Jean-Daniel Zucker

List of Publications by Year
in descending order

132 papers	13,491 citations	81900 39 h-index	45317 90 g-index
140 all docs	140 docs citations	140 times ranked	17667 citing authors

#	Article	IF	Citations
1	Richness of human gut microbiome correlates with metabolic markers. Nature, 2013, 500, 541-546.	27.8	3,641
2	Dietary intervention impact on gut microbial gene richness. Nature, 2013, 500, 585-588.	27.8	1,485
3	*Akkermansia muciniphila* and improved metabolic health during a dietary intervention in obesity: relationship with gut microbiome richness and ecology. Gut, 2016, 65, 426-436.	12.1	1,379
4	Reduction of Macrophage Infiltration and Chemoattractant Gene Expression Changes in White Adipose Tissue of Morbidly Obese Subjects After Surgery-Induced Weight Loss. Diabetes, 2005, 54, 2277-2286.	0.6	992
5	Weight loss regulates inflammationâ€related genes in white adipose tissue of obese subjects. FASEB Journal, 2004, 18, 1657-1669.	0.5	569
6	Fibrosis in Human Adipose Tissue: Composition, Distribution, and Link With Lipid Metabolism and Fat Mass Loss. Diabetes, 2010, 59, 2817-2825.	0.6	511
7	Adipose tissue transcriptomic signature highlights the pathological relevance of extracellular matrix in human obesity. Genome Biology, 2008, 9, R14.	9.6	372
8	Gut microbiota after gastric bypass in human obesity: increased richness and associations of bacterial genera with adipose tissue genes. American Journal of Clinical Nutrition, 2013, 98, 16-24.	4.7	351
9	Quantifying Diet-Induced Metabolic Changes of the Human Gut Microbiome. Cell Metabolism, 2015, 22, 320-331.	16.2	345
10	Major microbiota dysbiosis in severe obesity: fate after bariatric surgery. Gut, 2019, 68, 70-82.	12.1	297
11	Statin therapy is associated with lower prevalence of gut microbiota dysbiosis. Nature, 2020, 581, 310-315.	27.8	283
12	From correlation to causality: the case of *Subdoligranulum*. Gut Microbes, 2020, 12, 1849998.	9.8	192
13	Serum amyloid A: production by human white adipocyte and regulation by obesity and nutrition. Diabetologia, 2005, 48, 519-528.	6.3	157
14	Cathepsin S, a novel biomarker of adiposity: relevance to atherogenesis. FASEB Journal, 2005, 19, 1540-1542.	0.5	138
15	The case for strategic international alliances to harness nutritional genomics for public and personal health. British Journal of Nutrition, 2005, 94, 623-632.	2.3	137
16	Imidazole propionate is increased in diabetes and associated with dietary patterns and altered microbial ecology. Nature Communications, 2020, 11, 5881.	12.8	122
17	Multi-agent Patrolling: An Empirical Analysis of Alternative Architectures. Lecture Notes in Computer Science, 2003, , 155-170.	1.3	111
18	Dietary Patterns Differently Associate with Inflammation and Gut Microbiota in Overweight and Obese Subjects. PLoS ONE, 2014, 9, e109434.	2.5	111

