

Zdenek Dvorak

List of Publications by Year in descending order

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Version: 2024-02-01

135
papers

1,132
citations

516710

16
h-index

552781

26
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138
all docs

138
docs citations

138
times ranked

491
citing authors

| # | ARTICLE | IF | CITATIONS |
|----|---|-----|-----------|
| 1 | Three-coloring triangle-free graphs on surfaces VII. A linear-time algorithm. Journal of Combinatorial Theory Series B, 2022, 152, 483-504. | 1.0 | 3 |
| 2 | Electric or Internal Combustion Engines for Passenger Cars? - Environmental and Economic Aspects. Communications - Scientific Letters of the University of Zilina, 2022, 24, B49-B58. | 0.6 | 1 |
| 3 | LEAN MANUFACTURING vs COVID-19. MEST Journal, 2022, 10, 1-11. | 0.3 | 5 |
| 4 | Characterization of 4-critical triangle-free toroidal graphs. Journal of Combinatorial Theory Series B, 2022, 154, 336-369. | 1.0 | 0 |
| 5 | Bounded Degree Conjecture Holds Precisely for c -Crossing-Critical Graphs with $c \geq 12$. Combinatorica, 2022, 42, 701-728. | 1.2 | 1 |
| 6 | Triangle-free planar graphs with at most ≤ 64 3-colorings. Journal of Combinatorial Theory Series B, 2022, 156, 294-298. | 1.0 | 0 |
| 7 | Three-coloring triangle-free graphs on surfaces V. Coloring planar graphs with distant anomalies. Journal of Combinatorial Theory Series B, 2021, 150, 244-269. | 1.0 | 6 |
| 8 | Flexibility of triangle-free planar graphs. Journal of Graph Theory, 2021, 96, 619-641. | 0.9 | 4 |
| 9 | A note on sublinear separators and expansion. European Journal of Combinatorics, 2021, 93, 103273. | 0.8 | 0 |
| 10 | Bounding the number of cycles in a graph in terms of its degree sequence. European Journal of Combinatorics, 2021, 91, 103206. | 0.8 | 0 |
| 11 | Three-coloring triangle-free graphs on surfaces IV. Bounding face sizes of 4-critical graphs. Journal of Combinatorial Theory Series B, 2021, 150, 270-304. | 1.0 | 4 |
| 12 | Coloring near-quadrangulations of the cylinder and the torus. European Journal of Combinatorics, 2021, 93, 103258. | 0.8 | 1 |
| 13 | Single-conflict colouring. Journal of Graph Theory, 2021, 97, 148-160. | 0.9 | 8 |
| 14 | Safety indicators as a basis for increasing the resilience of critical infrastructure. Haditechnika, 2021, 55, 25-30. | 0.0 | 0 |
| 15 | Notes on Graph Product Structure Theory. MATRIX Book Series, 2021, , 513-533. | 0.2 | 6 |
| 16 | Sublinear Separators in Intersection Graphs of Convex Shapes. SIAM Journal on Discrete Mathematics, 2021, 35, 1149-1164. | 0.8 | 5 |
| 17 | Interval Representation of Balanced Separators in Graphs Avoiding a Minor. Trends in Mathematics, 2021, , 829-834. | 0.1 | 0 |
| 18 | Cyclic coloring of plane graphs with maximum face size 16 and 17. European Journal of Combinatorics, 2021, 94, 103287. | 0.8 | 3 |

