-Rüdiger Sack, editors, *Proceedings of the 12th International Symposium on Algorithms and Data Structures, WADS'2011 (New York, NY, USA, August 15-17, 2011)*, volume 6844 of *LNCS*, pages 207–218. Springer-Verlag, Berlin-Heidelberg, 2011.
- [176] Danny Z. Chen and Haitao Wang. Outlier respecting points approximation. In Takao Asano, Shin-ichi Nakano, Yoshio Okamoto, and Osamu Watanabe, editors, *Proceedings of the 22nd International Symposium on Algorithms and Computation, ISAAC'2011 (Yokohama, Japan, December 5-8, 2011)*, volume 7074 of *LNCS*, pages 594–603. Springer-Verlag, Berlin-Heidelberg, 2011.

- [177] Ho-Lin Chen, David Doty, and Shinnosuke Seki. Program size and temperature in self-assembly. In Takao Asano, Shin-ichi Nakano, Yoshio Okamoto, and Osamu Watanabe, editors, *Proceedings of the 22nd International Symposium on Algorithms and Computation, ISAAC'2011 (Yokohama, Japan, December 5-8, 2011)*, volume 7074 of *LNCS*, pages 445–453. Springer-Verlag, Berlin-Heidelberg, 2011.
- [178] Jianer Chen, Jia-Hao Fan, Iyad A. Kanj, Yang Liu, and Fenghui Zhang. Multicut in trees viewed through the eyes of vertex cover. In Frank Dehne, John Iacono, and Jörg-Rüdiger Sack, editors, *Proceedings of the 12th International Symposium on Algorithms and Data Structures, WADS'2011 (New York, NY, USA, August 15-17, 2011)*, volume 6844 of *LNCS*, pages 219–230. Springer-Verlag, Berlin-Heidelberg, 2011.
- [179] Ning Chen, Xiaotie Deng, and Jie Zhang. How profitable are strategic behaviors in a market? In Camil Demetrescu and Magnús M. Halldórsson, editors, *Proceedings of the 19th Annual European Symposium on Algorithms, ESA'2011, (Saarbrücken, Germany, September 5-9, 2011)*, volume 6942 of *LNCS*, pages 106–118. Springer-Verlag, Berlin-Heidelberg, 2011.
- [180] Christine Cheng, Eric McDermid, and Ichiro Suzuki. Center stable matchings and centers of cover graphs of distributive lattices. In Luca Aceto, Monika Henzinger, and Jiří Sgall, editors, *Proceedings of the 38th International Colloquium on Automata, Languages and Programming, ICALP'2011, Part I (Zurich, Switzerland, July 4-8, 2011)*, volume 6755 of *LNCS*, pages 678–689. Springer-Verlag, Berlin-Heidelberg, 2011.
- [181] Christine Cheng, Eric McDermid, and Ichiro Suzuki. Planarization and acyclic colorings of subcubic claw-free graphs. In Petr Kolman and Jan Kratochvíl, editors, *Proceedings of the 37th International Workshop on Graph-Theoretic Concepts in Computer Science, WG'2011 (Teplá Monastery, Czech Republic, June 21-24, 2011)*, volume 6986 of *LNCS*, pages 107–118. Springer-Verlag, Berlin-Heidelberg, 2011.
- [182] Markus Chimani, Carsten Gutwenger, Petra Mutzel, Miro Spönemann, and Hoi-Ming Wong. Crossing minimization and layouts of directed hypergraphs with port constraints. In Ulrik Brandes and Sabine

- Cornelsen, editors, *Proceedings of the 18th International Symposium on Graph Drawing, GD'2010 (Konstanz, Germany, September 21-24, 2010)*, volume 6502 of *LNCS*, pages 141–152. Springer-Verlag, Berlin-Heidelberg, 2011.
- [183] Markus Chimani and Petr Hliněný. A tighter insertion-based approximation of the crossing number. In Luca Aceto, Monika Henzinger, and Jiří Sgall, editors, *Proceedings of the 38th International Colloquium on Automata, Languages and Programming, ICALP'2011, Part I (Zurich, Switzerland, July 4-8, 2011)*, volume 6755 of *LNCS*, pages 122–134. Springer-Verlag, Berlin-Heidelberg, 2011.
- [184] Markus Chimani and Matthias Woste. Contraction-based steiner tree approximations in practice. In Takao Asano, Shin-ichi Nakano, Yoshio Okamoto, and Osamu Watanabe, editors, *Proceedings of the 22nd International Symposium on Algorithms and Computation, ISAAC'2011 (Yokohama, Japan, December 5-8, 2011)*, volume 7074 of *LNCS*, pages 40–49. Springer-Verlag, Berlin-Heidelberg, 2011.
- [185] Francis Y.L. Chin, Henry C.M. Leung, and S.M. Yiu. Adaptive phenotype testing for and/or items. In Takao Asano, Shin-ichi Nakano, Yoshio Okamoto, and Osamu Watanabe, editors, *Proceedings of the 22nd International Symposium on Algorithms and Computation, ISAAC'2011 (Yokohama, Japan, December 5-8, 2011)*, volume 7074 of *LNCS*, pages 754–763. Springer-Verlag, Berlin-Heidelberg, 2011.
- [186] Bogdan S. Chlebus, Dariusz R. Kowalski, Andrzej Pelc, and Mariusz A. Rokicki. Efficient distributed communication in ad-hoc radio networks. In Luca Aceto, Monika Henzinger, and Jiří Sgall, editors, *Proceedings of the 38th International Colloquium on Automata, Languages and Programming, ICALP'2011, Part II (Zurich, Switzerland, July 4-8, 2011)*, volume 6756 of *LNCS*, pages 613–624. Springer-Verlag, Berlin-Heidelberg, 2011.
- [187] Tobias Christ. Beyond triangulation: Covering polygons with triangles. In Frank Dehne, John Iacono, and Jörg-Rüdiger Sack, editors, *Proceedings of the 12th International Symposium on Algorithms and Data Structures, WADS'2011 (New York, NY, USA, August 15-17, 2011)*, volume 6844 of *LNCS*, pages 231–242. Springer-Verlag, Berlin-Heidelberg, 2011.

- [188] Paul Christiano, Erik D. Demaine, and Shaunak Kishore. Lossless fault-tolerant data structures with additive overhead. In Frank Dehne, John Iacono, and Jörg-Rüdiger Sack, editors, *Proceedings of the 12th International Symposium on Algorithms and Data Structures, WADS'2011 (New York, NY, USA, August 15-17, 2011)*, volume 6844 of *LNCS*, pages 243–254. Springer-Verlag, Berlin-Heidelberg, 2011.
- [189] George Christodoulou, Kurt Mehlhorn, and Evangelia Pyrga. Improving the price of anarchy for selfish routing via coordination mechanisms. In Camil Demetrescu and Magnús M. Halldórsson, editors, *Proceedings of the 19th Annual European Symposium on Algorithms, ESA'2011, (Saarbrücken, Germany, September 5-9, 2011)*, volume 6942 of *LNCS*, pages 119–130. Springer-Verlag, Berlin-Heidelberg, 2011.
- [190] Michalis Christou, Maxime Crochemore, Ondrej Guth, Costas S. Iliopoulos, and Solon P. Pissis. On the right-seed array of a string. In Bin Fu and Ding-Zhu Du, editors, *Proceedings of the 17th Annual International Conference on Computing and Combinatorics, COCOON'2011 (Dallas, TX, USA, August 14-16, 2011)*, volume 6842 of *LNCS*, pages 492–502. Springer-Verlag, Berlin-Heidelberg, 2011.
- [191] Michalis Christou, Maxime Crochemore, Costas S. Iliopoulos, Marcin Kubica, Solon P. Pissis, Jakub Radoszewski, Wojciech Rytter, Bartosz Szreder, and Tomasz Waleń. Efficient seeds computation revisited. In Raffaele Giancarlo and Giovanni Manzini, editors, *Proceedings of the 22nd Annual Symposium on Combinatorial Pattern Matching, CPM'2011 (Palermo, Italy, June 27-29, 2011)*, volume 6661 of *LNCS*, pages 350–363. Springer-Verlag, Berlin-Heidelberg, 2011.
- [192] Marek Chrobak, Łukasz Jeż, and Jiří Sgall. Better bounds for incremental frequency allocation in bipartite graphs. In Camil Demetrescu and Magnús M. Halldórsson, editors, *Proceedings of the 19th Annual European Symposium on Algorithms, ESA'2011, (Saarbrücken, Germany, September 5-9, 2011)*, volume 6942 of *LNCS*, pages 251–262. Springer-Verlag, Berlin-Heidelberg, 2011.
- [193] Marek Chrobak, Jiří Sgall, and Gerhard J. Woeginger. Two-bounded-space bin packing revisited. In Camil Demetrescu and Magnús M.

