

LIST OF PUBLICATIONS

JIŘÍ MATOUŠEK

Books

1. *Invitation to Discrete Mathematics*
with Jaroslav Nešetřil
432 pp., Oxford University Press, Oxford, 1998; revised 2nd edition 2008
A preliminary version in Czech (*Kapitoly z diskrétní matematiky*) published as Charles University lecture notes (Matfyzpress, Praha 1997; 2nd edition Nakladatelství Karolinum, Praha 2000, reprinted 2003; revised 3rd edition 2008, revised 4th edition 2009).
German translation: *Diskrete Mathematik (Eine Entdeckungsreise)*, Springer, Heidelberg, 2002; revised 2nd edition 2007.
Japanese translation: Springer Tokyo, 2003.
French translation: Springer, Heidelberg, 2004.
Spanish translation: Editorial Reverte, 2008.
2. *Geometric Discrepancy. An Illustrated Guide*
Volume 18 of *Algorithms and Combinatorics*, 288 pp., Springer-Verlag, Berlin etc., 1999.
Revised second printing 2010.
3. *Lectures on Discrete Geometry*
Graduate Texts in Mathematics 212, 481pp., Springer, New York, April 2002.
4. *Using the Borsuk–Ulam theorem. Lectures on topological methods in combinatorics and geometry*
Universitext, Springer, Berlin etc., 196pp., 2003.
Revised second printing 2008.
5. *Understanding and using linear programming*
with Bernd Gärtner
Universitext, Springer, Berlin etc., ca. 190pp, 2006.
A shorter Czech version in *Lineární programování a lineární algebra pro informatiky*, ITI Series 2006-311, Charles University, Prague 2006.
6. *Thirty three miniatures (Mathematical and algorithmic applications of linear algebra)*
Student Mathematical Library, Amer. Math. Soc., Providence, 2010.
7. *Approximation Algorithms and Semidefinite Programming*
with Bernd Gärtner
Springer, Berlin etc., 251pp., 2012.
8. *Mathematics++ (Selected topics beyond the basic courses)*
with Ida Kantor and Robert Šámal
Student Mathematical Library, Amer. Math. Soc., Providence, 2014.

Research papers in journals

9. *Approximate symmetric derivative and monotonicity*
Comment. Math. Univ. Carolinae 27,1(1986) 83–86.
10. *Few colored cuts or cycles in edge colored graphs*
Comment. Math. Univ. Carolinae 29(1988) 227–232.
11. *Line arrangements and range search*
Information Processing Letters 27(1988) 275–280.

12. *On polynomial-time decidability of induced minor-closed classes*
with J.Nešetřil and R.Thomas
Comment. Math. Univ. Carolinae 29,4(1988) 703–710.
13. *A typical property of the symmetric differential quotient*
Colloquium Math. 57.2(1989) 339–343.
14. *Selecting a small well-discriminating subset of tests*
with J. Schindler
Binary 1(1989) 19–28.
15. *On-line computation of convolutions*
Information Processing Letters 32(1989) 15–16.
16. *NP-hardness results for intersection graphs*
with J.Kratochvíl
Comment. Math. Univ. Carolinae 30,4(1989) 761–773.
17. *Construction of ε -nets*
Discrete & Computational Geometry 5(1990) 427–448 (invited paper).
Extended abstract:
Proc. 5. ACM Symposium on Computational Geometry 1989, 1–9.
18. *Extension of Lipschitz mappings on metric trees*
Comment. Math. Univ. Carolinae 31,1(1990) 99–104.
19. *Bi-Lipschitz embeddings into low-dimensional Euclidean spaces*
Comment. Math. Univ. Carolinae 31,3(1990) 589–600.
20. *Algorithms finding tree-decomposition of graphs*
with R. Thomas
J. Algorithms 12,1(1991) 1–22.
21. *Lower bound on the length of monotone paths in arrangements*
Discrete & Computational Geometry 6,2(1991) 129–134.
22. *Approximate halfplanar range counting*
KAM Series in Discrete Mathematics 87–59 (tech. report), Charles University, Prague 1987.
revised 1989 as *Approximate levels in line arrangements* – SIAM J. Computing 20,2(1991)
222–227.
23. *Spanning trees with low crossing number*
Informatique théorique et applications 6,25(1991) 103–123.
24. *Computing dominances in E^n*
Information Processing Letters 38,5(1991) 277–288.
25. *String graphs requiring huge representations*
with J.Kratochvíl
Journal of Combinatorial Theory ser. B 31,1(1991) 1–4.
26. *Cutting hyperplane arrangements*
Discrete & Computational Geometry 6,5(1991) 385–406 (invited paper).
Extended abstract:
Proc. 6. ACM Symposium on Computational Geometry (1990) pages 1–9.
27. *Randomized optimal slope selection*
Information Processing Letters 39(1991) 183–187.

