Benedek Nagy

List of Publications by Year
in descending order

149 papers	1,101 citations	623734 14 h-index	642732 23 g-index
159 all docs	159 docs citations	159 times ranked	314 citing authors

#	Article	IF	Citations
1	Digital distance functions on three-dimensional grids. Theoretical Computer Science, 2011, 412, 1350-1363.	0.9	90
2	Characterization of digital circles in triangular grid. Pattern Recognition Letters, 2004, 25, 1231-1242.	4.2	52
3	Cellular topology and topological coordinate systems on the hexagonal and on the triangular grids. Annals of Mathematics and Artificial Intelligence, 2015, 75, 117-134.	1.3	34
4	Distances with neighbourhood sequences in cubic and triangular grids. Pattern Recognition Letters, 2007, 28, 99-109.	4.2	31
5	On 5â€²â†'3â€² Sensing Watson-Crick Finite Automata. , 2007, , 256-262.		30
6	Distances based on neighbourhood sequences in non-standard three-dimensional grids. Discrete Applied Mathematics, 2007, 155, 548-557.	0.9	28
7	NON-TRADITIONAL GRIDS EMBEDDED IN â„¤ⁿ. International Journal of Shape Modeling, 2008, 14, 209-228.	0.2	26
8	Distance with generalized neighbourhood sequences in <mml:math altimg="si3.gif" display="inline" overflow="scroll" xmlns:xocs="http://www.elsevier.com/xml/xocs/dtd" xmlns:xs="http://www.w3.org/2001/XMLSchema" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance" xmlns="http://www.elsevier.com/xml/ja/dtd" xmlns:ja="http://www.elsevier.com/xml/ja/dtd" xmlns:mml="http://www.w3.org/1998/Math/MathML" xmlns:tb="http://www.elsevier.com/xml/common/table/dtd" xmlns:sb="http://www.elsevier.com/xml/co	0.9	22
9	Isometric transformations of the dual of the hexagonal lattice. , 2009, , .		22
10	5â€² â†' 3â€² Watson-Crick AutomataWith Several Runs. Fundamenta Informaticae, 2010, 104, 71-91.	0.4	19
11	Deterministic discrete tomography reconstruction by energy minimization method on the triangular grid. Pattern Recognition Letters, 2014, 49, 11-16.	4.2	19
12	Approximating Euclidean circles by neighbourhood sequences in a hexagonal grid. Theoretical Computer Science, 2011, 412, 1364-1377.	0.9	16
13	On CD-systems of stateless deterministic R-automata with window size one. Journal of Computer and System Sciences, 2012, 78, 780-806.	1.2	16
14	Dilation and Erosion on the Triangular Tessellation: An Independent Approach. IEEE Access, 2018, 6, 23108-23119.	4.2	16
15	A Connection between â„¤ⁿ and Generalized Triangular Grids. Lecture Notes in Computer Science, 2008, , 1157-1166.	1.3	15
16	Regularized binary tomography on the hexagonal grid. Physica Scripta, 2019, 94, 025201.	2.5	15
17	Weighted Distances on a Triangular Grid. Lecture Notes in Computer Science, 2014, , 37-50.	1.3	15
18	Memetic algorithms for reconstruction of binary images on triangular grids with 3 and 6 projections. Applied Soft Computing Journal, 2017, 52, 549-565.	7.2	14

