List of research papers and citations

Journals

1. *A note on contracting claw-free graphs*
coauthored with Marcin Kamiński, and Daniël Paulusma,
Discrete Mathematics and Theoretical Computer Science **15**, 2 (2013), pp. 223-232.

2. *Detecting induced star-like minors in polynomial time*
coauthored with Marcin Kamiński, and Daniël Paulusma,
Journal of Discrete Algorithms **17** (2012), pp. 74–85.

3. *Distance Three Labelings for Trees*
coauthored with Peter A. Golovach, Jan Kratochvíl, Bernard Lidický and Daniël Paulusma,
Discrete Applied Mathematics **160**, 6 (2012), pp. 764-779.
(Also published in conference proceedings — see item 45.)

4. *The k-in-a-path problem for claw-free graphs*
coauthored with Marcin Kamiński, Bernard Lidický and Daniël Paulusma,
Algorithmica **62**, 1-2 (2012), pp. 499–519.
(Also published in conference proceedings — see item 31.)

5. *Parameterized Complexity of Coloring Problems: Treewidth versus Vertex Cover*
coauthored with Peter A. Golovach and Jan Kratochvíl
Theoretical Computer Science **412**, 23 (2011), pp. 2513–2523.
(Also published in conference proceedings — see item 32.)

6. *Comparing universal covers in polynomial time,*
coauthored with Daniël Paulusma,
Theory of Computing Systems **46**, 4 (2010), pp. 620–635.
(Also published in conference proceedings — see item 36.)

7. *Complexity of the packing coloring problem of trees,*
coauthored with Peter A. Golovach,
Discrete Applied Mathematics **158**, 7 (2010), pp. 771–778.
(Also published in conference proceedings — see item 33.)

8. *The packing chromatic number of infinite product graphs,*
coauthored with Sandi Klavžar and Bernard Lidický,
European Journal of Combinatorics, **30**, 5 (2009), pp. 1101–1113.

9. *On the computational complexity of partial covers of Theta graphs,*
coauthored with Jan Kratochvíl, Attila Pór,
Discrete Applied Mathematics **156**, 7 (2008), pp. 1143–1149.
(Also published in conference proceedings — see item 43.)

    - Nicole Eggemann, Frdric Havet, and Steven D. Noble. "$k - L(2,1)$-labelling for planar graphs is NP-complete for $k \geq 4$". In: *Discrete Applied Mathematics* 158.16 (2010). 1777–1788
    - Jacobus S. Swarts. "The Complexity of Digraph Homomorphisms: Local Tournaments, Injective Homomorphisms and Polymorphisms". PhD thesis. University of Victoria, Canada, 2008
    - Gary MacGillivray and Jacobus Swarts. "The complexity of locally injective homomorphisms". In: *Discrete Mathematics* 310.20 (2010). 2685 –2696

10. *Locally Constrained Graph Homomorphisms — Structure, Complexity, and Applications,*
coauthored with Jan Kratochvíl,
Computer Science Review, **2** (2008), pp. 97–111.

11. *Block transitivity and degree matrices,*
coauthored with José Soto,
European Journal of Combinatorics, **29**,5 (2008), pp. 1160-1172.
(Also published in conference proceedings — see item 37.)

12. *Locally constrained graph homomorphisms and equitable partitions,*
coauthored with Daniël Paulusma, Jan Arne Telle,
European Journal of Combinatorics, **29**,4 (2008), pp. 850–880.
(Also published in conference proceedings — see items 40, 42.)

13. *The Subchromatic Index of Graphs,*
coauthored with Van Bang Le,
Tatra Mountain Mathematical Publications, **36** (2007), pp. 129–146.

14. *Cantor-Bernstein type theorem for locally constrained graph homomorphisms,*
coauthored with Jana Maxová,
European Journal of Combinatorics, **27**(7) (2006), pp. 1111–1116.

    - Daniel Král. "Mixed hypergraphs and other coloring problems.". In: *Discrete Mathematics* 307.7-8 (2007). 923–938

15. *A complete complexity classification of the role assignment problem,*
coauthored with Daniël Paulusma,

Theoretical Computer Science, **349**(1) (2005), pp. 67–81.
(Partially published in conference proceedings — see item 46.)

- Jérémie Chalopin, Yves Métivier, and Wiesław Zielonka. "Local computations in graphs: the case of cellular edge local computations". In: *Fundamenta Informaticae* 74.1 (2006). 85–114
- Pilu Crescenzi et al. "On the Existence of Ecological Colorings". manuscript. 2007
- Pim van't Hof, Daniël Paulusma, and Johan M. M. van Rooij. "Computing role assignments of chordal graphs". In: *Theoretical Computer Science* 411.40–42 (2010). 3601–3613

16. *A Brooks-type Theorem for the Generalized List T-coloring,*
coauthored with Daniel Kráľ, Riste Škrekovski,
SIAM Journal of Discrete Mathematics, **19**(3) (2005), pp. 588–609.

