

Lutz Volkmann

List of Publications by Year in descending order

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183
papers

2,009
citations

304743

22
h-index

377865

34
g-index

185
all docs

185
docs citations

185
times ranked

494
citing authors

#	ARTICLE	IF	CITATIONS
1	Maximally edge-connected and vertex-connected graphs and digraphs: A survey. Discrete Mathematics, 2008, 308, 3265-3296.	0.7	101
2	Wiener index versus maximum degree in trees. Discrete Applied Mathematics, 2002, 122, 127-137.	0.9	93
3	k -Domination and k -Independence in Graphs: A Survey. Graphs and Combinatorics, 2012, 28, 1-55.	0.4	88
4	Edge-cuts leaving components of order at least three. Discrete Mathematics, 2002, 256, 431-439.	0.7	70
5	Varieties of Roman domination II. AKCE International Journal of Graphs and Combinatorics, 2020, 17, 966-984.	0.7	46
6	Sufficient conditions for graphs to be λ -optimal, super-edge-connected, and maximally edge-connected. Journal of Graph Theory, 2005, 48, 228-246.	0.9	43
7	A classification of locally semicomplete digraphs. Discrete Mathematics, 1997, 167-168, 101-114.	0.7	41
8	Cycles in multipartite tournaments: results and problems. Discrete Mathematics, 2002, 245, 19-53.	0.7	39
9	Roman Domination in Graphs. Developments in Mathematics, 2020, , 365-409.	0.4	35
10	Sufficient conditions for λ -optimality in graphs of diameter 2. Discrete Mathematics, 2004, 283, 113-120.	0.7	34
11	Upper bounds on the k -domination number and the k -Roman domination number. Discrete Applied Mathematics, 2009, 157, 1634-1639.	2.7	34
12	Inverse degree and edge-connectivity. Discrete Mathematics, 2009, 309, 2943-2947.	0.7	34
13	Restricted arc-connectivity of digraphs. Information Processing Letters, 2007, 103, 234-239.	0.6	33
14	k -domination and minimum degree in graphs. Journal of Graph Theory, 2008, 57, 33-40.	0.9	30
15	On the geodetic and geodetic domination numbers of a graph. Discrete Mathematics, 2010, 310, 2140-2146.	0.7	30
16	Multipartite tournaments: A survey. Discrete Mathematics, 2007, 307, 3097-3129.	0.7	27
17	An upper bound on the double Roman domination number. Journal of Combinatorial Optimization, 2018, 36, 81-89.	0.9	26
18		1.3	26

#	ARTICLE	IF	CITATIONS
19	The k -rainbow domatic number of a graph. <i>Discussiones Mathematicae - Graph Theory</i> , 2012, 32, 129.	0.3	26
20	Connectivity properties of locally semicomplete digraphs. <i>Journal of Graph Theory</i> , 1994, 18, 269-280.	0.9	24
21	Extremal Chemical Trees. <i>Zeitschrift Fur Naturforschung - Section A Journal of Physical Sciences</i> , 2002, 57, 49-52.	1.5	24
22	Varieties of Roman Domination. <i>Developments in Mathematics</i> , 2021, , 273-307.	0.4	24
23	Characterization of graphs with equal domination and covering number. <i>Discrete Mathematics</i> , 1998, 191, 159-169.	0.7	23
24	Nordhaus-Gaddum bounds on the χ . <i>Applied Mathematics</i> , 2015, 6, 107-112.	2.7	23
25	On packing and covering numbers of graphs. <i>Discrete Mathematics</i> , 1991, 96, 229-238.	0.7	22
26	Cycles in Multipartite Tournaments. <i>Journal of Combinatorial Theory Series B</i> , 1994, 62, 363-366.	1.0	22
27	ROMAN k -DOMINATION IN GRAPHS. <i>Journal of the Korean Mathematical Society</i> , 2009, 46, 1309-1318.	0.4	21
28	Signed Roman domination in digraphs. <i>Journal of Combinatorial Optimization</i> , 2015, 30, 456-467.	1.3	21
29	Some bounds on the p -domination number in trees. <i>Discrete Mathematics</i> , 2006, 306, 2031-2037.	0.7	20
30	On graphs with equal domination and independent domination numbers. <i>Discrete Mathematics</i> , 1991, 96, 75-80.	0.7	19
31	On complementary cycles in locally semicomplete digraphs. <i>Discrete Mathematics</i> , 1994, 135, 121-127.	0.7	19
32	Degree sequence conditions for maximally edge-connected graphs and digraphs. <i>Journal of Graph Theory</i> , 1997, 26, 27-34.	0.9	19
33	Cuts leaving components of given minimum order. <i>Discrete Mathematics</i> , 2005, 292, 55-65.	0.7	19
34	A new domination conception. <i>Journal of Graph Theory</i> , 1993, 17, 315-323.	0.9	18
35	Relations between the lower domination parameters and the chromatic number of a graph. <i>Discrete Mathematics</i> , 2004, 274, 1-8.	0.7	18
36	On graphs with equal domination and 2-domination numbers. <i>Discrete Mathematics</i> , 2008, 308, 2277-2281.	0.7	17

