

Ignaz Rutter

List of Publications by Year in descending order

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Version: 2024-02-01

108
papers

742
citations

777949

13
h-index

889612

19
g-index

121
all docs

121
docs citations

121
times ranked

329
citing authors

| # | ARTICLE | IF | CITATIONS |
|----|---|-----|-----------|
| 1 | Inserting an edge into a geometric embedding. Computational Geometry: Theory and Applications, 2022, 102, 101843. | 0.3 | 0 |
| 2 | Simple algorithms for partial and simultaneous rectangular duals with given contact orientations. Theoretical Computer Science, 2022, , . | 0.5 | 0 |
| 3 | Simultaneous FPQ-ordering and hybrid planarity testing. Theoretical Computer Science, 2021, 874, 59-79. | 0.5 | 4 |
| 4 | Simple k-planar graphs are simple $(k+1)$ -quasiplanar. Journal of Combinatorial Theory Series B, 2020, 142, 1-35. | 0.6 | 11 |
| 5 | Beyond level planarity: Cyclic, torus, and simultaneous level planarity. Theoretical Computer Science, 2020, 804, 161-170. | 0.5 | 5 |
| 6 | Vulnerability in Social Epistemic Networks. International Journal of Philosophical Studies, 2020, 28, 731-753. | 0.2 | 20 |
| 7 | Towards a Characterization of Stretchable Aligned Graphs. Lecture Notes in Computer Science, 2020, , 295-307. | 1.0 | 0 |
| 8 | Simultaneous Embedding. , 2020, , 237-265. | | 3 |
| 9 | Simultaneous FPQ-Ordering and Hybrid Planarity Testing. Lecture Notes in Computer Science, 2020, , 617-626. | 1.0 | 2 |
| 10 | An Integer-Linear Program for Bend-Minimization in Ortho-Radial Drawings. Lecture Notes in Computer Science, 2020, , 235-249. | 1.0 | 4 |
| 11 | Drawing Clustered Planar Graphs on Disk Arrangements. Journal of Graph Algorithms and Applications, 2020, 24, 105-131. | 0.4 | 0 |
| 12 | On Turn-Regular Orthogonal Representations. Lecture Notes in Computer Science, 2020, , 250-264. | 1.0 | 2 |
| 13 | Extending Partial Orthogonal Drawings. Lecture Notes in Computer Science, 2020, , 265-278. | 1.0 | 2 |
| 14 | Reaching 3-Connectivity via Edge-Edge Additions. Lecture Notes in Computer Science, 2019, , 175-187. | 1.0 | 0 |
| 15 | Geometric Heuristics for Rectilinear Crossing Minimization. Journal of Experimental Algorithmics, 2019, 24, 1-21. | 0.7 | 2 |
| 16 | Minimizing Bias in Estimation of Mutual Information from Data Streams. , 2019, , . | | 0 |
| 17 | NodeTriX Planarity Testing with Small Clusters. Algorithmica, 2019, 81, 3464-3493. | 1.0 | 11 |
| 18 | Planarity of streamed graphs. Theoretical Computer Science, 2019, 799, 1-21. | 0.5 | 5 |

| # | ARTICLE | IF | CITATIONS |
|----|--|-----|-----------|
| 19 | Drawing Clustered Graphs on Disk Arrangements. Lecture Notes in Computer Science, 2019, , 160-171. | 1.0 | 0 |
| 20 | How to Draw a Planarization. Journal of Graph Algorithms and Applications, 2019, 23, 653-682. | 0.4 | 0 |
| 21 | Graph Drawing Contest Report. Lecture Notes in Computer Science, 2019, , 575-583. | 1.0 | 0 |
| 22 | An SPQR-Tree-Like Embedding Representation for Upward Planarity. Lecture Notes in Computer Science, 2019, , 517-531. | 1.0 | 2 |
| 23 | Linear-time recognition of map graphs with outerplanar witness. Discrete Optimization, 2018, 28, 63-77. | 0.6 | 5 |
| 24 | Simultaneous Embedding: Edge Orderings, Relative Positions, Cutvertices. Algorithmica, 2018, 80, 1214-1277. | 1.0 | 8 |
| 25 | A Geometric Heuristic for Rectilinear Crossing Minimization. , 2018, , 129-138. | | 8 |
| 26 | Windrose Planarity. ACM Transactions on Algorithms, 2018, 14, 1-24. | 0.9 | 7 |
| 27 | Gap-planar graphs. Theoretical Computer Science, 2018, 745, 36-52. | 0.5 | 24 |
| 28 | The Maximum Transmission Switching Flow Problem. , 2018, , . | | 3 |
| 29 | Gap-Planar Graphs. Lecture Notes in Computer Science, 2018, , 531-545. | 1.0 | 2 |
| 30 | Aligned Drawings of Planar Graphs. Journal of Graph Algorithms and Applications, 2018, 22, 401-429. | 0.4 | 2 |
| 31 | Graph Drawing Contest Report. Lecture Notes in Computer Science, 2018, , 575-582. | 1.0 | 3 |
| 32 | Graph Drawing Contest Report. Lecture Notes in Computer Science, 2018, , 609-617. | 1.0 | 1 |
| 33 | Level Planarity: Transitivity vs. Even Crossings. Lecture Notes in Computer Science, 2018, , 39-52. | 1.0 | 2 |
| 34 | Inserting an Edge into a Geometric Embedding. Lecture Notes in Computer Science, 2018, , 402-415. | 1.0 | 2 |
| 35 | Extending Partial Representations of Proper and Unit Interval Graphs. Algorithmica, 2017, 77, 1071-1104. | 1.0 | 15 |
| 36 | Partial and Constrained Level Planarity. , 2017, , . | | 12 |

