Yoram Louzoun

List of Publications by Year
in descending order

150 papers	5,079 citations	117625 34 h-index	133252 59 g-index
168 all docs	168 docs citations	168 times ranked	6828 citing authors

#	Article	IF	Citations
1	Sampling bias minimization in disease frequency estimates. Journal of Theoretical Biology, 2022, 534, 110972.	1.7	0
2	Naive and memory T cells TCR–HLA-binding prediction. Oxford Open Immunology, 2022, 3, .	2.8	5
3	CDR3 and V genes show distinct reconstitution patterns in T cell repertoire post-allogeneic bone marrow transplantation. Immunogenetics, 2021, 73, 163-173.	2.4	6
4	Evaluation of the number of undiagnosed infected in an outbreak using source of infection measurements. Scientific Reports, 2021, 11, 3601.	3.3	1
5	Contribution of T Cell Receptor Alpha and Beta CDR3, MHC Typing, V and J Genes to Peptide Binding Prediction. Frontiers in Immunology, 2021, 12, 664514.	4.8	74
6	Editorial: HLA and KIR Diversity and Polymorphisms: Emerging Concepts. Frontiers in Immunology, 2021, 12, 701398.	4.8	3
7	MHC Haplotyping of SARS-CoV-2 Patients: HLA Subtypes Are Not Associated with the Presence and Severity of COVID-19 in the Israeli Population. Journal of Clinical Immunology, 2021, 41, 1154-1161.	3.8	25
8	Self-driven criticality in a stochastic epidemic model. Physical Review E, 2021, 103, 062303.	2.1	2
9	Initial growth rates of malware epidemics fail to predict their reach. Scientific Reports, 2021, 11, 11750.	3.3	1
10	Microbiome Preprocessing Machine Learning Pipeline. Frontiers in Immunology, 2021, 12, 677870.	4.8	10
11	Maintenance of the human memory T cell repertoire by subset and tissue site. Genome Medicine, 2021, 13, 100.	8.2	35
12	Projection of Gut Microbiome Pre- and Post-Bariatric Surgery To Predict Surgery Outcome. MSystems, 2021, 6, e0136720.	3.8	14
13	Autoencoder based local T cell repertoire density can be used to classify samples and T cell receptors. PLoS Computational Biology, 2021, 17, e1009225.	3.2	5
14	HLA haplotype frequency estimation for heterogeneous populations using a graph-based imputation algorithm. Human Immunology, 2021, 82, 746-757.	2.4	10
15	Neonatal antibiotic exposure impairs child growth during the first six years of life by perturbing intestinal microbial colonization. Nature Communications, 2021, 12, 443.	12.8	113
16	Modulation of cytokine patterns and microbiome during pregnancy in IBD. Gut, 2020, 69, 473-486.	12.1	64
17	Non-invasive biomarkers of fetal brain development reflecting prenatal stress: An integrative multi-scale multi-species perspective on data collection and analysis. Neuroscience and Biobehavioral Reviews, 2020, 117, 165-183.	6.1	31
18	The intestinal microbiome, weight, and metabolic changes in women treated by adjuvant chemotherapy for breast and gynecological malignancies. BMC Medicine, 2020, 18, 281.	5.5	19