| # | ARTICLE | IF | CITATIONS |
|----|---|-----|-----------|
| 19 | A Thomassen-type method for planar graph recoloring. <i>European Journal of Combinatorics</i> , 2021, 95, 103319. | 0.8 | 5 |
| 20 | Methodological Framework for Resilience Assessment of Electricity Infrastructure in Conditions of Slovak Republic. <i>International Journal of Environmental Research and Public Health</i> , 2021, 18, 8286. | 2.6 | 2 |
| 21 | $(3a)$ -List-Colorability of Embedded Graphs of Girth at Least Five. <i>SIAM Journal on Discrete Mathematics</i> , 2020, 34, 2137-2165. | 0.8 | 0 |
| 22 | Three-coloring triangle-free graphs on surfaces III. Graphs of girth five. <i>Journal of Combinatorial Theory Series B</i> , 2020, 145, 376-432. | 1.0 | 7 |
| 23 | Additive non-approximability of chromatic number in proper minor-closed classes. <i>Journal of Combinatorial Theory Series B</i> , 2020, , . | 1.0 | 0 |
| 24 | Irreducible 4-critical triangle-free toroidal graphs. <i>European Journal of Combinatorics</i> , 2020, 88, 103112. | 0.8 | 2 |
| 25 | 1-Subdivisions, the Fractional Chromatic Number and the Hall Ratio. <i>Combinatorica</i> , 2020, 40, 759-774. | 1.2 | 1 |
| 26 | Qualitative Approach to Environmental Risk Assessment in Transport. <i>International Journal of Environmental Research and Public Health</i> , 2020, 17, 5494. | 2.6 | 25 |
| 27 | Integral approach to assessing the criticality of railway infrastructure elements. <i>International Journal of Critical Infrastructures</i> , 2020, 16, 107. | 0.2 | 13 |
| 28 | Flexibility of planar graphs of girth at least six. <i>Journal of Graph Theory</i> , 2020, 95, 457-466. | 0.9 | 4 |
| 29 | Fractional Coloring of Planar Graphs of Girth Five. <i>SIAM Journal on Discrete Mathematics</i> , 2020, 34, 538-555. | 0.8 | 1 |
| 30 | IDENTIFYING CRITICAL ELEMENTS OF ROAD INFRASTRUCTURE USING CASCADING IMPACT ASSESSMENT. <i>Transport</i> , 2020, 35, 300-314. | 1.2 | 8 |
| 31 | Transport Infrastructures Safety and Security. <i>Advances in Information Security, Privacy, and Ethics Book Series</i> , 2020, , 31-62. | 0.5 | 0 |
| 32 | Organization of Damaged Road Rehabilitation in the Village of Rybany. <i>Lecture Notes in Intelligent Transportation and Infrastructure</i> , 2020, , 466-473. | 0.5 | 0 |
| 33 | Planar graphs without cycles of length 4 or 5 are $(11:3)$ -colorable. <i>European Journal of Combinatorics</i> , 2019, 82, 102996. | 0.8 | 3 |
| 34 | Map of traffic accidents. <i>Transportation Research Procedia</i> , 2019, 40, 1418-1425. | 1.5 | 6 |
| 35 | Exponentially Many Nowhere-Zero \hat{a}_3 , \hat{a}_4 , and \hat{a}_6 -Flows. <i>Combinatorica</i> , 2019, 39, 1237-1253. | 1.2 | 2 |
| 36 | Effect of a power failure on rail transport. <i>Transportation Research Procedia</i> , 2019, 40, 1289-1296. | 1.5 | 4 |