- Halldórsson, editors, *Proceedings of the 19th Annual European Symposium on Algorithms, ESA'2011, (Saarbrücken, Germany, September 5-9, 2011)*, volume 6942 of *LNCS*, pages 263–274. Springer-Verlag, Berlin-Heidelberg, 2011.
- [194] Jacek Chrzęszcz and Aleksy Schubert. The role of polymorphism in the characterisation of complexity by soft types. In Filip Murlak and Piotr Sankowski, editors, *Proceedings of the 36th International Symposium on Mathematical Foundations of Computer Science, MFCS'2011 (Warsaw, Poland, August 22-26, 2011)*, volume 6907 of *LNCS*, pages 219–230. Springer-Verlag, Berlin-Heidelberg, 2011.
- [195] Berkeley R. Churchill and Edmund A. Lamagna. Summing symbols in mutual recurrences. In Bin Fu and Ding-Zhu Du, editors, *Proceedings of the 17th Annual International Conference on Computing and Combinatorics, COCOON'2011 (Dallas, TX, USA, August 14-16, 2011)*, volume 6842 of *LNCS*, pages 531–542. Springer-Verlag, Berlin-Heidelberg, 2011.
- [196] Ferdinando Cicalese, Tobias Jacobs, Eduardo Laber, and Caio Valentim. Binary identification problems for weighted trees. In Frank Dehne, John Iacono, and Jörg-Rüdiger Sack, editors, *Proceedings of the 12th International Symposium on Algorithms and Data Structures, WADS'2011 (New York, NY, USA, August 15-17, 2011)*, volume 6844 of *LNCS*, pages 255–266. Springer-Verlag, Berlin-Heidelberg, 2011.
- [197] Lorenzo Clemente. Büchi automata can have smaller quotients. In Luca Aceto, Monika Henzinger, and Jiří Sgall, editors, *Proceedings of the 38th International Colloquium on Automata, Languages and Programming, ICALP'2011, Part II (Zurich, Switzerland, July 4-8, 2011)*, volume 6756 of *LNCS*, pages 258–270. Springer-Verlag, Berlin-Heidelberg, 2011.
- [198] Raphaël Clifford, Zvi Gotthilf, Moshe Lewenstein, and Alexandru Popa. Restricted common superstring and restricted common supersequence. In Raffaele Giancarlo and Giovanni Manzini, editors, *Proceedings of the 22nd Annual Symposium on Combinatorial Pattern Matching, CPM'2011 (Palermo, Italy, June 27-29, 2011)*, volume 6661 of *LNCS*, pages 467–478. Springer-Verlag, Berlin-Heidelberg, 2011.

- [199] Raphaël Clifford and Markus Jalsenius. Lower bounds for online integer multiplication and convolution in the cell-probe model. In Luca Aceto, Monika Henzinger, and Jiří Sgall, editors, *Proceedings of the 38th International Colloquium on Automata, Languages and Programming, ICALP'2011, Part I (Zurich, Switzerland, July 4-8, 2011)*, volume 6755 of *LNCS*, pages 593–604. Springer-Verlag, Berlin-Heidelberg, 2011.
- [200] Raphaël Clifford, Markus Jalsenius, Ely Porat, and Benjamin Sach. Space lower bounds for online pattern matching. In Raffaele Giancarlo and Giovanni Manzini, editors, *Proceedings of the 22nd Annual Symposium on Combinatorial Pattern Matching, CPM'2011 (Palermo, Italy, June 27-29, 2011)*, volume 6661 of *LNCS*, pages 184–196. Springer-Verlag, Berlin-Heidelberg, 2011.
- [201] David A. Cohen, Páidí Creed, Peter G. Jeavons, and Stanislav Živný. An algebraic theory of complexity for valued constraints: Establishing a galois connection. In Filip Murlak and Piotr Sankowski, editors, *Proceedings of the 36th International Symposium on Mathematical Foundations of Computer Science, MFCS'2011 (Warsaw, Poland, August 22-26, 2011)*, volume 6907 of *LNCS*, pages 231–242. Springer-Verlag, Berlin-Heidelberg, 2011.
- [202] Amin Coja-Oghlan and Angelica Y. Pachon-Pinzon. The decimation process in random k -sat. In Luca Aceto, Monika Henzinger, and Jiří Sgall, editors, *Proceedings of the 38th International Colloquium on Automata, Languages and Programming, ICALP'2011, Part I (Zurich, Switzerland, July 4-8, 2011)*, volume 6755 of *LNCS*, pages 305–316. Springer-Verlag, Berlin-Heidelberg, 2011.
- [203] M. Colange, S. Baarir, F. Kordon, and Y. Thierry-Mieg. Crocodile: A symbolic/symbolic tool for the analysis of symmetric nets with bag. In Lars M. Kristensen and Laure Petrucci, editors, *Proceedings of the 32nd International Conference on Applications and Theory of Petri Nets, PETRI NETS'2011 (Newcastle, UK, June 20-24, 2011)*, volume 6709 of *LNCS*, pages 338–347. Springer-Verlag, Berlin-Heidelberg, 2011.
- [204] Thomas Colcombet, Clemens Ley, and Gabriele Puppis. On the use of guards for logics with data. In Filip Murlak and Piotr Sankowski, edi-

