Norman W Paton

List of Publications by Year
in descending order

133 papers	5,433 citations	147801 31 h-index	88630 70 g-index
138 all docs	138 docs citations	138 times ranked	6147 citing authors

#	Article	IF	Citations
1	Schema mapping generation in the wild. Information Systems, 2022, 104, 101904.	3.6	2
2	Scalable Virtual Machine Migration using Reinforcement Learning. Journal of Grid Computing, 2022, 20, 1.	3.9	23
3	Fairness-aware Data Integration. Journal of Data and Information Quality, 2022, 14, 1-26.	2.1	1
4	Incorporating Data Context to Cost-Effectively Automate End-to-End Data Wrangling. IEEE Transactions on Big Data, 2021, 7, 169-186.	6.1	7
5	Feedback driven improvement of data preparation pipelines. Information Systems, 2020, 92, 101480.	3.6	9
6	Pairwise comparisons or constrained optimization? A usability evaluation of techniques for eliciting decision priorities. International Transactions in Operational Research, 2020, , .	2.7	3
7	Fairness in Data Wrangling. , 2020, , .		4
8	Dataset Discovery in Data Lakes. , 2020, , .		53
9	VADA: an architecture for end user informed data preparation. Journal of Big Data, 2019, 6, .	11.0	16
10	Dynamap. , 2019, , .		4
11	Crowdsourced Targeted Feedback Collection for Multicriteria Data Source Selection. Journal of Data and Information Quality, 2019, 11, 1-27.	2.1	2
12	Towards Automatic Data Format Transformations: Data Wrangling at Scale. Computer Journal, 2019, 62, 1044-1060.	2.4	5
13	User driven multi-criteria source selection. Information Sciences, 2018, 430-431, 179-199.	6.9	15
14	Source Selection Languages. , 2018, , .		5
15	Quantifying and Propagating Uncertainty in Automated Linked Data Integration. Lecture Notes in Computer Science, 2018, , 81-112.	1.3	1
16	Crowdsourcing for data management. Knowledge and Information Systems, 2017, 53, 1-41.	3.2	24
17	Observing the Data Scientist. , 2017, , .		6
18	Data context informed data wrangling. , 2017, , .		11

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19	SHDF - A Scalable Hierarchical Distributed Framework for Data Centre Management. , 2017, , .		4
20	Targeted Feedback Collection Applied to Multi-Criteria Source Selection. Lecture Notes in Computer Science, 2017, , 136-150.	1.3	2
21	Efficient Feedback Collection for Pay-as-you-go Source Selection. , 2016, , .		6
22	Optimizing virtual machine placement for energy and SLA in clouds using utility functions. Journal of Cloud Computing: Advances, Systems and Applications, 2016, 5, .	3.9	57
23	Adaptation in cloud resource configuration: a survey. Journal of Cloud Computing: Advances, Systems and Applications, 2016, 5, .	3.9	36
24	Pay-as-you-go Data Integration: Experiences and Recurring Themes. Lecture Notes in Computer Science, 2016, , 81-92.	1.3	6
25	Enabling community-driven information integration through clustering. Distributed and Parallel Databases, 2015, 33, 33-67.	1.6	5
26	SensorBench. , 2014, , .		2
27	Proactive adaptations in sensor network query processing. , 2014, , .		2
28	QoS-aware optimization of sensor network queries. VLDB Journal, 2013, 22, 495-517.	4.1	6
29	A model of yeast glycolysis based on a consistent kinetic characterisation of all its enzymes. FEBS Letters, 2013, 587, 2832-2841.	2.8	113
30	Incrementally improving dataspaces based on user feedback. Information Systems, 2013, 38, 656-687.	3.6	31
31	Efficient load balancing in partitioned queries under random perturbations. ACM Transactions on Autonomous and Adaptive Systems, 2012, 7, 1-27.	0.8	6
32	Utility-driven adaptive query workload execution. Future Generation Computer Systems, 2012, 28, 1070-1079.	7.5	8
33	DSToolkit: An Architecture for Flexible Dataspace Management. Lecture Notes in Computer Science, 2012, , 126-157.	1.3	3
34	A Semantic Sensor Web for Environmental Decision Support Applications. Sensors, 2011, 11, 8855-8887.	3.8	39
35	The SuBliMinaL Toolbox: automating steps in the reconstruction of metabolic networks. Journal of Integrative Bioinformatics, 2011, 8, 187-203.	1.5	67
36	Deploying In-Network Data Analysis Techniques in Sensor Networks. , 2011, , .		3