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19	Association of Adipose Tissue and Liver Fibrosis With Tissue Stiffness in Morbid Obesity: Links With Diabetes and BMI Loss After Gastric Bypass. Journal of Clinical Endocrinology and Metabolism, 2014, 99, 898-907.	3.6	107
20	Combinatorial, additive and dose-dependent drug–microbiome associations. Nature, 2021, 600, 500-505.	27.8	102
21	Microbiome and metabolome features of the cardiometabolic disease spectrum. Nature Medicine, 2022, 28, 303-314.	30.7	102
22	The advanced-DiaRem score improves prediction of diabetes remission 1 year post-Roux-en-Y gastric bypass. Diabetologia, 2017, 60, 1892-1902.	6.3	100
23	Long-term Relapse of Type 2 Diabetes After Roux-en-Y Gastric Bypass: Prediction and Clinical Relevance. Diabetes Care, 2018, 41, 2086-2095.	8.6	90
24	A paradigm of diagnostic criteria for polyarteritis nodosa: Analysis of a series of 949 patients with vasculitides. Arthritis and Rheumatism, 2008, 58, 1528-1538.	6.7	89
25	Analysis of feature selection stability on high dimension and small sample data. Computational Statistics and Data Analysis, 2014, 71, 681-693.	1.2	82
26	FunNet: an integrative tool for exploring transcriptional interactions. Bioinformatics, 2008, 24, 2636-2638.	4.1	78
27	Insulin resistance and inflammation predict kinetic body weight changes in response to dietary weight loss and maintenance in overweight and obese subjects by using a Bayesian network approach. American Journal of Clinical Nutrition, 2013, 98, 1385-1394.	4.7	75
28	From individual choice to group decision-making. Physica A: Statistical Mechanics and Its Applications, 2000, 287, 644-659.	2.6	71
29	*Akkermansia muciniphila* abundance is lower in severe obesity, but its increased level after bariatric surgery is not associated with metabolic health improvement. American Journal of Physiology - Endocrinology and Metabolism, 2019, 317, E446-E459.	3.5	67
30	Needle and surgical biopsy techniques differentially affect adipose tissue gene expression profiles. American Journal of Clinical Nutrition, 2009, 89, 51-57.	4.7	66
31	The FAT Score, a Fibrosis Score of Adipose Tissue: Predicting Weight-Loss Outcome After Gastric Bypass. Journal of Clinical Endocrinology and Metabolism, 2017, 102, 2443-2453.	3.6	62
32	Solving Multiple-Instance and Multiple-Part Learning Problems with Decision Trees and Rule Sets. Application to the Mutagenesis Problem. Lecture Notes in Computer Science, 2001, , 204-214.	1.3	60
33	Integration of Smoke Effect and Blind Evacuation Strategy (SEBES) within fire evacuation simulation. Simulation Modelling Practice and Theory, 2013, 36, 44-59.	3.8	56
34	In VivoEpinephrine-Mediated Regulation of Gene Expression in Human Skeletal Muscle. Journal of Clinical Endocrinology and Metabolism, 2004, 89, 2000-2014.	3.6	55
35	A distinct adipose tissue gene expression response to caloric restriction predicts 6-mo weight maintenance in obese subjects. American Journal of Clinical Nutrition, 2011, 94, 1399-1409.	4.7	54
36	Impairment of gut microbial biotin metabolism and host biotin status in severe obesity: effect of biotin and prebiotic supplementation on improved metabolism. Gut, 2022, 71, 2463-2480.	12.1	53

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37	Gut Microbiota Profile of Obese Diabetic Women Submitted to Roux-en-Y Gastric Bypass and Its Association with Food Intake and Postoperative Diabetes Remission. Nutrients, 2020, 12, 278.	4.1	47
38	Improving classification of microarray data using prototype-based feature selection. SIGKDD Explorations: Newsletter of the Special Interest Group (SIG) on Knowledge Discovery & Data Mining, 2003, 5, 23-30.	4.0	45
39	Adipose Gene Expression Prior to Weight Loss Can Differentiate and Weakly Predict Dietary Responders. PLoS ONE, 2007, 2, e1344.	2.5	45
40	No wisdom in the crowd: genome annotation in the era of big data â€" current status and future prospects. Microbial Biotechnology, 2018, 11, 588-605.	4.2	45
41	A Data Integration Multi-Omics Approach to Study Calorie Restriction-Induced Changes in Insulin Sensitivity. Frontiers in Physiology, 2018, 9, 1958.	2.8	39
42	Prediction of Long-Term Diabetes Remission After RYGB, Sleeve Gastrectomy, and Adjustable Gastric Banding Using DiaRem and Advanced-DiaRem Scores. Obesity Surgery, 2019, 29, 796-804.	2.1	37
43	Abstraction in Artificial Intelligence and Complex Systems. , 2013, , .		36
44	Interpretable and accurate prediction models for metagenomics data. GigaScience, 2020, 9, .	6.4	34
45	Interactional and functional centrality in transcriptional co-expression networks. Bioinformatics, 2010, 26, 3083-3089.	4.1	32
46	The Ecosystem in Practice: Interest and Problems of an Old Definition for Constructing Ecological Models. Ecosystems, 2011, 14, 1039-1054.	3.4	28
47	A grounded theory of abstraction in artificial intelligence. Philosophical Transactions of the Royal Society B: Biological Sciences, 2003, 358, 1293-1309.	4.0	27
48	Deep learning analysis of electrocardiogram for risk prediction of drug-induced arrhythmias and diagnosis of long QT syndrome. European Heart Journal, 2021, 42, 3948-3961.	2.2	27
49	Elevated serum ceramides are linked with obesity-associated gut dysbiosis and impaired glucose metabolism. Metabolomics, 2019, 15, 140.	3.0	26
50	A model of abstraction in visual perception. Applied Artificial Intelligence, 2001, 15, 761-776.	3.2	25
51	Microarray profiling of human white adipose tissue after exogenous leptin injection. European Journal of Clinical Investigation, 2006, 36, 153-163.	3.4	21
52	CLUSTERING BIOLOGICAL ANNOTATIONS AND GENE EXPRESSION DATA TO IDENTIFY PUTATIVELY CO-REGULATED BIOLOGICAL PROCESSES. Journal of Bioinformatics and Computational Biology, 2006, 04, 833-852.	0.8	21
53	A dataâ€mining approach for assessing consistency between multiple representations in spatial databases. International Journal of Geographical Information Science, 2009, 23, 961-992.	4.8	21
54	Feature construction from synergic pairs to improve microarray-based classification. Bioinformatics, 2007, 23, 2866-2872.	4.1	20