- tors, *Proceedings of the 36th International Symposium on Mathematical Foundations of Computer Science, MFCS'2011 (Warsaw, Poland, August 22-26, 2011)*, volume 6907 of *LNCS*, pages 243–255. Springer-Verlag, Berlin-Heidelberg, 2011.
- [205] Roberto Cominetti, José R. Correa, and Omar Larré. Existence and uniqueness of equilibria for flows over time. In Luca Aceto, Monika Henzinger, and Jiří Sgall, editors, *Proceedings of the 38th International Colloquium on Automata, Languages and Programming, ICALP'2011, Part II (Zurich, Switzerland, July 4-8, 2011)*, volume 6756 of *LNCS*, pages 552–563. Springer-Verlag, Berlin-Heidelberg, 2011.
- [206] William Cook, Thorsten Koch, Daniel E. Steffy, and Kati Wolter. An exact rational mixed-integer programming solver. In Oktay Günlük and Gerhard J. Woeginger, editors, *Proceedings of the 15th International Conference on Integer Programming and Combinatorial Optimization, IPCO'2011 (New York, NY, USA, June 15-17, 2011)*, volume 6655 of *LNCS*, pages 104–116. Springer-Verlag, Berlin-Heidelberg, 2011.
- [207] Atlas F. Cook IV, Anne Driemel, Sarel Har-Peled, Jessica Sherette, and Carola Wenk. Computing the fréchet distance between folded polygons. In Frank Dehne, John Iacono, and Jörg-Rüdiger Sack, editors, *Proceedings of the 12th International Symposium on Algorithms and Data Structures, WADS'2011 (New York, NY, USA, August 15-17, 2011)*, volume 6844 of *LNCS*, pages 267–278. Springer-Verlag, Berlin-Heidelberg, 2011.
- [208] Andreas Cord-Landwehr, Bastian Degener, Matthias Fischer, Martina Hüllmann, Barbara Kempkes, Alexander Klaas, Peter Kling, Sven Kurras, Marcus Märten, Friedhelm Meyer auf der Heide, Christoph Raupach, Kamil Swierkot, Daniel Warner, Christoph Weddemann, and Daniel Wonisch. A new approach for analyzing convergence algorithms for mobile robots. In Luca Aceto, Monika Henzinger, and Jiří Sgall, editors, *Proceedings of the 38th International Colloquium on Automata, Languages and Programming, ICALP'2011, Part II (Zurich, Switzerland, July 4-8, 2011)*, volume 6756 of *LNCS*, pages 650–661. Springer-Verlag, Berlin-Heidelberg, 2011.
- [209] Basile Couëtoux. A $\frac{3}{2}$ approximation for a constrained forest problem. In Camil Demetrescu and Magnús M. Halldórsson, editors, *Proceedings*

of the 19th Annual European Symposium on Algorithms, *ESA'2011*, (Saarbrücken, Germany, September 5-9, 2011), volume 6942 of *LNCS*, pages 652–663. Springer-Verlag, Berlin-Heidelberg, 2011.

- [210] Jean-François Couturier, Petr A. Golovach, Dieter Kratsch, and Daniël Paulusma. List coloring in the absence of a linear forest. In Petr Kolman and Jan Kratochvíl, editors, *Proceedings of the 37th International Workshop on Graph-Theoretic Concepts in Computer Science, WG'2011 (Teplá Monastery, Czech Republic, June 21-24, 2011)*, volume 6986 of *LNCS*, pages 119–130. Springer-Verlag, Berlin-Heidelberg, 2011.
- [211] Jean-Michel Couvreur, Denis Poitrenaud, and Pascal Weil. Branching processes of general petri nets. In Lars M. Kristensen and Laure Petrucci, editors, *Proceedings of the 32nd International Conference on Applications and Theory of Petri Nets, PETRI NETS'2011 (Newcastle, UK, June 20-24, 2011)*, volume 6709 of *LNCS*, pages 129–148. Springer-Verlag, Berlin-Heidelberg, 2011.
- [212] Silvia Crafa and Francesco Ranzato. Probabilistic bisimulation and simulation algorithms by abstract interpretation. In Luca Aceto, Monika Henzinger, and Jiří Sgall, editors, *Proceedings of the 38th International Colloquium on Automata, Languages and Programming, ICALP'2011, Part II (Zurich, Switzerland, July 4-8, 2011)*, volume 6756 of *LNCS*, pages 295–306. Springer-Verlag, Berlin-Heidelberg, 2011.
- [213] Nello Cristianini. Automatic discovery of patterns in media content. In Raffaele Giancarlo and Giovanni Manzini, editors, *Proceedings of the 22nd Annual Symposium on Combinatorial Pattern Matching, CPM'2011 (Palermo, Italy, June 27-29, 2011)*, volume 6661 of *LNCS*, pages 2–13. Springer-Verlag, Berlin-Heidelberg, 2011.
- [214] Yun Cui, Jesper Jansson, and Wing-Kin Sung. Algorithms for building consensus mul-trees. In Takao Asano, Shin-ichi Nakano, Yoshio Okamoto, and Osamu Watanabe, editors, *Proceedings of the 22nd International Symposium on Algorithms and Computation, ISAAC'2011 (Yokohama, Japan, December 5-8, 2011)*, volume 7074 of *LNCS*, pages 744–753. Springer-Verlag, Berlin-Heidelberg, 2011.

- [215] Marek Cygan, Marcin Kubica, Jakub Radoszewski, Wojciech Rytter, and Tomasz Waleń. Polynomial-time approximation algorithms for weighted lcs problem. In Raffaele Giancarlo and Giovanni Manzini, editors, *Proceedings of the 22nd Annual Symposium on Combinatorial Pattern Matching, CPM'2011 (Palermo, Italy, June 27-29, 2011)*, volume 6661 of *LNCS*, pages 455–466. Springer-Verlag, Berlin-Heidelberg, 2011.
- [216] Marek Cygan, Dániel Marx, Marcin Pilipczuk, Michał Pilipczuk, and Ildikó Schlotter. Parameterized complexity of eulerian deletion problems. In Petr Kolman and Jan Kratochvíl, editors, *Proceedings of the 37th International Workshop on Graph-Theoretic Concepts in Computer Science, WG'2011 (Teplá Monastery, Czech Republic, June 21-24, 2011)*, volume 6986 of *LNCS*, pages 131–142. Springer-Verlag, Berlin-Heidelberg, 2011.
- [217] Marek Cygan, Marcin Pilipczuk, Michał Pilipczuk, and Jakub Onufry Wojtaszczyk. Scheduling partially ordered jobs faster than 2^n . In Camil Demetrescu and Magnús M. Halldórsson, editors, *Proceedings of the 19th Annual European Symposium on Algorithms, ESA'2011, (Saarbrücken, Germany, September 5-9, 2011)*, volume 6942 of *LNCS*, pages 299–310. Springer-Verlag, Berlin-Heidelberg, 2011.
- [218] Marek Cygan, Marcin Pilipczuk, Michał Pilipczuk, and Jakub Onufry Wojtaszczyk. Subset feedback vertex set is fixed-parameter tractable. In Luca Aceto, Monika Henzinger, and Jiří Sgall, editors, *Proceedings of the 38th International Colloquium on Automata, Languages and Programming, ICALP'2011, Part I (Zurich, Switzerland, July 4-8, 2011)*, volume 6755 of *LNCS*, pages 449–461. Springer-Verlag, Berlin-Heidelberg, 2011.
- [219] Jurek Czyzowicz, Leszek Gąsieniec, Adrian Kosowski, and Evangelos Kranakis. Boundary patrolling by mobile agents with distinct maximal speeds. In Camil Demetrescu and Magnús M. Halldórsson, editors, *Proceedings of the 19th Annual European Symposium on Algorithms, ESA'2011, (Saarbrücken, Germany, September 5-9, 2011)*, volume 6942 of *LNCS*, pages 701–712. Springer-Verlag, Berlin-Heidelberg, 2011.

