

Matthias Weidlich

List of Publications by Year in descending order

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Version: 2024-02-01

151
papers

4,261
citations

159525

30
h-index

149623

56
g-index

156
all docs

156
docs citations

156
times ranked

2074
citing authors

#	ARTICLE	IF	CITATIONS
1	Detecting rumours with latency guarantees using massive streaming data. VLDB Journal, 2023, 32, 369-387.	2.7	1
2	Sampling and approximation techniques for efficient process conformance checking. Information Systems, 2022, 104, 101666.	2.4	8
3	Discovering and Analyzing Contextual Behavioral Patterns From Event Logs. IEEE Transactions on Knowledge and Data Engineering, 2022, 34, 5708-5721.	4.0	4
4	Efficient and Effective Multi-Modal Queries Through Heterogeneous Network Embedding. IEEE Transactions on Knowledge and Data Engineering, 2022, 34, 5307-5320.	4.0	5
5	Process discovery with context-aware process trees. Information Systems, 2022, 106, 101533.	2.4	4
6	A Distance Measure for Privacy-Preserving Process Mining Based on Feature Learning. Lecture Notes in Business Information Processing, 2022, , 73-85.	0.8	2
7	Fire now, fire later: alarm-based systems for prescriptive process monitoring. Knowledge and Information Systems, 2022, 64, 559-587.	2.1	21
8	Complex Event Processing Methods for Process Querying. , 2022, , 479-510.		1
9	Conformance Checking: Foundations, Milestones and Challenges. Lecture Notes in Business Information Processing, 2022, , 155-190.	0.8	14
10	Predicate-based push-pull communication for distributed CEP. , 2022, , .		2
11	Efficient streaming subgraph isomorphism with graph neural networks. Proceedings of the VLDB Endowment, 2021, 14, 730-742.	2.1	9
12	Reasoning on the Efficiency of Distributed Complex Event Processing. Fundamenta Informaticae, 2021, 179, 113-134.	0.3	1
13	EIRES: Efficient Integration of Remote Data in Event Stream Processing. , 2021, , .		2
14	MuSE Graphs for Flexible Distribution of Event Stream Processing in Networks. , 2021, , .		2
15	SaCoFa: Semantics-aware Control-flow Anonymization for Process Mining. , 2021, , .		5
16	Sampling What Matters: Relevance-guided Sampling of Event Logs. , 2021, , .		2
17	Extraction, correlation, and abstraction of event data for process mining. Wiley Interdisciplinary Reviews: Data Mining and Knowledge Discovery, 2020, 10, e1346.	4.6	47
18	Partial order resolution of event logs for process conformance checking. Decision Support Systems, 2020, 136, 113347.	3.5	11

#	ARTICLE	IF	CITATIONS
19	Load Shedding for Complex Event Processing: Input-based and State-based Techniques. , 2020, , .		13
20	The Internet of Things Meets Business Process Management: A Manifesto. IEEE Systems, Man, and Cybernetics Magazine, 2020, 6, 34-44.	1.2	79
21	Adaptive Network Alignment with Unsupervised and Multi-order Convolutional Networks. , 2020, , .		32
22	Graph Embeddings for One-pass Processing of Heterogeneous Queries. , 2020, , .		4
23	Secure Multi-party Computation for Inter-organizational Process Mining. Lecture Notes in Business Information Processing, 2020, , 166-181.	0.8	14
24	Quantifying the Re-identification Risk of Event Logs for Process Mining. Lecture Notes in Computer Science, 2020, , 252-267.	1.0	13
25	PRIPeL: Privacy-Preserving Event Log Publishing Including Contextual Information. Lecture Notes in Computer Science, 2020, , 111-128.	1.0	17
26	Assessing the Compliance of Business Process Models with Regulatory Documents. Lecture Notes in Computer Science, 2020, , 189-203.	1.0	8
27	Process Mining over Unordered Event Streams. , 2020, , .		13
28	Monotone Precision and Recall Measures for Comparing Executions and Specifications of Dynamic Systems. ACM Transactions on Software Engineering and Methodology, 2020, 29, 1-41.	4.8	40
29	FactCatch: Incremental Pay-as-You-Go Fact Checking with Minimal User Effort. , 2020, , .		6
30	Interval-based Queries over Lossy IoT Event Streams. ACM/IMS Transactions on Data Science, 2020, 1, 1-27.	2.1	2
31	Actionable Conformance Checking: From Intuitions to Code. Lecture Notes in Business Information Processing, 2020, , 1-24.	0.8	0
32	Queueing Inference for Process Performance Analysis with Missing Life-Cycle Data. , 2020, , .		4
33	Privacy-Preserving Process Mining. Business and Information Systems Engineering, 2019, 61, 595-614.	4.0	50
34	What spreadsheets are to numbers, process mining is to events. Informatik-Spektrum, 2019, 42, 327-331.	1.0	0
35	Process Analytics over IoT-based Event Streams with Privacy Guarantees. Informatik-Spektrum, 2019, 42, 323-323.	1.0	0
36	Inductive Context-aware Process Discovery. , 2019, , .		2