- Miroslav Chlebík and Janka Chlebíková. "Hard coloring problems in low degree planar bipartite graphs". In: *Discrete Appl. Math.* 154.14 (2006). 1960–1965
- Daniel Král. "Mixed hypergraphs and other coloring problems.". In: *Discrete Mathematics* 307.7-8 (2007). 923–938
- Daniel Král' and Riste Škrekovski. "The last excluded case of Dirac's map-color theorem for choosability". In: *Journal of Graph Theory* 51.4 (2006). 319–354
- R. J. Waters. "Some new bounds on T_r-choosability". In: *Discrete Math.* 307.17–18 (2007). 2290–2299

17. *Generalized list T-colorings of cycles*
coauthored with Riste Škrekovski,
Discrete Applied Mathematics, **148**(1) (2005), pp. 13–25.

- Robert James Waters. "Graph Colouring and Frequency Assignment". PhD thesis. University of Nottingham, 2005

18. *Systems of distant representatives,*
coauthored with Jan Kratochvíl and Andrzej Proskurowski,
Discrete Applied Mathematics, **145**(2) (2005), pp. 306–316.
(Partially published in conference proceedings — see items 49,52.)

- Hajo Broersma et al. "Backbone Coloring for Graphs: Tree and Path Backbones.". In: *Journal of Graph Theory* 55.2 (2007). 137–152
- Maarten Löffler and Marc J. van Kreveld. "Largest and Smallest Tours and Convex Hulls for Imprecise Points.". In: *SWAT*. vol. 4059. Lecture Notes in Computer Science. Springer, 2006. 375–387

19. *On distance constrained labeling of disk graphs,*
coauthored with Aleksei V. Fishkin and Fedor V. Fomin,
Theoretical Computer Science **326**(1-3) (2004), pp. 261–292.
(Also published in conference proceedings — see item 53.)

    - Hajo Broersma et al. "Backbone Coloring for Graphs: Tree and Path Backbones.". In: *Journal of Graph Theory* 55.2 (2007). 137–152
    - Tiziana Calamoneri. "The $L(h, k)$-labeling problem: A survey and annotated bibliography". In: *Computer Journal* 49.5 (2006). 585–608
    - Daniel Gonçalves. "On the $L(p, 1)$-labelling of graphs". In: *2005 European Conference on Combinatorics, Graph Theory and Applications (EuroComb '05)*. Vol. AE. DMTCS Proceedings. Discrete Mathematics, Theoretical Computer Science, 2005. 81–86
    - L. Van Hoesel and P. Havinga. "Collision-free time slot reuse in multi-hop wireless sensor networks". In: *Proceedings of the Intelligent Sensors, Sensor Networks and Information Processing Conference.* 2005. 101–107

20. *New lower bounds on the weighted chromatic number of a graph,*
coauthored with Massimiliano Caramia,
Discussiones Mathematicae Graph Theory **24**(2) (2004), pp. 183–195.

21. *Geometric separation and exact solutions for the parameterized independent set problem on disk graphs,*
coauthored with Jochen Alber,
Journal of Algorithms **52**(2) (2004), pp. 134–151.
(Also published in conference proceedings — see item 50.)

    - Pankaj K. Agarwal, Mark Overmars, and Micha Sharir. "Computing maximally separated sets in the plane". In: *SIAM J. Comput.* 36.3 (2006). 815–834 (electronic)
    - Bin Fu. "Theory and Application of Width Bounded Geometric Separator". In: *Electronic Colloquium on Computational Complexity (ECCC)* 13 (2005). 1–14
    - Bin Fu. "Theory and Application of Width Bounded Geometric Separator.". In: *STACS*. vol. 3884. Lecture Notes in Computer Science. Springer, 2006. 277–288
    - Dániel Marx. "Efficient Approximation Schemes for Geometric Problems?". In: *ESA*. vol. 3669. Lecture Notes in Computer Science. Springer, 2005. 448–459
    - Erik Jan van Leeuwen. "Approximation Algorithms for Unit Disk Graphs.". In: *WG*. vol. 3787. Lecture Notes in Computer Science. Springer, 2005. 351–361
    - Erik Jan van Leeuwen. "Better Approximation Schemes for Disk Graphs.". In: *SWAT*. vol. 4059. Lecture Notes in Computer Science. Springer, 2006. 316–327

22. *Generalized H-coloring and H-covering of trees*,
coauthored with Pinar Heggernes, Petter Kristiansen and Jan Arne Telle,
Nordic Journal of Computing **10**(3) (2003), pp. 206–224.
(Also published in conference proceedings — see item 47.)

23. *Graph Subcolorings: Complexity and Algorithms,*
coauthored with Klaus Jansen, Van Bang Le and Eike Seidel,
SIAM Journal on Discrete Mathematics **16**(4) (2003), pp. 635–650.
(Also published in conference proceedings — see item 54.)