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19	Labelled regulatory elements are pervasive features of the macrophage genome and are dynamically utilized by classical and alternative polarization signals. Nucleic Acids Research, 2019, 47, 2778-2792.	14.5	14
20	CD-Systems of Stateless Deterministic R(1)-Automata Accept All Rational Trace Languages. Lecture Notes in Computer Science, 2010, , 463-474.	1.3	14
21	An algorithm to find the number of the digitizations of discs with a fixed radius. Electronic Notes in Discrete Mathematics, 2005, 20, 607-622.	0.4	13
22	Interval-valued computations and their connection with <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" altimg="si1.gif" display="inline" overflow="scroll"><mml:mstyle mathvariant="bold"><mml:mi>PSPACE</mml:mi></mml:mstyle></mml:math>. Theoretical Computer Science, 2008, 394, 208-222.	0.9	13
23	Dense Projection Tomography on the Triangular Tiling. Fundamenta Informaticae, 2016, 145, 125-141.	0.4	13
24	A Continuous Coordinate System for the Plane by Triangular Symmetry. Symmetry, 2019, 11, 191.	2.2	13
25	Globally deterministic CD-systems of stateless R-automata with window size 1. International Journal of Computer Mathematics, 2013, 90, 1254-1277.	1.8	11
26	Wiener index on rows of unit cells of the face-centred cubic lattice. Acta Crystallographica Section A: Foundations and Advances, 2016, 72, 243-249.	0.1	11
27	A combinatorial coordinate system for the body-centered cubic grid. Graphical Models, 2016, 87, 11-22.	2.4	11
28	Weighted Distances and Digital Disks on the Khalimsky Grid. Journal of Mathematical Imaging and Vision, 2017, 59, 2-22.	1.3	11
29	Cellular Topology on the Triangular Grid. Lecture Notes in Computer Science, 2012, , 143-153.	1.3	11
30	A Weight Sequence Distance Function. Lecture Notes in Computer Science, 2013, , 292-301.	1.3	11
31	A New Sensing 5'â€">3' Watson-Crick Automata Concept. Electronic Proceedings in Theoretical Computer Science, EPTCS, 0, 252, 195-204.	0.8	11
32	Approximating Euclidean Distance Using Distances Based on Neighbourhood Sequences in Non-standard Three-Dimensional Grids. Lecture Notes in Computer Science, 2006, , 89-100.	1.3	10
33	Stateless multicounter 5â€²Ââ†'Â3â€² Watsonâ€"Crick automata: the deterministic case. Natural Computing, 2012, 11, 361-368.	3.0	9
34	Isoperimetrically optimal polygons in the triangular grid with Jordan-type neighbourhood on the boundary. International Journal of Computer Mathematics, 2013, 90, 1629-1652.	1.8	9
35	A topological coordinate system for the diamond cubic grid. Acta Crystallographica Section A: Foundations and Advances, 2016, 72, 570-581.	0.1	9
36	A topological 4-coordinate system for the face centered cubic grid. Pattern Recognition Letters, 2016, 83, 67-74.	4.2	9

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37	Application of neighborhood sequences in communication of hexagonal networks. Discrete Applied Mathematics, 2017, 216, 424-440.	0.9	9
38	Bijective, Non-Bijective and Semi-Bijective Translations on the Triangular Plane. Mathematics, 2020, 8, 29.	2.2	9
39	Neighborhood sequences in the diamond grid: Algorithms with two and three neighbors. International Journal of Imaging Systems and Technology, 2009, 19, 146-157.	4.1	8
40	Mathematical Morphology on the Triangular Grid: The Strict Approach. SIAM Journal on Imaging Sciences, 2020, 13, 1367-1385.	2.2	8
41	On deterministic sensing $$5'ightarrow 3'$$ Watsonâ€"Crick finite automata: a full hierarchy in 2detLIN. Acta Informatica, 2021, 58, 153-175.	0.5	8
42	Distance on the Cairo pattern. Pattern Recognition Letters, 2021, 145, 141-146.	4.2	8
43	An Automata-Theoretical Characterization of Context-Free Trace Languages. Lecture Notes in Computer Science, 2011, , 406-417.	1.3	8
44	Globally Deterministic CD-Systems of Stateless R(1)-Automata. Lecture Notes in Computer Science, 2011, , 390-401.	1.3	8
45	Linear automata with translucent letters and linear context-free trace languages. RAIRO - Theoretical Informatics and Applications, 2020, 54, 3.	0.5	8
46	Path-based distance functions in n-dimensional generalizations of the face- and body-centered cubic grids. Discrete Applied Mathematics, 2009, 157, 3386-3400.	0.9	7
47	Finite Automata with Translucent Letters Applied in Natural and Formal Language Theory. Lecture Notes in Computer Science, 2014, , 107-127.	1.3	7
48	Reasoning by Intervals. Lecture Notes in Computer Science, 2006, , 145-147.	1.3	7
49	Deterministic Sensing $$5'ightarrow 3'$$5â€²↑'3â€² Watson-Crick Automata Without Sensing Parameter. Lecture Notes in Computer Science, 2018, , 173-187.	1.3	7
50	Calculating Distance with Neighborhood Sequences in the Hexagonal Grid. Lecture Notes in Computer Science, 2004, , 98-109.	1.3	7
51	Reconstruction of Binary Images Represented on Equilateral Triangular Grid Using Evolutionary Algorithms. Advances in Intelligent Systems and Computing, 2013, , 561-571.	0.6	7
52	Energy-Minimization Based Discrete Tomography Reconstruction Method for Images on Triangular Grid. Lecture Notes in Computer Science, 2012, , 274-284.	1.3	7
53	On periodic properties of circular words. Discrete Mathematics, 2016, 339, 1189-1197.	0.7	6
54	Chamfer distances on the isometric grid: a structural description of minimal distances based on linear programming approach. Journal of Combinatorial Optimization, 2019, 38, 867-886.	1.3	6