#	Article	IF	Citations
19	Patterns of salivary microbiota injury and oral mucositis in recipients of allogeneic hematopoietic stem cell transplantation. Blood Advances, 2020, 4, 2912-2917.	5.2	39
20	Microbial signature in IgE-mediated food allergies. Genome Medicine, 2020, 12, 92.	8.2	60
21	Prediction of Specific TCR-Peptide Binding From Large Dictionaries of TCR-Peptide Pairs. Frontiers in Immunology, 2020, 11, 1803.	4.8	110
22	Estimating Differential Entropy using Recursive Copula Splitting. Entropy, 2020, 22, 236.	2.2	11
23	Machine learning can identify newly diagnosed patients with CLL at high risk of infection. Nature Communications, 2020, 11, 363.	12.8	75
24	Salivary Microbial and Metabolic Determinants of Oral Mucositis in Recipients of Allogeneic Hematopoietic Stem Cell Transplantation. Biology of Blood and Marrow Transplantation, 2020, 26, S50.	2.0	1
25	Invasion Rate Versus Diversity in Population Dynamics with Catastrophes. Physical Review Letters, 2020, 124, 158301.	7.8	4
26	Edge sign prediction based on a combination of network structural topology and sign propagation. Journal of Complex Networks, 2019, 7, 54-66.	1.8	7
27	Topology of products similarity network for market forecasting. Applied Network Science, 2019, 4, .	1.5	4
28	GRIMM: GRaph IMputation and matching for HLA genotypes. Bioinformatics, 2019, 35, 3520-3523.	4.1	12
29	Level of neo-epitope predecessor and mutation type determine T cell activation of MHC binding peptides. , 2019, 7, 135.		18
30	Multiplicative fitness, rapid haplotype discovery, and fitness decay explain evolution of human MHC. Proceedings of the National Academy of Sciences of the United States of America, 2019, 116, 14098-14104.	7.1	18
31	Evaluating methods for Avian avulavirus-1 whole genome sequencing. Gene: X, 2019, 721, 100004.	2.3	1
32	Progesterone Increases Bifidobacterium Relative Abundance during Late Pregnancy. Cell Reports, 2019, 27, 730-736.e3.	6.4	130
33	Two stage approach to functional network reconstruction for binary time-series. European Physical Journal B, 2019, 92, 1.	1.5	1
34	Reply to Hedrick and Klitz: High haplotype discovery rate in the HLA locus. Proceedings of the National Academy of Sciences of the United States of America, 2019, 116, 23388-23389.	7.1	1
35	Single haplotype admixture models using large scale HLA genotype frequencies to reproduce human admixture. Immunogenetics, 2019, 71, 589-604.	2.4	2
36	Long-term context-dependent genetic adaptation of the viral genetic cloud. Bioinformatics, 2019, 35, 1907-1915.	4.1	7

#	Article	IF	Citations
37	Oral Mucositis Is Associated with Distinctive Patterns of Oral Microbiota Injury in Patients Undergoing Allogeneic Hematopoietic Stem Cell Transplantation. Blood, 2019, 134, 3265-3265.	1.4	2
38	Cross-modality deep learning-based prediction of TAP binding and naturally processed peptide. Immunogenetics, 2018, 70, 419-428.	2.4	6
39	Origins and specificity of auto-antibodies in Sm+ SLE patients. Journal of Autoimmunity, 2018, 90, 94-104.	6.5	7
40	Increased RNA Editing May Provide a Source for Autoantigens in Systemic Lupus Erythematosus. Cell Reports, 2018, 23, 50-57.	6.4	91
41	Modeling coverage gaps in haplotype frequencies via Bayesian inference to improve stem cell donor selection. Immunogenetics, 2018, 70, 279-292.	2.4	4
42	Support vector machine-based differentiation between aggressive and chronic periodontitis using microbial profiles. International Dental Journal, 2018, 68, 39-46.	2.6	53
43	Natural emergence of a core structure in networks via clique percolation. Physical Review E, 2018, 98, .	2.1	0
44	Epidemiological and genetic analysis of Avian avulavirus-1 in Israel reveals parallel circulating strains and a new sub-genotype within genotype VI. Infection, Genetics and Evolution, 2018, 66, 159-170.	2.3	3
45	Interleukin 1α-Deficient Mice Have an Altered Gut Microbiota Leading to Protection from Dextran Sodium Sulfate-Induced Colitis. MSystems, 2018, 3, .	3.8	33
46	Family-size variability grows with collapse rate in a birth-death-catastrophe model. Physical Review E, 2018, 98, 012416.	2.1	1
47	Evidence for Shaping of Light Chain Repertoire by Structural Selection. Frontiers in Immunology, 2018, 9, 1307.	4.8	8
48	Converging evolution leads to near maximal junction diversity through parallel mechanisms in B and T cell receptors. Physical Biology, 2017, 14, 045003.	1.8	12
49	Brain-to-Brain Synchrony during Naturalistic Social Interactions. Scientific Reports, 2017, 7, 17060.	3.3	236
50	HLA class I haplotype diversity is consistent with selection for frequent existing haplotypes. PLoS Computational Biology, 2017, 13, e1005693.	3.2	38
51	Optimal network modification for spectral radius dependent phase transitions. New Journal of Physics, 2016, 18, 093039.	2.9	0
52	Self-Antigen-Driven Thymic B Cell Class Switching Promotes T Cell Central Tolerance. Cell Reports, 2016, 17, 387-398.	6.4	31
53	Effects of distribution of infection rate on epidemic models. Physical Review E, 2016, 94, 022409.	2.1	8
54	Unbiased classification of spatial strategies in the Barnes maze. Bioinformatics, 2016, 32, 3314-3320.	4.1	51

