Wen-Fei Fan

List of Publications by Year
in descending order

183 papers	6,774 citations	117571 34 h-index	133188 59 g-index
186 all docs	186 docs citations	186 times ranked	1822 citing authors

#	Article	IF	Citations
1	Making graphs compact by lossless contraction. VLDB Journal, 2023, 32, 49-73.	2.7	2
2	Application-driven graph partitioning. VLDB Journal, 2023, 32, 149-172.	2.7	2
3	Incremental Graph Computations: Doable and Undoable. ACM Transactions on Database Systems, 2022, 47, 1-44.	1.5	5
4	Discovering association rules from big graphs. Proceedings of the VLDB Endowment, 2022, 15, 1479-1492.	2.1	7
5	A Hierarchical Contraction Scheme for Querying Big Graphs. , 2022, , .		3
6	Parallel Rule Discovery from Large Datasets by Sampling. , 2022, , .		2
7	Making Graphs Compact by Lossless Contraction. , 2021, , .		6
8	Incrementalizing Graph Algorithms. , 2021, , .		4
9	Graph Algorithms with Partition Transparency. IEEE Transactions on Knowledge and Data Engineering, 2021, , 1-1.	4.0	3
10	Parallel discrepancy detection and incremental detection. Proceedings of the VLDB Endowment, 2021, 14, 1351-1364.	2.1	7
11	GraphScope. Proceedings of the VLDB Endowment, 2021, 14, 2879-2892.	2.1	18
12	GraphScope. Proceedings of the VLDB Endowment, 2021, 14, 2703-2706.	2.1	2
13	Bounded Evaluation: Querying Big Data with Bounded Resources. International Journal of Automation and Computing, 2020, 17, 502-526.	4.5	0
14	Graph algorithms: parallelization and scalability. Science China Information Sciences, 2020, 63, 1.	2.7	13
15	Unifying logic rules and machine learning for entity enhancing. Science China Information Sciences, 2020, 63, 1.	2.7	2
16	Application Driven Graph Partitioning. , 2020, , .		30
17	Incrementalization of graph partitioning algorithms. Proceedings of the VLDB Endowment, 2020, 13, 1261-1274.	2.1	34
18	Capturing associations in graphs. Proceedings of the VLDB Endowment, 2020, 13, 1863-1876.	2.1	17

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19	Catching Numeric Inconsistencies in Graphs. ACM Transactions on Database Systems, 2020, 45, 1-47.	1.5	5
20	Discovering Graph Functional Dependencies. ACM Transactions on Database Systems, 2020, 45, 1-42.	1.5	26
21	Making big data small. Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences, 2019, 475, 20190034.	1.0	1
22	Dependencies for Graphs. Journal of Data and Information Quality, 2019, 11, 1-12.	1.5	8
23	Dependencies for Graphs. ACM Transactions on Database Systems, 2019, 44, 1-40.	1.5	28
24	Deducing certain fixes to graphs. Proceedings of the VLDB Endowment, 2019, 12, 752-765.	2.1	19
25	Dynamic scaling for parallel graph computations. Proceedings of the VLDB Endowment, 2019, 12, 877-890.	2.1	4
26	Block as a value for SQL over NoSQL. Proceedings of the VLDB Endowment, 2019, 12, 1153-1166.	2.1	3
27	Bounded Query Rewriting Using Views. ACM Transactions on Database Systems, 2018, 43, 1-46.	1.5	4
28	From Think Parallel to Think Sequential. SIGMOD Record, 2018, 47, 15-22.	0.7	0
29	Parallel Reasoning of Graph Functional Dependencies. , 2018, , .		6
30	Parallelizing Sequential Graph Computations. ACM Transactions on Database Systems, 2018, 43, 1-39.	1.5	28
31	Think Sequential, Run Parallel. Lecture Notes in Computer Science, 2018, , 1-25.	1.0	2
32	Adaptive Asynchronous Parallelization of Graph Algorithms. , 2018, , .		15
33	Catching Numeric Inconsistencies in Graphs. , 2018, , .		11
34	Discovering Graph Functional Dependencies. , 2018, , .		23
35	Constraint-Driven Database Repair. , 2018, , 591-598.		2
36	Implication of Constraints. , 2018, , 1808-1814.		0