- [220] Giordano Da Lozzo, Giuseppe Di Battista, and Francesco Ingrassia. Drawing graphs on a smartphone. In Ulrik Brandes and Sabine Cornelsen, editors, *Proceedings of the 18th International Symposium on Graph Drawing, GD'2010 (Konstanz, Germany, September 21-24, 2010)*, volume 6502 of *LNCS*, pages 153–164. Springer-Verlag, Berlin-Heidelberg, 2011.
- [221] Daniel Dadush, Santanu S. Dey, and Juan Pablo Vielma. On the chvátal-gomory closure of a compact convex set. In Oktay Günlük and Gerhard J. Woeginger, editors, *Proceedings of the 15th International Conference on Integer Programming and Combinatorial Optimization, IPCO'2011 (New York, NY, USA, June 15-17, 2011)*, volume 6655 of *LNCS*, pages 130–142. Springer-Verlag, Berlin-Heidelberg, 2011.
- [222] Ovidiu Daescu, Wenqi Ju, Jun Luo, and Binhai Zhu. Largest area convex hull of axis-aligned squares based on imprecise data. In Bin Fu and Ding-Zhu Du, editors, *Proceedings of the 17th Annual International Conference on Computing and Combinatorics, COCOON'2011 (Dallas, TX, USA, August 14-16, 2011)*, volume 6842 of *LNCS*, pages 192–203. Springer-Verlag, Berlin-Heidelberg, 2011.
- [223] Peter Damaschke and Leonid Molokov. Parameterized reductions and algorithms for another vertex cover generalization. In Frank Dehne, John Iacono, and Jörg-Rüdiger Sack, editors, *Proceedings of the 12th International Symposium on Algorithms and Data Structures, WADS'2011 (New York, NY, USA, August 15-17, 2011)*, volume 6844 of *LNCS*, pages 279–289. Springer-Verlag, Berlin-Heidelberg, 2011.
- [224] Claudia D'Ambrosio, Jeff Linderoth, and James Luedtke. Valid inequalities for the pooling problem with binary variables. In Oktay Günlük and Gerhard J. Woeginger, editors, *Proceedings of the 15th International Conference on Integer Programming and Combinatorial Optimization, IPCO'2011 (New York, NY, USA, June 15-17, 2011)*, volume 6655 of *LNCS*, pages 117–129. Springer-Verlag, Berlin-Heidelberg, 2011.
- [225] Johannes Dams, Martin Hofer, and Thomas Kesselheim. Convergence time of power-control dynamics. In Luca Aceto, Monika Henzinger, and Jiří Sgall, editors, *Proceedings of the 38th International Colloquium on Automata, Languages and Programming, ICALP'2011, Part*

- II (Zurich, Switzerland, July 4-8, 2011)*, volume 6756 of *LNCS*, pages 637–649. Springer-Verlag, Berlin-Heidelberg, 2011.
- [226] Aparna Das, Emden R. Gansner, Michael Kaufmann, Stephen Kobourov, Joachim Spoerhase, and Alexander Wolff. Approximating minimum manhattan networks in higher dimensions. In Camil Demetrescu and Magnús M. Halldórsson, editors, *Proceedings of the 19th Annual European Symposium on Algorithms, ESA'2011, (Saarbrücken, Germany, September 5-9, 2011)*, volume 6942 of *LNCS*, pages 49–60. Springer-Verlag, Berlin-Heidelberg, 2011.
- [227] David E. Daykin, Jacqueline W. Daykin, and W.F. Smyth. String comparison and lyndon-like factorization using v-order in linear time. In Raffaele Giancarlo and Giovanni Manzini, editors, *Proceedings of the 22nd Annual Symposium on Combinatorial Pattern Matching, CPM'2011 (Palermo, Italy, June 27-29, 2011)*, volume 6661 of *LNCS*, pages 65–76. Springer-Verlag, Berlin-Heidelberg, 2011.
- [228] Annalisa De Bonis and Giovanni Di Crescenzo. Combinatorial group testing for corruption localizing hashing. In Bin Fu and Ding-Zhu Du, editors, *Proceedings of the 17th Annual International Conference on Computing and Combinatorics, COCOON'2011 (Dallas, TX, USA, August 14-16, 2011)*, volume 6842 of *LNCS*, pages 579–591. Springer-Verlag, Berlin-Heidelberg, 2011.
- [229] Gianluca De Marco, Evangelos Kranakis, and Gábor Wiener. Computing majority with triple queries. In Bin Fu and Ding-Zhu Du, editors, *Proceedings of the 17th Annual International Conference on Computing and Combinatorics, COCOON'2011 (Dallas, TX, USA, August 14-16, 2011)*, volume 6842 of *LNCS*, pages 604–615. Springer-Verlag, Berlin-Heidelberg, 2011.
- [230] Martin Delacourt. Rice's theorem for μ -limit sets of cellular automata. In Luca Aceto, Monika Henzinger, and Jiří Sgall, editors, *Proceedings of the 38th International Colloquium on Automata, Languages and Programming, ICALP'2011, Part II (Zurich, Switzerland, July 4-8, 2011)*, volume 6756 of *LNCS*, pages 89–100. Springer-Verlag, Berlin-Heidelberg, 2011.

- [231] Erik D. Demaine, Martin L. Demaine, Sarah Eisenstat, Anna Lubiw, and Andrew Winslow. Algorithms for solving rubik’s cubes. In Camil Demetrescu and Magnús M. Halldórsson, editors, *Proceedings of the 19th Annual European Symposium on Algorithms, ESA’2011, (Saarbrücken, Germany, September 5-9, 2011)*, volume 6942 of *LNCS*, pages 689–700. Springer-Verlag, Berlin-Heidelberg, 2011.
- [232] Erik D. Demaine and Sarah Eisenstat. Flattening fixed-angle chains is strongly np-hard. In Frank Dehne, John Iacono, and Jörg-Rüdiger Sack, editors, *Proceedings of the 12th International Symposium on Algorithms and Data Structures, WADS’2011 (New York, NY, USA, August 15-17, 2011)*, volume 6844 of *LNCS*, pages 314–325. Springer-Verlag, Berlin-Heidelberg, 2011.
- [233] Evgeny Demenkov and Alexander S. Kulikov. An elementary proof of a $3n - o(n)$ lower bound on the circuit complexity of affine dispersers. In Filip Murlak and Piotr Sankowski, editors, *Proceedings of the 36th International Symposium on Mathematical Foundations of Computer Science, MFCS’2011 (Warsaw, Poland, August 22-26, 2011)*, volume 6907 of *LNCS*, pages 256–265. Springer-Verlag, Berlin-Heidelberg, 2011.
- [234] Yuxin Deng and Matthew Hennessy. On the semantics of markov automata. In Luca Aceto, Monika Henzinger, and Jiří Sgall, editors, *Proceedings of the 38th International Colloquium on Automata, Languages and Programming, ICALP’2011, Part II (Zurich, Switzerland, July 4-8, 2011)*, volume 6756 of *LNCS*, pages 307–318. Springer-Verlag, Berlin-Heidelberg, 2011.
- [235] Nikhil R. Devanur and Uriel Feige. An $o(n \log n)$ algorithm for a load balancing problem on paths. In Frank Dehne, John Iacono, and Jörg-Rüdiger Sack, editors, *Proceedings of the 12th International Symposium on Algorithms and Data Structures, WADS’2011 (New York, NY, USA, August 15-17, 2011)*, volume 6844 of *LNCS*, pages 326–337. Springer-Verlag, Berlin-Heidelberg, 2011.
- [236] Santanu S. Dey and Sebastian Pokutta. Design and verify: A new scheme for generating cutting-planes. In Oktay Günlük and Gerhard J. Woeginger, editors, *Proceedings of the 15th International Conference*

