

Wolfgang Stephan

List of Publications by Year in descending order

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69
papers

6,848
citations

94433

37
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98798

67
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72
all docs

72
docs citations

72
times ranked

5672
citing authors

#	ARTICLE	IF	CITATIONS
1	The evolutionary dynamics of repetitive DNA in eukaryotes. <i>Nature</i> , 1994, 371, 215-220.	27.8	1,504
2	Detecting a Local Signature of Genetic Hitchhiking Along a Recombining Chromosome. <i>Genetics</i> , 2002, 160, 765-777.	2.9	567
3	The effect of strongly selected substitutions on neutral polymorphism: Analytical results based on diffusion theory. <i>Theoretical Population Biology</i> , 1992, 41, 237-254.	1.1	319
4	Inferring the Demographic History and Rate of Adaptive Substitution in <i>Drosophila</i> . <i>PLoS Genetics</i> , 2006, 2, e166.	3.5	281
5	A Critical Assessment of Storytelling: Gene Ontology Categories and the Importance of Validating Genomic Scans. <i>Molecular Biology and Evolution</i> , 2012, 29, 3237-3248.	8.9	220
6	Demography and Natural Selection Have Shaped Genetic Variation in <i>Drosophila melanogaster</i> : A Multi-locus Approach. <i>Genetics</i> , 2003, 165, 1269-1278.	2.9	217
7	Joint Effects of Genetic Hitchhiking and Background Selection on Neutral Variation. <i>Genetics</i> , 2000, 155, 1415-1427.	2.9	179
8	Searching for Footprints of Positive Selection in Whole-Genome SNP Data From Nonequilibrium Populations. <i>Genetics</i> , 2010, 185, 907-922.	2.9	159
9	Genetic hitchhiking versus background selection: the controversy and its implications. <i>Philosophical Transactions of the Royal Society B: Biological Sciences</i> , 2010, 365, 1245-1253.	4.0	153
10	DNA Polymorphism in <i>Lycopersicon</i> and Crossing-Over per Physical Length. <i>Genetics</i> , 1998, 150, 1585-1593.	2.9	151
11	The Hitchhiking Effect on Linkage Disequilibrium Between Linked Neutral Loci. <i>Genetics</i> , 2006, 172, 2647-2663.	2.9	146
12	Effects of a Population Bottleneck on Whooping Crane Mitochondrial DNA Variation. <i>Conservation Biology</i> , 1999, 13, 1097-1107.	4.7	137
13	Signatures of positive selection: from selective sweeps at individual loci to subtle allele frequency changes in polygenic adaptation. <i>Molecular Ecology</i> , 2016, 25, 79-88.	3.9	137
14	Inferring the Effects of Demography and Selection on <i>Drosophila melanogaster</i> Populations from a Chromosome-Wide Scan of DNA Variation. <i>Molecular Biology and Evolution</i> , 2005, 22, 2119-2130.	8.9	133
15	Selective Sweeps. <i>Genetics</i> , 2019, 211, 5-13.	2.9	128
16	The importance of the Neutral Theory in 1968 and 50 years on: A response to Kern and Hahn 2018. <i>Evolution; International Journal of Organic Evolution</i> , 2019, 73, 111-114.	2.3	123
17	The Rate of Compensatory Evolution. <i>Genetics</i> , 1996, 144, 419-426.	2.9	116
18	The Relationship Between Third-Codon Position Nucleotide Content, Codon Bias, mRNA Secondary Structure and Gene Expression in the <i>Drosophilid</i> Alcohol Dehydrogenase Genes <i>Adh</i> and <i>Adhr</i> . <i>Genetics</i> , 2001, 159, 623-633.	2.9	113