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37	PRETSA: Event Log Sanitization for Privacy-aware Process Discovery. Informatik-Spektrum, 2019, 42, 352-353.	1.0	0
38	PRETSA: Event Log Sanitization for Privacy-aware Process Discovery. , 2019, , .		27
39	Privacy-preserving Process Mining: Differential. Informatik-Spektrum, 2019, 42, 349-351.	1.0	1
40	Efficient Discovery of Compact Maximal Behavioral Patterns from Event Logs. Lecture Notes in Computer Science, 2019, , 579-594.	1.0	7
41	Handling probabilistic integrity constraints in pay-as-you-go reconciliation of data models. Information Systems, 2019, 83, 166-180.	2.4	4
42	Context-aware temporal network representation of event logs: Model and methods for process performance analysis. Information Systems, 2019, 84, 240-254.	2.4	7
43	Dynamic Decision Making for Demand Response through Adaptive Event Stream Monitoring. , 2019, , .		2
44	Congestion Graphs for Automated Time Predictions. Proceedings of the AAAI Conference on Artificial Intelligence, 2019, 33, 4854-4861.	3.6	13
45	Estimating Process Conformance by Trace Sampling and Result Approximation. Lecture Notes in Computer Science, 2019, , 179-197.	1.0	14
46	User guidance for efficient fact checking. Proceedings of the VLDB Endowment, 2019, 12, 850-863.	2.1	11
47	From anomaly detection to rumour detection using data streams of social platforms. Proceedings of the VLDB Endowment, 2019, 12, 1016-1029.	2.1	30
48	Crossbow. Proceedings of the VLDB Endowment, 2019, 12, 1399-1412.	2.1	36
49	Blockchains for Business Process Management - Challenges and Opportunities. ACM Transactions on Management Information Systems, 2018, 9, 1-16.	2.1	404
50	To aggregate or to eliminate? Optimal model simplification for improved process performance prediction. Information Systems, 2018, 78, 96-111.	2.4	10
51	A self-portrayal of CI Junior Fellow Matthias Weidlich: Event-driven analysis of service processes. IT - Information Technology, 2018, 60, 51-54.	0.6	0
52	Computing Crowd Consensus with Partial Agreement. IEEE Transactions on Knowledge and Data Engineering, 2018, 30, 1-14.	4.0	38
53	Computing Crowd Consensus with Partial Agreement. , 2018, , .		3
54	Conformance Checking. , 2018, , .		184