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|----|---|-----|-----------|
| 37 | Objectification of Criteria for a Critical Infrastructure Elements in the Rail Transport Sub-sector. Transportation Research Procedia, 2019, 40, 1349-1355. | 1.5 | 2 |
| 38 | Improving the recovery system of damaged roads due to safety. Transportation Research Procedia, 2019, 40, 1305-1310. | 1.5 | 0 |
| 39 | List coloring with requests. Journal of Graph Theory, 2019, 92, 191-206. | 0.9 | 8 |
| 40 | Treewidth of graphs with balanced separations. Journal of Combinatorial Theory Series B, 2019, 137, 137-144. | 1.0 | 6 |
| 41 | On distance $\hat{\epsilon}$ -dominating and $\hat{\epsilon}$ -independent sets in sparse graphs. Journal of Graph Theory, 2019, 91, 162-173. | 0.9 | 9 |
| 42 | Triangle-free planar graphs with small independence number. European Journal of Combinatorics, 2019, 76, 88-103. | 0.8 | 0 |
| 43 | Triangle-free planar graphs with the smallest independence number. Journal of Graph Theory, 2019, 90, 443-454. | 0.9 | 0 |
| 44 | Fine Structure of 4-Critical Triangle-Free Graphs III. General Surfaces. SIAM Journal on Discrete Mathematics, 2018, 32, 94-105. | 0.8 | 6 |
| 45 | Induced subdivisions and bounded expansion. European Journal of Combinatorics, 2018, 69, 143-148. | 0.8 | 7 |
| 46 | Correspondence coloring and its application to list-coloring planar graphs without cycles of lengths 4 to 8. Journal of Combinatorial Theory Series B, 2018, 129, 38-54. | 1.0 | 112 |
| 47 | Complete graph immersions and minimum degree. Journal of Graph Theory, 2018, 88, 211-221. | 0.9 | 11 |
| 48 | Treewidth of Grid Subsets. Combinatorica, 2018, 38, 1337-1352. | 1.2 | 5 |
| 49 | Fine Structure of 4-Critical Triangle-Free Graphs I. Planar Graphs with Two Triangles and 3-Colorability of Chains. SIAM Journal on Discrete Mathematics, 2018, 32, 1775-1805. | 0.8 | 0 |
| 50 | On classes of graphs with strongly sublinear separators. European Journal of Combinatorics, 2018, 71, 1-11. | 0.8 | 4 |
| 51 | Three-coloring triangle-free graphs on surfaces II. 4-critical graphs in a disk. Journal of Combinatorial Theory Series B, 2018, 132, 1-46. | 1.0 | 6 |
| 52 | 5-choosability of graphs with crossings far apart. Journal of Combinatorial Theory Series B, 2017, 123, 54-96. | 1.0 | 6 |
| 53 | Exponentially many nowhere-zero $\langle \mathbb{Z} \rangle$ -flows on $\mathbb{Z} \times \mathbb{Z}$ with $\mathbb{Z} \times \mathbb{Z}$ as a subgraph. Journal of Combinatorial Theory Series B, 2017, 123, 1-11. | 0.4 | 1 |
| 54 | Fine Structure of 4-Critical Triangle-Free Graphs II. Planar Triangle-Free Graphs with Two Precolored 4-Cycles. SIAM Journal on Discrete Mathematics, 2017, 31, 865-874. | 0.8 | 5 |

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|----|---|-----|-----------|
| 55 | Irreducible 4-critical triangle-free toroidal graphs. <i>Electronic Notes in Discrete Mathematics</i> , 2017, 61, 383-389. | 0.4 | 1 |
| 56 | Assessment of Critical Infrastructure Elements in Transport. <i>Procedia Engineering</i> , 2017, 187, 548-555. | 1.2 | 33 |
| 57 | Density of $5/2$ -critical graphs. <i>Combinatorica</i> , 2017, 37, 863-886. | 1.2 | 11 |
| 58 | Large Independent Sets in Triangle-Free Planar Graphs. <i>SIAM Journal on Discrete Mathematics</i> , 2017, 31, 1355-1373. | 0.8 | 7 |
| 59 | 5-list-coloring planar graphs with distant precolored vertices. <i>Journal of Combinatorial Theory Series B</i> , 2017, 122, 311-352. | 1.0 | 5 |
| 60 | Do Triangle-Free Planar Graphs have Exponentially Many 3 -Colorings?. <i>Electronic Journal of Combinatorics</i> , 2017, 24, . | 0.4 | 3 |
| 61 | A Structure Theorem for Strong Immersions. <i>Journal of Graph Theory</i> , 2016, 83, 152-163. | 0.9 | 7 |
| 62 | Strongly Sublinear Separators and Polynomial Expansion. <i>SIAM Journal on Discrete Mathematics</i> , 2016, 30, 1095-1101. | 0.8 | 25 |
| 63 | Sublinear separators, fragility and subexponential expansion. <i>European Journal of Combinatorics</i> , 2016, 52, 103-119. | 0.8 | 13 |
| 64 | Software Support for Railway Traffic Simulation under Restricted Conditions of the Rail Section. <i>Procedia Engineering</i> , 2016, 134, 245-255. | 1.2 | 12 |
| 65 | Three-coloring triangle-free graphs on surfaces I. Extending a coloring to a disk with one triangle. <i>Journal of Combinatorial Theory Series B</i> , 2016, 120, 1-17. | 1.0 | 4 |
| 66 | Crossing Numbers of Periodic Graphs. <i>Journal of Graph Theory</i> , 2016, 83, 34-43. | 0.9 | 3 |
| 67 | Immersion in four-edge-connected graphs. <i>Journal of Combinatorial Theory Series B</i> , 2016, 116, 208-218. | 1.0 | 5 |
| 68 | Packing six T-joins in plane graphs. <i>Journal of Combinatorial Theory Series B</i> , 2016, 116, 287-305. | 1.0 | 6 |
| 69 | 3 -Coloring Triangle-Free Planar Graphs with a Precolored 8 -Cycle. <i>Journal of Graph Theory</i> , 2015, 80, 98-111. | 0.9 | 9 |
| 70 | Fractional Coloring of Triangle-Free Planar Graphs. <i>Electronic Journal of Combinatorics</i> , 2015, 22, . | 0.4 | 7 |
| 71 | Subcubic triangle-free graphs have fractional chromatic number at most $14/5$. <i>Journal of the London Mathematical Society</i> , 2014, 89, 641-662. | 1.0 | 9 |
| 72 | 4-Critical Graphs on Surfaces Without Contractible (≤ 4) -Cycles. <i>SIAM Journal on Discrete Mathematics</i> , 2014, 28, 521-552. | 0.8 | 6 |