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37	On graphs with equal domination and covering numbers. <i>Discrete Applied Mathematics</i> , 1994, 51, 211-217.	0.9	16
38	Almost all almost regular c -partite tournaments with $c \geq 5$ are vertex pancyclic. <i>Discrete Mathematics</i> , 2002, 242, 201-228.	0.7	16
39	A linear-programming approach to the generalized Randić index. <i>Discrete Applied Mathematics</i> , 2003, 128, 375-385.	0.9	16
40	Signed domatic number of a graph. <i>Discrete Applied Mathematics</i> , 2005, 150, 261-267.	0.9	16
41	Edge-connectivity in p -partite graphs. <i>Journal of Graph Theory</i> , 1989, 13, 1-6.	0.9	15
42	The Roman domatic number of a graph. <i>Applied Mathematics Letters</i> , 2010, 23, 1295-1300.	2.7	15
43	Global Roman Domination in Trees. <i>Graphs and Combinatorics</i> , 2015, 31, 813-825.	0.4	15
44	Signed Roman edge domination numbers in graphs. <i>Journal of Combinatorial Optimization</i> , 2016, 31, 333-346.	1.3	15
45	Sufficient conditions for equality of connectivity and minimum degree of a graph. <i>Journal of Graph Theory</i> , 1993, 17, 695-700.	0.9	14
46	Remarks on the bondage number of planar graphs. <i>Discrete Mathematics</i> , 2003, 260, 57-67.	0.7	14
47	Signed total Roman domination in graphs. <i>Journal of Combinatorial Optimization</i> , 2016, 32, 855-871.	1.3	14
48	Locally semicomplete digraphs that are complementary-pancyclic. <i>Journal of Graph Theory</i> , 1996, 21, 121-136.	0.9	13
49	On cycles through a given vertex in multipartite tournaments. <i>Discrete Mathematics</i> , 1997, 164, 165-170.	0.7	13
50	Degree sequence conditions for maximally edge-connected graphs depending on the clique number. <i>Discrete Mathematics</i> , 2000, 211, 217-223.	0.7	13
51	The k -rainbow bondage number of a graph. <i>Discrete Applied Mathematics</i> , 2014, 174, 133-139.	0.9	13
52	Sufficient conditions for $\hat{\nu}_2$ -optimality in graphs of diameter 2. <i>Discrete Mathematics</i> , 2004, 283, 113-120.	0.7	12
53	On unique independent sets in graphs. <i>Discrete Mathematics</i> , 1994, 131, 279-285.	0.7	11
54	Independence number in n -extendable graphs. <i>Discrete Mathematics</i> , 1996, 154, 167-178.	0.7	11

