Katy BÃ¶rner

List of Publications by Year
in descending order

88 papers	7,110 citations	156536 32 h-index	107981 68 g-index
95 all docs	95 docs citations	95 times ranked	7302 citing authors

#	Article	IF	Citations
1	Visualizing knowledge domains. Annual Review of Information Science & Technology, 2005, 37, 179-255.	2.6	1,024
2	Science of science. Science, 2018, 359, .	6.0	701
3	Mapping the backbone of science. Scientometrics, 2005, 64, 351-374.	1.6	693
4	Plug-and-play macroscopes. Communications of the ACM, 2011, 54, 60-69.	3.3	555
5	Approaches to understanding and measuring interdisciplinary scientific research (IDR): A review of the literature. Journal of Informetrics, 2011, 5, 14-26.	1.4	524
6	Mapping knowledge domains. Proceedings of the National Academy of Sciences of the United States of America, 2004, 101, 5183-5185.	3.3	260
7	A Multi-Level Systems Perspective for the Science of Team Science. Science Translational Medicine, 2010, 2, 49cm24.	5.8	239
8	Network science. Annual Review of Information Science & Technology, 2007, 41, 537-607.	2.6	226
9	The simultaneous evolution of author and paper networks. Proceedings of the National Academy of Sciences of the United States of America, 2004, 101, 5266-5273.	3.3	221
10	Clustering More than Two Million Biomedical Publications: Comparing the Accuracies of Nine Text-Based Similarity Approaches. PLoS ONE, 2011, 6, e18029.	1.1	207
11	Mapping topics and topic bursts in PNAS. Proceedings of the National Academy of Sciences of the United States of America, 2004, 101, 5287-5290.	3.3	177
12	Data visualization literacy: Definitions, conceptual frameworks, exercises, and assessments. Proceedings of the National Academy of Sciences of the United States of America, 2019, 116, 1857-1864.	3.3	158
13	Design and Update of a Classification System: The UCSD Map of Science. PLoS ONE, 2012, 7, e39464.	1.1	154
14	Studying the emerging global brain: Analyzing and visualizing the impact of co-authorship teams. Complexity, 2005, 10, 57-67.	0.9	148
15	Analysis of Network Clustering Algorithms and Cluster Quality Metrics at Scale. PLoS ONE, 2016, 11, e0159161.	1.1	143
16	Long-Distance Interdisciplinarity Leads to Higher Scientific Impact. PLoS ONE, 2015, 10, e0122565.	1.1	107
17	Analyzing and visualizing the semantic coverage of Wikipedia and its authors. Complexity, 2007, 12, 30-40.	0.9	106
18	Mapping the structure and evolution of chemistry research. Scientometrics, 2009, 79, 45-60.	1.6	100

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19	Indicator-assisted evaluation and funding of research: Visualizing the influence of grants on the number and citation counts of research papers. Journal of the Association for Information Science and Technology, 2003, 54, 447-461.	2.6	99
20	Investigating aspects of data visualization literacy using 20 information visualizations and 273 science museum visitors. Information Visualization, 2016, 15, 198-213.	1.2	96
21	Mixed-indicators model for identifying emerging research areas. Scientometrics, 2011, 89, 421-435.	1.6	95
22	Skill discrepancies between research, education, and jobs reveal the critical need to supply soft skills for the data economy. Proceedings of the National Academy of Sciences of the United States of America, 2018, 115, 12630-12637.	3.3	77
23	Anatomical structures, cell types and biomarkers of the Human Reference Atlas. Nature Cell Biology, 2021, 23, 1117-1128.	4.6	68
24	Mapping the diffusion of scholarly knowledge among major U.S. research institutions. Scientometrics, 2006, 68, 415-426.	1.6	64
25	Rete-netzwerk-red: analyzing and visualizing scholarly networks using the Network Workbench Tool. Scientometrics, 2010, 83, 863-876.	1.6	53
26	Visualizing the Topical Structure of the Medical Sciences: A Self-Organizing Map Approach. PLoS ONE, 2013, 8, e58779.	1.1	49
27	Global Multi-Level Analysis of the â€˜Scientific Food Web'. Scientific Reports, 2013, 3, 1167.	1.6	48
28	Mapâ€based Visualizations Increase Recall Accuracy of Data. Computer Graphics Forum, 2015, 34, 441-450.	1.8	47
29	Scientific progress despite irreproducibility: A seeming paradox. Proceedings of the National Academy of Sciences of the United States of America, 2018, 115, 2632-2639.	3.3	43
30	Open data and open code for big science of science studies. Scientometrics, 2014, 101, 1535-1551.	1.6	42
31	An efficient system to fund science: from proposal review to peer-to-peer distributions. Scientometrics, 2017, 110, 521-528.	1.6	40
32	Node, Node-Link, and Node-Link-Group Diagrams: An Evaluation. IEEE Transactions on Visualization and Computer Graphics, 2014, 20, 2231-2240.	2.9	37
33	Toward a more scientific science. Science, 2018, 361, 1194-1197.	6.0	34
34	Trends in animal behaviour research (1968â€“2002): ethoinformatics and the mining of library databases. Animal Behaviour, 2005, 69, 1399-1413.	0.8	28
35	Forecasting innovations in science, technology, and education. Proceedings of the National Academy of Sciences of the United States of America, 2018, 115, 12573-12581.	3.3	25
36	Visualizing learner engagement, performance, and trajectories to evaluate and optimize online course design. PLoS ONE, 2019, 14, e0215964.	1.1	24