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55	Binary tomography on the isometric tessellation involving pixel shape orientation. IET Image Processing, 2020, 14, 25-30.	2.5	6
56	Digital Geometry on the Dual of Some Semi-regular Tessellations. Lecture Notes in Computer Science, 2021, , 283-295.	1.3	6
57	Reaction Systems for Modeling and Validation of Biological Signaling Pathways: G1/S Checkpoint of the Cell Cycle. Acta Polytechnica Hungarica, 2021, 18, 7-23.	2.9	6
58	Generating Distance Maps with Neighbourhood Sequences. Lecture Notes in Computer Science, 2006, , 295-307.	1.3	6
59	On Weighted Distances on the Khalimsky Grid. Lecture Notes in Computer Science, 2016, , 372-384.	1.3	6
60	Weighted Neighbourhood Sequences in Non-Standard Three-Dimensional Grids â€" Metricity and Algorithms. , 2008, , 201-212.		6
61	On union-complexity of regular languages. , 2010, , .		5
62	On Union-Free and Deterministic Union-Free Languages. Lecture Notes in Computer Science, 2012, , 179-192.	1.3	5
63	Distance Functions Based on Multiple Types of Weighted Steps Combined with Neighborhood Sequences. Journal of Mathematical Imaging and Vision, 2018, 60, 1209-1219.	1.3	5
64	Digitized rotations of 12 neighbors on the triangular grid. Annals of Mathematics and Artificial Intelligence, 2020, 88, 833-857.	1.3	5
65	<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" altimg="si2.svg"><mml:mrow><mml:msup><mml:mrow><mml:mn>5</mml:mn></mml:mrow><mml:mrow><mml:mo>â²</mml:mo... Watson-Crick pushdown automata. Information Sciences, 2020, 537, 452-466.	6.9	5
66	Weighted distances on the truncated hexagonal grid. Pattern Recognition Letters, 2021, 152, 26-33.	4.2	5
67	Two-Head Finite-State Acceptors with Translucent Letters. Lecture Notes in Computer Science, 2019, , 406-418.	1.3	5
68	Number of Shortest Paths in Triangular Grid for 1- and 2-Neighborhoods. Lecture Notes in Computer Science, 2015, , 115-124.	1.3	5
69	Digital Disks by Weighted Distances in the Triangular Grid. Lecture Notes in Computer Science, 2016, , 385-397.	1.3	5
70	Prime factorization by interval-valued computing. Publicationes Mathematicae, 0, , 539-551.	0.2	5
71	Trajectories and Traces on Non-traditional Regular Tessellations of the Plane. Lecture Notes in Computer Science, 2017, , 16-29.	1.3	5
72	Digitized Rotations of Closest Neighborhood on the Triangular Grid. Lecture Notes in Computer Science, 2018, , 53-67.	1.3	5

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73	A Comparison Among Distances Based on Neighborhood Sequences in Regular Grids. Lecture Notes in Computer Science, 2005, , 1027-1036.	1.3	4
74	The power of programmed grammars with graphs from various classes. Journal of Applied Mathematics and Computing, 2006, 22, 21-38.	2.5	4
75	Optimal Neighborhood Sequences on the Hexagonal Grid. Proc Int Symp Image Signal Process Anal, 2007, , .	0.0	4
76	Generalized game trees and their evaluation. , 2014, , .		4
77	A combinatorial 3-coordinate system for the face centered cubic grid. , 2015, , .		4
78	Union-Freeness, Deterministic Union-Freeness and Union-Complexity. Lecture Notes in Computer Science, 2019, , 46-56.	1.3	4
79	On the Angles of Change of the Neighborhood Motion Maps on the Triangular Grid. , 2019, , .		4
80	Discrete Optimization: The Case of Generalized BCC Lattice. Mathematics, 2021, 9, 208.	2.2	4
81	On Chamfer Distances on the Square and Body-Centered Cubic Grids: An Operational Research Approach. Mathematical Problems in Engineering, 2021, 2021, 1-9.	1.1	4
82	A comparison of digitized rotations of neighborhood motion maps of closest neighbors on 2D regular grids. Signal, Image and Video Processing, 2022, 16, 505-513.	2.7	4
83	Weighted Distances on the Trihexagonal Grid. Lecture Notes in Computer Science, 2017, , 82-93.	1.3	4
84	Weighted Neighborhood Sequences in Non-standard Three-Dimensional Grids â€" Parameter Optimization. , 2008, , 51-62.		4
85	Hierarchy Results on Stateless Multicounter 5â€²â€°â†'â€°3â€² Watson-Crick Automata. Lecture Notes in Computer Science, 2011, , 465-472.	1.3	4
86	Geometry of Neighborhood Sequences in Hexagonal Grid. Lecture Notes in Computer Science, 2006, , 53-64.	1.3	4
87	Number of Words Characterizing Digital Balls on the Triangular Tiling. Lecture Notes in Computer Science, 2016, , 31-44.	1.3	4
88	Neighborhood Sequences in the Diamond Grid â€" Algorithms with Four Neighbors. Lecture Notes in Computer Science, 2009, , 109-121.	1.3	3
89	Hierarchies of Stateless Multicounter 5â€² â†' 3â€² Watson-Crick Automata Languages. Fundamenta Informaticae, 2011, 110, 111-123.	0.4	3
90	Discrete tomography on the triangular grid based on Ryser's results. , 2013, , .		3

