Carole Anne Goble

List of Publications by Year
in descending order

185 papers	18,011 citations	61984 43 h-index	17592 121 g-index
203 all docs	203 docs citations	203 times ranked	26087 citing authors

#	Article	IF	Citations
1	The FAIR Guiding Principles for scientific data management and stewardship. Scientific Data, 2016, 3, 160018.	5.3	8,670
2	Taverna: a tool for building and running workflows of services. Nucleic Acids Research, 2006, 34, W729-W732.	14.5	758
3	The Taverna workflow suite: designing and executing workflows of Web Services on the desktop, web or in the cloud. Nucleic Acids Research, 2013, 41, W557-W561.	14.5	567
4	Taverna: lessons in creating a workflow environment for the life sciences. Concurrency Computation Practice and Experience, 2006, 18, 1067-1100.	2.2	485
5	The design and realisation of the Virtual Research Environment for social sharing of workflows. Future Generation Computer Systems, 2009, 25, 561-567.	7.5	407
6	Examining the Challenges of Scientific Workflows. Computer, 2007, 40, 24-32.	1.1	406
7	Toward interoperable bioscience data. Nature Genetics, 2012, 44, 121-126.	21.4	362
8	Open PHACTS: semantic interoperability for drug discovery. Drug Discovery Today, 2012, 17, 1188-1198.	6.4	274
9	State of the nation in data integration for bioinformatics. Journal of Biomedical Informatics, 2008, 41, 687-693.	4.3	244
10	Why linked data is not enough for scientists. Future Generation Computer Systems, 2013, 29, 599-611.	7.5	230
11	FAIR Principles: Interpretations and Implementation Considerations. Data Intelligence, 2020, 2, 10-29.	1.5	149
12	Towards FAIR principles forÂresearchÂsoftware. Data Science, 2020, 3, 37-59.	0.9	144
13	A SUITE OF DAML+OIL ONTOLOGIES TO DESCRIBE BIOINFORMATICS WEB SERVICES AND DATA. International Journal of Cooperative Information Systems, 2003, 12, 197-224.	0.8	126
14	A classification of tasks in bioinformatics. Bioinformatics, 2001, 17, 180-188.	4.1	123
15	Research Objects: Towards Exchange and Reuse of Digital Knowledge. Nature Precedings, 2010, , .	0.1	105
16	FAIRDOMHub: a repository and collaboration environment for sharing systems biology research. Nucleic Acids Research, 2017, 45, D404-D407.	14.5	98
17	FAIR Computational Workflows. Data Intelligence, 2020, 2, 108-121.	1.5	97
18	Identifiers for the 21st century: How to design, provision, and reuse persistent identifiers to maximize utility and impact of life science data. PLoS Biology, 2017, 15, e2001414.	5.6	97

#	Article	IF	Citations
19	Conceptual linking. , 2001, , .		94
20	Using a suite of ontologies for preserving workflow-centric research objects. Web Semantics, 2015, 32, 16-42.	2.9	94
21	Taverna, Reloaded. Lecture Notes in Computer Science, 2010, , 471-481.	1.3	93
22	Four simple recommendations to encourage best practices in research software. F1000Research, 2017, 6, 876.	1.6	88
23	Mining Taverna's semantic web of provenance. Concurrency Computation Practice and Experience, 2008, 20, 463-472.	2.2	85
24	Using Semantic Web Technologies for Representing E-science Provenance. Lecture Notes in Computer Science, 2004, , 92-106.	1.3	83
25	myExperiment. , 2007, , .		78
26	SEEK: a systems biology data and model management platform. BMC Systems Biology, 2015, 9, 33.	3.0	75
27	Learning domain ontologies for Web service descriptions. , 2005, , .		72
28	Learning domain ontologies for semantic Web service descriptions. Web Semantics, 2005, 3, 340-365.	2.9	71
29	An overview of S-OGSA: A Reference Semantic Grid Architecture. Web Semantics, 2006, 4, 102-115.	2.9	69
30	RightField: embedding ontology annotation in spreadsheets. Bioinformatics, 2011, 27, 2021-2022.	4.1	69
31	Towards a Knowledge-Based Approach to Semantic Service Composition. Lecture Notes in Computer Science, 2003, , 319-334.	1.3	67
32	Feta: A Light-Weight Architecture for User Oriented Semantic Service Discovery. Lecture Notes in Computer Science, 2005, , 17-31.	1.3	64
33	PAV ontology: provenance, authoring and versioning. Journal of Biomedical Semantics, 2013, 4, 37.	1.6	64
34	Taverna Workflows: Syntax and Semantics. , 2007, , .		63
35	A short study on the success of the Gene Ontology. Web Semantics, 2004, 1, 235-240.	2.9	61
36	Software Design for Empowering Scientists. IEEE Software, 2009, 26, 88-95.	1.8	61