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55	All regular multipartite tournaments that are cycle complementary. Discrete Mathematics, 2004, 281, 255-266.	0.7	11
56	On local connectivity of graphs. Applied Mathematics Letters, 2008, 21, 63-66.	2.7	11
57	Independence and k -domination in graphs. International Journal of Computer Mathematics, 2011, 88, 905-915.	1.8	11
58	Graphs with Large Italian Domination Number. Bulletin of the Malaysian Mathematical Sciences Society, 2020, 43, 4273-4287.	0.9	11
59	Some remarks on α -domination. Discussiones Mathematicae - Graph Theory, 2004, 24, 423.	0.3	11
60	Vertex deletion and cycles in multipartite tournaments. Discrete Mathematics, 1999, 197-198, 769-779.	0.7	10
61	Signed Roman k -Domination in Graphs. Graphs and Combinatorics, 2016, 32, 175-190.	0.4	10
62	Double Roman Domination in Digraphs. Bulletin of the Malaysian Mathematical Sciences Society, 2019, 42, 1907-1920.	0.9	10
63	The ratio of the irredundance and domination number of a graph. Discrete Mathematics, 1998, 178, 221-228.	0.7	9
64	Vertex pancyclic in-tournaments. Journal of Graph Theory, 2001, 36, 84-104.	0.9	9
65	Extremal Chemical Trees. Zeitschrift Fur Naturforschung - Section A Journal of Physical Sciences, 2002, 57, 49-51.	1.5	9
66	On unique k -factors and unique $[1,k]$ -factors in graphs. Discrete Mathematics, 2004, 278, 127-138.	0.7	9
67	The Maximum Size Of Graphs With A Unique k - Factor. Combinatorica, 2004, 24, 531.	1.2	9
68	A lower bound for the distance k -domination number of trees. Resultate Der Mathematik, 2005, 47, 335-339.	0.2	9
69	Otto Blumenthal (1876-1944) in retrospect. Journal of Approximation Theory, 2006, 138, 1-36.	0.8	9
70	On the Roman Bondage Number of Planar Graphs. Graphs and Combinatorics, 2011, 27, 531-538.	0.4	9
71	Signed Roman k -domination in trees. Discrete Applied Mathematics, 2015, 186, 98-105.	0.9	9
72	On the signed total Roman domination and domatic numbers of graphs. Discrete Applied Mathematics, 2016, 214, 179-186.	0.9	9

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73	Sufficient conditions on the zeroth-order general Randić index for maximally edge-connected graphs. Discrete Applied Mathematics, 2017, 218, 64-70.	0.9	9
74	Signed total Roman domination in digraphs. Discussiones Mathematicae - Graph Theory, 2017, 37, 261.	0.3	9
75	The signed Roman domatic number of a digraph. Electronic Journal of Graph Theory and Applications, 2015, 3, 85-93.	0.2	9
76	Factors of Locally almost Regular Graphs. Bulletin of the London Mathematical Society, 1991, 23, 121-122.	0.8	8
77	Longest paths in semicomplete multipartite digraphs. Discrete Mathematics, 1999, 199, 279-284.	0.7	8
78	A disproof of Henning's conjecture on irredundance perfect graphs. Discrete Mathematics, 2002, 254, 539-554.	0.7	8
79	Vertex 6-pancyclic in-tournaments. Discrete Mathematics, 2004, 285, 227-238.	0.7	8
80	Note on the connectivity of line graphs. Information Processing Letters, 2004, 91, 7-10.	0.6	8
81	$\langle \text{mml:math xmlns:mml}=\text{"http://www.w3.org/1998/Math/MathML"} \text{ altimg}=\text{"si7.gif"} \text{ overflow}=\text{"scroll"} \rangle \langle \text{mml:mi} \rangle \pm \langle \text{mml:mi} \rangle \langle \text{mml:math} \rangle$ -Domination perfect trees. Discrete Mathematics, 2008, 308, 3187-3198.	0.7	8
82	Signed domination and signed domatic numbers of digraphs. Discussiones Mathematicae - Graph Theory, 2011, 31, 415.	0.3	8
83	Weakly Hamiltonian-connected locally semicomplete digraphs. Journal of Graph Theory, 1996, 21, 163-172.	0.9	7
84	Longest paths through an arc in strong semicomplete multipartite digraphs. Discrete Mathematics, 2002, 258, 331-337.	0.7	7
85	The signed k -domination number of directed graphs. Central European Journal of Mathematics, 2010, 8, 1048-1057.	0.7	7
86	Hamiltonian paths, containing a given path or collection of arcs, in close to regular multipartite tournaments. Discrete Mathematics, 2004, 281, 267-276.	0.7	6
87	Signed star domatic number of a graph. Discrete Applied Mathematics, 2010, 158, 213-218.	0.9	6
88	Sufficient conditions for semicomplete multipartite digraphs to be Hamiltonian. Discrete Mathematics, 2000, 212, 91-100.	0.7	5
89	Almost regular multipartite tournaments containing a Hamiltonian path through a given arc. Discrete Mathematics, 2004, 285, 267-278.	0.7	5
90	Extendable Cycles in Multipartite Tournaments. Graphs and Combinatorics, 2004, 20, 185-190.	0.4	5