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37	Big Graph Analyses: From Queries to Dependencies and Association Rules. Data Science and Engineering, 2017, 2, 36-55.	4.6	18
38	Incremental Graph Computations. , 2017, , .		54
39	BEAS. , 2017, , .		3
40	Dependencies for Graphs. , 2017, , .		27
41	Parallelizing Sequential Graph Computations. , 2017, , .		50
42	GRAPE. Proceedings of the VLDB Endowment, 2017, 10, 1889-1892.	2.1	18
43	Data driven approximation with bounded resources. Proceedings of the VLDB Endowment, 2017, 10, 973-984.	2.1	9
44	Implication of Constraints. , 2017, , 1-7.		1
45	Constraint-Driven Database Repair. , 2017, , 1-8.		0
46	Functional Dependencies for Graphs. , 2016, , .		68
47	Bounded Query Rewriting Using Views. , 2016, , .		8
48	Adding Counting Quantifiers to Graph Patterns. , 2016, , .		22
49	Virtual Network Mapping in Cloud Computing: A Graph Pattern Matching Approach. Computer Journal, 2016, , .	1.5	0
50	An Effective Syntax for Bounded Relational Queries. , 2016, , .		14
51	Capturing Missing Tuples and Missing Values. ACM Transactions on Database Systems, 2016, 41, 1-47.	1.5	6
52	Answering Pattern Queries Using Views. IEEE Transactions on Knowledge and Data Engineering, 2016, 28, 326-341.	4.0	18
53	Association rules with graph patterns. Proceedings of the VLDB Endowment, 2015, 8, 1502-1513.	2.1	68
54	Keys for graphs. Proceedings of the VLDB Endowment, 2015, 8, 1590-1601.	2.1	48

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55	Querying Big Data by Accessing Small Data. , 2015, , .		28
56	Extending Conditional Dependencies with Built-in Predicates. IEEE Transactions on Knowledge and Data Engineering, 2015, 27, 3274-3288.	4.0	5
57	Making pattern queries bounded in big graphs. , 2015, , .		13
58	On recommendation problems beyond points of interest. Information Systems, 2015, 48, 64-88.	2.4	7
59	Virtual Network Mapping: A Graph Pattern Matching Approach. Lecture Notes in Computer Science, 2015, , 49-61.	1.0	6
60	Distributed graph simulation. Proceedings of the VLDB Endowment, 2014, 7, 1083-1094.	2.1	35
61	Answering graph pattern queries using views. , 2014, , .		32
62	On scale independence for querying big data. , 2014, , .		32
63	Bounded conjunctive queries. Proceedings of the VLDB Endowment, 2014, 7, 1231-1242.	2.1	18
64	Interaction between Record Matching and Data Repairing. Journal of Data and Information Quality, 2014, 4, 1-38.	1.5	27
65	Querying big graphs within bounded resources. , 2014, , .		34
66	Querying Big Data: Bridging Theory and Practice. Journal of Computer Science and Technology, 2014, 29, 849-869.	0.9	23
67	Strong simulation. ACM Transactions on Database Systems, 2014, 39, 1-46.	1.5	89
68	On the Complexity of Query Result Diversification. ACM Transactions on Database Systems, 2014, 39, 1-46.	1.5	14
69	Conflict resolution with data currency and consistency. Journal of Data and Information Quality, 2014, 5, 1-37.	1.5	27
70	Extending inclusion dependencies with conditions. Theoretical Computer Science, 2014, 515, 64-95.	0.5	32
71	Incremental Detection of Inconsistencies in Distributed Data. IEEE Transactions on Knowledge and Data Engineering, 2014, 26, 1367-1383.	4.0	22
72	On the data complexity of relative information completeness. Information Systems, 2014, 45, 18-34.	2.4	3

