Ian R Horrocks

List of Publications by Year
in descending order

173 papers	**11,145** citations	61857 **43** h-index	43802 **91** g-index
193 all docs	**193** docs citations	**193** times ranked	**4372** citing authors

#	Article	IF	Citations
1	From SHIQ and RDF to OWL: the making of a Web Ontology Language. Web Semantics, 2003, 1, 7-26.	2.2	1,034
2	OWL 2: The next step for OWL. Web Semantics, 2008, 6, 309-322.	2.2	592
3	OIL: an ontology infrastructure for the Semantic Web. IEEE Intelligent Systems, 2001, 16, 38-45.	4.0	473
4	The Semantic Web: the roles of XML and RDF. IEEE Internet Computing, 2000, 4, 63-73.	3.2	459
5	A software framework for matchmaking based on semantic web technology. , 2003, , .		444
6	HermiT: An OWL 2 Reasoner. Journal of Automated Reasoning, 2014, 53, 245-269.	1.1	388
7	Description logic programs. , 2003, , .		306
8	Practical Reasoning for Expressive Description Logics. Lecture Notes in Computer Science, 1999, , 161-180.	1.0	251
9	OWL rules: A proposal and prototype implementation. Web Semantics, 2005, 3, 23-40.	2.2	251
10	Description Logic Programs: Combining Logic Programs with Description Logic. SSRN Electronic Journal, 2003, , .	0.4	232
11	Ontologies and the semantic web. Communications of the ACM, 2008, 51, 58-67.	3.3	232
12	The GRAIL concept modelling language for medical terminology. Artificial Intelligence in Medicine, 1997, 9, 139-171.	3.8	226
13	Hypertableau Reasoning for Description Logics. Journal of Artificial Intelligence Research, 0, 36, 165-228.	7.0	200
14	Reducing OWL entailment to description logic satisfiability. Web Semantics, 2004, 1, 345-357.	2.2	198
15	Description Logics as Ontology Languages for the Semantic Web. Lecture Notes in Computer Science, 2005, , 228-248.	1.0	180
16	A proposal for an owl rules language. , 2004, , .		177
17	OilEd: A Reason-able Ontology Editor for the Semantic Web. Lecture Notes in Computer Science, 2001, , 396-408.	1.0	170
18	A description logic with transitive and inverse roles and role hierarchies. Journal of Logic and Computation, 1999, 9, 385-410.	0.5	166

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19	A Software Framework for Matchmaking Based on Semantic Web Technology. International Journal of Electronic Commerce, 2004, 8, 39-60.	1.4	160
20	A Tableau Decision Procedure for $\mathcal{SHOIQ}$. Journal of Automated Reasoning, 2007, 39, 249-276.	1.1	143
21	OWL-QLâ€"a language for deductive query answering on the Semantic Web. Web Semantics, 2004, 2, 19-29.	2.2	135
22	The FaCT System. Lecture Notes in Computer Science, 1998, , 307-312.	1.0	127
23	Just the right amount. , 2007, , .		123
24	Bridging the gap between OWL and relational databases. Web Semantics, 2009, 7, 74-89.	2.2	120
25	Chapter 3 Description Logics. Foundations of Artificial Intelligence, 2008, , 135-179.	0.9	115
26	Optimizing description logic subsumption. Journal of Logic and Computation, 1999, 9, 267-293.	0.5	111
27	RDFox: A Highly-Scalable RDF Store. Lecture Notes in Computer Science, 2015, , 3-20.	1.0	101
28	Reducing OWL Entailment to Description Logic Satisfiability. Lecture Notes in Computer Science, 2003, , 17-29.	1.0	98
29	Tractable query answering and rewriting under description logic constraints. Journal of Applied Logic, 2010, 8, 186-209.	1.1	93
30	Ontology-based knowledge management. Computer, 2002, 35, 56-59.	1.2	90
31	Decidability of <mml:math altimg="si1.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/common/struct-bib/dtd" xmlns:ce="http://www.elsevier.com/	3.9	80
32	Reasoning with Individuals for the Description Logic $\mathcal{SHIQ}$. Lecture Notes in Computer Science, 2000, , 482-496.	1.0	77
33	Querying the Semantic Web: A Formal Approach. Lecture Notes in Computer Science, 2002, , 177-191.	1.0	71
34	Can OWL and Logic Programming Live Together Happily Ever After?. Lecture Notes in Computer Science, 2006, , 501-514.	1.0	70
35	Bridging the gap between OWL and relational databases. , 2007, , .		66
36	BootOX: Practical Mapping of RDBs to OWL 2. Lecture Notes in Computer Science, 2015, , 113-132.	1.0	61