#	Article	IF	Citations
37	Evaluating DANTE. ACM Transactions on Computer-Human Interaction, 2007, 14, 14.	5.7	58
38	Common motifs in scientific workflows: An empirical analysis. Future Generation Computer Systems, 2014, 36, 338-351.	7.5	57
39	Seven Bottlenecks to Workflow Reuse and Repurposing. Lecture Notes in Computer Science, 2005, , 323-337.	1.3	57
40	The travails of visually impaired web travellers. , 2000, , .		55
41	Applying Semantic Web Services to Bioinformatics: Experiences Gained, Lessons Learnt. Lecture Notes in Computer Science, 2004, , 350-364.	1.3	55
42	The Software Sustainability Institute: Changing Research Software Attitudes and Practices. Computing in Science and Engineering, 2013, 15, 74-80.	1.2	55
43	Methods included. Communications of the ACM, 2022, 65, 54-63.	4.5	55
44	Data curation + process curation=data integration + science. Briefings in Bioinformatics, 2008, 9, 506-517.	6.5	53
45	COVID19 Disease Map, a computational knowledge repository of virusâ€"host interaction mechanisms. Molecular Systems Biology, 2021, 17, e10387.	7.2	53
46	Accessibility. , 2005, , .		52
47	Designing the myExperiment Virtual Research Environment for the Social Sharing of Workflows. , 2007, , .		52
48	Packaging research artefacts with RO-Crate. Data Science, 2022, 5, 97-138.	0.9	52
49	Taverna/myGrid: Aligning a Workflow System with the Life Sciences Community. , 2007, , 300-319.		51
50	The Grid. SIGMOD Record, 2002, 31, 65-70.	1.2	49
51	Guest editors' introduction to the special section on scientific workflows. SIGMOD Record, 2005, 34, 3-4.	1.2	49
52	Sharing interoperable workflow provenance: A review of best practices and their practical application in CWLProv. GigaScience, 2019, 8, .	6.4	49
53	A semi-automated workflow for biodiversity data retrieval, cleaning, and quality control. Biodiversity Data Journal, 2014, 2, e4221.	0.8	49
54	Why workflows break — Understanding and combating decay in Taverna workflows. , 2012, , .		48