- on *Integer Programming and Combinatorial Optimization, IPCO'2011 (New York, NY, USA, June 15-17, 2011)*, volume 6655 of *LNCS*, pages 143–155. Springer-Verlag, Berlin-Heidelberg, 2011.
- [237] Antoine Deza, Frantisek Franek, and Mei Jiang. A d -step approach for distinct squares in strings. In Raffaele Giancarlo and Giovanni Manzini, editors, *Proceedings of the 22nd Annual Symposium on Combinatorial Pattern Matching, CPM'2011 (Palermo, Italy, June 27-29, 2011)*, volume 6661 of *LNCS*, pages 77–89. Springer-Verlag, Berlin-Heidelberg, 2011.
- [238] Aman Dhesi, Pranav Gupta, Amit Kumar, Gyana R. Parija, and Sambuddha Roy. Contact center scheduling with strict resource requirements. In Oktay Günlük and Gerhard J. Woeginger, editors, *Proceedings of the 15th International Conference on Integer Programming and Combinatorial Optimization, IPCO'2011 (New York, NY, USA, June 15-17, 2011)*, volume 6655 of *LNCS*, pages 156–169. Springer-Verlag, Berlin-Heidelberg, 2011.
- [239] Josep Díaz, Alberto Marchetti-Spaccamela, Dieter Mitsche, Paolo Santi, and Julinda Stefa. Social-aware forwarding improves routing performance in pocket switched networks. In Camil Demetrescu and Magnús M. Halldórsson, editors, *Proceedings of the 19th Annual European Symposium on Algorithms, ESA'2011, (Saarbrücken, Germany, September 5-9, 2011)*, volume 6942 of *LNCS*, pages 723–735. Springer-Verlag, Berlin-Heidelberg, 2011.
- [240] Walter Didimo, Giuseppe Liotta, and Salvatore A. Romeo. Topology-driven force-directed algorithms. In Ulrik Brandes and Sabine Cornelsen, editors, *Proceedings of the 18th International Symposium on Graph Drawing, GD'2010 (Konstanz, Germany, September 21-24, 2010)*, volume 6502 of *LNCS*, pages 165–176. Springer-Verlag, Berlin-Heidelberg, 2011.
- [241] Martin Dietzfelbinger, Michael Mitzenmacher, and Michael Rink. Cuckoo hashing with pages. In Camil Demetrescu and Magnús M. Halldórsson, editors, *Proceedings of the 19th Annual European Symposium on Algorithms, ESA'2011, (Saarbrücken, Germany, September 5-9, 2011)*, volume 6942 of *LNCS*, pages 615–627. Springer-Verlag, Berlin-Heidelberg, 2011.

- [242] Hu Ding and Jinhui Xu. Solving the chromatic cone clustering problem via minimum spanning sphere. In Luca Aceto, Monika Henzinger, and Jiří Sgall, editors, *Proceedings of the 38th International Colloquium on Automata, Languages and Programming, ICALP'2011, Part I (Zurich, Switzerland, July 4-8, 2011)*, volume 6755 of *LNCS*, pages 773–784. Springer-Verlag, Berlin-Heidelberg, 2011.
- [243] Hristo N. Djidjev and Christian Sommer. Approximate distance queries for weighted polyhedral surfaces. In Camil Demetrescu and Magnús M. Halldórsson, editors, *Proceedings of the 19th Annual European Symposium on Algorithms, ESA'2011, (Saarbrücken, Germany, September 5-9, 2011)*, volume 6942 of *LNCS*, pages 579–590. Springer-Verlag, Berlin-Heidelberg, 2011.
- [244] Benjamin Doerr and Mahmoud Fouz. Asymptotically optimal randomized rumor spreading. In Luca Aceto, Monika Henzinger, and Jiří Sgall, editors, *Proceedings of the 38th International Colloquium on Automata, Languages and Programming, ICALP'2011, Part II (Zurich, Switzerland, July 4-8, 2011)*, volume 6756 of *LNCS*, pages 502–513. Springer-Verlag, Berlin-Heidelberg, 2011.
- [245] Christof Doll, Tanja Hartmann, and Dorothea Wagner. Fully-dynamic hierarchical graph clustering using cut trees. In Frank Dehne, John Iacono, and Jörg-Rüdiger Sack, editors, *Proceedings of the 12th International Symposium on Algorithms and Data Structures, WADS'2011 (New York, NY, USA, August 15-17, 2011)*, volume 6844 of *LNCS*, pages 338–349. Springer-Verlag, Berlin-Heidelberg, 2011.
- [246] Riccardo Dondi, Guillaume Fertin, and Stéphane Vialette. Finding approximate and constrained motifs in graphs. In Raffaele Giancarlo and Giovanni Manzini, editors, *Proceedings of the 22nd Annual Symposium on Combinatorial Pattern Matching, CPM'2011 (Palermo, Italy, June 27-29, 2011)*, volume 6661 of *LNCS*, pages 388–401. Springer-Verlag, Berlin-Heidelberg, 2011.
- [247] Riccardo Dondi, Giancarlo Mauri, and Italo Zoppis. On the complexity of the l -diversity problem. In Filip Murlak and Piotr Sankowski, editors, *Proceedings of the 36th International Symposium on Mathematical Foundations of Computer Science, MFCS'2011 (Warsaw, Poland,*

- August 22-26, 2011*), volume 6907 of *LNCS*, pages 266–277. Springer-Verlag, Berlin-Heidelberg, 2011.
- [248] Martin Dörnfelder, Jiong Guo, Christian Komusiewicz, and Mathias Weller. On the parameterized complexity of consensus clustering. In Takao Asano, Shin-ichi Nakano, Yoshio Okamoto, and Osamu Watanabe, editors, *Proceedings of the 22nd International Symposium on Algorithms and Computation, ISAAC'2011 (Yokohama, Japan, December 5-8, 2011)*, volume 7074 of *LNCS*, pages 624–633. Springer-Verlag, Berlin-Heidelberg, 2011.
- [249] Laurent Doyen, Thierry Massart, and Mahsa Shirmohammadi. Infinite synchronizing words for probabilistic automata. In Filip Murlak and Piotr Sankowski, editors, *Proceedings of the 36th International Symposium on Mathematical Foundations of Computer Science, MFCS'2011 (Warsaw, Poland, August 22-26, 2011)*, volume 6907 of *LNCS*, pages 278–289. Springer-Verlag, Berlin-Heidelberg, 2011.
- [250] Anne Driemel, Herman Haverkort, Maarten Löffler, and Rodrigo I. Silveira. Flow computations on imprecise terrains. In Frank Dehne, John Iacono, and Jörg-Rüdiger Sack, editors, *Proceedings of the 12th International Symposium on Algorithms and Data Structures, WADS'2011 (New York, NY, USA, August 15-17, 2011)*, volume 6844 of *LNCS*, pages 350–361. Springer-Verlag, Berlin-Heidelberg, 2011.
- [251] Andrew Drucker. A pcp characterization of am. In Luca Aceto, Monika Henzinger, and Jiří Sgall, editors, *Proceedings of the 38th International Colloquium on Automata, Languages and Programming, ICALP'2011, Part I (Zurich, Switzerland, July 4-8, 2011)*, volume 6755 of *LNCS*, pages 581–592. Springer-Verlag, Berlin-Heidelberg, 2011.
- [252] Vida Dujmović, William Evans, Stephen Kobourov, Giuseppe Liotta, Christophe Weibel, and Stephen Wismath. On graphs supported by line sets. In Ulrik Brandes and Sabine Cornelsen, editors, *Proceedings of the 18th International Symposium on Graph Drawing, GD'2010 (Konstanz, Germany, September 21-24, 2010)*, volume 6502 of *LNCS*, pages 177–182. Springer-Verlag, Berlin-Heidelberg, 2011.
- [253] Adrian Dumitrescu and Masud Hasan. Cutting out polygons with a circular saw. In Takao Asano, Shin-ichi Nakano, Yoshio Okamoto,