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91	Unique irredundance, domination and independent domination in graphs. Discrete Mathematics, 2005, 305, 190-200.	0.7	5
92	On cycles in regular 3-partite tournaments. Discrete Mathematics, 2006, 306, 1198-1206.	0.7	5
93	Almost regular $\langle m, n \rangle$ -tournaments. Discrete Mathematics, 2006, 306, 1207-1212.	0.7	5
94	All 2-connected in-tournaments that are cycle complementary. Discrete Mathematics, 2008, 308, 2115-2133.	0.7	5
95	The k -domatic number of a graph. Czechoslovak Mathematical Journal, 2009, 59, 539-550.	0.3	5
96	A remark on degree sequences of multigraphs. Mathematical Methods of Operations Research, 2009, 69, 369-374.	1.0	5
97	The signed domatic number of some regular graphs. Discrete Applied Mathematics, 2009, 157, 1905-1912.	0.9	5
98	On the number of cycles in local tournaments. Discrete Mathematics, 2009, 309, 2042-2052.	0.7	5
99	Complementary cycles in regular multipartite tournaments, where one cycle has length five. Discrete Mathematics, 2009, 309, 3131-3149.	0.7	5
100	A general method in the theory of domination in graphs. International Journal of Computer Mathematics, 2010, 87, 2915-2924.	1.8	5
101	Critical concept for double Roman domination in graphs. Discrete Mathematics, Algorithms and Applications, 2020, 12, 2050020.	0.6	5
102	A Complete Solution of a Problem of Bondy Concerning Multipartite Tournaments. Journal of Combinatorial Theory Series B, 1996, 66, 140-145.	1.0	4
103	A characterization of $\tilde{r}(k)$ -perfect graphs. Discrete Mathematics, 2000, 224, 265-271.	0.7	4
104	Degree sequence conditions for equal edge-connectivity and minimum degree, depending on the clique number. Journal of Graph Theory, 2003, 42, 234-245.	0.9	4
105	Hamiltonian paths containing a given arc, in almost regular bipartite tournaments. Discrete Mathematics, 2004, 285, 359-364.	0.7	4
106	On the connectivity of close to regular multipartite tournaments. Discrete Applied Mathematics, 2006, 154, 1437-1452.	0.9	4
107	Lower bounds on the vertex-connectivity of digraphs and graphs. Information Processing Letters, 2006, 99, 41-46.	0.6	4
108	Local-edge-connectivity in digraphs and oriented graphs. Discrete Mathematics, 2007, 307, 3207-3212.	0.7	4