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37	SNEE: a query processor for wireless sensor networks. Distributed and Parallel Databases, 2011, 29, 31-85.	1.6	33
38	Utility functions for adaptively executing concurrent workflows. Concurrency Computation Practice and Experience, 2011, 23, 646-666.	2.2	13
39	A Semantically Enabled Service Architecture for Mashups over Streaming and Stored Data. Lecture Notes in Computer Science, 2011, , 300-314.	1.3	32
40	The SuBliMinaL Toolbox: automating steps in the reconstruction of metabolic networks. Journal of Integrative Bioinformatics, 2011, 8, 186.	1.5	51
41	Run-Time Adaptivity for Search Computing. Lecture Notes in Computer Science, 2011, , 156-166.	1.3	1
42	Systematic integration of experimental data and models in systems biology. BMC Bioinformatics, 2010, 11, 582.	2.6	28
43	The Gel Electrophoresis Markup Language (GelML) from the Proteomics Standards Initiative. Proteomics, 2010, 10, 3073-3081.	2.2	19
44	Enzyme kinetics informatics: from instrument to browser. FEBS Journal, 2010, 277, 3769-3779.	4.7	20
45	Guidelines for reporting the use of column chromatography in proteomics. Nature Biotechnology, 2010, 28, 654-654.	17.5	24
46	SBRML: a markup language for associating systems biology data with models. Bioinformatics, 2010, 26, 932-938.	4.1	54
47	Chapter 15: Search Computing and the Life Sciences. Lecture Notes in Computer Science, 2010, , 291-306.	1.3	6
48	Integrative Information Management for Systems Biology. Lecture Notes in Computer Science, 2010, , 164-178.	1.3	6
49	Feedback-based annotation, selection and refinement of schema mappings for dataspaces. , 2010, , .		21
50	Modeling and Managing Experimental Data Using FuGE. OMICS A Journal of Integrative Biology, 2009, 13, 239-251.	2.0	8
51	Validated cost models for sensor network queries. , 2009, , .		8
52	Information management for high content live cell imaging. BMC Bioinformatics, 2009, 10, 226.	2.6	4
53	Adaptive workflow processing and execution in Pegasus. Concurrency Computation Practice and Experience, 2009, 21, 1965-1981.	2.2	30
54	Autonomic query parallelization using non-dedicated computers: an evaluation of adaptivity options. VLDB Journal, 2009, 18, 119-140.	4.1	25

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55	The design and implementation of OGSA-DQP: A service-based distributed query processor. Future Generation Computer Systems, 2009, 25, 224-236.	7.5	47
56	Adaptive workload allocation in query processing inÂautonomous heterogeneous environments. Distributed and Parallel Databases, 2009, 25, 125-164.	1.6	12
57	Guidelines for reporting the use of gel electrophoresis in proteomics. Nature Biotechnology, 2008, 26, 863-864.	17.5	61
58	Data capture in bioinformatics: requirements and experiences with Pedro. BMC Bioinformatics, 2008, 9, 183.	2.6	13
59	Facilitating the development of controlled vocabularies for metabolomics technologies with text mining. BMC Bioinformatics, 2008, 9, S5.	2.6	32
60	Probabilistic adaptive load balancing for parallel queries. , 2008, , .		2
61	ISPIDER Central: an integrated database web-server for proteomics. Nucleic Acids Research, 2008, 36, W485-W490.	14.5	18
62	A toolkit for capturing and sharing FuGE experiments. Bioinformatics, 2008, 24, 2647-2649.	4.1	8
63	Managing and sharing experimental data: standards, tools and pitfalls. Biochemical Society Transactions, 2008, 36, 33-36.	3.4	12
64	A Semantics for a Query Language over Sensors, Streams and Relations. Lecture Notes in Computer Science, 2008, , 87-99.	1.3	20
65	Comparative Genome Analysis of Filamentous Fungi Reveals Gene Family Expansions Associated with Fungal Pathogenesis. PLoS ONE, 2008, 3, e2300.	2.5	169
66	Data Integration in the Life Sciences: Fun, Findings and Frustrations. Lecture Notes in Computer Science, 2008, , 8-10.	1.3	2
67	Comparative genome analysis across a kingdom of eukaryotic organisms: Specialization and diversification in the Fungi. Genome Research, 2007, 17, 1809-1822.	5.5	94
68	Information quality in proteomics. Briefings in Bioinformatics, 2007, 9, 174-188.	6.5	29
69	A Methodology for Comparative Functional Genomics. Journal of Integrative Bioinformatics, 2007, 4, 112-122.	1.5	1
70	Growth control of the eukaryote cell: a systems biology study in yeast. Journal of Biology, 2007, 6, 4.	2.7	234
71	The PSI formal document process and its implementation on the PSI website. Proteomics, 2007, 7, 2355-2357.	2.2	45
72	The minimum information about a proteomics experiment (MIAPE). Nature Biotechnology, 2007, 25, 887-893.	17.5	694

