Andrew F Neuwald

List of Publications by Year in descending order

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47 papers 2,833 citations

430874 18 h-index 243625 44 g-index

51 all docs

51 docs citations

51 times ranked

2902 citing authors

#	Article	IF	Citations
1	Identifying Function Determining Residues in Neuroimmune Semaphorin 4A. International Journal of Molecular Sciences, 2022, 23, 3024.	4.1	3
2	SPARC: Structural properties associated with residue constraints. Computational and Structural Biotechnology Journal, 2022, 20, 1702-1715.	4.1	0
3	IntAPT: integrated assembly of phenotype-specific transcripts from multiple RNA-seq profiles. Bioinformatics, 2021, 37, 650-658.	4.1	1
4	ChIP-BIT2: a software tool to detect weak binding events using a Bayesian integration approach. BMC Bioinformatics, 2021, 22, 193.	2.6	0
5	eCOMPASS: evaluative comparison of multiple protein alignments by statistical score. Bioinformatics, 2021, 37, 3456-3463.	4.1	O
6	ChIP-GSM: Inferring active transcription factor modules to predict functional regulatory elements. PLoS Computational Biology, 2021, 17, e1009203.	3.2	2
7	A Bayesian approach for accurate de novo transcriptome assembly. Scientific Reports, 2021, 11, 17663.	3.3	1
8	Identifying intracellular signaling modules and exploring pathways associated with breast cancer recurrence. Scientific Reports, 2021, 11, 385.	3.3	6
9	BICORN: An R package for integrative inference of de novo cis-regulatory modules. Scientific Reports, 2020, 10, 7960.	3.3	2
10	Obtaining extremely large and accurate protein multiple sequence alignments from curated hierarchical alignments. Database: the Journal of Biological Databases and Curation, 2020, 2020, .	3.0	4
11	Deep Analysis of Residue Constraints (DARC): identifying determinants of protein functional specificity. Scientific Reports, 2020, 10, 1691.	3.3	12
12	A survey of TIR domain sequence and structure divergence. Immunogenetics, 2020, 72, 181-203.	2.4	31
13	Initial Cluster Analysis. Journal of Computational Biology, 2018, 25, 121-129.	1.6	7
14	Statistical investigations of protein residue direct couplings. PLoS Computational Biology, 2018, 14, e1006237.	3.2	8
15	Inferring joint sequence-structural determinants of protein functional specificity. ELife, $2018, 7, .$	6.0	14
16	Inference of Functionally-Relevant N-acetyltransferase Residues Based on Statistical Correlations. PLoS Computational Biology, 2016, 12, e1005294.	3.2	9
17	Gleaning structural and functional information from correlations in protein multiple sequence alignments. Current Opinion in Structural Biology, 2016, 38, 1-8.	5 . 7	15
18	Identification and classification of small molecule kinases: insights into substrate recognition and specificity. BMC Evolutionary Biology, 2016, 16, 7.	3.2	16