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19	Distinctly Different Sex Ratios in African and European Populations of <i>Drosophila melanogaster</i> Inferred From Chromosomewide Single Nucleotide Polymorphism Data. <i>Genetics</i> , 2007, 177, 469-480.	2.9	103
20	The advance of Muller's ratchet in a haploid asexual population: approximate solutions based on diffusion theory. <i>Genetical Research</i> , 1993, 61, 225-231.	0.9	102
21	Species and Recombination Effects on DNA Variability in the Tomato Genus. <i>Genetics</i> , 2001, 158, 1725-1735.	2.9	102
22	The Relationship of Nucleotide Polymorphism, Recombination Rate and Selection in Wild Tomato Species. <i>Genetics</i> , 2005, 171, 753-763.	2.9	94
23	Rapid Adaptation of a Polygenic Trait After a Sudden Environmental Shift. <i>Genetics</i> , 2017, 206, 389-406.	2.9	86
24	Selective Sweeps in the Presence of Interference Among Partially Linked Loci. <i>Genetics</i> , 2003, 164, 389-398.	2.9	86
25	Comparative Sequence Analysis and Patterns of Covariation in RNA Secondary Structures. <i>Genetics</i> , 2000, 154, 909-921.	2.9	76
26	Adaptation to drought in two wild tomato species: the evolution of the <i>Asr</i> gene family. <i>New Phytologist</i> , 2011, 190, 1032-1044.	7.3	73
27	RNA secondary structure and compensatory evolution.. <i>Genes and Genetic Systems</i> , 1999, 74, 271-286.	0.7	71
28	Multi-Locus Selection and the Structure of Variation at the <i>white</i> Gene of <i>Drosophila melanogaster</i> . <i>Genetics</i> , 1996, 144, 635-645.	2.9	70
29	Inferring the Population Structure and Demography of <i>Drosophila ananassae</i> From Multilocus Data. <i>Genetics</i> , 2004, 168, 1975-1985.	2.9	69
30	Modes of Rapid Polygenic Adaptation. <i>Molecular Biology and Evolution</i> , 2017, 34, 3169-3175.	8.9	65
31	Selection Intensity Against Deleterious Mutations in RNA Secondary Structures and Rate of Compensatory Nucleotide Substitutions. <i>Genetics</i> , 2001, 159, 389-399.	2.9	60
32	Recommendations for improving statistical inference in population genomics. <i>PLoS Biology</i> , 2022, 20, e3001669.	5.6	60
33	Bayesian Variable Selection for Detecting Adaptive Genomic Differences Among Populations. <i>Genetics</i> , 2008, 178, 1817-1829.	2.9	59
34	Evidence that strong positive selection drives neofunctionalization in the tandemly duplicated polyhomeotic genes in <i>Drosophila</i> . <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2008, 105, 5447-5452.	7.1	55
35	Selective Sweeps in Multilocus Models of Quantitative Traits. <i>Genetics</i> , 2012, 192, 225-239.	2.9	48
36	North-South Colonization Associated with Local Adaptation of the Wild Tomato Species <i>Solanum chilense</i> . <i>Molecular Biology and Evolution</i> , 2015, 32, 2932-2943.	8.9	47

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37	Canalization of gene expression is a major signature of regulatory cold adaptation in temperate <i>Drosophila melanogaster</i> . <i>BMC Genomics</i> , 2016, 17, 574.	2.8	46
38	The Coalescent in an Exponentially Growing Metapopulation and Its Application to <i>Arabidopsis thaliana</i> . <i>Genetics</i> , 2000, 155, 2015-2019.	2.9	44
39	Evidence for a Selective Sweep in the <i>wapl</i> Region of <i>Drosophila melanogaster</i> . <i>Genetics</i> , 2006, 172, 265-274.	2.9	42
40	Distinguishing the Hitchhiking and Background Selection Models. <i>Genetics</i> , 2003, 165, 2307-2312.	2.9	41
41	Response of Polygenic Traits Under Stabilizing Selection and Mutation When Loci Have Unequal Effects. <i>G3: Genes, Genomes, Genetics</i> , 2015, 5, 1065-1074.	1.8	38
42	The effect of background selection at a single locus on weakly selected, partially linked variants. <i>Genetical Research</i> , 1999, 73, 133-146.	0.9	37
43	Transition Densities and Sample Frequency Spectra of Diffusion Processes with Selection and Variable Population Size. <i>Genetics</i> , 2015, 200, 601-617.	2.9	37
44	Adaptation to low temperatures in the wild tomato species <i>Solanum chilense</i> . <i>Molecular Ecology</i> , 2016, 25, 2853-2869.	3.9	31
45	A genome-wide scan for genes under balancing selection in <i>Drosophila melanogaster</i> . <i>BMC Evolutionary Biology</i> , 2017, 17, 15.	3.2	30
46	Deletion of a Conserved Regulatory Element in the <i>Drosophila Adh</i> Gene Leads to Increased Alcohol Dehydrogenase Activity but Also Delays Development. <i>Genetics</i> , 2000, 156, 219-227.	2.9	28
47	The Role of Natural Selection in Genetic Differentiation of Worldwide Populations of <i>Drosophila ananassae</i> . <i>Genetics</i> , 2004, 168, 1987-1998.	2.9	27
48	Fine-Mapping and Selective Sweep Analysis of QTL for Cold Tolerance in <i>Drosophila melanogaster</i> . <i>G3: Genes, Genomes, Genetics</i> , 2014, 4, 1635-1645.	1.8	27
49	Inferring positive selection in humans from genomic data. <i>Investigative Genetics</i> , 2015, 6, 5.	3.3	27
50	Population genetic evidence for cold adaptation in European <i>Drosophila melanogaster</i> populations. <i>Molecular Ecology</i> , 2016, 25, 1175-1191.	3.9	25
51	Signatures of natural selection in abiotic stress-responsive genes of <i>Solanum chilense</i> . <i>Royal Society Open Science</i> , 2018, 5, 171198.	2.4	25
52	The mean and variance of the number of segregating sites since the last hitchhiking event. <i>Journal of Mathematical Biology</i> , 1997, 36, 1-23.	1.9	23
53	Joint Effects of Natural Selection and Recombination on Gene Flow Between <i>Drosophila ananassae</i> Populations. <i>Genetics</i> , 2000, 155, 1185-1194.	2.9	22
54	Evidence of Gene Conversion Associated with a Selective Sweep in <i>Drosophila melanogaster</i> . <i>Molecular Biology and Evolution</i> , 2006, 23, 1869-1878.	8.9	21