#	ARTICLE	IF	CITATIONS
55	What-If Analysis with Conflicting Goals: Recommending Data Ranges for Exploration. , 2018, , .		5
56	Streams and Tables. , 2018, , .		24
57	Online Temporal Analysis of Complex Systems Using IoT Data Sensing. , 2018, , .		3
58	Interleaving isotactics â€“ An equivalence notion on behaviour abstractions. Theoretical Computer Science, 2018, 737, 1-18.	0.5	2
59	Meta-Dataflows. , 2018, , .		3
60	How Much Event Data Is Enough? A Statistical Framework for Process Discovery. Lecture Notes in Computer Science, 2018, , 239-256.	1.0	19
61	Fusion-Based Process Discovery. Lecture Notes in Computer Science, 2018, , 291-307.	1.0	3
62	Who Is Behind the Model? Classifying Modelers Based on Pragmatic Model Features. Lecture Notes in Computer Science, 2018, , 322-338.	1.0	5
63	Traveling time prediction in scheduled transportation with journey segments. Information Systems, 2017, 64, 266-280.	2.4	81
64	Argument discovery via crowdsourcing. VLDB Journal, 2017, 26, 511-535.	2.7	31
65	Events in Business Process Implementation: Early Subscription and Event Buffering. Lecture Notes in Business Information Processing, 2017, , 141-159.	0.8	5
66	Complex Event Recognition Languages. , 2017, , .		27
67	Answer validation for generic crowdsourcing tasks with minimal efforts. VLDB Journal, 2017, 26, 855-880.	2.7	15
68	Handling Concept Drift in Predictive Process Monitoring. , 2017, , .		20
69	Challenge Paper. Journal of Data and Information Quality, 2017, 9, 1-5.	1.5	5
70	Temporal Network Representation of Event Logs for Improved Performance Modelling in Business Processes. Lecture Notes in Computer Science, 2017, , 3-21.	1.0	12
71	Compound Trace Clustering to Generate Accurate and Simple Sub-Process Models. Lecture Notes in Computer Science, 2017, , 175-190.	1.0	15
72	Retaining Data from Streams of Social Platforms with Minimal Regret. , 2017, , .		3

#	ARTICLE	IF	CITATIONS
73	IL-miner. Proceedings of the VLDB Endowment, 2016, 10, 25-36.	2.1	6
74	SABER. , 2016, , .		84
75	INSIGHT: Dynamic Traffic Management Using Heterogeneous Urban Data. Lecture Notes in Computer Science, 2016, , 22-26.	1.0	2
76	The SABER system for window-based hybrid stream processing with GPGPUs. , 2016, , .		0
77	Conformance checking and performance improvement in scheduled processes: A queueing-network perspective. Information Systems, 2016, 62, 185-206.	2.4	36
78	In Log and Model We Trust? A Generalized Conformance Checking Framework. Lecture Notes in Computer Science, 2016, , 179-196.	1.0	17
79	P ³ -Folder: Optimal Model Simplification for Improving Accuracy in Process Performance Prediction. Lecture Notes in Computer Science, 2016, , 418-436.	1.0	6
80	SMART: A tool for analyzing and reconciling schema matching networks. , 2015, , .		5
81	Queue mining for delay prediction in multi-class service processes. Information Systems, 2015, 53, 278-295.	2.4	91
82	Minimizing Efforts in Validating Crowd Answers. , 2015, , .		43
83	Discovery and Validation of Queueing Networks in Scheduled Processes. Lecture Notes in Computer Science, 2015, , 417-433.	1.0	8
84	Result selection and summarization for Web Table search. , 2015, , .		24
85	Querying process models by behavior inclusion. Software and Systems Modeling, 2015, 14, 1105-1125.	2.2	21
86	Styles in business process modeling: an exploration and a model. Software and Systems Modeling, 2015, 14, 1055-1080.	2.2	39
87	ERICA. , 2015, , .		6
88	Distribution and Uncertainty in Complex Event Recognition. Lecture Notes in Computer Science, 2015, , 70-80.	1.0	0
89	Event Recognition Challenges and Techniques. ACM Transactions on Internet Technology, 2014, 14, 1-9.	3.0	9
90	Measuring Expected Integration Effort in Service Composition. , 2014, , .		2