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19	Bayesian Top-Down Protein Sequence Alignment with Inferred Position-Specific Gap Penalties. PLoS Computational Biology, 2016, 12, e1004936.	3.2	17
20	A Bayesian Sampler for Optimization of Protein Domain Hierarchies. Journal of Computational Biology, 2014, 21, 269-286.	1.6	30
21	Evaluating, Comparing, and Interpreting Protein Domain Hierarchies. Journal of Computational Biology, 2014, 21, 287-302.	1.6	7
22	Protein domain hierarchy Gibbs sampling strategies. Statistical Applications in Genetics and Molecular Biology, 2014, 13, 497-517.	0.6	11
23	Automated hierarchical classification of protein domain subfamilies based on functionally-divergent residue signatures. BMC Bioinformatics, 2012, 13, 144.	2.6	11
24	Surveying the Manifold Divergence of an Entire Protein Class for Statistical Clues to Underlying Biochemical Mechanisms. Statistical Applications in Genetics and Molecular Biology, 2011, 10, Article 36.	0.6	16
25	Bayesian classification of residues associated with protein functional divergence: Arf and Arf-like GTPases. Biology Direct, 2010, 5, 66.	4.6	9
26	Rapid detection, classification and accurate alignment of up to a million or more related protein sequences. Bioinformatics, 2009, 25, 1869-1875.	4.1	62
27	The Charge-dipole Pocket: A Defining Feature of Signaling Pathway GTPase On/Off Switches. Journal of Molecular Biology, 2009, 390, 142-153.	4.2	10
28	The glycine brace: a component of Rab, Rho, and Ran GTPases associated with hinge regions of guanine-and phosphate-binding loops. BMC Structural Biology, 2009, 9, 11.	2.3	12
29	The hallmark of AGC kinase functional divergence is its C-terminal tail, a cis-acting regulatory module. Proceedings of the National Academy of Sciences of the United States of America, 2007, 104, 1272-1277.	7.1	199
30	The CHAIN program: forging evolutionary links to underlying mechanisms. Trends in Biochemical Sciences, 2007, 32, 487-493.	7.5	18
31	Gα–Gβγ dissociation may be due to retraction of a buried lysine and disruption of an aromatic cluster by a GTPâ€sensing Arg–Trp pair. Protein Science, 2007, 16, 2570-2577.	7.6	13
32	Bayesian shadows of molecular mechanisms cast in the light of evolution. Trends in Biochemical Sciences, 2006, 31, 374-382.	7.5	14
33	Hypothesis: bacterial clamp loader ATPase activation through DNA-dependent repositioning of the catalytic base and of a trans-acting catalytic threonine. Nucleic Acids Research, 2006, 34, 5280-5290.	14.5	8
34	Did Protein Kinase Regulatory Mechanisms Evolve Through Elaboration of a Simple Structural Component?. Journal of Molecular Biology, 2005, 351, 956-972.	4.2	137
35	Gapped alignment of protein sequence motifs through Monte Carlo optimization of a hidden Markov model. BMC Bioinformatics, 2004, 5, 157.	2.6	34
36	Evolutionary constraints associated with functional specificity of the CMGC protein kinases MAPK, CDK, GSK, SRPK, DYRK, and CK2î±. Protein Science, 2004, 13, 2059-2077.	7.6	142

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37	Ran's C-terminal, Basic Patch, and Nucleotide Exchange Mechanisms in Light of a Canonical Structure for Rab, Rho, Ras, and Ran GTPases. Genome Research, 2003, 13, 673-692.	5.5	41
38	Markovian Structures in Biological Sequence Alignments. Journal of the American Statistical Association, 1999, 94, 1-15.	3.1	60
39	Markovian Structures in Biological Sequence Alignments. Journal of the American Statistical Association, 1999, 94, 1.	3.1	21
40	Extracting protein alignment models from the sequence database. Nucleic Acids Research, 1997, 25, 1665-1677.	14.5	206
41	A superfamily of conserved domains in DNA damage―responsive cell cycle checkpoint proteins. FASEB Journal, 1997, 11, 68-76.	0.5	684
42	Ataxin-2, global regulators and bacterial gene expression, and spliceosomal snRNP proteins share a conserved domain. Journal of Molecular Medicine, 1997, 76, 3-5.	3.9	19
43	An unexpected structural relationship between integral membrane phosphatases and soluble haloperoxidases. Protein Science, 1997, 6, 1764-1767.	7.6	142
44	Gibbs motif sampling: Detection of bacterial outer membrane protein repeats. Protein Science, 1995, 4, 1618-1632.	7.6	371
45	Bayesian Models for Multiple Local Sequence Alignment and Gibbs Sampling Strategies. Journal of the American Statistical Association, 1995, 90, 1156-1170.	3.1	235
46	Bayesian Models for Multiple Local Sequence Alignment and Gibbs Sampling Strategies. Journal of the American Statistical Association, 1995, 90, 1156.	3.1	77
47	Detecting Patterns in Protein Sequences. Journal of Molecular Biology, 1994, 239, 698-712.	4.2	96