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91	Binary Tomography on the Triangular Grid with 3 Alternative Directions -- A Genetic Approach. , 2014, , .		3
92	Wiener Index on Lines of Unit Cells of the Body-Centered Cubic Grid. Lecture Notes in Computer Science, 2015, , 597-606.	1.3	3
93	Finiteness of chain-code picture languages on the triangular grid. , 2015, , .		3
94	Exact Formula for Computing the Hyper-Wiener Index on Rows of Unit Cells of the Face-Centred Cubic Lattice. Analele Stiintifice Ale Universitatii Ovidius Constanta, Seria Matematica, 2018, 26, 169-187.	0.3	3
95	Non-bijective translations on the triangular plane. , 2018, , .		3
96	Truth-Tellerâ€"Liar Puzzles with Self-Reference. Mathematics, 2020, 8, 190.	2.2	3
97	A Genetic Algorithm for the Minimum Vertex Cover Problem with Interval-Valued Fitness. Acta Polytechnica Hungarica, 2021, 18, 105-123.	2.9	3
98	State-deterministic $$5'ightarrow 3'$$ Watson-Crick automata. Natural Computing, 2021, 20, 725-737.	3.0	3
99	CD-systems of stateless deterministic R(1)-automata governed by an external pushdown store. RAIRO - Theoretical Informatics and Applications, 2011, 45, 413-448.	0.5	3
100	Computing discrete logarithm by interval-valued paradigm. Electronic Proceedings in Theoretical Computer Science, EPTCS, 0, 143, 76-86.	0.8	3
101	Short Circuit Evaluations in GÃ¶del Type Logic. Advances in Intelligent Systems and Computing, 2015, , 119-138.	0.6	3
102	An Integer Programming Approach to Characterize Digital Disks on the Triangular Grid. Lecture Notes in Computer Science, 2017, , 94-106.	1.3	3
103	Distance Transform Based on Weight Sequences. Lecture Notes in Computer Science, 2019, , 62-74.	1.3	3
104	A jumping $$5'ightarrow 3'$$ Watsonâ€"Crick finite automata model. Acta Informatica, 2022, 59, 557-584.	0.5	3
105	Theory of Neighborhood Sequences on Hexagonal Grids. Proc Int Symp Image Signal Process Anal, 2007, , .	0.0	2
106	Permutation Languages in Formal Linguistics. Lecture Notes in Computer Science, 2009, , 504-511.	1.3	2
107	Effective computing by interval-values. , 2010, , .		2
108	Stateless multicounter 5&#x2032; &#x2192; 3&#x2032; Watson-Crick automata. , 2010, , .		2