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37	Evolving collaboration networks in Scientometrics in 1978â€"2010: a microâ€"macro analysis. Scientometrics, 2013, 95, 1051-1070.	1.6	22
38	The Scholarly Database and its utility for scientometrics research. Scientometrics, 2009, 79, 219-234.	1.6	21
39	Viv: multiscale visualization of high-resolution multiplexed bioimaging data on the web. Nature Methods, 2022, 19, 515-516.	9.0	21
40	â€˜SeedÂ+Âexpandâ€™: a general methodology for detecting publication oeuvres of individual researchers. Scientometrics, 2014, 101, 1403-1417.	1.6	19
41	Self-portraits of the brain: cognitive science, data visualization, and communicating brain structure and function. Trends in Cognitive Sciences, 2015, 19, 462-474.	4.0	19
42	Considerations for Using the Vasculature as a Coordinate System to Map All the Cells in the Human Body. Frontiers in Cardiovascular Medicine, 2020, 7, 29.	1.1	19
43	Mapping science introduction: Past, present and future. Bulletin of the Association for Information Science & Technology, 2015, 41, 12-16.	0.3	18
44	An Introduction to Modeling Science: Basic Model Types, Key Definitions, and a General Framework for the Comparison of Process Models. Understanding Complex Systems, 2012, , 3-22.	0.3	17
45	MOOC visual analytics: Empowering students, teachers, researchers, and platform developers of massively open online courses. Journal of the Association for Information Science and Technology, 2017, 68, 2350-2363.	1.5	15
46	Semantic Association Networks: Using Semantic Web Technology to Improve Scholarly Knowledge and Expertise Management. , 2006, , 183-198.		14
47	Movies and Actors: Mapping the Internet Movie Database. Proceedings / International Conference on Information Visualisation, 2007, , .	0.0	13
48	3D virtual reality vs. 2D desktop registration user interface comparison. PLoS ONE, 2021, 16, e0258103.	1.1	13
49	Mapping longitudinal scientific progress, collaboration and impact of the Alzheimerâ€™s disease neuroimaging initiative. PLoS ONE, 2017, 12, e0186095.	1.1	10
50	High-impact and transformative science (HITS) metrics: Definition, exemplification, and comparison. PLoS ONE, 2018, 13, e0200597.	1.1	9
51	From Spatial Proximity to Semantic Coherence: A Quantitative Approach to the Study of Group Dynamics in Collaborative Virtual Environments. Presence: Teleoperators and Virtual Environments, 2005, 14, 81-103.	0.3	8
52	Visualizing big science projects. Nature Reviews Physics, 2021, 3, 753-761.	11.9	8
53	Taxonomy visualization in support of the semi-automatic validation and optimization of organizational schemas. Journal of Informetrics, 2007, 1, 214-225.	1.4	7
54	Mapping the co-evolution of artificial intelligence, robotics, and the internet of things over 20 years (1998-2017). PLoS ONE, 2020, 15, e0242984.	1.1	7