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91	Optimizing Event Pattern Matching Using Business Process Models. IEEE Transactions on Knowledge and Data Engineering, 2014, 26, 2759-2773.	4.0	25
92	Scalable stateful stream processing for smart grids. , 2014, , .		20
93	Pay-as-you-go reconciliation in schema matching networks. , 2014, , .		25
94	Report: The Process Model Matching Contest 2013. Lecture Notes in Business Information Processing, 2014, , 442-463.	0.8	35
95	The 4C Spectrum of Fundamental Behavioral Relations for Concurrent Systems. Lecture Notes in Computer Science, 2014, , 210-232.	1.0	33
96	Queue Mining – Predicting Delays in Service Processes. Lecture Notes in Computer Science, 2014, , 42-57.	1.0	64
97	Heterogeneous Stream Processing and Crowdsourcing for Traffic Monitoring: Highlights. Lecture Notes in Computer Science, 2014, , 520-523.	1.0	13
98	Self-adaptive event recognition for intelligent transport management. , 2013, , .		16
99	Grand challenge. , 2013, , .		11
100	A Short Survey on Process Model Similarity. , 2013, , 421-427.		19
101	Net-Based Analysis of Event Processing Networks – The Fast Flower Delivery Case. Lecture Notes in Computer Science, 2013, , 270-290.	1.0	10
102	Predicting the Quality of Process Model Matching. Lecture Notes in Computer Science, 2013, , 203-210.	1.0	18
103	Completeness and Ambiguity of Schema Cover. Lecture Notes in Computer Science, 2013, , 241-258.	1.0	4
104	Matching Business Process Models Using Positional Passage-Based Language Models. Lecture Notes in Computer Science, 2013, , 130-137.	1.0	13
105	Minimizing Human Effort in Reconciling Match Networks. Lecture Notes in Computer Science, 2013, , 212-226.	1.0	6
106	Behaviour Equivalence and Compatibility of Business Process Models with Complex Correspondences. Computer Journal, 2012, 55, 1398-1418.	1.5	29
107	BUSINESS PROCESS MODEL ABSTRACTION BASED ON SYNTHESIS FROM WELL-STRUCTURED BEHAVIORAL PROFILES. International Journal of Cooperative Information Systems, 2012, 21, 55-83.	0.6	25
108	Tying Process Model Quality to the Modeling Process: The Impact of Structuring, Movement, and Speed. Lecture Notes in Computer Science, 2012, , 33-48.	1.0	37

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109	Probabilistic Optimization of Semantic Process Model Matching. Lecture Notes in Computer Science, 2012, , 319-334.	1.0	53
110	Isotactics as a Foundation for Alignment and Abstraction of Behavioral Models. Lecture Notes in Computer Science, 2012, , 335-351.	1.0	11
111	An iterative approach to synthesize business process templates from compliance rules. Information Systems, 2012, 37, 714-736.	2.4	9
112	On Profiles and Footprints â€“ Relational Semantics for Petri Nets. Lecture Notes in Computer Science, 2012, , 148-167.	1.0	19
113	Modeling Styles in Business Process Modeling. Lecture Notes in Business Information Processing, 2012, , 151-166.	0.8	18
114	Action patterns in business process model repositories. Computers in Industry, 2012, 63, 98-111.	5.7	34
115	Perceived consistency between process models. Information Systems, 2012, 37, 80-98.	2.4	29
116	Propagating changes between aligned process models. Journal of Systems and Software, 2012, 85, 1885-1898.	3.3	42
117	Process Mining Manifesto. Lecture Notes in Business Information Processing, 2012, , 169-194.	0.8	546
118	Tracing the Process of Process Modeling with Modeling Phase Diagrams. Lecture Notes in Business Information Processing, 2012, , 370-382.	0.8	39
119	Making sense of top-k matchings. , 2012, , .		8
120	Towards Understanding Process Modeling â€“ The Case of the BPM Academic Initiative. Lecture Notes in Business Information Processing, 2011, , 44-58.	0.8	26
121	Flexible Artifact-Driven Automation of Product Design Processes. Lecture Notes in Business Information Processing, 2011, , 103-117.	0.8	2
122	A Foundational Approach for Managing Process Variability. Notes on Numerical Fluid Mechanics and Multidisciplinary Design, 2011, , 267-282.	0.2	13
123	Causal Behavioural Profiles â€“ Efficient Computation, Applications, and Evaluation. Fundamenta Informaticae, 2011, 113, 399-435.	0.3	41
124	Visually specifying compliance rules and explaining their violations for business processes. Journal of Visual Languages and Computing, 2011, 22, 30-55.	1.8	89
125	Efficient Consistency Measurement Based on Behavioral Profiles of Process Models. IEEE Transactions on Software Engineering, 2011, 37, 410-429.	4.3	152
126	Connectivity of workflow nets: the foundations of stepwise verification. Acta Informatica, 2011, 48, 213-242.	0.5	5