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109	Deterministic pushdown-CD-systems of stateless deterministic R(1)-automata. Acta Informatica, 2013, 50, 229-255.	0.5	2
110	Maximum flow minimum cost algorithm for reconstruction of images represented on the triangular grid. , 2013, , .		2
111	Connection between interval-valued computing and cellular automata. , 2013, , .		2
112	A Shift-free Characterization of NP within Interval-valued Computing. Fundamenta Informaticae, 2017, 155, 187-207.	0.4	2
113	Lazy evaluations in Åukasiewicz type fuzzy logic. Fuzzy Sets and Systems, 2019, 376, 127-151.	2.7	2
114	On the Number of Shortest Weighted Paths in a Triangular Grid. Mathematics, 2020, 8, 118.	2.2	2
115	Operational union-complexity. Information and Computation, 2021, , 104692.	0.7	2
116	On deterministic 1-limited 5â€² â†' 3â€² sensing Watsonâ€"Crick finite-state transducers. RAIRO - Theoretical Informatics and Applications, 2021, 55, 5.	0.5	2
117	$$5'ightarrow 3'$$ Watsonâ€"Crick automata languages-without sensing parameter. Natural Computing, 2022, 21, 679-691.	3.0	2
118	ON A HIERARCHY OF PERMUTATION LANGUAGES. , 2010, , .		2
119	DERIVATION TREES FOR CONTEXT-SENSITIVE GRAMMARS. , 2010, , .		2
120	A Class of 2-Head Finite Automata for Linear Languages. Triangle, 2018, , 89.	0.0	2
121	Neighborhood Sequences on nD Hexagonal/Face-Centered-Cubic Grids. Lecture Notes in Computer Science, 2009, , 96-108.	1.3	2
122	On Efficient Algorithms for SAT. Lecture Notes in Computer Science, 2013, , 295-310.	1.3	2
123	A Graphical Representation of Boolean Logic. Lecture Notes in Computer Science, 2014, , 228-230.	1.3	2
124	Binary Tomography on Triangular Grid Involving Hexagonal Grid Approach. Lecture Notes in Computer Science, 2018, , 68-81.	1.3	2
125	On the number of shortest paths by neighborhood sequences on the square grid. Miskolc Mathematical Notes, 2020, 21, 287.	0.6	2
126	Counting the Number of Shortest Chamfer Paths in the Square Grid. Acta Polytechnica Hungarica, 2020, 17, 67-87.	2.9	2

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127	On the language equivalence of NE star-patterns. Information Processing Letters, 2005, 95, 396-400.	0.6	1
128	Comparing memetic and simulated annealing approaches for discrete tomography on the triangular grid. , 2015, , .		1
129	Fast evaluations in product logic various pruning techniques. , 2016, , .		1
130	Concepts of Binary Morphological Operations Dilation and Erosion on the Triangular Grid. Lecture Notes in Computer Science, 2017, , 89-104.	1.3	1
131	A description of the diamond grid for topological and combinatorial analysis. Graphical Models, 2018, 100, 33-50.	2.4	1
132	On disks of the triangular grid: An application of optimization theory in discrete geometry. Discrete Applied Mathematics, 2020, 282, 136-151.	0.9	1
133	Vector Arithmetic in the Triangular Grid. Entropy, 2021, 23, 373.	2.2	1
134	Crazy Truth-Teller–Liar Puzzles. Axiomathes, 0, , 1.	0.6	1
135	Union-Freeness Revisited — Between Deterministic and Nondeterministic Union-Free Languages. International Journal of Foundations of Computer Science, 2021, 32, 551-573.	1.1	1
136	Representations of Circular Words. Electronic Proceedings in Theoretical Computer Science, EPTCS, 0, 151, 261-270.	0.8	1
137	A Characterization of NP Within Interval-Valued Computing. Lecture Notes in Computer Science, 2015, , 164-179.	1.3	1
138	Optimization of the painting problem by a genetic approach using interval-values. , 2011, , .		0
139	Preface / Editorial. Fundamenta Informaticae, 2017, 155, v-vii.	0.4	0
140	Preface: Non-classical models of automata and applications VIII. RAIRO - Theoretical Informatics and Applications, 2018, 52, 87-88.	0.5	0
141	On the Membership Problem of Permutation Grammars — A Direct Proof of NP-Completeness. International Journal of Foundations of Computer Science, 2020, 31, 515-525.	1.1	0
142	Circular Interval-valued Computers and Simulation of (Red-green) Turing Machines. Fundamenta Informaticae, 2021, 181, 213-238.	0.4	0
143	Resolvable Networks—A Graphical Tool for Representing and Solving SAT. Mathematics, 2021, 9, 2597.	2.2	0
144	Graphs of Grammars — Derivations as Parallel Processes. Studies in Computational Intelligence, 2010, , 1-13.	0.9	0

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145	An Automata-Theoretic Characterization of the Chomsky-Hierarchy. Lecture Notes in Computer Science, 2010, , 361-372.	1.3	0
146	An Extension of Interval-Valued Computing Equivalent to Red-Green Turing Machines. Lecture Notes in Computer Science, 2018, , 137-152.	1.3	0
147	Generalised distances of sequences I: B-distances. Miskolc Mathematical Notes, 2018, 19, 397.	0.6	0
148	Generalised distances of sequences II: B-distances with weight sequences. Filomat, 2019, 33, 5803-5812.	0.5	0
149	A Comparison of Various Extensions of Strong Truthteller and Strong Liar Puzzles (Mutes and) Tj ETQq1 1 0.784314 rgBT /Overlock 10	1.9	0