Daniel M Weinreich

List of Publications by Year
in descending order

37	4,876	331259 21	414034 32
papers	citations	h-index	g-index

47	47	47	3698
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Darwinian Evolution Can Follow Only Very Few Mutational Paths to Fitter Proteins. Science, 2006, 312, 111-114.	6.0	1,266
2	Missense meanderings in sequence space: a biophysical view of protein evolution. Nature Reviews Genetics, 2005, 6, 678-687.	7.7	586
3	Empirical fitness landscapes reveal accessible evolutionary paths. Nature, 2007, 445, 383-386.	13.7	510
4	Perspective: Sign epistasis and genetic constraint on evolutionary trajectories. Evolution; International Journal of Organic Evolution, 2005, 59, 1165-74.	1.1	401
5	PERSPECTIVE: SIGN EPISTASIS AND GENETIC COSTRAINT ON EVOLUTIONARY TRAJECTORIES. Evolution; International Journal of Organic Evolution, 2005, 59, 1165-1174.	1.1	384
6	Stepwise acquisition of pyrimethamine resistance in the malaria parasite. Proceedings of the National Academy of Sciences of the United States of America, 2009, 106, 12025-12030.	3.3	241
7	Should evolutionary geneticists worry about higher-order epistasis?. Current Opinion in Genetics and Development, 2013, 23, 700-707.	1.5	236
8	PERSPECTIVE:SIGN EPISTASIS AND GENETIC CONSTRAINT ON EVOLUTIONARY TRAJECTORIES. Evolution; International Journal of Organic Evolution, 2005, 59, 1165.	1.1	227
9	RAPID EVOLUTIONARY ESCAPE BY LARGE POPULATIONS FROM LOCAL FITNESS PEAKS IS LIKELY IN NATURE. Evolution; International Journal of Organic Evolution, 2005, 59, 1175-1182.	1.1	201
10	Contrasting Patterns of Nonneutral Evolution in Proteins Encoded in Nuclear and Mitochondrial Genomes. Genetics, 2000, 156, 385-399.	1.2	111
11	Rapid evolutionary escape by large populations from local fitness peaks is likely in nature. Evolution; International Journal of Organic Evolution, 2005, 59, 1175-82.	1.1	91
12	Adaptive Landscape by Environment Interactions Dictate Evolutionary Dynamics in Models of Drug Resistance. PLoS Computational Biology, 2016, 12, e1004710.	1.5	71
13	The Influence of Higher-Order Epistasis on Biological Fitness Landscape Topography. Journal of Statistical Physics, 2018, 172, 208-225.	0.5	64
14	RAPID EVOLUTIONARY ESCAPE BY LARGE POPULATIONS FROM LOCAL FITNESS PEAKS IS LIKELY IN NATURE. Evolution; International Journal of Organic Evolution, 2005, 59, 1175.	1.1	58
15	Quantitative Description of a Protein Fitness Landscape Based on Molecular Features. Molecular Biology and Evolution, 2015, 32, 1774-1787.	3.5	57
16	Measuring epistasis in fitness landscapes: The correlation of fitness effects of mutations. Journal of Theoretical Biology, 2016, 396, 132-143.	0.8	55
17	Enzyme efficiency but not thermostability drives cefotaxime resistance evolution in TEM-1 Î²-lactamase. Molecular Biology and Evolution, 2017, 34, msx053.	3.5	48
18	GENOME STRUCTURE AND THE BENEFIT OF SEX. Evolution; International Journal of Organic Evolution, 2011, 65, 523-536.	1.1	38

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19	Sign of selection on mutation rate modifiers depends on population size. Proceedings of the National Academy of Sciences of the United States of America, 2018, 115, 3422-3427.	3.3	36
20	The Rank Ordering of Genotypic Fitness Values Predicts Genetic Constraint on Natural Selection on Landscapes Lacking Sign Epistasis. Genetics, 2005, 171, 1397-1405.	1.2	34
21	FISHER'S GEOMETRIC MODEL OF ADAPTATION MEETS THE FUNCTIONAL SYNTHESIS: DATA ON PAIRWISE EPISTASIS FOR FITNESS YIELDS INSIGHTS INTO THE SHAPE AND SIZE OF PHENOTYPE SPACE. Evolution; International Journal of Organic Evolution, 2013, 67, 2957-2972.	1.1	32
22	Evolutionary constraints in fitness landscapes. Heredity, 2018, 121, 466-481.	1.2	26
23	Predicting the viability of beta-lactamase: How folding and binding free energies correlate with beta-lactamase fitness. PLoS ONE, 2020, 15, e0233509.	1.1	26
24	Variability in Fitness Effects Can Preclude Selection of the Fittest. Annual Review of Ecology, Evolution, and Systematics, 2017, 48, 399-417.	3.8	18
25	Temporal Constraints on the Incorporation of Regulatory Mutants in Evolutionary Pathways. Molecular Biology and Evolution, 2009, 26, 2455-2462.	3.5	12
26	Patterns of musculoskeletal growth and dimensional changes associated with selection and developmental plasticity in domestic and wild strain turkeys. Ecology and Evolution, 2018, 8, 3229-3239.	0.8	9
27	Genetically Determined Variation in Lysis Time Variance in the Bacteriophage ÏtX174. G3: Genes, Genomes, Genetics, 2016, 6, 939-955.	0.8	8
28	High-throughput identification of genetic interactions in HIV-1. Nature Genetics, 2011, 43, 398-400.	9.4	7
29	Selection on mutators is not frequency-dependent. ELife, 2019, 8, .	2.8	6
30	Herding an evolving biological population with quantum control tools. Nature Physics, 2021, 17, 17-19.	6.5	5
31	Migration promotes mutator alleles in subdivided populations. Evolution; International Journal of Organic Evolution, 2019, 73, 600-608.	1.1	4
32	Density fluctuations, homeostasis, and reproduction effects in bacteria. Communications Biology, 2022, 5, 397.	2.0	2
33	Title is missing!. , 2020, 15, e0233509.		0
34	Title is missing!. , 2020, 15, e0233509.		0
35	Title is missing!. , 2020, 15, e0233509.		0
36	Title is missing!. , 2020, 15, e0233509.		0

#	Article	IF	Citations
37	Covalent docking and molecular dynamics simulations reveal the specificity-shifting mutations Ala237Arg and Ala237Lys in TEM beta-lactamase. PLoS Computational Biology, 2022, 18, e1009944.	1.5	0