- Hajo Broersma et al. "Planar Graph Coloring Avoiding Monochromatic Subgraphs: Trees and Paths Make It Difficult.". In: *Algorithmica* 44.4 (2006). 343–361
- Daniel Gonçalves and Pascal Ochem. "On some arboricities in planar graphs". In: *Electronic Notes in Discrete Mathematics* 22 (2005). 427–432
- Pascal Ochem. "Negative results on acyclic improper colorings". In: *2005 European Conference on Combinatorics, Graph Theory and Applications (EuroComb '05)*. Vol. AE. DMTCS Proceedings. Discrete Mathematics, Theoretical Computer Science, 2005. 357–362
- D. de Werra et al. "A hypocoloring model for batch scheduling". In: *Discrete Appl. Math.* 146.1 (2005). 3–26

24. *NP completeness of extendability of the edge coloring on bipartite graphs,*
Journal of Graph Theory, **43** (2003), pp. 156-160.

- Ioannis Caragiannis et al. "Approximate Constrained Bipartite Edge Coloring.". In: *WG*. vol. 2204. Lecture Notes in Computer Science. Springer, 2001. 21–31
- Ioannis Caragiannis et al. "Approximate constrained bipartite edge coloring.". In: *Discrete Appl. Math.* 143.1-3 (2004). 54–61
- Dániel Marx. "NP completeness of list coloring and precoloring extension on the edges of planar graphs". In: *Journal of Graph Theory* 49.4 (2005). 313–324
- Dániel Marx. "Graph Coloring with Local and Global Constraints". PhD thesis. Budapest University of Technology, Economics, 2004

25. *On-line coloring of geometric intersection graphs,*
coauthored with Thomas Erlebach,
Computational Geometry: Theory and Applications, **23**(2) (2002), pp. 243–255.

- Hajo Broersma, Agostino Capponi, and Daniël Paulusma. "On-Line Coloring of H-Free Bipartite Graphs.". In: *CIAC*. vol. 3998. Lecture Notes in Computer Science. Springer, 2006. 284–295

- Ioannis Caragiannis et al. “Online Algorithms for Disk Graphs.”. In: *MFCS*. vol. 3153. Lecture Notes in Computer Science. Springer, 2004. 215–226
- Ioannis Caragiannis et al. “A Tight Bound for Online Coloring of Disk Graphs.”. In: *SIROCCO*. vol. 3499. Lecture Notes in Computer Science. Springer, 2005. 78–88
- Aleksei V. Fishkin. “Disk Graphs: A Short Survey.”. In: *WAOA*. vol. 2909. Lecture Notes in Computer Science. Springer, 2003. 260–264
- Evi Papaioannou. “Independent sets and graph coloring with applications to the frequency allocation problem in wireless networks”. PhD thesis. University of Patras, 2004

26. *Partial covers of graphs,*
coauthored with Jan Kratochvíl,
Discussiones Mathematicae Graph Theory, **22**(1) (2002), pp. 89–99.

- G. Hahn et al. “On the injective chromatic number of graphs”. In: *Discrete Math.* 256 (2002). 179–192
- Daniel Král. “Mixed hypergraphs and other coloring problems.”. In: *Discrete Mathematics* 307.7-8 (2007). 923–938
- Zdisław Skupień. “BCH codes and distance multi- or fractional colorings in hypercubes asymptotically”. In: *Discrete Math.* 307.7–8 (2007). 990–1000
- Gena Hahn and Gary MacGillivray. “Graph homomorphisms: Computational aspects and infinite graphs”. monograph, submitted. 2002
- Jacobus S. Swarts. “The Complexity of Digraph Homomorphisms: Local Tournaments, Injective Homomorphisms and Polymorphisms”. PhD thesis. University of Victoria, Canada, 2008

27. *Fixed-parameter complexity of λ-labelings,*
coauthored with Ton Kloks and Jan Kratochvíl,
Discrete Applied Mathematics, **113**(1) (2001), pp. 59–72.
(Also published in conference proceedings — see item 55.)

- Peter Bella et al. “Labeling planar graphs with a condition at distance two”. In: *2005 European Conference on Combinatorics, Graph Theory and Applications (EuroComb ’05)*. Vol. AE. DMTCS Proceedings. Discrete Mathematics, Theoretical Computer Science, 2005. 41–44
- Hans L. Bodlaender et al. “Radio Labeling with Pre-assigned Frequencies.”. In: *ESA*. vol. 2461. Lecture Notes in Computer Science. Springer, 2002. 211–222
- Hajo Broersma et al. “Backbone Coloring for Graphs: Tree and Path Backbones.”. In: *Journal of Graph Theory* 55.2 (2007). 137–152
- Hajo Broersma et al. “Backbone Colorings for Networks.”. In: *WG*. vol. 2880. Lecture Notes in Computer Science. Springer, 2003. 131–142