#	Article	IF	Citations
55	Workflow discovery: the problem, a case study from e-Science and a graph-based solution. , 2006, , .		46
56	myExperiment: Defining the Social Virtual Research Environment. , 2008, , .		46
57	BioVeL: a virtual laboratory for data analysis and modelling in biodiversity science and ecology. BMC Ecology, 2016, 16, 49.	3.0	45
58	Building a bioinformatics ontology using OIL. IEEE Transactions on Information Technology in Biomedicine, 2002, 6, 135-141.	3.2	44
59	Heterogeneous composition of models of computation. Future Generation Computer Systems, 2009, 25, 552-560.	7.5	44
60	The SEEK. Methods in Enzymology, 2011, 500, 629-655.	1.0	44
61	Better Software, Better Research. IEEE Internet Computing, 2014, 18, 4-8.	3.3	44
62	API-centric Linked Data integration: The Open PHACTS Discovery Platform case study. Web Semantics, 2014, 29, 12-18.	2.9	44
63	Scientific Process Automation and Workflow Management. Chapman & Hall/CRC Computational Science, 2009, , .	0.5	44
64	Community-driven computational biology with Debian Linux. BMC Bioinformatics, 2010, 11, S5.	2.6	42
65	Applying linked data approaches to pharmacology: Architectural decisions and implementation. Semantic Web, 2014, 5, 101-113.	1.9	41
66	Semantically Linking and Browsing Provenance Logs for E-science. Lecture Notes in Computer Science, 2004, , 158-176.	1.3	41
67	Data Lineage Model for Taverna Workflows with Lightweight Annotation Requirements. Lecture Notes in Computer Science, 2008, , 17-30.	1.3	40
68	Janus: From Workflows to Semantic Provenance and Linked Open Data. Lecture Notes in Computer Science, 2010, , 129-141.	1.3	39
69	Why Linked Data is Not Enough for Scientists. , 2010, , .		37
70	The evolution of standards and data management practices in systems biology. Molecular Systems Biology, 2015, 11, 851.	7.2	35
71	BioExcel Building Blocks, a software library for interoperable biomolecular simulation workflows. Scientific Data, 2019, 6, 169.	5.3	35
72	A foundation for tool based mobility support for visually impaired web users. , 2003, , .		34

#	Article	IF	Citations
73	I'll take that to go: Big data bags and minimal identifiers for exchange of large, complex datasets. , 2016, , .		33
74	FAIR Data Reuse â€" the Path through Data Citation. Data Intelligence, 2020, 2, 78-86.	1.5	33
75	Report on the 18 th British National Conference on Databases (BNCOD). SIGMOD Record, 2002, 31, 109-112.	1.2	32
76	Using provenance to manage knowledge of In Silico experiments. Briefings in Bioinformatics, 2007, 8, 183-194.	6.5	31
77	myGrid and the drug discovery process. Drug Discovery Today Biosilico, 2004, 2, 140-148.	0.7	30
78	Metadata Management in the Taverna Workflow System. , 2008, , .		30
79	The Human Physiome: how standards, software and innovative service infrastructures are providing the building blocks to make it achievable. Interface Focus, 2016, 6, 20150103.	3.0	30
80	Enabling precision medicine via standard communication of HTS provenance, analysis, and results. PLoS Biology, 2018, 16, e3000099.	5.6	29
81	A formal semantics for the Taverna 2 workflow model. Journal of Computer and System Sciences, 2010, 76, 490-508.	1.2	28
82	Linking multiple workflow provenance traces for interoperable collaborative science. , 2010, , .		28
83	SEMANTICS-ASSISTED PROBLEM SOLVING ON THE SEMANTIC GRID. Computational Intelligence, 2005, 21, 157-176.	3.2	26
84	Structuring research methods and data with the research object model: genomics workflows as a case study. Journal of Biomedical Semantics, 2014, 5, 41.	1.6	26
85	Kaleidoquery. , 1998, , .		26
86	Towards open science: the myExperiment approach. Concurrency Computation Practice and Experience, 2010, 22, 2335-2353.	2.2	25
87	ERGOT: A Semantic-Based System for Service Discovery in Distributed Infrastructures. , 2010, , .		25
88	Quality, trust, and utility of scientific data on the web. , 2011, , .		25
89	Composing Different Models of Computation in Kepler and Ptolemy II. Lecture Notes in Computer Science, 2007, , 182-190.	1.3	23
90	Screen Readers Cannot See. Lecture Notes in Computer Science, 2004, , 445-458.	1.3	23