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73	Detecting Errors in Numeric Attributes. Lecture Notes in Computer Science, 2014, , 125-137.	1.0	6
74	ExpFinder: Finding experts by graph pattern matching. , 2013, , .		5
75	Inferring data currency and consistency for conflict resolution. , 2013, , .		14
76	On the aggregation problem for synthesized Web services. Journal of Computer and System Sciences, 2013, 79, 873-891.	0.9	2
77	Incremental graph pattern matching. ACM Transactions on Database Systems, 2013, 38, 1-47.	1.5	67
78	On the complexity of query result diversification. Proceedings of the VLDB Endowment, 2013, 6, 577-588.	2.1	13
79	Making queries tractable on big data with preprocessing. Proceedings of the VLDB Endowment, 2013, 6, 685-696.	2.1	22
80	On the Complexity of Package Recommendation Problems. SIAM Journal on Computing, 2013, 42, 1940-1986.	0.8	13
81	Determining the relative accuracy of attributes. , 2013, , .		32
82	Report on PODS 2013. ACM SIGACT News, 2013, 44, 69-71.	0.1	0
83	Diversified top-k graph pattern matching. Proceedings of the VLDB Endowment, 2013, 6, 1510-1521.	2.1	82
84	Incremental graph pattern matching. ACM Transactions on Database Systems, 2013, 38, 1-47.	1.5	31
85	Data Quality Problems beyond Consistency and Deduplication. Lecture Notes in Computer Science, 2013, , 237-249.	1.0	11
86	Query preserving graph compression. , 2012, , .		137
87	Performance guarantees for distributed reachability queries. Proceedings of the VLDB Endowment, 2012, 5, 1304-1316.	2.1	38
88	On the Complexity of View Update Analysis and Its Application to Annotation Propagation. IEEE Transactions on Knowledge and Data Engineering, 2012, 24, 506-519.	4.0	32
89	On the complexity of package recommendation problems. , 2012, , .		17
90	Graph pattern matching revised for social network analysis. , 2012, , .		102

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91	Determining the Currency of Data. ACM Transactions on Database Systems, 2012, 37, 1-46.	1.5	43
92	Partial Evaluation for Distributed XPath Query Processing and Beyond. ACM Transactions on Database Systems, 2012, 37, 1-43.	1.5	26
93	Incremental Detection of Inconsistencies in Distributed Data. , 2012, , .		23
94	Foundations of Data Quality Management. Synthesis Lectures on Data Management, 2012, 4, 1-217.	0.6	88
95	Adding regular expressions to graph reachability and pattern queries. Frontiers of Computer Science, 2012, 6, 313-338.	1.6	17
96	Towards certain fixes with editing rules and master data. VLDB Journal, 2012, 21, 213-238.	2.7	97
97	View determinacy for preserving selected information in data transformations. Information Systems, 2012, 37, 1-12.	2.4	14
98	Data Quality: Theory and Practice. Lecture Notes in Computer Science, 2012, , 1-16.	1.0	12
99	Adding regular expressions to graph reachability and pattern queries. , 2011, , .		100
100	Capturing topology in graph pattern matching. Proceedings of the VLDB Endowment, 2011, 5, 310-321.	2.1	77
101	Dynamic constraints for record matching. VLDB Journal, 2011, 20, 495-520.	2.7	121
102	Polymorphic queries for P2P systems. Information Systems, 2011, 36, 825-842.	2.4	1
103	Interaction between record matching and data repairing. , 2011, , .		76
104	Incremental graph pattern matching. , 2011, , .		81
105	Determining the currency of data. , 2011, , .		18
106	Discovering Conditional Functional Dependencies. IEEE Transactions on Knowledge and Data Engineering, 2011, 23, 683-698.	4.0	158
107	CerFix. Proceedings of the VLDB Endowment, 2011, 4, 1375-1378.	2.1	9
108	Relative information completeness. ACM Transactions on Database Systems, 2010, 35, 1-44.	1.5	28