#	Article	IF	Citations
55	Population Growth Combined with Wide Offspring Distributions can Increase Fixation Rate and Reduce Genetic Diversity. Bulletin of Mathematical Biology, 2016, 78, 1477-1492.	1.9	1
56	Evolution through bursts: Network structure develops through localized bursts in time and space. Network Science, 2016, 4, 293-313.	1.0	5
57	Impact of the shedding level on transmission of persistent infections in Mycobacterium avium subspecies paratuberculosis (MAP). Veterinary Research, 2016, 47, 38.	3.0	19
58	DUSTER: dynamic contrast enhance up-sampled temporal resolution analysis method. Magnetic Resonance Imaging, 2016, 34, 442-450.	1.8	10
59	Topological similarity as a proxy to content similarity. Journal of Complex Networks, 2016, 4, 38-60.	1.8	3
60	System-wide Analysis of the T Cell Response. Cell Reports, 2016, 14, 2733-2744.	6.4	67
61	Unraveling cognitive traits using the Morris water maze unbiased strategy classification (MUST-C) algorithm. Brain, Behavior, and Immunity, 2016, 52, 132-144.	4.1	50
62	Estimate of within population incremental selection through branch imbalance in lineage trees. Nucleic Acids Research, 2016, 44, e46-e46.	14.5	9
63	Adaptive shut-down of EEG activity predicts critical acidemia in the near-term ovine fetus. Physiological Reports, 2015, 3, e12435.	1.7	19
64	Differences in intermittent and continuous fecal shedding patterns between natural and experimental Mycobacterium avium subspecies paratuberculosis infections in cattle. Veterinary Research, 2015, 46, 66.	3.0	62
65	Two state model for a constant disease hazard in paratuberculosis (and other bovine diseases). Veterinary Research, 2015, 46, 67.	3.0	3
66	Commensal pathogens as a source of a coexistence mechanism. Journal of Theoretical Biology, 2015, 370, 45-52.	1.7	1
67	Directed triadic closure and edge deletion mechanism induce asymmetry in directed edge properties. European Physical Journal B, 2015, 88, 1.	1.5	5
68	The mutation patterns in B-cell immunoglobulin receptors reflect the influence of selection acting at multiple time-scales. Philosophical Transactions of the Royal Society B: Biological Sciences, 2015, 370, 20140242.	4.0	49
69	Power Laws for Heavy-Tailed Distributions: Modeling Allele and Haplotype Diversity for the National Marrow Donor Program. PLoS Computational Biology, 2015, 11, e1004204.	3.2	20
70	Viral CD8 T cell epitope nucleotide composition shows evidence of short- and long-term evolutionary strategies. Immunogenetics, 2015, 67, 15-24.	2.4	2
71	Hepatitis B surface antigen genetic elements critical for immune escape correlate with hepatitis B virus reactivation upon immunosuppression. Hepatology, 2015, 61, 823-833.	7.3	109
72	Mid size cliques are more common in real world networks than triangles. Network Science, 2014, 2, 387-402.	1.0	15

#	Article	IF	Citations
73	T_1 Mapping using variable flip angle SPGR data with flip angle correction. Journal of Magnetic Resonance Imaging, 2014, 40, 171-180.	3.4	69
74	A mathematical model for pancreatic cancer growth and treatments. Journal of Theoretical Biology, 2014, 351, 74-82.	1.7	102
75	Genes related to differentiation are correlated with the gene regulatory network structure. Bioinformatics, 2014, 30, 406-413.	4.1	3
76	Coexistence of productive and non-productive populations by fluctuation-driven spatio-temporal patterns. Theoretical Population Biology, 2014, 96, 20-29.	1.1	16
77	Directionality of real world networks as predicted by path length in directed and undirected graphs. Physica A: Statistical Mechanics and Its Applications, 2014, 401, 118-129.	2.6	9
78	Predictor for the effect of amino acid composition on CD4+ T cell epitopes preprocessing. Journal of Immunological Methods, 2013, 391, 163-173.	1.4	17
79	Viral proteome size and CD8+ T cell epitope density are correlated: The effect of complexity on selection. Infection, Genetics and Evolution, 2013, 20, 71-77.	2.3	3
80	Mathematical Conditions for Induced Cell Differentiation and Trans-differentiation in Adult Cells. Bulletin of Mathematical Biology, 2013, 75, 819-844.	1.9	5
81	Automatic multi-modal MR tissue classification for the assessment of response to bevacizumab in patients with glioblastoma. European Journal of Radiology, 2013, 82, e87-e94.	2.6	26
82	The balance between adaptation to catalysts and competition radius shapes the total wealth, time variability and inequality. European Physical Journal B, 2013, 86, 1.	1.5	2
83	Multi Step Selection in Ig H Chains is Initially Focused on CDR3 and Then on Other CDR Regions. Frontiers in Immunology, 2013, 4, 274.	4.8	21
84	Edge removal balances preferential attachment and triad closing. Physical Review E, 2013, 88, 042815.	2.1	3
85	The Restricted DH Gene Reading Frame Usage in the Expressed Human Antibody Repertoire Is Selected Based upon its Amino Acid Content. Journal of Immunology, 2013, 190, 5567-5577.	0.8	28
86	Long loops of information flow in genetic networks highlight an inherent directionality. Systems Biomedicine (Austin, Tex), 2013, 1, 47-54.	0.7	4
87	Diffusion rate determines balance between extinction and proliferationin birth-death processes. Mathematical Biosciences and Engineering, 2013, 10, 523-550.	1.9	6
88	Evolutionary Principles in Viral Epitopes. Lecture Notes on Mathematical Modelling in the Life Sciences, 2013, , 59-83.	0.4	0
89	Brain activation and heart rate during script-driven traumatic imagery in PTSD: Preliminary findings. Psychiatry Research - Neuroimaging, 2012, 204, 155-160.	1.8	21
90	Predator-prey dynamics in a uniform medium lead to directed percolation and wave-train propagation. Physical Review E, 2012, 85, 031911.	2.1	5