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|----|--|----------|-----------|
| 73 | 3-choosability of planar graphs with $\frac{1}{2}$ Tj ETQq1 1 0.784314 ngBT /Overlock 10 Tj 2014, 104, 28-59. | 0.784314 | 10 |
| 74 | A minimum degree condition forcing complete graph immersion. <i>Combinatorica</i> , 2014, 34, 279-298. | 1.2 | 30 |
| 75 | Strong Immersions and Maximum Degree. <i>SIAM Journal on Discrete Mathematics</i> , 2014, 28, 177-187. | 0.8 | 5 |
| 76 | Planar 4-critical graphs with four triangles. <i>European Journal of Combinatorics</i> , 2014, 41, 138-151. | 0.8 | 12 |
| 77 | Distance-two coloring of sparse graphs. <i>European Journal of Combinatorics</i> , 2014, 36, 406-415. | 0.8 | 1 |
| 78 | Large Independent Sets in Triangle-Free Planar Graphs. <i>Lecture Notes in Computer Science</i> , 2014, , 346-357. | 1.3 | 2 |
| 79 | A Dynamic Data Structure for MSO Properties in Graphs with Bounded Tree-Depth. <i>Lecture Notes in Computer Science</i> , 2014, , 334-345. | 1.3 | 1 |
| 80 | Star Chromatic Index. <i>Journal of Graph Theory</i> , 2013, 72, 313-326. | 0.9 | 30 |
| 81 | Chromatic number and complete graph substructures for degree sequences. <i>Combinatorica</i> , 2013, 33, 513-529. | 1.2 | 7 |
| 82 | Constant-factor approximation of the domination number in sparse graphs. <i>European Journal of Combinatorics</i> , 2013, 34, 833-840. | 0.8 | 40 |
| 83 | Sub-exponentially many 3-colorings of triangle-free planar graphs. <i>Journal of Combinatorial Theory Series B</i> , 2013, 103, 706-712. | 1.0 | 5 |
| 84 | Testing first-order properties for subclasses of sparse graphs. <i>Journal of the ACM</i> , 2013, 60, 1-24. | 2.2 | 47 |
| 85 | List-coloring embedded graphs. , 2013, , . | | 4 |
| 86 | A Dynamic Data Structure for Counting Subgraphs in Sparse Graphs. <i>Lecture Notes in Computer Science</i> , 2013, , 304-315. | 1.3 | 11 |
| 87 | Spectrally degenerate graphs: Hereditary case. <i>Journal of Combinatorial Theory Series B</i> , 2012, 102, 1099-1109. | 1.0 | 4 |
| 88 | Forbidden graphs for tree-depth. <i>European Journal of Combinatorics</i> , 2012, 33, 969-979. | 0.8 | 22 |
| 89 | Classes of graphs with small rank decompositions are \aleph_1 -bounded. <i>European Journal of Combinatorics</i> , 2012, 33, 679-683. | 0.8 | 22 |
| 90 | Bipartizing fullerenes. <i>European Journal of Combinatorics</i> , 2012, 33, 1286-1293. | 0.8 | 7 |