28. *Hercules versus Hidden Hydra Helper*
with M. Loeb
Comment. Math. Univ. Carolinae 32,4(1992) 731–741.
29. *Good splitters for counting points in triangles*
with E. Welzl
J. Algorithms 13(1992) 307–319.
Extended abstract:
Proc. 5. ACM Symposium on Computational Geometry (1989) pages 124–130.
30. *Note on bi-Lipschitz embeddings into normed spaces*
Comment. Math. Univ. Carolinae 33,1(1992) 51–55.
31. *Relative neighborhood graphs in three dimensions*
with P. K. Agarwal
Computational Geometry: Theory and applications 2,1(1992) 1–14.
Preliminary version: Proc. 3. ACM-SIAM Symposium on Discrete Algorithms (1992), pages 58–65.
32. *Efficient partition trees*
Discrete & Computational Geometry, 8(1992) 315–334 (invited paper).
Extended abstract:
Proc. 7. ACM Symposium on Computational Geometry (1991) pages 1–9.
33. *Reporting points in halfspaces*
Computational Geometry: Theory and Applications 2,3(1992) 169–186.
Extended abstract:
Proc. 32. IEEE Symposium on Foundations of Computer Science (1991) pages 207–215.
34. *On the complexity of finding iso- and other morphisms for partial k -trees*
with R. Thomas
Discrete Math. 108(1992) 343–364.
35. *Ramsey-like properties for bi-Lipschitz embeddings of finite metric spaces*
Comment. Math. Univ. Carolinae 33,3(1992) 451–463.
36. *Farthest neighbors, maximum spanning trees and related problems in higher dimensions*
with P. K. Agarwal and S. Suri
Computational Geometry: Theory and Applications 1,4(1992) 189–201.
Extended abstract: Proc. 2. Workshop on Algorithms and Data Structures, Lecture Notes in Computer Science 519, pages 105–116, Springer-Verlag 1991.
37. *On vertical ray shooting in arrangements*
Computational Geometry: Theory and Applications 2(1993) 279–285.
38. *Linear optimization queries*
J. Algorithms 14(1993) 432–448
new version, with O. Schwarzkopf:
Proc. 8. ACM Symposium on Computational Geometry (1992), pages 16–25.
39. *Ray shooting and parametric search*
with P. K. Agarwal
SIAM J. Computing 22,4(1993) 794–806. Extended abstract:
Proc. 24. ACM Symposium on Theory of Computing (1992), pages 517–526.
40. *Range searching with efficient hierarchical cuttings*
Discrete & Computational Geometry 10,2(1993) 157–182.
Extended abstract: Proc. 8. ACM Symposium on Computational Geometry (1992), pages 276–285.