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55	Stress response function of a two-dimensional ordered packing of frictional beads. Europhysics Letters, 2002, 60, 813-819.	2.0	18
56	How to Integrate Heterogeneous Spatial Databases in a Consistent Way?. Lecture Notes in Computer Science, 2004, , 364-378.	1.3	18
57	GAMA: A Spatially Explicit, Multi-level, Agent-Based Modeling and Simulation Platform. Lecture Notes in Computer Science, 2013, , 271-274.	1.3	18
58	Perceptual learning and abstraction in machine learning: an application to autonomous robotics. IEEE Transactions on Systems, Man and Cybernetics, Part C: Applications and Reviews, 2006, 36, 172-181.	2.9	16
59	The human gut microbiota contributes to type-2 diabetes non-resolution 5-years after Roux-en-Y gastric bypass. Gut Microbes, 2022, 14, 2050635.	9.8	15
60	Enhancing Metagenome-based Disease Prediction by Unsupervised Binning Approaches. , 2019, , .		12
61	Exploring Semi-Quantitative Metagenomic Studies Using Oxford Nanopore Sequencing: A Computational and Experimental Protocol. Genes, 2021, 12, 1496.	2.4	11
62	Q-Finder: An Algorithm for Credible Subgroup Discovery in Clinical Data Analysis â€" An Application to the International Diabetes Management Practice Study. Frontiers in Artificial Intelligence, 2020, 3, 559927.	3.4	11
63	Use of the C4.5 machine learning algorithm to test a clinical guideline-based decision support system. Studies in Health Technology and Informatics, 2008, 136, 223-8.	0.3	11
64	Learning structurally indeterminate clauses. Lecture Notes in Computer Science, 1998, , 235-244.	1.3	10
65	Spectral consensus strategy for accurate reconstruction of large biological networks. BMC Bioinformatics, 2016, 17, 493.	2.6	10
66	Protein supplementation during an energy-restricted diet induces visceral fat loss and gut microbiota amino acid metabolism activation: a randomized trial. Scientific Reports, 2021, 11, 15620.	3.3	9
67	A meta-learning approach to ground symbols from visual percepts. Robotics and Autonomous Systems, 2003, 43, 149-162.	5.1	8
68	The niche reduction approach: an opportunity for optimal control of infectious diseases in low-income countries?. BMC Public Health, 2014, 14, 753.	2.9	8
69	Reinforcement learning approach for adapting complex agent-based model of evacuation to fast linear model. , 2017, , .		8
70	Characterization of the Gut Microbiota in Individuals with Overweight or Obesity during a Real-World Weight Loss Dietary Program: A Focus on the Bacteroides 2 Enterotype. Biomedicines, 2022, 10, 16.	3.2	8
71	A model-view/controller approach to support visualization and online data analysis of Agent-based simulations. , 2013, , .		7
72	Selective Reformulation of Examples in Concept Learning. , 1994, , 352-360.		7