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127	Lower bounds on the signed total k -domination number of graphs. <i>Aequationes Mathematicae</i> , 2016, 90, 271-279.	0.8	3
128	Roman game domination number of a graph. <i>Journal of Combinatorial Optimization</i> , 2017, 33, 713-725.	1.3	3
129	Weakly Complementary Cycles in 3-Connected Multipartite Tournaments. <i>Kyungpook Mathematical Journal</i> , 2008, 48, 287-302.	0.3	3
130	Characterization of block graphs with equal 2-domination number and domination number plus one. <i>Discussiones Mathematicae - Graph Theory</i> , 2007, 27, 93.	0.3	3
131	A remark on the $(2,2)$ -domination number. <i>Discussiones Mathematicae - Graph Theory</i> , 2008, 28, 361.	0.3	3
132	Some upper bounds for the product of the domination number and the chromatic number of a graph. <i>Discrete Mathematics</i> , 1993, 118, 289-292.	0.7	2
133	$\hat{\gamma}^3(1)$ -perfect graphs. <i>Discrete Mathematics</i> , 2001, 234, 133-138.	0.7	2
134	Proof of a conjecture on irredundance perfect graphs. <i>Journal of Graph Theory</i> , 2002, 41, 292-306.	0.9	2
135	Weighted domination in triangle-free graphs. <i>Discrete Mathematics</i> , 2002, 250, 233-239.	0.7	2
136	Maximum graphs with a unique minimum dominating set. <i>Discrete Mathematics</i> , 2003, 260, 197-203.	0.7	2
137	On $\hat{\gamma}^3(k)$ -perfect graphs. <i>Discrete Mathematics</i> , 2003, 270, 241-250.	0.7	2
138	Cycles through a given arc and certain partite sets in almost regular multipartite tournaments. <i>Discrete Mathematics</i> , 2004, 283, 217-229.	0.7	2
139	The Petersen graph is not 1-factorable: postscript to 'The Petersen graph is not 3-edge-colorable' a new proof' [<i>Discrete Math.</i> 268 (2003) 325-326]. <i>Discrete Mathematics</i> , 2004, 287, 193-194.	0.7	2
140	Longest cycles in almost regular 3-partite tournaments. <i>Discrete Mathematics</i> , 2006, 306, 2931-2942.	0.7	2
141	Strong subtournaments containing a given vertex in regular multipartite tournaments. <i>Discrete Mathematics</i> , 2008, 308, 5516-5521.	0.7	2
142	Smallest close to regular bipartite graphs without an almost perfect matching. <i>Acta Mathematica Sinica, English Series</i> , 2010, 26, 1403-1412.	0.6	2
143	The Roman k -domatic number of a graph. <i>Acta Mathematica Sinica, English Series</i> , 2011, 27, 1899-1906.	0.6	2
144	Bounds on the signed domatic number. <i>Applied Mathematics Letters</i> , 2011, 24, 196-198.	2.7	2

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145	Upper bounds on the signed total domatic number of graphs. <i>Discrete Applied Mathematics</i> , 2011, 159, 832-837.	0.9	2
146	Signed total (k, k) -domatic number of digraphs. <i>Aequationes Mathematicae</i> , 2012, 83, 87-96.	0.8	2
147	Signed mixed Roman domination numbers in graphs. <i>Journal of Combinatorial Optimization</i> , 2016, 32, 299-317.	1.3	2
148	An Upper Bound on the Double Roman Domination Number. <i>Bulletin of the Iranian Mathematical Society</i> , 2021, 47, 1315-1323.	1.0	2
149	On the p -domination number of cactus graphs. <i>Discussiones Mathematicae - Graph Theory</i> , 2005, 25, 355.	0.3	2
150	k -independence stable graphs upon edge removal. <i>Discussiones Mathematicae - Graph Theory</i> , 2010, 30, 265.	0.3	2
151	Neighborhood and degree conditions for super-edge-connected bipartite digraphs. <i>Resultate Der Mathematik</i> , 2004, 45, 45-58.	0.2	1
152	Structural Remarks on Bipartite Graphs with Unique f -Factors. <i>Graphs and Combinatorics</i> , 2005, 21, 421-425.	0.4	1
153	Degree sequence conditions for maximally edge-connected oriented graphs. <i>Applied Mathematics Letters</i> , 2006, 19, 1255-1260.	2.7	1
154	Paths with a given number of vertices from each partite set in regular multipartite tournaments. <i>Discrete Mathematics</i> , 2006, 306, 2724-2732.	0.7	1
155	$\langle \text{mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" altimg="si8.gif" display="inline" overflow="scroll"} \rangle \langle \text{mml:mi} \rangle \langle \text{mml:mi} \rangle \langle \text{mml:math} \rangle$ -diamond-free graphs. <i>Discrete Mathematics</i> , 2009, 309, 6065-6069.	0.7	1
156	On the order of certain close to regular graphs without a matching of given size. <i>Czechoslovak Mathematical Journal</i> , 2007, 57, 907-918.	0.3	1
157	On the connectivity of $\langle \text{mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" altimg="si8.gif" display="inline" overflow="scroll"} \rangle \langle \text{mml:mi} \rangle \langle \text{mml:mi} \rangle \langle \text{mml:math} \rangle$ -diamond-free graphs. <i>Discrete Mathematics</i> , 2009, 309, 6065-6069.	0.7	1
158	Bounds on the k -tuple domatic number of a graph. <i>Mathematica Slovaca</i> , 2011, 61, 851-858.	0.6	1
159	Roman Domination Dot-critical Graphs. <i>Graphs and Combinatorics</i> , 2013, 29, 527-533.	0.4	1
160	Bounds on the signed 2-independence number in graphs. <i>Discussiones Mathematicae - Graph Theory</i> , 2013, 33, 709.	0.3	1
161	Complementary cycles in almost regular multipartite tournaments, where one cycle has length four. <i>Discrete Applied Mathematics</i> , 2013, 161, 2169-2177.	0.9	1
162	Signed k -independence in graphs. <i>Open Mathematics</i> , 2014, 12, .	1.0	1