- Hajo Broersma. "A General Framework for Coloring Problems: Old Results, New Results, and Open Problems.". In: *IJCCGGT*. vol. 3330. Lecture Notes in Computer Science. Springer, 2003. 65–79
- Tiziana Calamoneri. "The $L(h, k)$-labeling problem: A survey and annotated bibliography". In: *Computer Journal* 49.5 (2006). 585–608
- Tiziana Calamoneri. "Optimal $L(h, k)$-labeling of regular grid". In: *Discrete Mathematics and Theoretical Computer Science* 8.1 (2006). 141–158
- G. Fertin and A. Raspaud. "$L(p, q)$ labeling of d-dimensional grid.". In: *Discrete Mathematics* 307.16 (2007). 2132–2140
- Petr A. Golovach. "Systems of pairs of q-distant representatives, and graph colorings.". In: *J. Math. Sci., New York* 126.3 (2005). 1141–1151
- Sylvain Gravier, Sandi Klavžar, and Michel Mollard. "Codes and $L(2, 1)$-labelings in Sierpiński graphs". In: *Taiwanese J. Math.* 9.4 (2005). 671–681
- Toru Hasunuma et al. "An Algorithm for $L(2, 1)$-Labeling of Trees". In: *SWAT*. vol. 5124. Lecture Notes in Computer Science. Springer, 2008. 185–197
- Pranava V. Jha, Sandi Klavžar, and Aleksander Vesel. "$L(2, 1)$-labeling of direct product of paths and cycles". In: *Discrete Applied Mathematics* 145.2 (2004). 317–325
- Daniel Král'. "Coloring powers of chordal graphs.". In: *SIAM J. Discrete Math.* 18.3 (2004). 451–461
- Daniel Král'. "An exact algorithm for the channel assignment problem.". In: *Discrete Applied Mathematics* 145.2 (2005). 326–331
- Daniel Král'. "The channel assignment problem with variable weights". In: *SIAM J. Discrete Math.* 20.3 (2006). 690–704
- Jan Kratochvíl, Dieter Kratsch, and Mathieu Liedloff. "Exact Algorithms for $L(2, 1)$-Labeling of Graphs". In: *MFCS*. vol. 4708. Lecture Notes in Computer Science. Springer, 2007. 513–524
- David Kuo and Jing-Ho Yan. "On $L(2, 1)$-labelings of Cartesian products of paths and cycles". In: *Discrete Math.* 283.1–3 (2004). 137–144
- Pavel Nejeldlý. "Structural and Algorithmic Properties of Graph Coloring". PhD thesis. Charles University, Prague, 2008
- Zdisław Skupień. "BCH codes and distance multi- or fractional colorings in hypercubes asymptotically". In: *Discrete Math.* 307.7–8 (2007). 990–1000
- A. Taranenko and A. Vesel. "$L(2, 1)$-coloring of Fibonacci cubes". In: *Proceedings of the International Conference on Information Technology Interfaces (ITI)*. 2004. 561–566
- Hajo J. Broersma et al. "New upper bounds for λ-backbone colorings along matchings and stars". manuscript. 2005
- H. J. Broersma et al. "λ-Backbone Colorings along pairwise Disjoint Stars and Matchings". manuscript. 2006
- Robert Janczewski, Adrian Kosowski, and Michal Małafiejski. "The complexity of the $L(p, q)$-coloring problem for graphs of small degree". manuscript. 2007

- B. S. Panda and Preeti Goel. "$L(2,1)$-Labeling of Perfect Elimination Bipartite Graphs". manuscript. 2008

28. *Computational complexity of covering cyclic graphs,*
Discrete Mathematics, **235** (2001), pp. 87–94.

Referred conference proceedings

29. *Locally constrained homomorphisms on graphs of bounded degree and bounded treewidth*
coauthored with Steven Chaplick, Pim van't Hof, Daiël Paulusma and Marek Tesař
Fundamentals of Computation Theory, 19th FCT '13, Liverpool, United Kingdom, (2013), LNCS 8070, Springer Verlag, pp. 121–132.

30. *Dichotomy of the H-quasi-cover problem*
coauthored with Marek Tesař
International Computer Science Symposium in Russia, 8rd CSR '13, Ekaterinburg, Russia, (2013), LNCS 7913, Springer Verlag, pp. 310–321.

31. *The k-in-a-path problem for claw-free graphs*
coauthored with Marcin Kamiński, Bernard Lidický, Daniël Paulusma,
Theoretical Aspects of Computer Science, 27th STACS '10, Nancy, France (2010), LIPIcs 5, Schloss Dagstuhl-Leibniz-Zentrum für Informatik, pp. 371–382.

32. *Parameterized Complexity of Coloring Problems: Treewidth versus Vertex Cover (Extended abstract)*
coauthored with Peter A. Golovach and Jan Kratochvíl
Theory and Applications of Models of Computation, 6th TAMC '09, Changsha, China (2009), LNCS 5532, Springer Verlag, pp. 221–230.

- Christian Komusiewicz, Rolf Niedermeier, and Johannes Uhlmann. "Deconstructing intractability–A multivariate complexity analysis of interval constrained coloring". In: *Journal of Discrete Algorithms* 9.1 (2011). 137–151. 20th Anniversary Edition of the Annual Symposium on Combinatorial Pattern Matching (CPM 2009). ISSN 1570–8667

33. *Complexity of the packing coloring problem of trees,*
coauthored with Peter A. Golovach,
Graph-Theoretical Concepts in Computer Science, 34th WG '08, Durham, UK, (2008), LNCS 5344, Springer Verlag, pp. 134–145.