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127	Process compliance analysis based on behavioural profiles. Information Systems, 2011, 36, 1009-1025.	2.4	104
128	Generalised Computation of Behavioural Profiles Based on Petri-Net Unfoldings. Lecture Notes in Computer Science, 2011, , 101-115.	1.0	10
129	Optimising Complex Event Queries over Business Processes Using Behavioural Profiles. Lecture Notes in Business Information Processing, 2011, , 743-754.	0.8	6
130	An Iterative Approach for Business Process Template Synthesis from Compliance Rules. Notes on Numerical Fluid Mechanics and Multidisciplinary Design, 2011, , 406-421.	0.2	15
131	Behavioral Similarity – A Proper Metric. Lecture Notes in Computer Science, 2011, , 166-181.	1.0	79
132	Event-Based Monitoring of Process Execution Violations. Lecture Notes in Computer Science, 2011, , 182-198.	1.0	46
133	Business Process Model Abstraction Based on Behavioral Profiles. Lecture Notes in Computer Science, 2010, , 1-16.	1.0	26
134	Lightweight collaboration management. , 2010, , .		1
135	Declarative versus Imperative Process Modeling Languages: The Issue of Maintainability. Lecture Notes in Business Information Processing, 2010, , 477-488.	0.8	27
136	Consistency Checking of Compliance Rules. Lecture Notes in Business Information Processing, 2010, , 106-118.	0.8	10
137	The ICoP Framework: Identification of Correspondences between Process Models. Notes on Numerical Fluid Mechanics and Multidisciplinary Design, 2010, , 483-498.	0.2	100
138	Process Compliance Measurement Based on Behavioural Profiles. Lecture Notes in Computer Science, 2010, , 499-514.	1.0	21
139	Efficient Computation of Causal Behavioural Profiles Using Structural Decomposition. Lecture Notes in Computer Science, 2010, , 63-83.	1.0	27
140	Deciding Behaviour Compatibility of Complex Correspondences between Process Models. Lecture Notes in Computer Science, 2010, , 78-94.	1.0	21
141	How the Structuring of Domain Knowledge Helps Casual Process Modelers. Lecture Notes in Computer Science, 2010, , 445-451.	1.0	21
142	The Biconnected Verification of Workflow Nets. Lecture Notes in Computer Science, 2010, , 410-418.	1.0	1
143	Realising Dead Path Elimination in BPMN. , 2009, , .		3
144	Change Propagation in Process Models Using Behavioural Profiles. , 2009, , .		37

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145	Declarative versus Imperative Process Modeling Languages: The Issue of Understandability. Lecture Notes in Business Information Processing, 2009, , 353-366.	0.8	72
146	Vertical Alignment of Process Models â€“ How Can We Get There?. Lecture Notes in Business Information Processing, 2009, , 71-84.	0.8	23
147	Specification, Verification and Explanation of Violation for Data Aware Compliance Rules. Lecture Notes in Computer Science, 2009, , 500-515.	1.0	71
148	Action Patterns in Business Process Models. Lecture Notes in Computer Science, 2009, , 115-129.	1.0	28
149	BPEL to BPMN: The Myth of a Straight-Forward Mapping. Lecture Notes in Computer Science, 2008, , 265-282.	1.0	34
150	Efficient Analysis of BPEL 2.0 Processes Using p-Calculus. , 2007, , .		5
151	Efficient Analysis of BPEL 2.0 Processes Using p-Calculus. , 2007, , .		1