| # | ARTICLE | IF | CITATIONS |
|----|---|-----|-----------|
| 37 | A Simulated-Annealing-Based Approach for Wind Farm Cabling. , 2017, , . | | 10 |
| 38 | Radial contour labeling with straight leaders. , 2017, , . | | 4 |
| 39 | Partitioning Graph Drawings and Triangulated Simple Polygons into Greedily Routable Regions. International Journal of Computational Geometry and Applications, 2017, 27, 121-158. | 0.3 | 3 |
| 40 | How to Draw a Planarization. Lecture Notes in Computer Science, 2017, , 295-308. | 1.0 | 4 |
| 41 | On the Relationship Between k -Planar and k -Quasi-Planar Graphs. Lecture Notes in Computer Science, 2017, , 59-74. | 1.0 | 7 |
| 42 | Intersection-Link Representations of Graphs. Journal of Graph Algorithms and Applications, 2017, 21, 731-755. | 0.4 | 23 |
| 43 | Orthogonal graph drawing with inflexible edges. Computational Geometry: Theory and Applications, 2016, 55, 26-40. | 0.3 | 12 |
| 44 | Extending Convex Partial Drawings of Graphs. Algorithmica, 2016, 76, 47-67. | 1.0 | 12 |
| 45 | Multi-sided Boundary Labeling. Algorithmica, 2016, 76, 225-258. | 1.0 | 15 |
| 46 | A new perspective on clustered planarity as a combinatorial embedding problem. Theoretical Computer Science, 2016, 609, 306-315. | 0.5 | 16 |
| 47 | Search-space size in contraction hierarchies. Theoretical Computer Science, 2016, 645, 112-127. | 0.5 | 14 |
| 48 | Optimal Orthogonal Graph Drawing with Convex Bend Costs. ACM Transactions on Algorithms, 2016, 12, 1-32. | 0.9 | 7 |
| 49 | Evaluation of Labeling Strategies for Rotating Maps. Journal of Experimental Algorithmics, 2016, 21, 1-21. | 0.7 | 10 |
| 50 | Beyond Level Planarity. Lecture Notes in Computer Science, 2016, , 482-495. | 1.0 | 9 |
| 51 | Simultaneous Orthogonal Planarity. Lecture Notes in Computer Science, 2016, , 532-545. | 1.0 | 7 |
| 52 | Simultaneous PQ-Ordering with Applications to Constrained Embedding Problems. ACM Transactions on Algorithms, 2016, 12, 1-46. | 0.9 | 28 |
| 53 | Graph Drawing Contest Report. Lecture Notes in Computer Science, 2016, , 589-595. | 1.0 | 0 |
| 54 | Disconnectivity and relative positions in simultaneous embeddings. Computational Geometry: Theory and Applications, 2015, 48, 459-478. | 0.3 | 11 |