41. *On ray shooting in convex polytopes*
with O. Schwarzkopf
Discrete & Computational Geometry 10,2(1993) 215–232.
42. *Discrepancy and approximations for bounded VC-dimension*
with E. Welzl and L. Wernisch
Combinatorica, 13(1993) 455–466.
Extended abstract:
Proc. 32. IEEE Symposium on Foundations of Computer Science (1991) pages 424-430.
43. *On the sum of squares of cell complexities in hyperplane arrangements*
with B. Aronov and M. Sharir
Journal of Combinatorial Theory Ser. A 65(1994) 311–321.
Extended abstract:
Proc. 7. ACM Symposium on Computational Geometry (1991) pages 307–313.
44. *On range searching with semialgebraic sets*
with P. K. Agarwal
Discrete & Computational Geometry 11(1994) 393–418.
Extended abstract: Proc. 17. Symposium “Mathematical Foundations of Computer Science”
(1992), Lecture Notes in Computer Science 629, Springer-Verlag, pages 1–13.
45. *Fat triangles determine linearly many holes*
with J.Pach, M.Sharir, S.Sifrony and E.Welzl
SIAM J. Comput. 23(1994) 154–169
Extended abstract: Proc. 32. IEEE Symposium on Foundations of Computer Science (1991)
pages 49–58.
46. *Lower bound for a subexponential optimization algorithm*
Random Structures & Algorithms 5,4(1994) 591–607.
47. *Ham-sandwich cuts in R^d*
with C.-Y. Lo and W. Steiger
Discr. & Comput. Geom. 11(1994) 433–452.
Extended abstract: Proc. 24. ACM Symposium on Theory of Computing (1992), pages 539–
545.
48. *Intersection graphs of segments*
with J.Kratochvíl
J. Combin. Theory Ser. B 35,2(1994) 317–339.
49. *Complexity of projected images of convex subdivisions*
with Tomio Hirata, Xue-Hou Tan and Takeshi Tokuyama
Computational Geometry: Theory and Applications 4,6(1994) 293–308.
Extended abstract: Proc. 4. Canad. Conference on Comput. Geometry (1992).
50. *A Ramsey-type result for planar convex sets*
with D. Larman, J. Pach and J. Töröcsik
Bull. London Math. Soc. 26(1994) 132–136.
51. *Derandomizing an output-sensitive convex hull algorithm in three dimensions*
with B. Chazelle
Comput. Geom.: Theor. Appl. 5,1(1995) 27–32.
52. *On enclosing k points by a circle*
Information Processing Letters 53(1995) 217–221.

53. *Dynamic half-space range reporting and its applications*
with P. K. Agarwal
Algorithmica 13(1995) 325–345. Extended abstract, including also results of D. Eppstein:
Proc. 33. IEEE Symposium on Foundations of Computer Science (1992), pages 51–60.
54. *Approximations and optimal geometric divide-and-conquer*
J. of Computer and System Sciences 50,2(1995) 203–208 (invited paper).
Extended abstract: Proc. 23. ACM Symposium on Theory of Computing (1991) pages 506–511.
55. *On Ramsey sets in spheres*
with V. Rödl
Journal of Combinatorial Theory Ser. A 70,1(1995) 30–44.
56. *Tight upper bounds for the discrepancy of half-spaces*
Discr. & Comput. Geom. (L. FÉJES TÓTH Festschrift) 13(1995) 593–601.
57. *An elementary approach to lower bounds in geometric discrepancy*
with Bernard Chazelle and Micha Sharir
Discr. & Comput. Geometry (L. FÉJES TÓTH Festschrift) 13(1995) 363–381.
58. *Piecewise linear paths among convex obstacles*
with M. de Berg and O. Schwarzkopf
Discr. & Comput. Geometry 14(1995) 9–29.
Extended abstract: Proc. 25. ACM Symposium on Theory of Computing (1993) pages 505–514.
59. *On stabbing triangles by lines in 3-space*
with Boris Aronov
Comment. Math. Univ. Carolinae 36,1(1995) 109–113.
60. *On vertical decomposition of arrangements of hyperplanes in four dimensions*
with L. Guibas, D. Halperin and M. Sharir
Discr. Comput. Geometry 14(1995) 113–122
Extended abstract: Proc. 5th Canadian Conference on Computational Geometry (1993) pages 127–132.
61. *Note on the colored Tverberg theorem*
J. Comb. Theory Ser. B 66(1996) 146–151.
62. *On geometric optimization with few violated constraints*
Discr. & Comput. Geometry (invited paper) 14(1995) 365–384.
Extended abstract: Proc. 10. ACM Symposium on Comput. Geom. (1994) pages 312–321.
63. *Discrepancy in arithmetic progressions*
with Joel Spencer
J. Amer. Math. Soc. 9,1(1996) 195–204.
64. *On the distortion required for embedding finite metric spaces into normed spaces*
Israel J. Math. 93(1996) 333–344.
65. *A deterministic algorithm for the three-dimensional diameter problem*
with O. Schwarzkopf
Comput. Geom. Theor. Appl. 6(1996) 253–262.
Extended abstract: Proc. 25. ACM Symposium on Theory of Computing (1993), pages 478–484.