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|-----|--|-----|-----------|
| 91 | Graphs with Two Crossings Are 5-Choosable. SIAM Journal on Discrete Mathematics, 2011, 25, 1746-1753. | 0.8 | 7 |
| 92 | RandiĀ† index and the diameter of a graph. European Journal of Combinatorics, 2011, 32, 434-442. | 0.8 | 24 |
| 93 | Three-coloring triangle-free planar graphs in linear time. ACM Transactions on Algorithms, 2011, 7, 1-14. | 1.0 | 14 |
| 94 | NonĀ€rainbow colorings of 3Ā€, 4Ā€ and 5Ā€connected plane graphs. Journal of Graph Theory, 2010, 63, 129-145. | 0.9 | 2 |
| 95 | Toughness threshold for the existence of 2-walks in $K_{m,n}^{(k)}$ graphs. Discrete Mathematics, 2010, 310, 642-651. | 0.7 | 3 |
| 96 | Crossing-critical graphs with large maximum degree. Journal of Combinatorial Theory Series B, 2010, 100, 413-417. | 1.0 | 10 |
| 97 | On recognizing graphs by numbers of homomorphisms. Journal of Graph Theory, 2010, 64, 330-342. | 0.9 | 18 |
| 98 | Small graph classes and bounded expansion. Journal of Combinatorial Theory Series B, 2010, 100, 171-175. | 1.0 | 13 |
| 99 | Spectral radius of finite and infinite planar graphs and of graphs of bounded genus. Journal of Combinatorial Theory Series B, 2010, 100, 729-739. | 1.0 | 18 |
| 100 | A note on antisymmetric flows in graphs. European Journal of Combinatorics, 2010, 31, 320-324. | 0.8 | 2 |
| 101 | 3-Choosability of Triangle-Free Planar Graphs with Constraints on 4-Cycles. SIAM Journal on Discrete Mathematics, 2010, 24, 934-945. | 0.8 | 12 |
| 102 | Deciding First-Order Properties for Sparse Graphs. , 2010, , . | | 34 |
| 103 | Algorithms for Classes of Graphs with Bounded Expansion. Lecture Notes in Computer Science, 2010, , 17-32. | 1.3 | 6 |
| 104 | On a Rado Type Problem for Homogeneous Second Order Linear Recurrences. Electronic Journal of Combinatorics, 2010, 17, . | 0.4 | 0 |
| 105 | k -Chromatic Number of Graphs on Surfaces. SIAM Journal on Discrete Mathematics, 2009, 23, 477-486. | 0.8 | 0 |
| 106 | Matchings and Nonrainbow Colorings. SIAM Journal on Discrete Mathematics, 2009, 23, 344-348. | 0.8 | 3 |
| 107 | Planar graphs without 3-, 7-, and 8-cycles are 3-choosable. Discrete Mathematics, 2009, 309, 5899-5904. | 0.7 | 10 |
| 108 | Spectral radius of finite and infinite planar graphs and of graphs of bounded genus (extended) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50 62 | 0.4 | 1 |