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37	OptiqueVQS: A visual query system over ontologies for industry. Semantic Web, 2018, 9, 627-660.	1.1	58
38	Ontology Integration Using Mappings: Towards Getting the Right Logical Consequences. Lecture Notes in Computer Science, 2009, , 173-187.	1.0	57
39	Optimized Reasoning in Description Logics Using Hypertableaux. Lecture Notes in Computer Science, 2007, , 67-83.	1.0	56
40	DAML+OIL: A Reason-able Web Ontology Language. Lecture Notes in Computer Science, 2002, , 2-13.	1.0	55
41	Using Semantic Technology to Tame the Data Variety Challenge. IEEE Internet Computing, 2016, 20, 62-66.	3.2	54
42	Efficient Query Answering for OWL 2. Lecture Notes in Computer Science, 2009, , 489-504.	1.0	54
43	A comparison of two modelling paradigms in the Semantic Web. Web Semantics, 2007, 5, 240-250.	2.2	52
44	A novel approach to ontology classification. Web Semantics, 2012, 14, 84-101.	2.2	50
45	OWL2Vec*: embedding of OWL ontologies. Machine Learning, 2021, 110, 1813.	3.4	50
46	SPARQL Query Answering over OWL Ontologies. Lecture Notes in Computer Science, 2011, , 382-396.	1.0	50
47	Enabling knowledge representation on the Web by extending RDF schema. , 2001, , .		49
48	Optimizing Terminological Reasoning for Expressive Description Logics. Journal of Automated Reasoning, 2007, 39, 277-316.	1.1	47
49	Ontology Based Access to Exploration Data at Statoil. Lecture Notes in Computer Science, 2015, , 93-112.	1.0	47
50	Experiencing OptiqueVQS: a multi-paradigm and ontology-based visual query system for end users. Universal Access in the Information Society, 2016, 15, 129-152.	2.1	46
51	Three theses of representation in the semantic web. , 2003, , .		45
52	Building a bioinformatics ontology using OIL. IEEE Transactions on Information Technology in Biomedicine, 2002, 6, 135-141.	3.6	44
53	Enabling knowledge representation on the Web by extending RDF Schema. Computer Networks, 2002, 39, 609-634.	3.2	42
54	RDFS(FA): Connecting RDF(S) and OWL DL. IEEE Transactions on Knowledge and Data Engineering, 2007, 19, 192-206.	4.0	41

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55	Capturing Industrial Information Models with Ontologies and Constraints. Lecture Notes in Computer Science, 2016, , 325-343.	1.0	41
56	Representing ontologies using description logics, description graphs, and rules. Artificial Intelligence, 2009, 173, 1275-1309.	3.9	39
57	Using Vampire to Reason with OWL. Lecture Notes in Computer Science, 2004, , 471-485.	1.0	38
58	Logic-based assessment of the compatibility of UMLS ontology sources. Journal of Biomedical Semantics, 2011, 2, S2.	0.9	38
59	How to Decide Query Containment under Constraints Using a Description Logic. , 2000, , 326-343.		37
60	Supporting concurrent ontology development: Framework, algorithms and tool. Data and Knowledge Engineering, 2011, 70, 146-164.	2.1	36
61	Ontology-based end-user visual query formulation: Why, what, who, how, and which?. Universal Access in the Information Society, 2017, 16, 435-467.	2.1	36
62	The OWL Instance Store: System Description. Lecture Notes in Computer Science, 2005, , 177-181.	1.0	36
63	Combinations of Modal Logics. Artificial Intelligence Review, 2002, 17, 1-20.	9.7	34
64	4 Computational modal logic. Studies in Logic and Practical Reasoning, 2007, 3, 181-245.	1.4	34
65	Framework for an Automated Comparison of Description Logic Reasoners. Lecture Notes in Computer Science, 2006, , 654-667.	1.0	34
66	OWL: A Description Logic Based Ontology Language. Lecture Notes in Computer Science, 2005, , 5-8.	1.0	33
67	Description Logics. IEEE Intelligent Systems, 2014, 29, 12-19.	4.0	33
68	Ontology-Based Integration of Streaming and Static Relational Data with Optique. , 2016, , .		33
69	MORe: Modular Combination of OWL Reasoners for Ontology Classification. Lecture Notes in Computer Science, 2012, , 1-16.	1.0	33
70	Position paper. , 2006, , .		32
71	OptiqueVQS. , 2013, , .		32
72	Optique: Towards OBDA Systems for Industry. Lecture Notes in Computer Science, 2013, , 125-140.	1.0	32