66. *On linear-time deterministic algorithms for optimization problems in fixed dimension*
with B. Chazelle
J. Algorithms 21(1996) 116–132. Extended abstract: Proc. 4. SIAM-ACM Symposium on Discrete Algorithms (1993), pages 281–290.
67. *Improved upper bounds for approximation by zonotopes*
Acta Mathematica 177(1996) 55–73.
68. *A subexponential bound for linear programming*
with M. Sharir and E. Welzl
Algorithmica 16(1996) 498–516.
Extended abstract: Proc. 8. ACM Symposium on Computational Geometry (1992), pages 1–8.
69. *On discrepancy bounds via dual shatter function*
Mathematika 44(1997) 42–49.
70. *A Helly-type theorem for unions of convex sets*
Discrete & Computational Geometry 18(1997) 1–12.
Extended abstract: Proc. 11. ACM Symposium on Comput. Geom. (1995) pages 138–145.
71. *On embedding expanders into ℓ_p spaces*
Israel J. Math. 102(1997) 189–197.
72. *On functional separately convex hulls*
with Petr Plecháč
Discr. Comput. Geom. 19(1998) 105–130.
73. *An L_p version of the Beck-Fiala conjecture*
European J. Combinatorics 19(1998) 175–182.
74. *Guarding galleries where every point sees a large area*
with Gil Kalai
Israel J. Math. 101(1997) 125–140.
75. *Computing many faces in arrangements of lines and segments*
with Pankaj K. Agarwal and Otfried Schwarzkopf
SIAM J. Comput. 27,2(1998) 491–505.
Extended abstract: 10. ACM Symposium on Comput. Geom. (1994) pages 76–84.
76. *Constructing levels in arrangements and higher order Voronoi diagrams*
with Pankaj K. Agarwal, Mark de Berg and Otfried Schwarzkopf
SIAM J. Comput. 27,3(1998) 654–667.
Extended abstract: 10. ACM Symposium on Comput. Geom. (1994) pages 67–75.
77. *An $O(n \log n)$ randomized algorithm for the repeated median line estimator*
with D. Mount and N. Netanyahu
Algorithmica 20,2(1998) 136–150.
Extended abstract: Proc. 4. SIAM-ACM Symposium on Discrete Algorithms (1993) pages 74–82.
78. *On the L_2 -discrepancy for anchored boxes*
J. of Complexity 14(1998) 527–556.
79. *The exponent of discrepancy is at least 1.0669*
J. of Complexity 14(1998) 448–453.

80. *On constants for cuttings in the plane*
Discr. Comput. Geom. 20(1998) 427–448.
81. *On the discrepancy for boxes and polytopes*
Monatsh. Math. 127(1999) 325–336.
82. *Almost-tiling the plane with ellipses*
with Krystyna Kuperberg, Włodzimierz Kuperberg, and Pavel Valtr
Discr. Comput. Geom. 22(1999), 367–375.
83. *A highly non-smooth norm on Hilbert space*
with Eva Matoušková
Israel J. Math. 112(1999) 1–27.
84. *Visibility and covering by convex sets*
with Pavel Valtr
Israel J. Math. 113(1999), 341–379.
85. *Product range spaces, sensitive sampling and derandomization*
with H. Brönnimann and B. Chazelle
SIAM J. Comput. 28,5(1999) 1552–1575.
Extended abstract: Proc. 34. IEEE Symposium on Foundations of Computer Science (1993)
pages 400–409.
86. *On the signed domination in graphs*
Combinatorica 20,1(2000) 103–108.
87. *On embedding trees into uniformly convex Banach spaces*
Israel J. Math. 114(1999) 221–237.
88. *On the linear and hereditary discrepancies*
European J. Combin. 21(2000) 519–521.
89. *Discrepancy of point sequences on fractal sets*
with Hansjörg Albrecher and Robert Tichy
Publicationes Mathematicae Debrecen (spec. volume dedicated to K. Györy) 56(2000) 233–249.
90. *On approximate geometric k -clustering*
Discr. Comput. Geom. 24(2000) 61–84.
91. *On the discrepancy for Cartesian products*
J. London Math. Soc. 61(2000) 737–747.
92. *Simultaneous partitions of measures by k -fans*
with Imre Bárány
Discr. Comput. Geom. 25,3(2001) 317–334.
93. *On directional convexity*
Discr. Comput. Geom. 25,3(2001) 389–405.
94. *Lower bound on the minus-domination number*
Discr. Math. 233(2001) 361–370.
95. *On dominated l_1 metrics*
with Yuri Rabinovich
Israel J. Math. 123(2001) 285–301.
96. *A lower bound for families of Natarajan dimension d*
with Paul Fischer
J. Combin. Theory Ser. A 95(2001) 198–195.