#	Article	IF	Citations
91	Thesaurus construction through knowledge representation. Data and Knowledge Engineering, 2001, 37, 25-45.	3.4	22
92	OILing the way to machine understandable bioinformatics resources. IEEE Transactions on Information Technology in Biomedicine, 2002, 6, 129-134.	3.2	21
93	DANTE. , 2004, , .		21
94	Meeting report from the fourth meeting of the Computational Modeling in Biology Network (COMBINE). Standards in Genomic Sciences, 2014, 9, 1285-1301.	1.5	21
95	XGAP: a uniform and extensible data model and software platform for genotype and phenotype experiments. Genome Biology, 2010, 11, R27.	9.6	20
96	ServiceMap: Providing Map and GPS Assistance to Service Composition in Bioinformatics. , 2011, , .		20
97	Recycling workflows and services through discovery and reuse. Concurrency Computation Practice and Experience, 2007, 19, 181-194.	2.2	19
98	Elements of a computational infrastructure for social simulation. Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences, 2010, 368, 3797-3812.	3.4	19
99	Extending Semantic Provenance into the Web of Data. IEEE Internet Computing, 2011, 15, 40-48.	3.3	18
100	Common motifs in scientific workflows: An empirical analysis. , 2012, , .		18
101	Small Is Beautiful: Summarizing Scientific Workflows Using Semantic Annotations. , 2013, , .		18
102	ELIXIRâ€EXCELERATE: establishing Europe's data infrastructure for the life science research of the future. EMBO Journal, 2021, 40, e107409.	7.8	18
103	Building Ontologies in DAML + OIL. Comparative and Functional Genomics, 2003, 4, 133-141.	2.0	17
104	Requirements and Services for Metadata Management. IEEE Internet Computing, 2007, 11, 17-25.	3.3	17
105	Scientific Lenses to Support Multiple Views over Linked Chemistry Data. Lecture Notes in Computer Science, 2014, , 98-113.	1.3	16
106	Landscape Analysis for the Specimen Data Refinery. Research Ideas and Outcomes, 0, 6, .	1.0	15
107	An Identity Crisis in the Life Sciences. Lecture Notes in Computer Science, 2006, , 254-269.	1.3	14
108	A Community Roadmap for Scientific Workflows Research and Development. , 2021, , .		14

#	Article	IF	Citations
109	The Data Playground: An Intuitive Workflow Specification Environment. , 2007, , .		13
110	BioCatalogue: A Curated Web Service Registry For The Life Science Community. Nature Precedings, 2009, , .	0.1	13
111	A comparison of using Taverna and BPEL in building scientific workflows: the case of caGrid. Concurrency Computation Practice and Experience, 2010, 22, 1098-1117.	2.2	13
112	ReputationNet: A Reputation Engine to Enhance ServiceMap by Recommending Trusted Services. , 2012, , .		13
113	Distilling structure in Taverna scientific workflows: a refactoring approach. BMC Bioinformatics, 2014, 15, S12.	2.6	13
114	Scientific Workflows as Services in caGrid: A Taverna and gRAVI Approach. , 2009, , .		12
115	ReputationNet: Reputation-Based Service Recommendation for e-Science. IEEE Transactions on Services Computing, 2015, 8, 439-452.	4.6	12
116	Marine long-term biodiversity assessment suggests loss of rare species in the Skagerrak and Kattegat region. Marine Biodiversity, 2018, 48, 2165-2176.	1.0	12
117	Knowledge Discovery for Biology with Taverna. , 2007, , 355-395.		12
118	The Low Down on e-Science and Grids for Biology. Comparative and Functional Genomics, 2001, 2, 365-370.	2.0	11
119	Augmenting the mobility of profoundly blind Web travellers. New Review of Hypermedia and Multimedia, 2005, 11, 103-128.	1.1	11
120	The Evolution of myExperiment. , 2010, , .		11
121	Fostering Scientific Workflow Preservation through Discovery of Substitute Services. , 2011, , .		11
122	Workflows to open provenance graphs, round-trip. Future Generation Computer Systems, 2011, 27, 812-819.	7.5	11
123	Report on the EDBT'02 panel on scientific data integration. SIGMOD Record, 2002, 31, 107-112.	1.2	10
124	The Semantic Web and Knowledge Grids. Drug Discovery Today: Technologies, 2005, 2, 225-233.	4.0	10
125	In situ migration of handcrafted ontologies to reason-able forms. Data and Knowledge Engineering, 2008, 66, 147-162.	3.4	10
126	Medical image processing workflow support on the EGEE grid with taverna. , 2009, , .		10