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73	Delta-reasoner. , 2012, , .		31
74	RODI: Benchmarking relational-to-ontology mapping generation quality. Semantic Web, 2017, 9, 25-52.	1.1	31
75	Publishing the Norwegian Petroleum Directorateâ€™s FactPages as Semantic Web Data. Lecture Notes in Computer Science, 2013, , 162-177.	1.0	30
76	KR and Reasoning on the Semantic Web: OWL. , 2011, , 365-398.		29
77	A Little Semantic Web Goes a Long Way in Biology. Lecture Notes in Computer Science, 2005, , 786-800.	1.0	28
78	Description Logics. , 2009, , 21-43.		28
79	Reasoning with Expressive Description Logics: Theory and Practice. Lecture Notes in Computer Science, 2002, , 1-15.	1.0	27
80	RDFS(FA) and RDF MT: Two Semantics for RDFS. Lecture Notes in Computer Science, 2003, , 30-46.	1.0	27
81	f-SWRL: A Fuzzy Extension of SWRL. Lecture Notes in Computer Science, 2006, , 28-46.	1.0	26
82	OWL FA. , 2006, , .		26
83	OWL: A Description Logic Based Ontology Language. Lecture Notes in Computer Science, 2005, , 1-4.	1.0	26
84	Extracting Modules from Ontologies: A Logic-Based Approach. Lecture Notes in Computer Science, 2009, , 159-186.	1.0	26
85	OWL-Eu: Adding customised datatypes into OWL. Web Semantics, 2006, 4, 29-39.	2.2	25
86	Order matters! Harnessing a world of orderings for reasoning over massive data. Semantic Web, 2013, 4, 219-231.	1.1	24
87	FaCT and DLP. Lecture Notes in Computer Science, 1998, , 27-30.	1.0	24
88	PAGOdA: Pay-As-You-Go Ontology Query Answering Using a Datalog Reasoner. Journal of Artificial Intelligence Research, 0, 54, 309-367.	7.0	24
89	Making the most of your triple store. , 2013, , .		23
90	OBO and OWL: Leveraging Semantic Web Technologies for the Life Sciences. Lecture Notes in Computer Science, 2007, , 169-182.	1.0	23

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91	Maintenance of datalog materialisations revisited. Artificial Intelligence, 2019, 269, 76-136.	3.9	22
92	OILing the way to machine understandable bioinformatics resources. IEEE Transactions on Information Technology in Biomedicine, 2002, 6, 129-134.	3.6	21
93	Completeness Guarantees for Incomplete Ontology Reasoners: Theory and Practice. Journal of Artificial Intelligence Research, 0, 43, 419-476.	7.0	21
94	Module Extraction in Expressive Ontology Languages via Datalog Reasoning. Journal of Artificial Intelligence Research, 0, 55, 499-564.	7.0	21
95	Optimising Ontology Classification. Lecture Notes in Computer Science, 2010, , 225-240.	1.0	20
96	Towards Analytics Aware Ontology Based Access to Static and Streaming Data. Lecture Notes in Computer Science, 2016, , 344-362.	1.0	19
97	Reasoning Support for Expressive Ontology Languages Using a Theorem Prover. Lecture Notes in Computer Science, 2006, , 201-218.	1.0	19
98	Ontology-Based Visual Query Formulation: An Industry Experience. Lecture Notes in Computer Science, 2015, , 842-854.	1.0	18
99	Learning Semantic Annotations for Tabular Data. , 2019, , .		18
100	What Are Ontologies Good For?. , 2013, , 175-188.		17
101	A Semantic Infosphere. Lecture Notes in Computer Science, 2003, , 882-896.	1.0	17
102	OWL Datatypes: Design and Implementation. Lecture Notes in Computer Science, 2008, , 307-322.	1.0	17
103	Distributed RDF Query Answering with Dynamic Data Exchange. Lecture Notes in Computer Science, 2016, , 480-497.	1.0	16
104	Optimized Description Logic Reasoning via Core Blocking. Lecture Notes in Computer Science, 2010, , 457-471.	1.0	16
105	Applications of Description Logics: State of the Art and Research Challenges. Lecture Notes in Computer Science, 2005, , 78-90.	1.0	15
106	Enabling semantic access to static and streaming distributed data with optique. , 2016, , .		15
107	Optimising propositional modal satisfiability for description logic subsumption. Lecture Notes in Computer Science, 1998, , 234-246.	1.0	14
108	Semantic web. , 2007, , .		14