97. *Lower bounds on the transversal numbers of d -intervals*
Discr. Comput. Geom. 26(2001) 283–287.
98. *Random lifts of graphs III: independence and chromatic number*
with Alon Amit and Nathan Linial
Rand. Struct. Algo. 20(2002) 1–22.
Extended abstract appeared as a part of “A. Amit, N. Linial, J. Matoušek, E. Rozenman:
Random lifts of graphs, Proc. 12th annual ACM-SIAM symposium on discrete algorithms,
pages 883–894, 2001.”
99. *Separating an Object from its Cast*
with Hee-Kap Ahn, Mark de Berg, Prosenjit Bose, Siu-Wing Cheng, Dan Halperin, and Otfried
Schwarzkopf
Computer-Aided Design 34(2002) 547–559.
Extended abstract: *Proc. 12th ACM Symposium on Computational Geometry*, 1997.
100. *Equipartition of two measures by a 4-fan*
with Imre Bárány
Discr. Comput. Geom. 27(2002), 293–302.
101. *On the chromatic number of Kneser hypergraphs*
Proc. Amer. Math. Soc. 130 (2002), 2509–2514.
102. *Transversal numbers for hypergraphs arising in geometry*
with Noga Alon, Gil Kalai, and Roy Meshulam
Adv. Appl. Math. 130,9(2002) 2509–2514.
103. *A lower bound for weak epsilon-nets in high dimension*
Discr. Comput. Geom. 28(2002) 45–48.
104. *A lower bound on the size of Lipschitz subsets in dimension 3*
Combin. Probab. Comput. 12(2003) 427–430.
105. *A fractional Helly theorem for convex lattice sets*
with Imre Bárány
Adv. Math. 174(2003) 227–235.
106. *On restricted min-wise independence of permutations*
with Miloš Stojaković
Random Structures and Algorithms 23,4(2003) 397–408.
Extended abstract in proc. of EUROCOMB 2003.
107. *Low-distortion embeddings of trees*
with Robert Babilon, Jana Maxová, and Pavel Valtr
J. Graph Algorithms Appl. 7(2003) 399–409. Extended abstract in Proc. Graph Drawing,
2001 (Lecture Notes in Computer Science 2265), Springer, Berlin etc., 2002, pages 343–351.
108. *The one-round Voronoi game*
with Otfried Cheong, Sarel Har-Peled, and Nathan Linial
Discrete Comput. Geom. 31(2004) 125–138.
Extended abstract in Proc. 18th ACM Sympos. Comput. Geom. 2002.
109. *No Helly theorem for stabbing translates by lines in R^3*
with Andreas Holmsen
Discr. Comput. Geom. 31,3(2004) 405–410.
110. *Bounded VC-dimension implies a fractional Helly theorem*
Discr. Comput. Geom., 31,2(2004) 251–255.