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163	Upper Bounds on the Signed (k, k) -Domestic Number of Digraphs. Bulletin of the Malaysian Mathematical Sciences Society, 2015, 38, 1527-1536.	0.9	1
164	A note on the 2-rainbow bondage numbers in graphs. Asian-European Journal of Mathematics, 2016, 09, 1650013.	0.5	1
165	Signed Roman edge k -domination in graphs. Discussiones Mathematicae - Graph Theory, 2017, 37, 39.	0.3	1
166	Degree sequence conditions for maximally edge-connected and super-edge-connected digraphs depending on the clique number. Discrete Mathematics, 2018, 341, 484-491.	0.7	1
167	Extremal Digraphs for an Upper Bound on the Double Roman Domination Number. Bulletin of the Malaysian Mathematical Sciences Society, 2020, 43, 1153-1162.	0.9	1
168	On the signed Roman k -domination in graphs. Quaestiones Mathematicae, 2020, 43, 1065-1082.	0.6	1
169	Disprove of a Conjecture on the Doubly Connected Domination Subdivision Number. Bulletin of the Iranian Mathematical Society, 0, , 1.	1.0	1
170	CYCLES THROUGH A GIVEN SET OF VERTICES IN REGULAR MULTIPARTITE TOURNAMENTS. Journal of the Korean Mathematical Society, 2007, 44, 683-695.	0.4	1
171	Cyclic sums, network sharing, and restricted edge cuts in graphs with long cycles. Networks, 2008, 52, 252-255.	2.7	0
172	On arc-traceable local tournaments. Discrete Mathematics, 2008, 308, 6513-6526.	0.7	0
173	On local connectivity of graphs with given clique number. Journal of Graph Theory, 2009, 63, n/a-n/a.	0.9	0
174	Proof of a conjecture on game domination. Journal of Graph Theory, 2010, 64, 323-329.	0.9	0
175	On the existence of edge cuts leaving several large components. Discrete Mathematics, 2009, 309, 1703-1707.	0.7	0
176	Cycle factors in strongly connected local tournaments. Discrete Mathematics, 2010, 310, 850-860.	0.7	0
177	The $\{k\}$ -domatic number of a graph. Aequationes Mathematicae, 2011, 82, 25-34.	0.8	0
178	Upper bounds on the signed (k, k) -domatic number. Aequationes Mathematicae, 2013, 86, 279-287.	0.8	0
179	Signed star (j, k) -domatic numbers of digraphs. Discrete Mathematics, Algorithms and Applications, 2015, 07, 1550006.	0.6	0
180	An introduction to the twin signed total $\langle i \rangle_k \langle i \rangle$ -domination numbers in directed graphs. RAIRO - Operations Research, 2017, 51, 1331-1343.	1.8	0

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181	Sufficient Conditions for Maximally Edge-connected and Super-edge-connected Digraphs Depending on the Size. <i>Acta Mathematica Sinica, English Series</i> , 2019, 35, 1861-1870.	0.6	0
182	A proof of a conjecture on the differential of a subcubic graph. <i>Discrete Applied Mathematics</i> , 2020, 287, 27-39.	0.9	0
183	Weak Signed Roman Domination in Digraphs. <i>Tamkang Journal of Mathematics</i> , 0, 52, .	0.3	0