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109	Consequence-based and fixed-parameter tractable reasoning in description logics. Artificial Intelligence, 2014, 209, 29-77.	3.9	14
110	Augmenting Ontology Alignment by Semantic Embedding and Distant Supervision. Lecture Notes in Computer Science, 2021, , 392-408.	1.0	14
111	Towards Exploiting Query History for Adaptive Ontology-Based Visual Query Formulation. Communications in Computer and Information Science, 2014, , 107-119.	0.4	14
112	Event-Enhanced Learning for KG Completion. Lecture Notes in Computer Science, 2018, , 541-559.	1.0	14
113	Description Logics in Ontology Applications. Lecture Notes in Computer Science, 2005, , 2-13.	1.0	13
114	A Preliminary Approach on Ontology-Based Visual Query Formulation for Big Data. Communications in Computer and Information Science, 2013, , 201-212.	0.4	13
115	DLP and FaCT. Lecture Notes in Computer Science, 1999, , 19-23.	1.0	12
116	Semantic Rules for Machine Diagnostics. , 2017, , .		11
117	Towards the Semantic Enrichment of Free-Text Annotation of Image Quality Assessment for UK Biobank Cardiac Cine MRI Scans. Lecture Notes in Computer Science, 2016, , 238-248.	1.0	11
118	Reducing OWL Entailment to Description Logic Satisfiability. SSRN Electronic Journal, 2004, , .	0.4	10
119	Hybrid Logics and Ontology Languages. Electronic Notes in Theoretical Computer Science, 2007, 174, 3-14.	0.9	10
120	A rule-based ontological framework for the classification of molecules. Journal of Biomedical Semantics, 2014, 5, 17.	0.9	10
121	SemDia. , 2017, , .		10
122	Benchmark Analysis with FaCT. Lecture Notes in Computer Science, 2000, , 62-66.	1.0	10
123	Exploiting Partial Information in Taxonomy Construction. Lecture Notes in Computer Science, 2009, , 569-584.	1.0	10
124	Correcting Knowledge Base Assertions. , 2020, , .		10
125	Tractable Extensions of the Description Logic ${mathcal{EL}}$ with Numerical Datatypes. Journal of Automated Reasoning, 2011, 47, 427-450.	1.1	9
126	Web Ontology Reasoning with Datatype Groups. Lecture Notes in Computer Science, 2003, , 47-63.	1.0	9

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127	Extending Datatype Support in Web Ontology Reasoning. Lecture Notes in Computer Science, 2002, , 1067-1081.	1.0	8
128	$\mathcal{EL}$ -ifying Ontologies. Lecture Notes in Computer Science, 2014, , 464-479.	1.0	8
129	Repairing Ontologies for Incomplete Reasoners. Lecture Notes in Computer Science, 2011, , 681-696.	1.0	8
130	The Energy Management Adviser at EDF. Lecture Notes in Computer Science, 2013, , 49-64.	1.0	8
131	From SHIQ and RDF to OWL: The Making of a Web Ontology Language. SSRN Electronic Journal, 0, , .	0.4	8
132	Foundations of Declarative Data Analysis Using Limit Datalog Programs. , 2017, , .		8
133	Tool Support for Ontology Engineering. , 2011, , 103-112.		7
134	Modelling Structured Domains Using Description Graphs and Logic Programming. Lecture Notes in Computer Science, 2012, , 330-344.	1.0	7
135	The Bag Semantics of Ontology-Based Data Access. , 2017, , .		7
136	Satisfaction and Implication of Integrity Constraints in Ontology-based Data Access. , 2019, , .		7
137	OIL and DAML + OIL: Ontology Languages for the Semantic Web. , 0, , 11-31.		6
138	Evaluating Optimized Decision Procedures for Propositional Modal K (m) Satisfiability. Journal of Automated Reasoning, 2002, 28, 173-204.	1.1	6
139	Diagnostics of Trains with Semantic Diagnostics Rules. Lecture Notes in Computer Science, 2018, , 54-71.	1.0	6
140	Pushing the Boundaries of Tractable Ontology Reasoning. Lecture Notes in Computer Science, 2014, , 148-163.	1.0	6
141	Complete Query Answering over Horn Ontologies Using a Triple Store. Lecture Notes in Computer Science, 2013, , 720-736.	1.0	6
142	Finding Data Should be Easier than Finding Oil. , 2018, , .		5
143	Dynamic Data Exchange in Distributed RDF Stores. IEEE Transactions on Knowledge and Data Engineering, 2018, 30, 2312-2325.	4.0	5
144	Datalog Reasoning over Compressed RDF Knowledge Bases. , 2019, , .		5