111. *Topological lower bounds for the chromatic number: A hierarchy*
with Günter M. Ziegler
Jahresbericht der Deutschen Mathematiker-Vereinigung 106(2004) 71–90.
112. *Crossing number, pair-crossing number, and expansion*
with Petr Kolman
J. Comb. Theory Ser. B 92(2004) 99–113.
113. *New constructions of weak epsilon-nets*
with Uli Wagner
Discr. Comput. Geom. 32,2(2004), 195–206.
Extended abstract: Proc. 19th ACM Sympos. Comput. Geom. 2003.
114. *A combinatorial proof of Kneser’s conjecture*
Combinatorica 24,1(2004), 163–170.
115. *The randomized integer convex hull*
with Imre Bárány
Discr. Comput. Geom. 33,1(2005) 3–25.
116. *Triangles in random graphs*
with Martin Loeb and Ondřej Pangrác
Discrete Math. 289(2004) 181–185.
117. *Expected length of the longest common subsequence for large alphabets*
with Marcos Kiwi and Martin Loeb
Adv. Math. 197(2005) 480–498 .
Extended abstract: Proceedings of the 6th Latin American Theoretical Informatics Symposium (LATIN), LNCS series, Springer-Verlag, in press, 2004.
118. *Bounded-degree graphs have arbitrarily large geometric thickness*
with János Baránd David Wood
The Electronic Journal of Combinatorics 13,1(2006).
119. *Discrepancy after adding a single set*
with Jeong Han Kim and Van Ha Vu
Combinatorica 25(2005), 499–501.
120. *The number of unique-sink orientations of the hypercube*
Combinatorica 26(2006), 91–99.
121. *On k -Sets in four dimensions*
with Micha Sharir, Shakhar Smorodinsky, and Uli Wagner
Discr. Comput. Geom. 35,2(2006), 177–191.
122. *RANDOM EDGE can be exponential on abstract cubes*
with Tibor Szabó
Advances in Mathematics 204(2006) 262–277.
Extended abstract: in Proc. 45th IEEE Symposium on Foundations of Computer Science (FOCS), 2004.
123. *On-line conflict-free colorings for intervals*
with Ke Chen, Amos Fiat, Haim Kaplan, Meital Levy, Elchanan Mossel, János Pach, Micha Sharir, Shakhar Smorodinsky, Uli Wagner, and Emo Welzl
SIAM J. Computing 36(2006), 1342–1359.
Extended abstract, not involving Ke Chen and Amos Fiat as authors: Proc. ACM-SIAM Symposium on Discrete Algorithms, 2005, pages 545–554.