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73	A meta-CASE environment for software process-centred CASE environments. Notes on Numerical Fluid Mechanics and Multidisciplinary Design, 1992, , 568-588.	0.3	6
74	Consistency Assessment Between Multiple Representations of Geographical Databases: a Specification-Based Approach. , 2005, , 617-628.		6
75	An Operational Meta-Model for Handling Multiple Scales in Agent-Based Simulations. , 2012, , .		6
76	Optimizing the Placement of Evacuation Signs on Road Network with Time and Casualties in Case of a Tsunami. , 2012, , .		6
77	Speeding up the evaluation of casualties in multi-agent simulations with Linear Programming application to optimization of sign placement for tsunami evacuation. , 2013, , .		6
78	The New Science of Metagenomics and the Challenges of Its Use in Both Developed and Developing Countries. , 2015, , 191-216.		6
79	An approach to optimizing abstaining area for small sample data classification. Expert Systems With Applications, 2018, 95, 153-161.	7.6	5
80	Interactive Learning of Expert Criteria for Rescue Simulations. Lecture Notes in Computer Science, 2008, , 127-138.	1.3	5
81	Simulation of Emergency Evacuation of Pedestrians along the Road Networks in Nhatrang City. , 2012, , .		4
82	The fused lasso penalty for learning interpretable medical scoring systems. , 2017, , .		4
83	Abstractions for Knowledge Organization of Relational Descriptions. Lecture Notes in Computer Science, 2000, , 87-106.	1.3	4
84	Online Analysis and Visualization of Agent Based Models. Lecture Notes in Computer Science, 2013, , 662-672.	1.3	4
85	A Modelling Language to Represent and Specify Emerging Structures in Agent-Based Model. Lecture Notes in Computer Science, 2012, , 212-227.	1.3	4
86	Relational knowledge discovery in a chinese character database. Applied Artificial Intelligence, 1998, 12, 455-488.	3.2	3
87	Deep kernel dimensionality reduction for scalable data integration. International Journal of Approximate Reasoning, 2016, 74, 121-132.	3.3	3
88	Disease Prediction Using Synthetic Image Representations of Metagenomic Data and Convolutional Neural Networks. , 2019, , .		3
89	From distributed robot perception to human topology : a learning model. , 2000, , 469-470.		3
90	Towards a Methodology for the Participatory Design of Agent-Based Models. Lecture Notes in Computer Science, 2012, , 428-442.	1.3	3

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91	Cartographic generalization as a combination of representing and abstracting knowledge. , 1999, , .		2
92	Message passing between individual and socially acquainted objects in Smalltalk. Knowledge-Based Systems, 2002, 15, 355-368.	7.1	2
93	Perceptual learning and abstraction in machine learning. , 0, , .		2
94	Spatial Estimator of Brown Plant Hopper Density from Light Traps Data. , 2012, , .		2
95	Which Behavior Is Best in a Fire Evacuation: Simulation with the Metro Supermarket of Hanoi. , 2012, , .		2
96	Hybrid of linear programming and genetic algorithm for optimizing agent-based simulation. Application to optimization of sign placement for tsunami evacuation. , 2015, , .		2
97	Deep Self-Organising Maps for efficient heterogeneous biomedical signatures extraction. , 2016, , .		2
98	Abstracting Visual Percepts to Learn Concepts. Lecture Notes in Computer Science, 2002, , 256-273.	1.3	2
99	Abstraction and Complexity Measures. Lecture Notes in Computer Science, 2007, , 375-390.	1.3	2
100	Online learning for object identification by a mobile robot. , 0, , .		1
101	Mining Abstract Highly Correlated Pairs. , 2009, , .		1
102	Exploring interaction measures to identify informative pairs of genes. International Journal of Bioinformatics Research and Applications, 2010, 6, 628.	0.2	1
103	Disk Graph-Based Model: A Graph Theoretical Approach for Linking Agent-Based Models and Dynamical Systems. , 2010, , .		1
104	Experimental analysis of feature selection stability for high-dimension and low-sample size gene expression classification task. , 2012, , .		1
105	Complex systems simulation online visual analysis and assessment using dynamic aggregation operators. , 2013, , .		1
106	Approximate regret based elicitation in Markov decision process. , 2015, , .		1
107	Continuous and Discrete Deep Classifiers for Data Integration. Lecture Notes in Computer Science, 2015, , 264-274.	1.3	1
108	Quantifying the effect of synchrony on the persistence of infectious diseases in a metapopulation. , 2016, , .		1