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109	On the aggregation problem for synthesized web services. , 2010, , .		3
110	Graph pattern matching. Proceedings of the VLDB Endowment, 2010, 3, 264-275.	2.1	199
111	Graph homomorphism revisited for graph matching. Proceedings of the VLDB Endowment, 2010, 3, 1161-1172.	2.1	80
112	Capturing missing tuples and missing values. , 2010, , .		35
113	Towards certain fixes with editing rules and master data. Proceedings of the VLDB Endowment, 2010, 3, 173-184.	2.1	103
114	Detecting inconsistencies in distributed data. , 2010, , .		27
115	Discovering Conditional Functional Dependencies. Proceedings - International Conference on Data Engineering, 2009, , .	0.0	62
116	Reasoning about record matching rules. Proceedings of the VLDB Endowment, 2009, 2, 407-418.	2.1	139
117	Query translation from XPath to SQL in the presence of recursive DTDs. VLDB Journal, 2009, 18, 857-883.	2.7	23
118	Incorporating cardinality constraints and synonym rules into conditional functional dependencies. Information Processing Letters, 2009, 109, 783-789.	0.4	59
119	Constraint-Driven Database Repair. , 2009, , 458-463.		5
120	Conditional Dependencies: A Principled Approach to Improving Data Quality. Lecture Notes in Computer Science, 2009, , 8-20.	1.0	9
121	Analyses and Validation of Conditional Dependencies with Built-in Predicates. Lecture Notes in Computer Science, 2009, , 576-591.	1.0	11
122	Relative information completeness. , 2009, , .		19
123	Implication of Constraints. , 2009, , 1396-1400.		0
124	Updating Recursive XML Views of Relations. Journal of Computer Science and Technology, 2008, 23, 516-537.	0.9	12
125	Erratum to â€œPropagating XML constraints to relationsâ€•[J. Comput. System Sci. 73 (2007) 316â€"361]. Journal of Computer and System Sciences, 2008, 74, 404-405.	0.9	2
126	On the Complexity of Verifying Consistency of XML Specifications. SIAM Journal on Computing, 2008, 38, 841-880.	0.8	41

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127	Extending dependencies with conditions for data cleaning. , 2008, , .		2
128	XPath satisfiability in the presence of DTDs. Journal of the ACM, 2008, 55, 1-79.	1.8	113
129	Propagating functional dependencies with conditions. Proceedings of the VLDB Endowment, 2008, 1, 391-407.	2.1	23
130	Dependencies revisited for improving data quality. , 2008, , .		165
131	Complexity and composition of synthesized web services. , 2008, , .		18
132	Expressiveness and complexity of XML publishing transducers. ACM Transactions on Database Systems, 2008, 33, 1-49.	1.5	8
133	A revival of integrity constraints for data cleaning. Proceedings of the VLDB Endowment, 2008, 1, 1522-1523.	2.1	26
134	Information preserving XML schema embedding. ACM Transactions on Database Systems, 2008, 33, 1-44.	1.5	39
135	Increasing the Expressivity of Conditional Functional Dependencies without Extra Complexity. , 2008, , .		37
136	Conditional functional dependencies for capturing data inconsistencies. ACM Transactions on Database Systems, 2008, 33, 1-48.	1.5	257
137	Semandaq. Proceedings of the VLDB Endowment, 2008, 1, 1460-1463.	2.1	22
138	Updating Recursive XML Views of Relations. , 2007, , .		13
139	Conditional Functional Dependencies for Data Cleaning. , 2007, , .		225
140	Expressiveness and complexity of xml publishing transducers. , 2007, , .		7
141	Distributed query evaluation with performance guarantees. , 2007, , .		36
142	Querying xml with update syntax. , 2007, , .		10
143	Rewriting Regular XPath Queries on XML Views. , 2007, , .		40
144	Propagating XML constraints to relations. Journal of Computer and System Sciences, 2007, 73, 316-361.	0.9	21