#	Article	IF	Citations
127	Scientific Social Objects: The Social Objects and Multidimensional Network of the myExperiment Website. , 2011, , .		10
128	TourisT. , 1998, , .		9
129	The Montagues and the Capulets. Comparative and Functional Genomics, 2004, 5, 623-632.	2.0	9
130	An ActOn-based semantic information service for Grids. Future Generation Computer Systems, 2010, 26, 324-336.	7.5	9
131	Exploring the Current Practices, Costs and Benefits of FAIR Implementation in Pharmaceutical Research and Development: A Qualitative Interview Study. Data Intelligence, 2021, 3, 507-527.	1.5	9
132	The Grid Needs You! Enlist Now. Lecture Notes in Computer Science, 2003, , 589-600.	1.3	9
133	Workflow Discovery. International Journal of Web Services Research, 2008, 5, 32-58.	0.8	9
134	A roadmap for caGrid, an enterprise Grid architecture for biomedical research. Studies in Health Technology and Informatics, 2008, 138, 224-37.	0.3	9
135	Benchmarking workflow discovery: a case study from bioinformatics. Concurrency Computation Practice and Experience, 2009, 21, 2052-2069.	2.2	8
136	The data playground: An intuitive workflow specification environment. Future Generation Computer Systems, 2009, 25, 453-459.	7.5	8
137	Developing a strategy for computational lab skills training through Software and Data Carpentry: Experiences from the ELIXIR Pilot action. F1000Research, 2017, 6, 1040.	1.6	8
138	Selection of data sets for FAIRification in drug discovery and development: Which, why, and how?. Drug Discovery Today, 2022, 27, 2080-2085.	6.4	8
139	Grid metadata management: Requirements and architecture. , 2007, , .		7
140	SYNBIOCHEMâ€"a SynBio foundry for the biosynthesis and sustainable production of fine and speciality chemicals. Biochemical Society Transactions, 2016, 44, 675-677.	3.4	7
141	Data management challenges for artificial intelligence in plant and agricultural research. F1000Research, 0, 10, 324.	1.6	7
142	Perspectives on automated composition of workflows in the life sciences. F1000Research, 2021, 10, 897.	1.6	7
143	Semantic Web Based Content Enrichment and Knowledge Reuse in E-science. Lecture Notes in Computer Science, 2004, , 654-669.	1.3	7
144	Ten simple rules for making a software tool workflow-ready. PLoS Computational Biology, 2022, 18, e1009823.	3.2	7

#	Article	IF	Citations
145	Software in reproducible research. , 2014, , .		6
146	LabelFlow Framework for Annotating Workflow Provenance. Informatics, 2018, 5, 11.	3.9	6
147	e-Science and the Semantic Web: A Symbiotic Relationship. Lecture Notes in Computer Science, 2006, , 1-12.	1.3	6
148	Semantic Data and Models Sharing in Systems Biology: The Just Enough Results Model and the SEEK Platform. Lecture Notes in Computer Science, 2013, , 212-227.	1.3	6
149	The Specimen Data Refinery: A Canonical Workflow Framework and FAIR Digital Object Approach to Speeding up Digital Mobilisation of Natural History Collections. Data Intelligence, 2022, 4, 320-341.	1.5	6
150	Sentinel: towards an ambient mobility network. Disability and Rehabilitation, 2003, 25, 940-948.	1.8	5
151	FAME: Adding Multi-Level Authentication to Shibboleth. , 2006, , .		5
152	Functional Units: Abstractions for Web Service Annotations. , 2010, , .		5
153	MIM: A Minimum Information Model vocabulary and framework for Scientific Linked Data. , 2012, , .		5
154	Identifiers.org: Compact Identifier services in the cloud. Bioinformatics, 2021, 37, 1781-1782.	4.1	5
155	Classification Based Navigation and Retrieval for Picture Archives. , 1999, , 291-310.		5
156	$^{extrm{small{my}}}$ Grid and UTOPIA: An Integrated Approach to Enacting and Visualising in Silico Experiments in the Life Sciences. , 2007, , 59-70.		5
157	Incorporating Commercial and Private Data into an Open Linked Data Platform for Drug Discovery. Lecture Notes in Computer Science, 2013, , 65-80.	1.3	5
158	Opening new gateways to workflows for life scientists. Studies in Health Technology and Informatics, 2012, 175, 131-41.	0.3	5
159	Semantic web applications to e-science in silico experiments. , 2004, , .		4
160	Grid 3.0: Services, semantics and society. , 2007, , .		4
161	Building the Mobile Web: rediscovering accessibility?. Universal Access in the Information Society, 2007, 6, 219-220.	3.0	4
162	Pedro Ontology Services: A Framework for Rapid Ontology Markup. Lecture Notes in Computer Science, 2005, , 578-591.	1.3	4