124. *Segmenting object space by geometric reference structures*
with Pankaj K. Agarwal and David Brady
ACM Transactions on Sensor Networks 2,4(2006), 455–465.
125. *Berge’s theorem, fractional Helly, and art galleries*
with Imre Bárány
Discr. Math. (special volume in memory of Claude Berge) 35,2(2006), 177–191.
126. *Quadratically many colorful simplices*
with Imre Bárány
SIAM J. Discrete Math. 21, 1(2007) 191–198.
127. *The distance trisector curve*
with Tetsuo Asano and Takeshi Tokuyama
Advances in Mathematics 212 (2007) 338–360.
Extended abstract in Proc. 38th ACM Symposium on Theory of Computing, 2006, pages 336–343.
128. *Packing cones and their negatives in space*
with Imre Bárány
Discr. Comput. Geom (L. Fejes Toth special volume) 38(2007), 177–187.
129. *Removing degeneracy may require a large dimension increase*
with Petr Škovroň
Theory of Computing 3/8(2007) 159–177.
Extended abstract in Proc. Eurocomb 2007, Vol. 29C of Electronic Notes in Discrete Mathematics, 2007.
130. *Zone diagrams: existence, uniqueness, and algorithmic challenge*
with Tetsuo Asano and Takeshi Tokuyama
SIAM J. Computing 37,4(2007) 1182–1198. Extended abstract in Proc. ACM-SIAM Symposium on Discrete Algorithms, 2007, pages 756–765.
131. *Induced trees in triangle-free graphs*
with Robert Šámal
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Extended abstract: Proc. Eurocomb 2007, Vol. 29C of Electronic Notes in Discrete Mathematics, 2007.
132. *Large monochromatic components in two-colored grids*
with Aleš Přivětivý
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Extended abstract: Proc. Eurocomb 2007, Vol. 29C of Electronic Notes in Discrete Mathematics, 2007.
133. *Removing degeneracy in LP-type problems revisited*
Discr. Comput. Geom. 42,4(2009) 517–526.
134. *Dimension gaps between representability and collapsibility*
with Martin Tancer
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135. *Violator spaces: structure and algorithms*
with Bernd Gärtner, Leo Rüst, and Petr Škovroň
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136. *Graph coloring with no large monochromatic components*
with Nathan Linial, Or Sheffet, and Gábor Tardos
Combin. Probab. Comput. 17,4(2008) 577–589.
Extended abstract in *Proc. Eurocomb 2007*, Vol. 29C of Electronic Notes in Discrete Mathematics, 2007.
137. *On variants of the Johnson–Lindenstrauss lemma*
Random Structures & Algorithms 33,2(2008)142–156.
138. *Computing D -convex hulls in the plane*
with Vojtěch Franěk
Comput. Geom. Theor. Appl. 42(2009) 81–89.
139. *LC reductions yield isomorphic simplicial complexes*
Contributions to Discrete Mathematics (electronic) 3,2(2008).
140. *How many points can be reconstructed from k projections?*
with Aleš Přívětivý and Petr Škovroň
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141. *Blocking visibility for points in general position*
Discr. Comput. Geom. 42,2(2009) 19–22. (Special issue dedicated to Victor Klee.)
142. *Stabbing simplices by points and flats*
with Boris Bukh and Gabriel Nivasch
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143. *Distance k -sectors exist*
with K. Imai, A. Kawamura, D. Reem, and T. Tokuyama
Comput. Geom. Theor. Appl. 43,9(2010) 713–720.
Extended abstract in *Proc. 26th ACM Symposium Comput. Geom.*, 2010, pages 210–215.
144. *Inapproximability for metric embeddings into R^d*
with Anastasios Sidiropoulos
Trans. Amer. Math. Soc. 362(2010), 6341–6365
Extended abstract: *Proc. IEEE Symposium on Foundations of Computer Science (FOCS)*, 2008, pages 405–413.
145. *The number of unit distances is almost linear for most norms*
Adv. Math. 226(2011) 2618–2628.
146. *Hardness of embedding simplicial complexes in R^d*
with Uli Wagner and Martin Tancer
J. European Math. Soc. 13(2011) 259–295.
Extended abstract: *Proc. ACM-SIAM Symposium on Discrete Algorithms*, 2009, pages 855–864.
147. *Lower bounds for weak epsilon-nets and stair-convexity*
with Boris Bukh and Gabriel Nivasch
Israel J. Math 182(2011) 199–228.
Extended abstract in *Proc. 25th Sympos. Comput. Geom.*, Aarhus, Denmark, 2009, pages 1–10.
148. *The t -pebbling number is eventually linear in t*
with Michael Hoffmann, Yoshio Okamoto, and Philipp Zumstein
Electronic J. Combin. 18,1(2011) P153.

149. *On the nonexistence of k -reptile tetrahedra*
with Z. Safernová
Discr. Comput. Geom. 46,3(2011) 599–609.
150. *Reachability by paths of bounded curvature in convex polygons*
with Hee-kap Ahn, Otfried Cheong, and Antoine Vigneron
Comput. Geom. Theor. Appl. 45,1–2(2012) 21–32.
Extended abstract: Proc. 16th ACM Sympos. Comput. Geom. 2000, pages 251–259.
151. *A geometric proof of the colored Tverberg theorem*
with Martin Tancer and Uli Wagner
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152. *A doubly exponentially crumbled cake*
with Tobias Christ, Andrea Francke, Heidi Gebauer, and Takeaki Uno
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153. *Simple proofs of classical theorems in discrete geometry via the Guth–Katz polynomial partitioning technique*
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154. *Unit distances in three dimensions*
with Haim Kaplan, Zuzana Safernová and Micha Sharir
Combinatorics, Probability, Computing 21(2012) 597–610. Preprint arXiv:1107.1077.
155. *Minimum and maximum against k lies*
with M. Hoffmann, Y. Okamoto, and P. Zumstein.
Chicago J. Theor. Comput. Sci. 2012, Article 2.
Extended abstract in Proc. 12th Scandinavian Symposium and Workshops on Algorithm Theory, Bergen (Lecture Notes in Computer Science 6139), Springer, 2010, pages 139–149.
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