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145	Individual Reuse in Description Logic Reasoning. Lecture Notes in Computer Science, 2008, , 242-258.	1.0	5
146	Owl Rules: A Proposal and Prototype Implementation. SSRN Electronic Journal, 0, , .	0.4	5
147	Why not simply Google?. , 2014, , .		4
148	An Efficient Index for RDF Query Containment. , 2019, , .		4
149	OWL2: The Next Step for OWL. SSRN Electronic Journal, 0, , .	0.4	4
150	Modular Materialisation of Datalog Programs. Proceedings of the AAAI Conference on Artificial Intelligence, 0, 33, 2859-2866.	3.6	4
151	Semantics âŠ" scalability âŠ¨ âŠ¥?. Journal of Zhejiang University: Science C, 2012, 13, 241-244.	0.7	3
152	Tractable Extensions of the Description Logic $cal EL$ with Numerical Datatypes. Lecture Notes in Computer Science, 2010, , 61-75.	1.0	3
153	A Comparison of Two Modelling Paradigms in the Semantic Web. SSRN Electronic Journal, 0, , .	0.4	3
154	Stratified Negation in Limit Datalog Programs. , 2018, , .		3
155	Pay-as-you-go consequence-based reasoning for the description logic $SROIQ$. Artificial Intelligence, 2021, 298, 103518.	3.9	2
156	Semantic Web. Human-computer Interaction Series, 2008, , 315-330.	0.4	2
157	Datalog Materialisation in Distributed RDF Stores with Dynamic Data Exchange. Lecture Notes in Computer Science, 2019, , 21-37.	1.0	2
158	Completeness Guarantees for Incomplete Reasoners. Lecture Notes in Computer Science, 2010, , 747-763.	1.0	2
159	A Novel Approach to Ontology Classification. SSRN Electronic Journal, 0, , .	0.4	2
160	Consequence-based Reasoning for Description Logics with Disjunction, Inverse Roles, Number Restrictions, and Nominals. , 2018, , .		2
161	Children's magic won't deliver the semantic web. Communications of the ACM, 2009, 52, 8-9.	3.3	1
162	Use of Semantic Technologies to Inform Progress Toward Zero-Carbon Economy. Lecture Notes in Computer Science, 2021, , 665-681.	1.0	1

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163	Abox Satisfiability Reduced to Terminological Reasoning in Expressive Description Logics. Lecture Notes in Computer Science, 2002, , 435-449.	1.0	1
164	Feasibility of Optimised Disjunctive Reasoning for Approximate Matching. Lecture Notes in Computer Science, 1999, , 328-339.	1.0	1
165	15 Years of Consequence-Based Reasoning. Lecture Notes in Computer Science, 2019, , 573-587.	1.0	1
166	Bridging the Gap Between OWL and Relational Databases. SSRN Electronic Journal, 0, , .	0.4	1
167	OWL-Eu: Adding Customised Datatypes Into OWL. SSRN Electronic Journal, 0, , .	0.4	1
168	Concrete Results on Abstract Rules. Lecture Notes in Computer Science, 2013, , 414-426.	1.0	1
169	Logic for Ontology Engineering Corner. Journal of Logic and Computation, 2007, 17, 615-615.	0.5	0
170	An assertion and alignment correction framework for large scale knowledge bases. Semantic Web, 2021, , 1-25.	1.1	0
171	Chemical knowledge representation with description graphs and logic programming. , 2012, , .		0
172	The Complexity and Expressive Power of Limit Datalog. Journal of the ACM, 2022, 69, 1-83.	1.8	0
173	Modular materialisation of Datalog programs. Artificial Intelligence, 2022, 308, 103726.	3.9	0