| # | ARTICLE | IF | CITATIONS |
|----|--|-----|-----------|
| 55 | Regular Augmentation of Planar Graphs. <i>Algorithmica</i> , 2015, 73, 306-370. | 1.0 | 2 |
| 56 | Testing Planarity of Partially Embedded Graphs. <i>ACM Transactions on Algorithms</i> , 2015, 11, 1-42. | 0.9 | 28 |
| 57 | Online dynamic power management with hard real-time guarantees. <i>Theoretical Computer Science</i> , 2015, 595, 46-64. | 0.5 | 7 |
| 58 | Operating Power Grids with Few Flow Control Buses. , 2015, , . | | 7 |
| 59 | Planarity of Streamed Graphs. <i>Lecture Notes in Computer Science</i> , 2015, , 153-166. | 1.0 | 4 |
| 60 | Many-to-One Boundary Labeling with Backbones. <i>Journal of Graph Algorithms and Applications</i> , 2015, 19, 779-816. | 0.4 | 11 |
| 61 | Pixel and Voxel Representations of Graphs. <i>Lecture Notes in Computer Science</i> , 2015, , 472-486. | 1.0 | 4 |
| 62 | Optimal Shuffle Code with Permutation Instructions. <i>Lecture Notes in Computer Science</i> , 2015, , 528-541. | 1.0 | 0 |
| 63 | Graph Drawing Contest Report. <i>Lecture Notes in Computer Science</i> , 2015, , 531-537. | 1.0 | 1 |
| 64 | Partitioning Graph Drawings and Triangulated Simple Polygons into Greedily Routable Regions. <i>Lecture Notes in Computer Science</i> , 2015, , 637-649. | 1.0 | 0 |
| 65 | TESTING MUTUAL DUALITY OF PLANAR GRAPHS. <i>International Journal of Computational Geometry and Applications</i> , 2014, 24, 325-346. | 0.3 | 2 |
| 66 | Extending Partial Representations of Proper and Unit Interval Graphs. <i>Lecture Notes in Computer Science</i> , 2014, , 253-264. | 1.0 | 5 |
| 67 | Orthogonal Graph Drawing with Flexibility Constraints. <i>Algorithmica</i> , 2014, 68, 859-885. | 1.0 | 17 |
| 68 | On d -regular schematization of embedded paths. <i>Computational Geometry: Theory and Applications</i> , 2014, 47, 381-406. | 0.3 | 9 |
| 69 | Complexity of Higher-Degree Orthogonal Graph Embedding in the Kandinsky Model. <i>Lecture Notes in Computer Science</i> , 2014, , 161-172. | 1.0 | 13 |
| 70 | Generalizing Geometric Graphs. <i>Journal of Graph Algorithms and Applications</i> , 2014, 18, 35-76. | 0.4 | 2 |
| 71 | A New Perspective on Clustered Planarity as a Combinatorial Embedding Problem. <i>Lecture Notes in Computer Science</i> , 2014, , 440-451. | 1.0 | 1 |
| 72 | On Self-Approaching and Increasing-Chord Drawings of 3-Connected Planar Graphs. <i>Lecture Notes in Computer Science</i> , 2014, , 476-487. | 1.0 | 4 |

| # | ARTICLE | IF | CITATIONS |
|----|---|-----|-----------|
| 73 | Column-Based Graph Layouts. Journal of Graph Algorithms and Applications, 2014, 18, 677-708. | 0.4 | 2 |
| 74 | Drawing Simultaneously Embedded Graphs with Few Bends. Lecture Notes in Computer Science, 2014, , 40-51. | 1.0 | 4 |
| 75 | The density maximization problem in graphs. Journal of Combinatorial Optimization, 2013, 26, 723-754. | 0.8 | 1 |
| 76 | A Kuratowski-type theorem for planarity of partially embedded graphs. Computational Geometry: Theory and Applications, 2013, 46, 466-492. | 0.3 | 26 |
| 77 | Fork-forests in bi-colored complete bipartite graphs. Discrete Applied Mathematics, 2013, 161, 1363-1366. | 0.5 | 0 |
| 78 | Search-Space Size in Contraction Hierarchies. Lecture Notes in Computer Science, 2013, , 93-104. | 1.0 | 19 |
| 79 | Simultaneous Embedding: Edge Orderings, Relative Positions, Cutvertices. Lecture Notes in Computer Science, 2013, , 220-231. | 1.0 | 5 |
| 80 | Drawing Planar Graphs with a Prescribed Inner Face. Lecture Notes in Computer Science, 2013, , 316-327. | 1.0 | 4 |
| 81 | Column-Based Graph Layouts. Lecture Notes in Computer Science, 2013, , 236-247. | 1.0 | 1 |
| 82 | Disconnectivity and Relative Positions in Simultaneous Embeddings. Lecture Notes in Computer Science, 2013, , 31-42. | 1.0 | 4 |
| 83 | Two-Sided Boundary Labeling with Adjacent Sides. Lecture Notes in Computer Science, 2013, , 463-474. | 1.0 | 6 |
| 84 | Simultaneous PQ-Ordering with Applications to Constrained Embedding Problems. , 2013, , . | | 11 |
| 85 | Edge-weighted contact representations of planar graphs. Journal of Graph Algorithms and Applications, 2013, 17, 441-473. | 0.4 | 4 |
| 86 | Testing Mutual Duality of Planar Graphs. Lecture Notes in Computer Science, 2013, , 350-360. | 1.0 | 1 |
| 87 | Optimal Orthogonal Graph Drawing with Convex Bend Costs. Lecture Notes in Computer Science, 2013, , 184-195. | 1.0 | 4 |
| 88 | On the Complexity of Partitioning Graphs for Arc-Flags. Journal of Graph Algorithms and Applications, 2013, 17, 265-299. | 0.4 | 1 |
| 89 | An algorithmic study of switch graphs. Acta Informatica, 2012, 49, 295-312. | 0.5 | 3 |
| 90 | Hamiltonian orthogeodesic alternating paths. Journal of Discrete Algorithms, 2012, 16, 34-52. | 0.7 | 8 |