- and Osamu Watanabe, editors, *Proceedings of the 22nd International Symposium on Algorithms and Computation, ISAAC'2011 (Yokohama, Japan, December 5-8, 2011)*, volume 7074 of *LNCS*, pages 230–239. Springer-Verlag, Berlin-Heidelberg, 2011.
- [254] Adrian Dumitrescu and Evan Hilscher. Animal testing. In Takao Asano, Shin-ichi Nakano, Yoshio Okamoto, and Osamu Watanabe, editors, *Proceedings of the 22nd International Symposium on Algorithms and Computation, ISAAC'2011 (Yokohama, Japan, December 5-8, 2011)*, volume 7074 of *LNCS*, pages 220–229. Springer-Verlag, Berlin-Heidelberg, 2011.
- [255] Christian A. Duncan, David Eppstein, Michael T. Goodrich, Stephen G. Kobourov, and Martin Nöllenburg. Drawing trees with perfect angular resolution and polynomial area. In Ulrik Brandes and Sabine Cornelsen, editors, *Proceedings of the 18th International Symposium on Graph Drawing, GD'2010 (Konstanz, Germany, September 21-24, 2010)*, volume 6502 of *LNCS*, pages 183–194. Springer-Verlag, Berlin-Heidelberg, 2011.
- [256] Christian A. Duncan, David Eppstein, Michael T. Goodrich, Stephen G. Kobourov, and Martin Nöllenburg. Lombardi drawings of graphs. In Ulrik Brandes and Sabine Cornelsen, editors, *Proceedings of the 18th International Symposium on Graph Drawing, GD'2010 (Konstanz, Germany, September 21-24, 2010)*, volume 6502 of *LNCS*, pages 195–207. Springer-Verlag, Berlin-Heidelberg, 2011.
- [257] Christian A. Duncan, Carsten Gutwenger, Lev Nachmanson, and Georg Sander. Graph drawing contest report. In Ulrik Brandes and Sabine Cornelsen, editors, *Proceedings of the 18th International Symposium on Graph Drawing, GD'2010 (Konstanz, Germany, September 21-24, 2010)*, volume 6502 of *LNCS*, pages 406–411. Springer-Verlag, Berlin-Heidelberg, 2011.
- [258] Stephane Durocher, Meng He, J. Ian Munro, Patrick K. Nicholson, and Matthew Skala. Range majority in constant time and linear space. In Luca Aceto, Monika Henzinger, and Jiří Sgall, editors, *Proceedings of the 38th International Colloquium on Automata, Languages and Programming, ICALP'2011, Part I (Zurich, Switzerland, July 4-8,*

- 2011), volume 6755 of *LNCS*, pages 244–255. Springer-Verlag, Berlin-Heidelberg, 2011.
- [259] Martin Dyer and Velumailum Mohanaraj. Pairwise-interaction games. In Luca Aceto, Monika Henzinger, and Jiří Sgall, editors, *Proceedings of the 38th International Colloquium on Automata, Languages and Programming, ICALP'2011, Part I (Zurich, Switzerland, July 4-8, 2011)*, volume 6755 of *LNCS*, pages 159–170. Springer-Verlag, Berlin-Heidelberg, 2011.
- [260] Thorsten Ederer, Ulf Lorenz, Alexander Martin, and Jan Wolf. Quantified linear programs: A computational study. In Camil Demetrescu and Magnús M. Halldórsson, editors, *Proceedings of the 19th Annual European Symposium on Algorithms, ESA'2011, (Saarbrücken, Germany, September 5-9, 2011)*, volume 6942 of *LNCS*, pages 203–214. Springer-Verlag, Berlin-Heidelberg, 2011.
- [261] Victor Edneral and Valery G. Romanovski. Normal forms of two $p : -q$ resonant polynomial vector fields. In Vladimir P. Gerdt, Wolfram Koepf, Ernst W. Mayr, and Evgenii V. Vorozhtsov, editors, *Proceedings of the 13th International Workshop on Computer Algebra in Scientific Computing, CASC'2011 (Kassel, Germany, September 5-9, 2011)*, volume 6885 of *LNCS*, pages 126–134. Springer-Verlag, Berlin-Heidelberg, 2011.
- [262] Friedrich Eisenbrand, Naonori Kakimura, Thomas Rothvoß, and Laura Sanità. Set covering with ordered replacement: Additive and multiplicative gaps. In Oktay Günlük and Gerhard J. Woeginger, editors, *Proceedings of the 15th International Conference on Integer Programming and Combinatorial Optimization, IPCO'2011 (New York, NY, USA, June 15-17, 2011)*, volume 6655 of *LNCS*, pages 170–182. Springer-Verlag, Berlin-Heidelberg, 2011.
- [263] Michael Elberfeld, Danny Segev, Colin R. Davidson, Dana Silverbush, and Roded Sharan. Approximation algorithms for orienting mixed graphs. In Raffaele Giancarlo and Giovanni Manzini, editors, *Proceedings of the 22nd Annual Symposium on Combinatorial Pattern Matching, CPM'2011 (Palermo, Italy, June 27-29, 2011)*, volume 6661 of *LNCS*, pages 416–428. Springer-Verlag, Berlin-Heidelberg, 2011.

- [264] Amr Elmasry, Meng He, J. Ian Munro, and Patrick K. Nicholson. Dynamic range majority data structures. In Takao Asano, Shin-ichi Nakano, Yoshio Okamoto, and Osamu Watanabe, editors, *Proceedings of the 22nd International Symposium on Algorithms and Computation, ISAAC'2011 (Yokohama, Japan, December 5-8, 2011)*, volume 7074 of *LNCS*, pages 150–159. Springer-Verlag, Berlin-Heidelberg, 2011.
- [265] Robert Elsässer and Tobias Tscheuschner. Settling the complexity of local max-cut (almost) completely. In Luca Aceto, Monika Henzinger, and Jiří Sgall, editors, *Proceedings of the 38th International Colloquium on Automata, Languages and Programming, ICALP'2011, Part I (Zurich, Switzerland, July 4-8, 2011)*, volume 6755 of *LNCS*, pages 171–182. Springer-Verlag, Berlin-Heidelberg, 2011.
- [266] David Eppstein, Michael T. Goodrich, and Maarten Löffler. Tracking moving objects with few handovers. In Frank Dehne, John Iacono, and Jörg-Rüdiger Sack, editors, *Proceedings of the 12th International Symposium on Algorithms and Data Structures, WADS'2011 (New York, NY, USA, August 15-17, 2011)*, volume 6844 of *LNCS*, pages 362–373. Springer-Verlag, Berlin-Heidelberg, 2011.
- [267] David Eppstein, Maarten Löffler, Elena Mumford, and Martin Nöllenburg. Optimal 3d angular resolution for low-degree graphs. In Ulrik Brandes and Sabine Cornelsen, editors, *Proceedings of the 18th International Symposium on Graph Drawing, GD'2010 (Konstanz, Germany, September 21-24, 2010)*, volume 6502 of *LNCS*, pages 208–219. Springer-Verlag, Berlin-Heidelberg, 2011.
- [268] Leah Epstein, Csanád Imreh, Asaf Levin, and Judit Nagy-György. On variants of file caching. In Luca Aceto, Monika Henzinger, and Jiří Sgall, editors, *Proceedings of the 38th International Colloquium on Automata, Languages and Programming, ICALP'2011, Part I (Zurich, Switzerland, July 4-8, 2011)*, volume 6755 of *LNCS*, pages 195–206. Springer-Verlag, Berlin-Heidelberg, 2011.
- [269] Leah Epstein and Asaf Levin. Robust algorithms for preemptive scheduling. In Camil Demetrescu and Magnús M. Halldórsson, editors, *Proceedings of the 19th Annual European Symposium on Algorithms, ESA'2011, (Saarbrücken, Germany, September 5-9, 2011)*, vol-