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55	JoDL special issue on information visualization interfaces for retrieval and analysis â€“ Guest editorâ€™s introduction. International Journal on Digital Libraries, 2005, 5, 1-2.	1.1	6
56	Communityâ€based data integration of course and job data in support of personalized careerâ€education recommendations. Proceedings of the Association for Information Science and Technology, 2020, 57, e324.	0.3	6
57	Efficient Case-Based Structure Generation for Design Support. Artificial Intelligence Review, 2001, 16, 87-118.	9.7	5
58	A biomedical open knowledge network harnesses the power of AI to understand deep human biology. AI Magazine, 2022, 43, 46-58.	1.4	5
59	Mapping interactions within the evolving science of science and innovation policy community. Scientometrics, 2012, 91, 631-644.	1.6	4
60	Science map metaphors: a comparison of network versus hexmap-based visualizations. Scientometrics, 2018, 114, 409-426.	1.6	4
61	The impact of air transport availability on research collaboration: A case study of four universities. PLoS ONE, 2020, 15, e0238360.	1.1	4
62	Job postings in the substance use disorder treatment related sector during the first five years of Medicaid expansion. PLoS ONE, 2020, 15, e0228394.	1.1	4
63	Comparing the Consumption of CPU Hours with Scientific Output for the Extreme Science and Engineering Discovery Environment (XSEDE). PLoS ONE, 2016, 11, e0157628.	1.1	3
64	Multi-level computational methods for interdisciplinary research in the HathiTrust Digital Library. PLoS ONE, 2017, 12, e0184188.	1.1	3
65	XD Metrics on Demand Value Analytics: Visualizing the Impact of Internal Information Technology Investments on External Funding, Publications, and Collaboration Networks. Frontiers in Research Metrics and Analytics, 2018, 2, .	0.9	3
66	Optimizing Performance and Satisfaction in Matching and Movement Tasks in Virtual Reality with Interventions Using the Data Visualization Literacy Framework. Frontiers in Virtual Reality, 2022, 2, .	2.5	3
67	Replicable Science of Science Studies. , 2014, , 321-341.		2
68	Computational Diagnostics: A Novel Approach to Viewing Medical Data. , 2007, , .		1
69	Representing, Analyzing, and Visualizing Scholarly Data in Support of Research Management. Proceedings / International Conference on Information Visualisation, 2007, , .	0.0	1
70	Science Policy and the Challenges for Modeling Science. Understanding Complex Systems, 2012, , 261-266.	0.3	1
71	Plug-and-Play Macroscopes: Network Workbench (NWB), Science of Science Tool (Sci2), and Epidemiology Tool (EpiC). , 2014, , 1280-1290.		1
72	Visualizing knowledge domains. Sponsored by SIG CR, SIG VIS. Proceedings of the American Society for Information Science and Technology, 2005, 39, 476-477.	0.2	0

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73	Data Visualization of Multiparameter Information in Acute Lymphoblastic Leukemia Expands the Ability To Explore Prognostic Factors.. Blood, 2005, 106, 862-862.	0.6	0
74	Plug-and-Play Macroscopes: Network Workbench (NWB), Science of Science Tool (Sci2), and Epidemiology Tool (EpiC). , 2017, , 1-11.		0
75	Plug-and-Play Macroscopes: Network Workbench (NWB), Science of Science Tool (Sci2), and Epidemiology Tool (EpiC). , 2018, , 1790-1800.		0
76	Science Forecasts: Modeling and Communicating Developments in Science, Technology, and Innovation. Springer Handbooks, 2019, , 145-157.	0.3	0
77	â€œThen and Now,â€•Mapping the 25 Year Evolution and Impact of North American Vascular Biology Organization Science Through Publications of its Founding and Current Members. Frontiers in Research Metrics and Analytics, 2020, 5, 591090.	0.9	0
78	Leveraging online shopping behaviors as a proxy for personal lifestyle choices: New insights into chronic disease prevention literacy. Digital Health, 2022, 8, 205520762210890.	0.9	0
79	Title is missing!. , 2020, 15, e0228394.		0
80	Title is missing!. , 2020, 15, e0228394.		0
81	Title is missing!. , 2020, 15, e0228394.		0
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