| # | ARTICLE | IF | CITATIONS |
|-----|---|-----|-----------|
| 91 | Testing the simultaneous embeddability of two graphs whose intersection is a biconnected or a connected graph. <i>Journal of Discrete Algorithms</i> , 2012, 14, 150-172. | 0.7 | 35 |
| 92 | Augmenting the Connectivity of Planar and Geometric Graphs. <i>Journal of Graph Algorithms and Applications</i> , 2012, 16, 599-628. | 0.4 | 14 |
| 93 | Cubic Augmentation of Planar Graphs. <i>Lecture Notes in Computer Science</i> , 2012, , 402-412. | 1.0 | 0 |
| 94 | Generalizing Geometric Graphs. <i>Lecture Notes in Computer Science</i> , 2012, , 179-190. | 1.0 | 2 |
| 95 | Computing large matchings in planar graphs with fixed minimum degree. <i>Theoretical Computer Science</i> , 2011, 412, 4092-4099. | 0.5 | 2 |
| 96 | A kuratowski-type theorem for planarity of partially embedded graphs. , 2011, , . | | 2 |
| 97 | On d-Regular Schematization of Embedded Paths. <i>Lecture Notes in Computer Science</i> , 2011, , 260-271. | 1.0 | 3 |
| 98 | Hamiltonian Orthogeodesic Alternating Paths. <i>Lecture Notes in Computer Science</i> , 2011, , 170-181. | 1.0 | 2 |
| 99 | Automatic Generation of Route Sketches. <i>Lecture Notes in Computer Science</i> , 2011, , 391-392. | 1.0 | 0 |
| 100 | Orthogonal Graph Drawing with Flexibility Constraints. <i>Lecture Notes in Computer Science</i> , 2011, , 92-104. | 1.0 | 0 |
| 101 | Testing the Simultaneous Embeddability of Two Graphs Whose Intersection Is a Biconnected Graph or a Tree. <i>Lecture Notes in Computer Science</i> , 2011, , 212-225. | 1.0 | 4 |
| 102 | The Density Maximization Problem in Graphs. <i>Lecture Notes in Computer Science</i> , 2011, , 25-36. | 1.0 | 0 |
| 103 | Computing large matchings fast. <i>ACM Transactions on Algorithms</i> , 2010, 7, 1-21. | 0.9 | 5 |
| 104 | Manhattan-Geodesic Embedding of Planar Graphs. <i>Lecture Notes in Computer Science</i> , 2010, , 207-218. | 1.0 | 22 |
| 105 | Testing Planarity of Partially Embedded Graphs. , 2010, , . | | 24 |
| 106 | Gateway Decompositions for Constrained Reachability Problems. <i>Lecture Notes in Computer Science</i> , 2010, , 449-461. | 1.0 | 0 |
| 107 | Computing Large Matchings in Planar Graphs with Fixed Minimum Degree. <i>Lecture Notes in Computer Science</i> , 2009, , 872-881. | 1.0 | 0 |
| 108 | Augmenting the Connectivity of Planar and Geometric Graphs. <i>Electronic Notes in Discrete Mathematics</i> , 2008, 31, 53-56. | 0.4 | 13 |