34. *Computational complexity of the distance constrained labeling problem for trees,*
coauthored with Peter A. Golovach and Jan Kratochvíl,
Automata, Languages and Programming, 35th ICALP '08, Reykjavik, Iceland (2008), LNCS 5125, Springer Verlag, pp. 294–305.

35. *Distance constrained labelings of trees,*
coauthored with Peter A. Golovach and Jan Kratochvíl,
Theory and Applications of Models of Computation, 5th TAMC '08, Xi'an, China (2008), LNCS 4978, Springer Verlag, pp. 125–135.

36. *Comparing universal covers in polynomial time,*
coauthored with Daniël Paulusma,
International Computer Science Symposium in Russia, 3rd CSR '08, Moscow, Russia, (2008), LNCS 5010, Springer Verlag, pp. 158–167.

37. *Block transitivity and degree matrices: (Extended abstract),*
coauthored with José Soto,
Electronic Notes in Discrete Mathematics, **28** (2007), pp. 77–82.

38. *Locally injective graph homomorphism: Lists guarantee dichotomy,*
coauthored with Jan Kratochvíl,
Graph-Theoretical Concepts in Computer Science, 32nd WG '06, Bergen, Norway, (2006), LNCS 4271, Springer Verlag, pp. 15–26.

    - Jacobus S. Swarts. "The Complexity of Digraph Homomorphisms: Local Tournaments, Injective Homomorphisms and Polymorphisms". PhD thesis. University of Victoria, Canada, 2008

39. *Independence and coloring problems on intersection graphs of disks,*
coauthored with Thomas Erlebach,
Approximation Algorithms in Combinatorial Optimization, (2006), LNCS 3484, Springer Verlag, pp. 135–155.

    - Michel Barbeau et al. "Location Oblivious Distributed Unit Disk Graph Coloring". manuscript. 2007

40. *Algorithms for comparability of matrices in partial orders imposed by graph homomorphisms,*
coauthored with Daniël Paulusma, Jan Arne Telle,
Graph-Theoretical Concepts in Computer Science, 31st WG '05, Metz, France, (2005), LNCS 3787, Springer Verlag, pp. 115–126.

41. *On the Computational Complexity of the $L(2,1)$-Labeling Problem for Regular Graphs,*
coauthored with Jan Kratochvíl,
Theoretical Computer Science, 7th ICTCS '01, Siena (2005), LNCS 3701, Springer Verlag, pp. 228–236.

    - Toru Araki. "Labeling bipartite permutation graphs with a condition at distance two". In: *Discrete Applied Mathematics* 157.8 (2009). 1677–1686,
    - Tiziana Calamoneri. "The $L(h,k)$-labeling problem: A survey and annotated bibliography". In: *Computer Journal* 49.5 (2006). 585–608

42. *Matrix and graph orders derived from locally constrained graph homomorphisms,*
coauthored with Daniël Paulusma, Jan Arne Telle,
Mathematical Foundations of Computer Science, 30th MFCS '05, Gdansk, Poland, (2005), LNCS 3618, Springer Verlag, pp. 340–351.

    - Jérémie Chalopin and Daniël Paulusma. "Graph Labelings Derived from Models in Distributed Computing.". In: *WG*. vol. 4271. Lecture Notes in Computer Science. Springer, 2006. 301–312

43. *On the computational complexity of partial covers of Theta graphs,*
coauthored with Jan Kratochvíl, Attila Pór,
Electronic Notes in Discrete Mathematics, **19** (2005), pp. 79–85.

    - Jan Kratochvíl, Dieter Kratsch, and Mathieu Liedloff. "Exact Algorithms for $L(2,1)$-Labeling of Graphs". In: *MFCS*. vol. 4708. Lecture Notes in Computer Science. Springer, 2007. 513–524

44. *Distance constrained labelings of graphs of bounded treewidth,*
coauthored with Petr Golovach, Jan Kratochvíl,
Automata, Languages and Programming, 32nd ICALP '05, Lisbon, Portugal (2005), LNCS 3580, Springer Verlag, pp. 360–372.

    - Toru Araki. "Labeling bipartite permutation graphs with a condition at distance two". In: *Discrete Applied Mathematics* 157.8 (2009). 1677–1686,
    - Hans L. Bodlaender and Fedor V. Fomin. "Equitable colorings of bounded treewidth graphs.". In: *Theor. Comput. Sci.* 349.1 (2005). 22–30
    - Jörg Flum and Martin Grohe. *Parameterized Complexity Theory*. Vol. XIV. Texts in Theoretical Computer Science. An EATCS Series. Springer Verlag, 2006
    - Illya V. Hicks, Arie M. C. A. Koster, and Elif Kolotoğlu. "Branch and Tree Decomposition Techniques for Discrete Optimization". In: *TutORials 2005*. Ed. by J. Cole Smith. INFORMS TutORials in Operations Research Series. INFORMS Annual Meeting, 2005. Chap. 1, 1–29

