## Itay Mayrose

List of Publications by Year in descending order

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ITAN MANDOSE

#	Article	IF	CITATIONS
1	<scp>Clumpak</scp> : a program for identifying clustering modes and packaging population structure inferences across <i>K</i> . Molecular Ecology Resources, 2015, 15, 1179-1191.	2.2	2,411
2	ConSurf 2016: an improved methodology to estimate and visualize evolutionary conservation in macromolecules. Nucleic Acids Research, 2016, 44, W344-W350.	6.5	2,395
3	ConSurf 2005: the projection of evolutionary conservation scores of residues on protein structures. Nucleic Acids Research, 2005, 33, W299-W302.	6.5	1,255
4	The frequency of polyploid speciation in vascular plants. Proceedings of the National Academy of Sciences of the United States of America, 2009, 106, 13875-13879.	3.3	1,136
5	TRY plant trait database – enhanced coverage and open access. Global Change Biology, 2020, 26, 119-188.	4.2	1,038
6	Sex Determination: Why So Many Ways of Doing It?. PLoS Biology, 2014, 12, e1001899.	2.6	916
7	The Chromosome Counts Database ( <scp>CCDB</scp> ) – a community resource of plant chromosome numbers. New Phytologist, 2015, 206, 19-26.	3.5	561
8	Rate4Site: an algorithmic tool for the identification of functional regions in proteins by surface mapping of evolutionary determinants within their homologues. Bioinformatics, 2002, 18, S71-S77.	1.8	536
9	ConSurf: Using Evolutionary Data to Raise Testable Hypotheses about Protein Function. Israel Journal of Chemistry, 2013, 53, 199-206.	1.0	459
10	Recently Formed Polyploid Plants Diversify at Lower Rates. Science, 2011, 333, 1257-1257.	6.0	424
11	Comparison of Site-Specific Rate-Inference Methods for Protein Sequences: Empirical Bayesian Methods Are Superior. Molecular Biology and Evolution, 2004, 21, 1781-1791.	3.5	405
12	Model selection may not be a mandatory step for phylogeny reconstruction. Nature Communications, 2019, 10, 934.	5.8	266
13	The global biogeography of polyploid plants. Nature Ecology and Evolution, 2019, 3, 265-273.	3.4	208
14	Whole-genome duplication as a key factor in crop domestication. Nature Plants, 2016, 2, 16115.	4.7	207
15	Computational characterization of B-cell epitopes. Molecular Immunology, 2008, 45, 3477-3489.	1.0	194
16	Probabilistic Models of Chromosome Number Evolution and the Inference of Polyploidy. Systematic Biology, 2010, 59, 132-144.	2.7	190
17	Epitopia: a web-server for predicting B-cell epitopes. BMC Bioinformatics, 2009, 10, 287.	1.2	177
18	ChromEvol: Assessing the Pattern of Chromosome Number Evolution and the Inference of Polyploidy along a Phylogeny. Molecular Biology and Evolution, 2014, 31, 1914-1922.	3.5	154

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19	Body sizes and diversification rates of lizards, snakes, amphisbaenians and the tuatara. Global Ecology and Biogeography, 2016, 25, 187-197.	2.7	154
20	A machine learning approach for predicting CRISPR-Cas9 cleavage efficiencies and patterns underlying its mechanism of action. PLoS Computational Biology, 2017, 13, e1005807.	1.5	147
21	Selecton: a server for detecting evolutionary forces at a single amino-acid site. Bioinformatics, 2005, 21, 2101-2103.	1.8	129
22	A Gamma mixture model better accounts for among site rate heterogeneity. Bioinformatics, 2005, 21, ii151-ii158.	1.8	129
23	Pepitope: epitope mapping from affinity-selected peptides. Bioinformatics, 2007, 23, 3244-3246.	1.8	129
24	A machine-learning approach for predicting B-cell epitopes. Molecular Immunology, 2009, 46, 840-847.	1.0	108
25	Epitope mapping using combinatorial phage-display libraries: a graph-based algorithm. Nucleic Acids Research, 2007, 35, 69-78.	6.5	102
26	Stepwise prediction of conformational discontinuous B-cell epitopes using the Mapitope algorithm. Proteins: Structure, Function and Bioinformatics, 2007, 68, 294-304.	1.5	82
27	Methods for studying polyploid diversification and the dead end hypothesis: a reply to Soltis <i>etÂal</i> . (2014). New Phytologist, 2015, 206, 27-35.	3.5	82
28	Karyotypic Changes through Dysploidy Persist Longer over Evolutionary Time than Polyploid Changes. PLoS ONE, 2014, 9, e85266.	1.1	78
29	Broad phylogenetic analysis of cation/proton antiporters reveals transport determinants. Nature Communications, 2018, 9, 4205.	5.8	74
30	Increased growth in sunflower correlates with reduced defences and altered gene expression in response to biotic and abiotic stress. Molecular Ecology, 2011, 20, 4683-4694.	2.0	68
31	Macroevolutionary synthesis of flowering plant sexual systems. Evolution; International Journal of Organic Evolution, 2017, 71, 898-912.	1.1	68
32	Towards realistic codon models: among site variability and dependency of synonymous and non-synonymous rates. Bioinformatics, 2007, 23, i319-i327.	1.8	60
33	Macroevolutionary Patterns of Flowering Plant Speciation and Extinction. Annual Review of Plant Biology, 2018, 69, 685-706.	8.6	60
34	Interaction among ploidy, breeding system and lineage diversification. New Phytologist, 2019, 224, 1252-1265.	3.5	59
35	The DFNA15 Deafness Mutation Affects POU4F3 Protein Stability, Localization, and Transcriptional Activity. Molecular and Cellular Biology, 2003, 23, 7957-7964.	1.1	57
36	Evolutionary Models Accounting for Layers of Selection in Protein-Coding Genes and their Impact on the Inference of Positive Selection. Molecular Biology and Evolution, 2011, 28, 3297-3308.	3.5	54