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|-----|---|-----|-----------|
| 109 | Distance constrained labelings of planar graphs with no short cycles. <i>Discrete Applied Mathematics</i> , 2009, 157, 2634-2645. | 0.9 | 8 |
| 110 | Two-factors in orientated graphs with forbidden transitions. <i>Discrete Mathematics</i> , 2009, 309, 104-112. | 0.7 | 8 |
| 111 | Three-coloring triangle-free planar graphs in linear time (extended abstract). , 2009, , . | | 7 |
| 112 | Coloring triangle-free graphs on surfaces. , 2009, , . | | 7 |
| 113 | On forbidden subdivision characterizations of graph classes. <i>European Journal of Combinatorics</i> , 2008, 29, 1321-1332. | 0.8 | 22 |
| 114 | Coloring squares of planar graphs with girth six. <i>European Journal of Combinatorics</i> , 2008, 29, 838-849. | 0.8 | 57 |
| 115 | List-Coloring Squares of Sparse Subcubic Graphs. <i>SIAM Journal on Discrete Mathematics</i> , 2008, 22, 139-159. | 0.8 | 21 |
| 116 | Planar Graphs of Odd-Girth at Least 9 are Homomorphic to the Petersen Graph. <i>SIAM Journal on Discrete Mathematics</i> , 2008, 22, 568-591. | 0.8 | 9 |
| 117 | Noncrossing Hamiltonian paths in geometric graphs. <i>Discrete Applied Mathematics</i> , 2007, 155, 1096-1105. | 0.9 | 7 |
| 118 | Probabilistic strategies for the partition and plurality problems. <i>Random Structures and Algorithms</i> , 2007, 30, 63-77. | 1.1 | 10 |
| 119 | Four gravity results. <i>Discrete Mathematics</i> , 2007, 307, 181-190. | 0.7 | 0 |
| 120 | Coloring Triangle-Free Graphs on Surfaces. , 2007, , 2-4. | | 0 |
| 121 | A Theorem About a Contractible and Light Edge. <i>SIAM Journal on Discrete Mathematics</i> , 2006, 20, 55-61. | 0.8 | 4 |
| 122 | Eulerian colorings and the bipartizing matchings conjecture of Fleischner. <i>European Journal of Combinatorics</i> , 2006, 27, 1088-1101. | 0.8 | 1 |
| 123 | Locally consistent constraint satisfaction problems. <i>Theoretical Computer Science</i> , 2005, 348, 187-206. | 0.9 | 1 |
| 124 | Coloring face hypergraphs on surfaces. <i>European Journal of Combinatorics</i> , 2005, 26, 95-110. | 0.8 | 10 |
| 125 | Three Optimal Algorithms for Balls of Three Colors. <i>Lecture Notes in Computer Science</i> , 2005, , 206-217. | 1.3 | 5 |
| 126 | On the Complexity of the G-Reconstruction Problem. <i>Lecture Notes in Computer Science</i> , 2005, , 196-205. | 1.3 | 0 |

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|-----|--|-----|-----------|
| 127 | Noncrossing Hamiltonian Paths in Geometric Graphs. Lecture Notes in Computer Science, 2004, , 86-97. | 1.3 | 2 |
| 128 | An Algorithm for Cyclic Edge Connectivity of Cubic Graphs. Lecture Notes in Computer Science, 2004, , 236-247. | 1.3 | 6 |
| 129 | Locally Consistent Constraint Satisfaction Problems. Lecture Notes in Computer Science, 2004, , 469-480. | 1.3 | 2 |
| 130 | Complexity of Pattern Coloring of Cycle Systems. Lecture Notes in Computer Science, 2002, , 164-175. | 1.3 | 0 |
| 131 | On Planar Mixed Hypergraphs. Electronic Journal of Combinatorics, 2001, 8, . | 0.4 | 15 |
| 132 | Fatigue Damage Prediction as a Part of Technical Systems Reliability Assessment. Key Engineering Materials, 0, 755, 131-138. | 0.4 | 3 |
| 133 | Treewidth of grid subsets. Combinatorica, 0, , . | 1.2 | 1 |
| 134 | Coloring count cones of planar graphs. Journal of Graph Theory, 0, , . | 0.9 | 0 |
| 135 | On weighted sublinear separators. Journal of Graph Theory, 0, , . | 0.9 | 1 |