- Toru Hasunuma et al. "An Algorithm for $L(2,1)$-Labeling of Trees". In: *SWAT*. vol. 5124. Lecture Notes in Computer Science. Springer, 2008. 185–197
- Jan Kratochvíl, Dieter Kratsch, and Mathieu Liedloff. "Exact Algorithms for $L(2,1)$-Labeling of Graphs". In: *MFCS*. vol. 4708. Lecture Notes in Computer Science. Springer, 2007. 513–524,
- Nicole Eggemann, Frdric Havet, and Steven D. Noble. "$k - L(2,1)$-labelling for planar graphs is NP-complete for $k \geq 4$". In: *Discrete Applied Mathematics* 158.16 (2010). 1777–1788

45. *Elegant distance constrained labelings of trees,*
coauthored with Petr A. Golovach, Jan Kratochvíl,
Graph-Theoretical Concepts in Computer Science, 30th WG '04, Bad Honnef, Germany, (2004), LNCS 3353, Springer Verlag, pp. 58–67.

- Toru Araki. "Labeling bipartite permutation graphs with a condition at distance two". In: *Discrete Applied Mathematics* 157.8 (2009). 1677–1686

46. *The computational complexity of the role assignment problem,*
coauthored with Daniël Paulusma,
Automata, Languages and Programming, 30th ICALP '03, Eindhoven, The Netherlands (2003), LNCS 2719, Springer Verlag, pp. 817–828.

- Ulrik Brandes and Thomas Erlebach. *Network Analysis - Methodological Foundations*. Vol. 3418. Lecture Notes in Computer Science. Springer Verlag, 2005
- Ulrik Brandes and Jürgen Lerner. "Structural Similarity in Graphs (A Relaxation Approach for Role Assignment).". In: *ISAAC*. vol. 3341. Lecture Notes in Computer Science. Springer, 2004. 184–195
- Daniel Král. "Mixed hypergraphs and other coloring problems.". In: *Discrete Mathematics* 307.7-8 (2007). 923–938

47. *Generalized H-coloring and H-covering of trees*,
coauthored with Pinar Heggernes, Petter Kristiansen and Jan Arne Telle,
Graph-Theoretical Concepts in Computer Science, 28th WG '02, Český Krumlov (2002), LNCS 2573, Springer Verlag, pp. 198–210.

48. *Scheduling of independent dedicated multiprocessor tasks*
coauthored with Evripidis Bampis, Massimiliano Caramia, Aleksei V. Fishkin and Antonio Iovanella
Algorithms and Computation, 13th ISAAC '02, Vancouver, Canada (2002) LNCS 2518, Springer Verlag, pp. 391–402.
(submitted to Theoretical Computer Science A on May 2004)

- Alexander A. Ageev et al. "Open Block Scheduling in Optical Communication Networks.". In: *WAOA*. vol. 2909. Lecture Notes in Computer Science. Springer, 2003. 13–26
- A. A. Ageev et al. "Open block scheduling in optical communication networks". In: *Theoret. Comput. Sci.* 361.2–3 (2006). 257–274
- Magnús M. Halldórsson, Guy Kortsarz, and Hadas Shachnai. "Sum coloring interval and k-claw free graphs with application to scheduling dependent jobs". In: *Algorithmica* 37.3 (2003). 187–209
- Paolo Dell'Olmo et al. "Exploiting incomplete information to manage multiprocessor tasks with variable arrival rates". In: *Comput. Oper. Res.* 35.5 (2008). 1589–1600

49. *Geometric systems of disjoint representatives,*
coauthored with Jan Kratochvíl and Andrzej Proskurowski,
Graph Drawing, 10th GD'02, Irvine, California (2002), LNCS 2528, Springer Verlag, pp. 110–117.

- Sergio Cabello. "Approximation Algorithms for Spreading Points.". In: *Journal of Algorithms* 62 (2007). 49–73
- Sergio Cabello. "Approximation Algorithms for Spreading Points.". In: *WAOA*. vol. 3351. Lecture Notes in Computer Science. Springer, 2004. 83–96
- Sergio Cabello Justo. "Geometric Problems in Cartographic Networks". PhD thesis. University of Utrecht, 2004

50. *Geometric separation and exact solutions for the parameterized independent set problem on disk graphs,*
coauthored with Jochen Alber,
Theoretical Computer Science, IFIP 17th TCS'02, Montréal, Canada (2002), IFIP Conference Proceedings 223, Kluwer, pp. 26–37.