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37	Sex determination, longevity, and the birth and death of reptilian species. Ecology and Evolution, 2016, 6, 5207-5220.	0.8	47
38	Multispeed genome diploidization and diversification after an ancient allopolyploidization. Molecular Ecology, 2017, 26, 6445-6462.	2.0	44
39	Phylogenetic evidence for cladogenetic polyploidization in land plants. American Journal of Botany, 2016, 103, 1252-1258.	0.8	39
40	Polyploidy and sexual system in angiosperms: Is there an association?. American Journal of Botany, 2016, 103, 1223-1235.	0.8	39
41	The Evolution of Chromosome Numbers: Mechanistic Models and Experimental Approaches. Genome Biology and Evolution, 2021, 13, .	1.1	38
42	Dioecy does not consistently accelerate or slow lineage diversification across multiple genera of angiosperms. New Phytologist, 2016, 209, 1290-1300.	3.5	37
43	An Evolutionary Analysis of Lateral Gene Transfer in Thymidylate Synthase Enzymes. Systematic Biology, 2010, 59, 212-225.	2.7	36
44	Site-Specific Evolutionary Rate Inference: Taking Phylogenetic Uncertainty into Account. Journal of Molecular Evolution, 2005, 60, 345-353.	0.8	34
45	A Likelihood Method for Detecting Trait-Dependent Shifts in the Rate of Molecular Evolution. Molecular Biology and Evolution, 2011, 28, 759-770.	3.5	34
46	An Integrated Model of Phenotypic Trait Changes and Site-Specific Sequence Evolution. Systematic Biology, 2017, 66, 917-933.	2.7	34
47	Meiotic drive shapes rates of karyotype evolution in mammals. Evolution; International Journal of Organic Evolution, 2019, 73, 511-523.	1.1	32
48	Comparative analysis reveals that polyploidy does not decelerate diversification in fish. Journal of Evolutionary Biology, 2014, 27, 391-403.	0.8	31
49	<scp>COVID</scp> â€19 pandemicâ€related lockdown: response time is more important than its strictness. EMBO Molecular Medicine, 2020, 12, e13171.	3.3	31
50	ModelTeller: Model Selection for Optimal Phylogenetic Reconstruction Using Machine Learning. Molecular Biology and Evolution, 2020, 37, 3338-3352.	3.5	30
51	OneTwoTree: An online tool for phylogeny reconstruction. Molecular Ecology Resources, 2018, 18, 1492-1499.	2.2	29
52	Synonymous site conservation in the HIV-1 genome. BMC Evolutionary Biology, 2013, 13, 164.	3.2	24
53	Harnessing machine learning to guide phylogenetic-tree search algorithms. Nature Communications, 2021, 12, 1983.	5.8	20
54	A Probabilistic Model for Indel Evolution: Differentiating Insertions from Deletions. Molecular Biology and Evolution, 2021, 38, 5769-5781.	3.5	19

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55	CRISPys: Optimal sgRNA Design for Editing Multiple Members of a Gene Family Using the CRISPR System. Journal of Molecular Biology, 2018, 430, 2184-2195.	2.0	18
56	Regulation of alternative splicing at the single ell level. Molecular Systems Biology, 2015, 11, 845.	3.2	17
57	Heterogeneity in the rate of molecular sequence evolution substantially impacts the accuracy of detecting shifts in diversification rates. Evolution; International Journal of Organic Evolution, 2020, 74, 1620-1639.	1.1	12
58	Model adequacy tests for probabilistic models of chromosomeâ€number evolution. New Phytologist, 2021, 229, 3602-3613.	3.5	11
59	The Interplay between Scientific Overlap and Cooperation and the Resulting Gain in Co-Authorship Interactions. PLoS ONE, 2015, 10, e0137856.	1.1	10
60	Phenology and polyploidy in annual <i>Brachypodium</i> species (Poaceae) along the aridity gradient in Israel. Journal of Systematics and Evolution, 2020, 58, 189-199.	1.6	9
61	TraitRateProp: a web server for the detection of trait-dependent evolutionary rate shifts in sequence sites. Nucleic Acids Research, 2017, 45, W260-W264.	6.5	8
62	A Codon Model for Associating Phenotypic Traits with Altered Selective Patterns of Sequence Evolution. Systematic Biology, 2021, 70, 608-622.	2.7	5
63	Panoramic: A package for constructing eukaryotic panâ€genomes. Molecular Ecology Resources, 2021, 21, 1393-1403.	2.2	4
64	Bee flowers drive macroevolutionary diversification in long-horned bees. Proceedings of the Royal Society B: Biological Sciences, 2021, 288, 20210533.	1.2	4
65	Mechanisms Underlying Host Range Variation in Flavivirus: From Empirical Knowledge to Predictive Models. Journal of Molecular Evolution, 2021, 89, 329-340.	0.8	3
66	A LASSO-based approach to sample sites for phylogenetic tree search. Bioinformatics, 2022, 38, i118-i124.	1.8	1
67	Using Phylogeny to Decipher Electrogenicity in Cation/Proton Antiporters. Biophysical Journal, 2019, 116, 554a.	0.2	0