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73	The Functional Genomics Experiment model (FuGE): an extensible framework for standards in functional genomics. Nature Biotechnology, 2007, 25, 1127-1133.	17.5	96
74	GML for Representing Data from Spatio-Historical Databases: A Case Study. Transactions in GIS, 2007, 11, 233-253.	2.3	4
75	e-Fungi: a data resource for comparative analysis of fungal genomes. BMC Genomics, 2007, 8, 426.	2.8	32
76	Storing, Searching, and Disseminating Experimental Proteomics Data. , 2007, , 472-483.		0
77	The WS-DAI family of specifications for web service data access and integration. SIGMOD Record, 2006, 35, 48-55.	1.2	25
78	A novel approach to resource scheduling for parallel query processing on computational grids. Distributed and Parallel Databases, 2006, 19, 87-106.	1.6	26
79	Model-driven user interfaces for bioinformatics data resources: regenerating the wheel as an alternative to reinventing it. BMC Bioinformatics, 2006, 7, 532.	2.6	11
80	Measuring and modelling the performance of a parallel ODMG compliant object database server. Concurrency Computation Practice and Experience, 2006, 18, 63-109.	2.2	7
81	An Experimental Performance Evaluation of Spatio-Temporal Join Strategies. Transactions in GIS, 2005, 9, 129-156.	2.3	10
82	An analysis of extensible modelling for functional genomics data. BMC Bioinformatics, 2005, 6, 235.	2.6	10
83	The design and implementation of Grid database services in OGSA-DAI. Concurrency Computation Practice and Experience, 2005, 17, 357-376.	2.2	243
84	Proteomics data representation and management. , 2005, , .		0
85	Pedro Ontology Services: A Framework for Rapid Ontology Markup. Lecture Notes in Computer Science, 2005, , 578-591.	1.3	4
86	Pedro: a configurable data entry tool for XML. Bioinformatics, 2004, 20, 2463-2465.	4.1	24
87	A common open representation of mass spectrometry data and its application to proteomics research. Nature Biotechnology, 2004, 22, 1459-1466.	17.5	724
88	A proposed framework for the description of plant metabolomics experiments and their results. Nature Biotechnology, 2004, 22, 1601-1606.	17.5	283
89	PEDRo: A database for storing, searching and disseminating experimental proteomics data. BMC Genomics, 2004, 5, 68.	2.8	58
90	The Design, Implementation and Evaluation of an ODMG Compliant, Parallel Object Database Server. Distributed and Parallel Databases, 2004, 16, 275-319.	1.6	8