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55	Positive Selection at the Polyhomeotic Locus Led to Decreased Thermosensitivity of Gene Expression in Temperate <i>Drosophila melanogaster</i> . <i>Genetics</i> , 2015, 200, 591-599.	2.9	19
56	Detecting strong positive selection in the genome. <i>Molecular Ecology Resources</i> , 2010, 10, 863-872.	4.8	18
57	Important role of genetic drift in rapid polygenic adaptation. <i>Ecology and Evolution</i> , 2020, 10, 1278-1287.	1.9	18
58	Recent Strong Positive Selection on <i>Drosophila melanogaster</i> HDAC6, a Gene Encoding a Stress Surveillance Factor, as Revealed by Population Genomic Analysis. <i>Molecular Biology and Evolution</i> , 2009, 26, 1549-1556.	8.9	17
59	Adaptive Fixation in Two-Locus Models of Stabilizing Selection and Genetic Drift. <i>Genetics</i> , 2014, 198, 685-697.	2.9	17
60	Survival Rate and Transcriptional Response upon Infection with the Generalist Parasite <i>Beauveria bassiana</i> in a World-Wide Sample of <i>Drosophila melanogaster</i> . <i>PLoS ONE</i> , 2015, 10, e0132129.	2.5	16
61	Soft selective sweeps: Addressing new definitions, evaluating competing models, and interpreting empirical outliers. <i>PLoS Genetics</i> , 2022, 18, e1010022.	3.5	15
62	Allele frequency changes in artificial selection experiments: statistical power and precision of QTL mapping. <i>Genetical Research</i> , 1999, 73, 177-184.	0.9	12
63	Polygenic Adaptation in a Population of Finite Size. <i>Entropy</i> , 2020, 22, 907.	2.2	11
64	Perturbation analysis of a two-locus model with directional selection and recombination. <i>Journal of Mathematical Biology</i> , 1995, 34, 95-109.	1.9	7
65	Decreased Temperature Sensitivity of Vestigial Gene Expression in Temperate Populations of <i>Drosophila melanogaster</i> . <i>Genes</i> , 2019, 10, 498.	2.4	5
66	Reply to Beatriz Vicoso and Brian Charlesworth. <i>Genetics</i> , 2009, 181, 1703-1703.	2.9	3
67	Rapid Evolutionary Adaptation in Response to Selection on Quantitative Traits. <i>Life</i> , 2021, 11, 797.	2.4	2
68	Background selection. , 2019, , 137-145.		0
69	The classical hitchhiking model with continuous mutational pressure and purifying selection. <i>Ecology and Evolution</i> , 2021, 11, 15896-15904.	1.9	0