- ume 6942 of *LNCS*, pages 567–578. Springer-Verlag, Berlin-Heidelberg, 2011.
- [270] Hassan Errami, Werner M. Seiler, Thomas Sturm, and Andreas Weber. On muldowney’s criteria for polynomial vector fields with constraints. In Vladimir P. Gerdt, Wolfram Koepf, Ernst W. Mayr, and Evgenii V. Vorozhtsov, editors, *Proceedings of the 13th International Workshop on Computer Algebra in Scientific Computing, CASC’2011 (Kassel, Germany, September 5-9, 2011)*, volume 6885 of *LNCS*, pages 135–143. Springer-Verlag, Berlin-Heidelberg, 2011.
- [271] Guy Even and Shakhar Smorodinsky. Hitting sets online and vertex ranking. In Camil Demetrescu and Magnús M. Halldórsson, editors, *Proceedings of the 19th Annual European Symposium on Algorithms, ESA’2011, (Saarbrücken, Germany, September 5-9, 2011)*, volume 6942 of *LNCS*, pages 347–357. Springer-Verlag, Berlin-Heidelberg, 2011.
- [272] Diego Fabregat-Traver and Paolo Bientinesi. Knowledge-based automatic generation of partitioned matrix expressions. In Vladimir P. Gerdt, Wolfram Koepf, Ernst W. Mayr, and Evgenii V. Vorozhtsov, editors, *Proceedings of the 13th International Workshop on Computer Algebra in Scientific Computing, CASC’2011 (Kassel, Germany, September 5-9, 2011)*, volume 6885 of *LNCS*, pages 144–157. Springer-Verlag, Berlin-Heidelberg, 2011.
- [273] Arash Farzan and Johannes Fischer. Compact representation of posets. In Takao Asano, Shin-ichi Nakano, Yoshio Okamoto, and Osamu Watanabe, editors, *Proceedings of the 22nd International Symposium on Algorithms and Computation, ISAAC’2011 (Yokohama, Japan, December 5-8, 2011)*, volume 7074 of *LNCS*, pages 302–311. Springer-Verlag, Berlin-Heidelberg, 2011.
- [274] Arash Farzan and Shahin Kamali. Compact navigation and distance oracles for graphs with small treewidth. In Luca Aceto, Monika Henzinger, and Jiří Sgall, editors, *Proceedings of the 38th International Colloquium on Automata, Languages and Programming, ICALP’2011, Part I (Zurich, Switzerland, July 4-8, 2011)*, volume 6755 of *LNCS*, pages 268–280. Springer-Verlag, Berlin-Heidelberg, 2011.

- [275] Sebastian Faust, Krzysztof Pietrzak, and Daniele Venturi. Tamper-proof circuits: How to trade leakage for tamper-resilience. In Luca Aceto, Monika Henzinger, and Jiří Sgall, editors, *Proceedings of the 38th International Colloquium on Automata, Languages and Programming, ICALP'2011, Part I (Zurich, Switzerland, July 4-8, 2011)*, volume 6755 of *LNCS*, pages 391–402. Springer-Verlag, Berlin-Heidelberg, 2011.
- [276] John Fearnley and Oded Lachish. Parity games on graphs with medium tree-width. In Filip Murlak and Piotr Sankowski, editors, *Proceedings of the 36th International Symposium on Mathematical Foundations of Computer Science, MFCS'2011 (Warsaw, Poland, August 22-26, 2011)*, volume 6907 of *LNCS*, pages 303–314. Springer-Verlag, Berlin-Heidelberg, 2011.
- [277] Uriel Feige and Daniel Reichman. Recoverable values for independent sets. In Luca Aceto, Monika Henzinger, and Jiří Sgall, editors, *Proceedings of the 38th International Colloquium on Automata, Languages and Programming, ICALP'2011, Part I (Zurich, Switzerland, July 4-8, 2011)*, volume 6755 of *LNCS*, pages 486–497. Springer-Verlag, Berlin-Heidelberg, 2011.
- [278] Moran Feldman, Joseph (Seffi) Naor, and Roy Schwartz. Nonmonotone submodular maximization via a structural continuous greedy algorithm. In Luca Aceto, Monika Henzinger, and Jiří Sgall, editors, *Proceedings of the 38th International Colloquium on Automata, Languages and Programming, ICALP'2011, Part I (Zurich, Switzerland, July 4-8, 2011)*, volume 6755 of *LNCS*, pages 342–353. Springer-Verlag, Berlin-Heidelberg, 2011.
- [279] Moran Feldman, Joseph (Seffi) Naor, Roy Schwartz, and Justin Ward. Improved approximations for k -exchange systems. In Camil Demetrescu and Magnús M. Halldórsson, editors, *Proceedings of the 19th Annual European Symposium on Algorithms, ESA'2011, (Saarbrücken, Germany, September 5-9, 2011)*, volume 6942 of *LNCS*, pages 784–798. Springer-Verlag, Berlin-Heidelberg, 2011.
- [280] Andreas Emil Feldmann, Shantanu Das, and Peter Widmayer. Restricted cuts for bisections in solid grids: A proof via polygons. In Petr

- Kolman and Jan Kratochvíl, editors, *Proceedings of the 37th International Workshop on Graph-Theoretic Concepts in Computer Science, WG'2011 (Teplá Monastery, Czech Republic, June 21-24, 2011)*, volume 6986 of *LNCS*, pages 143–154. Springer-Verlag, Berlin-Heidelberg, 2011.
- [281] Andreas Emil Feldmann and Peter Widmayer. An $\mathcal{O}(n^4)$ time algorithm to compute the bisection width of solid grid graphs. In Camil Demetrescu and Magnús M. Halldórsson, editors, *Proceedings of the 19th Annual European Symposium on Algorithms, ESA'2011, (Saarbrücken, Germany, September 5-9, 2011)*, volume 6942 of *LNCS*, pages 143–154. Springer-Verlag, Berlin-Heidelberg, 2011.
- [282] Qilong Feng, Jianxin Wang, and Jianer Chen. Matching and p_2 -packing: Weighted versions. In Bin Fu and Ding-Zhu Du, editors, *Proceedings of the 17th Annual International Conference on Computing and Combinatorics, COCOON'2011 (Dallas, TX, USA, August 14-16, 2011)*, volume 6842 of *LNCS*, pages 343–353. Springer-Verlag, Berlin-Heidelberg, 2011.
- [283] Paolo Ferragina. On the weak prefix-search problem. In Raffaele Giancarlo and Giovanni Manzini, editors, *Proceedings of the 22nd Annual Symposium on Combinatorial Pattern Matching, CPM'2011 (Palermo, Italy, June 27-29, 2011)*, volume 6661 of *LNCS*, pages 261–272. Springer-Verlag, Berlin-Heidelberg, 2011.
- [284] Paolo Ferragina, Jouni Sirén, and Rossano Venturini. Distribution-aware compressed full-text indexes. In Camil Demetrescu and Magnús M. Halldórsson, editors, *Proceedings of the 19th Annual European Symposium on Algorithms, ESA'2011, (Saarbrücken, Germany, September 5-9, 2011)*, volume 6942 of *LNCS*, pages 760–771. Springer-Verlag, Berlin-Heidelberg, 2011.
- [285] Rui Ferreira, Roberto Grossi, and Romeo Rizzi. Output-sensitive listing of bounded-size trees in undirected graphs. In Camil Demetrescu and Magnús M. Halldórsson, editors, *Proceedings of the 19th Annual European Symposium on Algorithms, ESA'2011, (Saarbrücken, Germany, September 5-9, 2011)*, volume 6942 of *LNCS*, pages 275–286. Springer-Verlag, Berlin-Heidelberg, 2011.