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109	A Semi-supervised Approach to Discover Bivariate Causality in Large Biological Data. Lecture Notes in Computer Science, 2018, , 406-420.	1.3	1
110	Risk Scores Learned by Deep Restricted Boltzmann Machines with Trained Interval Quantization. Lecture Notes in Computer Science, 2018, , 421-435.	1.3	1
111	QMSpy: An Integrated Modular and Scalable Platform for Quantitative Metagenomics in Pyspark. , 2019, , .		1
112	Experiments with Adaptive Transfer Rate in Reinforcement Learning. Lecture Notes in Computer Science, 2009, , 1-11.	1.3	1
113	KIDS: An Iterative Algorithm to Organize Relational Knowledge. Lecture Notes in Computer Science, 2000, , 217-232.	1.3	1
114	Abstraction and Phase Transitions in Relational Learning. Lecture Notes in Computer Science, 2000, , 291-301.	1.3	1
115	Approaches to Optimize Local Evacuation Maps for Helping Evacuation in Case of Tsunami. Lecture Notes in Business Information Processing, 2014, , 21-31.	1.0	1
116	Reject andÂCascade Classifier withÂSubgroup Discovery forÂInterpretable Metagenomic Signatures. Communications in Computer and Information Science, 2021, , 49-66.	0.5	1
117	Exploring multi-modal evacuation strategies for a landlocked population using large-scale agent-based simulations. International Journal of Geographical Information Science, 2022, 36, 1741-1783.	4.8	1
118	A grid-based multistage algorithm for parameter simulation-optimization of complex system. , 2013, , .		0
119	Sparse Zero-Sum Games as Stable Functional Feature Selection. PLoS ONE, 2015, 10, e0134683.	2.5	0
120	Experimental analysis of new algorithms for learning ternary classifiers. , 2015, , .		0
121	Causality analysis between climatic factors and dengue fever using the Granger causality. , 2016, , .		0
122	Score semi-quantitatif de la fibrose du tissu adipeux sous-cutanÃ© humain : un nouvel outil pour amÃ©liorer la prÃ©diction de la rÃ©ponse pondÃ©rale au bypass gastrique. Diabetes and Metabolism, 2017, 43, A7.	2.9	0
123	Efficient global network learning from local reconstructions. , 2017, , .		0
124	Deterministic convection-diffusion approach for modeling cell motion and spatial organization: Experimentation on avascular tumor growth. , 2017, , .		0
125	Deterministic Convection-Diffusion Approach for Modeling Cell Motion and Spatial Organization: Experimentation on Avascular Tumor Growth. , 2017, , .		0
126	Revealing causality between heterogeneous data sources with deep restricted Boltzmann machines. Information Fusion, 2019, 50, 139-147.	19.1	0

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127	Using Unlabeled Data to Discover Bivariate Causality with Deep Restricted Boltzmann Machines. IEEE/ACM Transactions on Computational Biology and Bioinformatics, 2020, 17, 358-364.	3.0	0
128	Lâ€™intelligence artificielle au service des maladies mÃ©taboliques. Medecine Des Maladies Metaboliques, 2021, 15, 70-79.	0.1	0
129	Application of 'omic' strategies to obesity research.. , 2009, , 349-367.		0
130	A Simulation Model for Optimise the Fire Evacuation Configuration in the Metro Supermarket of Hanoi. Lecture Notes in Computer Science, 2012, , 470-479.	1.3	0
131	Reformulation of examples in concept learning of structural descriptions. Lecture Notes in Computer Science, 1995, , 377-388.	1.3	0
132	Quantifying the Effect of Metapopulation Size on the Persistence of Infectious Diseases in a Metapopulation. Lecture Notes in Computer Science, 2017, , 753-764.	1.3	0