- Pankaj K. Agarwal, Mark H. Overmars, and Micha Sharir. "Computing maximally separated sets in the plane and independent sets in the intersection graph of unit disks.". In: *SODA*. SIAM, 2004. 516–525
- Jochen Alber, Michael R. Fellows, and Rolf Niedermeier. "Polynomial-time data reduction for dominating set.". In: *J. ACM* 51.3 (2004). 363–384
- Erik D. Demaine et al. "Fixed-parameter algorithms for (k, r)-center in planar graphs and map graphs.". In: *ACM Transactions on Algorithms* 1.1 (2005). 33–47
- MohammadTaghi Hajiaghayi. "The Bidimensionality Theory and Its Algorithmic Applications". PhD thesis. Massachusetts Institute of Technology, 2005
- Kebin Wang and Shang-Hua Teng. "Geometric Separator for d-dimensional ball graphs". In: *Proceedings of the 18th Canadian Conference on Computational Geometry (CCCG 2006)*. Kingston, Ontario, Canada 2006. 125–128

51. *Complexity of partial covers of graphs,*
coauthored with Jan Kratochvíl,
Algorithms and Computation, 12th ISAAC '01, Christchurch, New Zealand (2001) LNCS 2223, Springer Verlag, pp. 537–549.

- G. Hahn et al. "On the injective chromatic number of graphs". In: *Discrete Math.* 256 (2002). 179–192
- Pavol Hell and Jaroslav Nešetřil. *Graphs and Homomorphisms*. Oxford University Press, 2004
- Jan Kratochvíl, Dieter Kratsch, and Mathieu Liedloff. "Exact Algorithms for $L(2,1)$-Labeling of Graphs". In: *MFCS*. vol. 4708. Lecture Notes in Computer Science. Springer, 2007. 513–524
- Therese Biedl. "The complexity of Domino Tiling". manuscript. 2005
- Jacobus S. Swarts. "The Complexity of Digraph Homomorphisms: Local Tournaments, Injective Homomorphisms and Polymorphisms". PhD thesis. University of Victoria, Canada, 2008

52. *Distance constrained labeling of precolored trees,*
coauthored with Jan Kratochvíl and Andrzej Proskurowski,
Theoretical Computer Science, 7th ICTCS '01, Torino (2001), LNCS 2202, Springer Verlag, pp. 285–292.

- Hans L. Bodlaender et al. "Radio Labeling with Pre-assigned Frequencies.". In: *ESA*. vol. 2461. Lecture Notes in Computer Science. Springer, 2002. 211–222
- Hans L. Bodlaender et al. "Radio labeling with preassigned frequencies". In: *SIAM J. Optim.* 15.1 (2004). 1–16
- Hajo Broersma et al. "Backbone Colorings for Networks.". In: *WG*. vol. 2880. Lecture Notes in Computer Science. Springer, 2003. 131–142
- Tiziana Calamoneri. "The $L(h,k)$-labeling problem: A survey and annotated bibliography". In: *Computer Journal* 49.5 (2006). 585–608
- G. Fertin and A. Raspaud. "$L(p,q)$ labeling of d-dimensional grid.". In: *Discrete Mathematics* 307.16 (2007). 2132–2140
- Petr A. Golovach. "Systems of pairs of q-distant representatives, and graph colorings.". In: *J. Math. Sci., New York* 126.3 (2005). 1141–1151
- Petr A. Golovach. "Systems of pair of q-distant representatives and graph colorings". In: *Zap. nau. sem. POMI* 293 (2002). 5–25. in Russian
- Anja Kohl et al. "List version of $L(d,s)$-labelings". In: *Theoret. Comput. Sci.* 349.1 (2005). 92–98
- Dániel Marx. "Graph Coloring with Local and Global Constraints". PhD thesis. Budapest University of Technology, Economics, 2004

53. *On-line and off-line distance constrained labeling of disk graphs,*
coauthored with Aleksei V. Fishkin and Fedor V. Fomin,
European Symposim on Algorithms, 9th ESA '01, Århus (2001), LNCS 2161, Springer Verlag, pp. 464–475.

- Hans L. Bodlaender et al. "Radio labeling with preassigned frequencies". In: *SIAM J. Optim.* 15.1 (2004). 1–16
- Hajo Broersma et al. "Backbone Colorings for Networks.". In: *WG*. vol. 2880. Lecture Notes in Computer Science. Springer, 2003. 131–142
- Ioannis Caragiannis et al. "Online Algorithms for Disk Graphs.". In: *MFCS*. vol. 3153. Lecture Notes in Computer Science. Springer, 2004. 215–226
- Ioannis Caragiannis et al. "A Tight Bound for Online Coloring of Disk Graphs.". In: *SIROCCO*. vol. 3499. Lecture Notes in Computer Science. Springer, 2005. 78–88
- Aleksei V. Fishkin. "Disk Graphs: A Short Survey.". In: *WAOA*. vol. 2909. Lecture Notes in Computer Science. Springer, 2003. 260–264
- Evi Papaioannou. "Independent sets and graph coloring with applications to the frequency allocation problem in wireless networks". PhD thesis. University of Patras, 2004

54. *Graph Subcolorings: Complexity and Algorithms,*
coauthored with Klaus Jansen, Van Bang Le and Eike Seidel,
Graph-Theoretical Concepts in Computer Science, 27th WG '01, Boltenhagen (2001), LNCS 2204, Springer Verlag, pp. 154–165.