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145	XML Publishing: Bridging Theory and Practice. Lecture Notes in Computer Science, 2007, , 1-16.	1.0	5
146	Extending Online Travel Agency with Adaptive Reservations. , 2007, , 285-299.		3
147	Annotation propagation revisited for key preserving views. , 2006, , .		33
148	Selectively Storing XML Data in Relations. Lecture Notes in Computer Science, 2006, , 22-32.	1.0	2
149	Structural properties of XPath fragments. Theoretical Computer Science, 2005, 336, 3-31.	0.5	65
150	A cost-based model and effective heuristic for repairing constraints by value modification. , 2005, , .		277
151	XPath satisfiability in the presence of DTDs. , 2005, , .		73
152	Satisfiability of XPath Queries with Sibling Axes. Lecture Notes in Computer Science, 2005, , 122-137.	1.0	38
153	Consistency of XML Specifications. Lecture Notes in Computer Science, 2005, , 15-41.	1.0	12
154	Composable XML integration grammars. , 2004, , .		9
155	Incremental evaluation of schema-directed XML publishing. , 2004, , .		26
156	Secure XML querying with security views. , 2004, , .		155
157	Taming XPath Queries by Minimizing Wildcard Steps. , 2004, , 156-167.		20
158	A Uniform System for Publishing and Maintaining XML Data. , 2004, , 1301-1304.		5
159	Taming XPath Queries by Minimizing Wildcard Steps. , 2004, , 156-167.		2
160	Integrity constraints for XML. Journal of Computer and System Sciences, 2003, 66, 254-291.	0.9	80
161	Reasoning about keys for XML. Information Systems, 2003, 28, 1037-1063.	2.4	104
162	Capturing both types and constraints in data integration. , 2003, , .		25

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163	TREX. , 2003, , .		4
164	Interaction between path and type constraints. ACM Transactions on Computational Logic, 2003, 4, 530-577.	0.7	11
165	Structural Properties of XPath Fragments. Lecture Notes in Computer Science, 2003, , 79-95.	1.0	35
166	On XML integrity constraints in the presence of DTDs. Journal of the ACM, 2002, 49, 368-406.	1.8	139
167	A unified constraint model for XML. Computer Networks, 2002, 39, 489-505.	3.2	21
168	Keys for XML. Computer Networks, 2002, 39, 473-487.	3.2	136
169	Reasoning about Keys for XML. Lecture Notes in Computer Science, 2002, , 133-148.	1.0	53
170	What's Hard about XML Schema Constraints?. Lecture Notes in Computer Science, 2002, , 269-278.	1.0	20
171	DTD-Directed Publishing with Attribute Translation Grammars. , 2002, , 838-849.		27
172	On verifying consistency of XML specifications. , 2002, , .		39
173	A unified constraint model for XML. , 2001, , .		15
174	Keys for XML. , 2001, , .		139
175	On XML integrity constraints in the presence of DTDs. , 2001, , .		64
176	Constraints for semistructured data and XML. SIGMOD Record, 2001, 30, 47-54.	0.7	86
177	Keys with Upward Wildcards for XML. Lecture Notes in Computer Science, 2001, , 657-667.	1.0	5
178	Path Constraints in Semistructured Databases. Journal of Computer and System Sciences, 2000, 61, 146-193.	0.9	37
179	Integrity constraints for XML. , 2000, , .		71
180	Query Optimization for Semistructured Data Using Path Constraints in a Deterministic Data Model. Lecture Notes in Computer Science, 2000, , 208-223.	1.0	10

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181	Path constraints on semistructured and structured data. , 1998, , .		63
182	Vectorizing and Querying Large XML Repositories. , 0, , .		34
183	XML Constraints: Specification, Analysis, and Applications. , 0, , .		28