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91	A critical and Integrated View of the Yeast Interactome. Comparative and Functional Genomics, 2004, 5, 382-402.	2.0	17
92	The Tripod spatio-historical data model. Data and Knowledge Engineering, 2004, 49, 23-65.	3.4	27
93	Self-monitoring query execution for adaptive query processing. Data and Knowledge Engineering, 2004, 51, 325-348.	3.4	16
94	Language Bindings for Spatio-Temporal Database Programming in Tripod. Lecture Notes in Computer Science, 2004, , 216-233.	1.3	0
95	MOVIE: An incremental maintenance system for materialized object views. Data and Knowledge Engineering, 2003, 47, 131-166.	3.4	23
96	GIMS: an integrated data storage and analysis environment for genomic and functional data. Yeast, 2003, 20, 1291-1306.	1.7	39
97	A systematic approach to modeling, capturing, and disseminating proteomics experimental data. Nature Biotechnology, 2003, 21, 247-254.	17.5	246
98	Service-Based Distributed Querying on the Grid. Lecture Notes in Computer Science, 2003, , 467-482.	1.3	31
99	Conceptual data modelling for bioinformatics. Briefings in Bioinformatics, 2002, 3, 166-180.	6.5	43
100	Validated Cost Models for Parallel OQL Query Processing. Lecture Notes in Computer Science, 2002, , 60-76.	1.3	7
101	Tripod: A Spatio-Historical Object Database System. , 2002, , 127-148.		4
102	Teallach: a model-based user interface development environment for object databases. Interacting With Computers, 2001, 14, 31-68.	1.5	44
103	Tripod. , 2001, , .		14
104	Query processing in DOQL: A deductive database language for the ODMG model. Data and Knowledge Engineering, 2000, 35, 1-38.	3.4	8
105	Kaleidoqueryâ€"A Flow-based Visual Language and its Evaluation. Journal of Visual Languages and Computing, 2000, 11, 151-189.	1.8	23
106	Conceptual modelling of genomic information. Bioinformatics, 2000, 16, 548-557.	4.1	96
107	Generating user interface code in a model based user interface development environment. , 2000, , .		11
108	VESPA: A Benchmark for Vector Spatial Databases. Lecture Notes in Computer Science, 2000, , 81-101.	1.3	14

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109	Extending a deductive object-oriented database system with spatial data handling facilities. Information and Software Technology, 1999, 41, 483-497.	4.4	6
110	Active rule analysis and optimisation in the rock & roll deductive object-oriented database. Information Systems, 1999, 24, 327-353.	3.6	5
111	Active database systems. ACM Computing Surveys, 1999, 31, 63-103.	23.0	390
112	RAP: The ROCK & ROLL Active Programming System. Texts and Monographs in Computer Science, 1999, , 323-336.	0.7	0
113	A Framework for Describing Visual Interfaces to Databases. Journal of Visual Languages and Computing, 1998, 9, 429-456.	1.8	17
114	Formalizing and validating behavioral models through the event calculus. Information Systems, 1998, 23, 179-196.	3.6	5
115	Deductive Queries in ODMG Databases: the DOQL Approach. , 1998, , 57-74.		2
116	Deductive object-oriented database systems: A survey. Lecture Notes in Computer Science, 1997, , 1-19.	1.3	11
117	A logic-based integration of active and deductive databases. New Generation Computing, 1997, 15, 205-244.	3.3	32
118	The formalisation of ROCK & ROLL: A deductive object-oriented database system. Information and Software Technology, 1997, 39, 379-389.	4.4	2
119	An active rule language for ROCK & ROLL. Lecture Notes in Computer Science, 1996, , 36-55.	1.3	9
120	Supporting production rules using ECA rules in an object-oriented context. Information and Software Technology, 1995, 37, 691-699.	4.4	6
121	Design and implementation of ROCK & ROLL: A deductive object-oriented database system. Information Systems, 1995, 20, 185-211.	3.6	48
122	A structured specification of an active database system. Information and Software Technology, 1995, 37, 47-61.	4.4	7
123	Multi-paradigm query interface to an object-oriented database. Interacting With Computers, 1995, 7, 25-47.	1.5	14
124	Design and user testing of a multi-paradigm query interface to an object-oriented database. SIGMOD Record, 1995, 24, 12-17.	1.2	6
125	Formal specification of active database functionality: A survey. Lecture Notes in Computer Science, 1995, , 19-35.	1.3	15
126	The implementation of a deductive query language over an OODB. Lecture Notes in Computer Science, 1995, , 143-160.	1.3	6

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127	Extending database technology. Lecture Notes in Computer Science, 1995, , 146-165.	1.3	1
128	Techniques for the Effective Evaluation of Database Interfaces. Workshops in Computing, 1995, , 343-357.	0.4	2
129	Visualizing advanced data modelling constructs. Information and Software Technology, 1994, 36, 597-605.	4.4	5
130	On interface objects in object-oriented databases. Lecture Notes in Computer Science, 1994, , 153-169.	1.3	5
131	Dimensions of Active Behaviour. Workshops in Computing, 1994, , 40-57.	0.4	31
132	Supporting dynamic displays using active rules. SIGMOD Record, 1994, 23, 21-26.	1.2	14
133	Combining active rules and metaclasses for enhanced extensibility in object-oriented systems. Data and Knowledge Engineering, 1993, 10, 45-63.	3.4	22