- Hajo Broersma et al. "Planar Graph Coloring with Forbidden Subgraphs: Why Trees and Paths Are Dangerous.". In: *Algorithm Theory - 8th SWAT 2002, Turku, Finland*. Vol. 2368. Lecture Notes in Computer Science. Springer, 2002. 160–169
- Hajo Broersma et al. "More About Subcolorings.". In: *Computing* 69.3 (2002). 187–203
- Dominique de Werra et al. "The Hypocoloring Problem: Complexity and Approximability Results when the Chromatic Number Is Small.". In: *WG*. vol. 3353. Lecture Notes in Computer Science. Springer, 2004. 377–388
- Alastair Farrugia. "Uniqueness and Complexity in Generalised Colouring". PhD thesis. University of Waterloo, 2003
- A. Farrugia. "Vertex-partitioning into fixed additive induced-hereditary properties is NP-hard". In: *Electron. J. Combin.* 11.46 (2004)

55. *Fixed-parameter complexity of λ-labelings,*
coauthored with Ton Kloks and Jan Kratochvíl,
Graph-Theoretical Concepts in Computer Science, 25th WG '99, Ascona (1999), LNCS 1665, Springer Verlag, pp. 350–363.

- Hans L. Bodlaender et al. "λ-Coloring of Graphs.". In: *STACS*. vol. 1770. Lecture Notes in Computer Science. Springer, 2000. 395–406
- Tiziana Calamoneri and Rossella Petreschi. "λ-Coloring matrogenic graphs.". In: *Discrete Applied Mathematics* 154.17 (2006). 2445–2457
- Tiziana Calamoneri and Rossella Petreschi. "$L(h, 1)$-labeling subclasses of planar graphs.". In: *J. Parallel Distrib. Comput.* 64.3 (2004). 414–426
- Tiziana Calamoneri and Rossella Petreschi. "On the Radiocoloring Problem.". In: *IWDC*. vol. 2571. Lecture Notes in Computer Science. Springer, 2002. 118–127
- Tiziana Calamoneri and Rossella Petreschi. "Edge-clique graphs and the λ-coloring problem.". In: *J. Braz. Comp. Soc.* 7.3 (2001). 38–47
- Petr A. Golovach. "Systems of pair of q-distant representatives and graph colorings". In: *Zap. nau. sem. POMI* 293 (2002). 5–25. in Russian
- Sandi Klavžar and Aleksander Vesel. "Computing graph invariants on rota-graphs using dynamic algorithm approach: the case of $(2, 1)$-colorings and independence numbers". In: *Discrete Appl. Math.* 129.2–3 (2003). 449–460
- Daniel Král'. "Coloring powers of chordal graphs.". In: *SIAM J. Discrete Math.* 18.3 (2004). 451–461
- Petter Kristiansen and Jan Arne Telle. "Generalized -Coloring of Graphs.". In: *ISAAC*. vol. 1969. Lecture Notes in Computer Science. Springer, 2000. 456–466
- David Kuo and Jing-Ho Yan. "On $L(2, 1)$-labelings of Cartesian products of paths and cycles". In: *Discrete Math.* 283.1–3 (2004). 137–144
- Roger K. Yeh. "A survey on labeling graphs with a condition at distance two.". In: *Discrete Mathematics* 306.12 (2006). 1217–1231
- Zhen Dong Shao and Roger K. Yeh. "The $L(2, 1)$-labeling on graphs concerned by other graph coloring problems". manuscript. 2005
- Zhen Dong Shao and Roger K. Yeh. "A note on the $L(d, 1)$-labeling Problem on graphs". manuscript. 2004

Other

56. *Note on the computational complexity of covering regular graphs,* In: WDS 2000, Prague, pp. 89–90.

57. *The packing chromatic number of the square lattice is at least 12,* coauthored with Jan Ekstein, Přemysl Holub and Bernard Lidický available as `http://arxiv.org/abs/1003.2291`

Other publications

Conference proceedings

58. Theory and Applications of Models of Computation: (TAMC'10), (Kratochvíl, Li, Fiala, Kolman eds.), LNCS 6108, Springer Verlag (2010), 480 pages

59. Combinatorial Algorithms: (IWOCA'09), (Fiala, Kratochvíl, Miller eds.), LNCS 5874, Springer Verlag (2009), 480 pages

60. Mathematical Foundations of Computer Science, (Fiala, Koubek, Kratochvíl eds.), LNCS 3153, Springer Verlag (2004), 888 pages

61. Eurocomb 2003 Abstracts ITI Series 2003-145, ISBN-80-239-1185-6, 383 pages

Special issues

62. Volume 494 of Theoretical Computer Science related to TAMC'10 (Fiala, Kratochvíl, Li eds.), Elsevier (2013), 160 pages

63. Volume 155, issue 2 of Discrete Applied Mathematics related to MFCS'04 (Kratochvíl, Díaz, Fiala eds.), Elsevier (2006), 177 pages

Lecture notes

64. Introduction to graph minors and treewidth ITI Series 2003-132, 43 pages

Memorial anthology

65. Na slovíčko s Bohdanem (Fiala, Šimůnková, eds.) ITI Series 2012-555, ISBN 978-80-7378-202-2, 300 pages