- [286] Yuval Filmus, Toniann Pitassi, and Rahul Santhanam. Exponential lower bounds for ac^0 -frege imply superpolynomial frege lower bounds. In Luca Aceto, Monika Henzinger, and Jiří Sgall, editors, *Proceedings of the 38th International Colloquium on Automata, Languages and Programming, ICALP'2011, Part I (Zurich, Switzerland, July 4-8, 2011)*, volume 6755 of *LNCS*, pages 618–629. Springer-Verlag, Berlin-Heidelberg, 2011.
- [287] Diana Fischer and Łukasz Kaiser. Model checking the quantitative μ -calculus on linear hybrid systems. In Luca Aceto, Monika Henzinger, and Jiří Sgall, editors, *Proceedings of the 38th International Colloquium on Automata, Languages and Programming, ICALP'2011, Part II (Zurich, Switzerland, July 4-8, 2011)*, volume 6756 of *LNCS*, pages 404–415. Springer-Verlag, Berlin-Heidelberg, 2011.
- [288] Johannes Fischer. Inducing the lcp-array. In Frank Dehne, John Iacono, and Jörg-Rüdiger Sack, editors, *Proceedings of the 12th International Symposium on Algorithms and Data Structures, WADS'2011 (New York, NY, USA, August 15-17, 2011)*, volume 6844 of *LNCS*, pages 374–385. Springer-Verlag, Berlin-Heidelberg, 2011.
- [289] Matteo Fischetti and Michele Monaci. Backdoor branching. In Oktay Günlük and Gerhard J. Woeginger, editors, *Proceedings of the 15th International Conference on Integer Programming and Combinatorial Optimization, IPCO'2011 (New York, NY, USA, June 15-17, 2011)*, volume 6655 of *LNCS*, pages 183–191. Springer-Verlag, Berlin-Heidelberg, 2011.
- [290] P. Thomas Fletcher, John Moeller, Jeff M. Phillips, and Suresh Venkatasubramanian. Horoball hulls and extents in positive definite space. In Frank Dehne, John Iacono, and Jörg-Rüdiger Sack, editors, *Proceedings of the 12th International Symposium on Algorithms and Data Structures, WADS'2011 (New York, NY, USA, August 15-17, 2011)*, volume 6844 of *LNCS*, pages 386–398. Springer-Verlag, Berlin-Heidelberg, 2011.
- [291] Holger Flier, Matúš Mihalák, Peter Widmayer, and Anna Zych. Maximum independent set in 2-direction outersegment graphs. In Petr Kolman and Jan Kratochvíl, editors, *Proceedings of the 37th International Workshop on Graph-Theoretic Concepts in Computer Science*,

- WG'2011 (*Teplá Monastery, Czech Republic, June 21-24, 2011*), volume 6986 of *LNCS*, pages 155–166. Springer-Verlag, Berlin-Heidelberg, 2011.
- [292] Jörg Flum. Invariantization of listings. In Filip Murlak and Piotr Sankowski, editors, *Proceedings of the 36th International Symposium on Mathematical Foundations of Computer Science, MFCS'2011 (Warsaw, Poland, August 22-26, 2011)*, volume 6907 of *LNCS*, pages 2–2. Springer-Verlag, Berlin-Heidelberg, 2011.
- [293] Fedor V. Fomin, Pinar Heggeres, Dieter Kratsch, Charis Papadopoulos, and Yngve Villanger. Enumerating minimal subset feedback vertex sets. In Frank Dehne, John Iacono, and Jörg-Rüdiger Sack, editors, *Proceedings of the 12th International Symposium on Algorithms and Data Structures, WADS'2011 (New York, NY, USA, August 15-17, 2011)*, volume 6844 of *LNCS*, pages 399–410. Springer-Verlag, Berlin-Heidelberg, 2011.
- [294] Fedor V. Fomin, Ioan Todinca, and Yngve Villanger. Exact algorithm for the maximum induced planar subgraph problem. In Camil Demetrescu and Magnús M. Halldórsson, editors, *Proceedings of the 19th Annual European Symposium on Algorithms, ESA'2011, (Saarbrücken, Germany, September 5-9, 2011)*, volume 6942 of *LNCS*, pages 287–298. Springer-Verlag, Berlin-Heidelberg, 2011.
- [295] Lance Fortnow and Rahul Santhanam. Robust simulations and significant separations. In Luca Aceto, Monika Henzinger, and Jiří Sgall, editors, *Proceedings of the 38th International Colloquium on Automata, Languages and Programming, ICALP'2011, Part I (Zurich, Switzerland, July 4-8, 2011)*, volume 6755 of *LNCS*, pages 569–580. Springer-Verlag, Berlin-Heidelberg, 2011.
- [296] Kyle Fox. Upper bounds for maximally greedy binary search trees. In Frank Dehne, John Iacono, and Jörg-Rüdiger Sack, editors, *Proceedings of the 12th International Symposium on Algorithms and Data Structures, WADS'2011 (New York, NY, USA, August 15-17, 2011)*, volume 6844 of *LNCS*, pages 411–422. Springer-Verlag, Berlin-Heidelberg, 2011.

- [297] Peter Franek, Stefan Ratschan, and Piotr Zgliczynski. Satisfiability of systems of equations of real analytic functions is quasi-decidable. In Filip Murlak and Piotr Sankowski, editors, *Proceedings of the 36th International Symposium on Mathematical Foundations of Computer Science, MFCS'2011 (Warsaw, Poland, August 22-26, 2011)*, volume 6907 of *LNCS*, pages 315–326. Springer-Verlag, Berlin-Heidelberg, 2011.
- [298] Fabrizio Frati. Improved lower bounds on the area requirements of series-parallel graphs. In Ulrik Brandes and Sabine Cornelsen, editors, *Proceedings of the 18th International Symposium on Graph Drawing, GD'2010 (Konstanz, Germany, September 21-24, 2010)*, volume 6502 of *LNCS*, pages 220–225. Springer-Verlag, Berlin-Heidelberg, 2011.
- [299] Michael L. Fredman. On the matter of dynamic optimality in an extended model for tree access operations. In Frank Dehne, John Iacono, and Jörg-Rüdiger Sack, editors, *Proceedings of the 12th International Symposium on Algorithms and Data Structures, WADS'2011 (New York, NY, USA, August 15-17, 2011)*, volume 6844 of *LNCS*, pages 423–437. Springer-Verlag, Berlin-Heidelberg, 2011.
- [300] Wladimir Fridman and Bernd Puchala. Distributed synthesis for regular and contextfree specifications. In Filip Murlak and Piotr Sankowski, editors, *Proceedings of the 36th International Symposium on Mathematical Foundations of Computer Science, MFCS'2011 (Warsaw, Poland, August 22-26, 2011)*, volume 6907 of *LNCS*, pages 532–543. Springer-Verlag, Berlin-Heidelberg, 2011.