#	Article	IF	Citations
163	Combining DHTs and SONs for Semantic-Based Service Discovery. , 2009, , .		3
164	Stealthy annotation of experimental biology by spreadsheets. Concurrency Computation Practice and Experience, 2013, 25, 467-480.	2.2	3
165	ISO 23494: Biotechnology â€“ Provenance Information Model for Biological Specimen And Data. Lecture Notes in Computer Science, 2021, , 222-225.	1.3	3
166	Natural Language Search Interfaces: Health Data Needs Single-Field Variable Search. Journal of Medical Internet Research, 2016, 18, e13.	4.3	3
167	Api-Centric Linked Data Integration: The Open Phacts Discovery Platform Case Study. SSRN Electronic Journal, 0, , .	0.4	3
168	Data Management in Computational Systems Biology: Exploring Standards, Tools, Databases, and Packaging Best Practices. Methods in Molecular Biology, 2019, 2049, 285-314.	0.9	3
169	Carole Goble discusses the impact of semantic technologies on the life sciences. Drug Discovery Today Biosilico, 2004, 2, 4-6.	0.7	2
170	An ActOn-based semantic information service for EGEE. , 2007, , .		2
171	ODESGS framework, knowledge-based markup for semantic grid services. , 2005, , .		1
172	RightField: Semantic enrichment of Systems Biology data using spreadsheets. , 2012, , .		1
173	Emerging Computational Methods for the Life Sciences Workshop 2012. Concurrency Computation Practice and Experience, 2014, 26, 1231-1233.	2.2	1
174	Supporting e-Science Using Semantic Web Technologies â€“ The Semantic Grid. Annals of Information Systems, 2010, , 1-28.	0.5	1
175	RightField: Scientific Knowledge Acquisition by Stealth through Ontology-Enabled Spreadsheets. Lecture Notes in Computer Science, 2012, , 438-441.	1.3	1
176	Open workflow infrastructure. , 2010, , .		1
177	Data Provenance in Scientific Workflows. , 2009, , 46-59.		1
178	Building Workflows that Traverse the Bioinformatics Data Landscape. , 2009, , 141-163.		0
179	OneStop:JWS Online's access point to SBML,SBGN and MIRIAM compliant annotation. Nature Precedings, 2011, , .	0.1	0
180	Correction to: ISO 23494: Biotechnology â€“ Provenance Information Model for Biological Specimen And Data. Lecture Notes in Computer Science, 2021, , C1-C1.	1.3	0

#	Article	IF	Citations
181	Metadata Management in S-OGSA. Lecture Notes in Computer Science, 2007, , 712-719.	1.3	0
182	Re-Evaluating The Grid: The Social Life of Programs. , 2008, , 201-211.		0
183	World Wide Web. , 2013, , 2356-2361.		0
184	DistillFlow. , 2014, , .		0
185	Using a Suite of Ontologies for Preserving Workflow-Centric Research Objects. SSRN Electronic Journal, 0, , .	0.4	0