#	Article	IF	Citations
91	Balance between absorbing and positive fixed points in resource consumption models. Physical Review E, 2012, 86, 031146.	2.1	9
92	Feedback between node and network dynamics can produce real-world network properties. Physica A: Statistical Mechanics and Its Applications, 2012, 391, 6645-6654.	2.6	8
93	Rep‐Seq: uncovering the immunological repertoire through next‐generation sequencing. Immunology, 2012, 135, 183-191.	4.4	252
94	Evolution of viral life-cycle in response to cytotoxic T lymphocyte-mediated immunity. Journal of Theoretical Biology, 2012, 310, 3-13.	1.7	4
95	Mathematical modelling and evaluation of the different routes of transmission of lumpy skin disease virus. Veterinary Research, 2012, 43, 1.	3.0	130
96	Universal peptide vaccines – Optimal peptide vaccine design based on viral sequence conservation. Vaccine, 2011, 29, 8745-8753.	3.8	35
97	Optimal viral immune surveillance evasion strategies. Theoretical Population Biology, 2011, 80, 233-243.	1.1	5
98	Signal peptides and trans-membrane regions are broadly immunogenic and have high CD8+ T cell epitope densities: Implications for vaccine development. Molecular Immunology, 2011, 48, 1009-1018.	2.2	41
99	Somatic hypermutation targeting is influenced by location within the immunoglobulin V region. Molecular Immunology, 2011, 48, 1477-1483.	2.2	22
100	MHC-I prediction using a combination of T cell epitopes and MHC-I binding peptides. Journal of Immunological Methods, 2011, 374, 43-46.	1.4	16
101	Mother and infant coordinate heart rhythms through episodes of interaction synchrony. , 2011, 34, 569-577.		426
102	Effect of Vaccination in Environmentally Induced Diseases. Bulletin of Mathematical Biology, 2011, 73, 1101-1117.	1.9	2
103	Circulating lymphocyte subsets in normal adults are variable and can be clustered into subgroups. Cytometry Part B - Clinical Cytometry, 2011, 80B, 291-299.	1.5	14
104	Sleep-Wake Transitions in Premature Neonates Predict Early Development. Pediatrics, 2011, 128, 706-714.	2.1	86
105	Immune-Induced Evolutionary Selection Focused on a Single Reading Frame in Overlapping Hepatitis B Virus Proteins. Journal of Virology, 2011, 85, 4558-4566.	3.4	34
106	Bacteria Modulate the CD8+ T Cell Epitope Repertoire of Host Cytosol-Exposed Proteins to Manipulate the Host Immune Response. PLoS Computational Biology, 2011, 7, e1002220.	3.2	19
107	Regulation of modular Cyclin and CDK feedback loops by an E2F transcription oscillator in the mammalian cell cycle. Mathematical Biosciences and Engineering, 2011, 8, 445-461.	1.9	6
108	Empirical extraction of mechanisms underlying real world network generation. Physica A: Statistical Mechanics and Its Applications, 2010, 389, 5308-5318.	2.6	10

#	Article	IF	Citations
109	Random distance dependent attachment as a model for neural network generation in the Caenorhabditis elegans. Bioinformatics, 2010, 26, 647-652.	4.1	11
110	Emergence of Intentional Procedures in Self-Organizing Neural Networks. , 2010, , 47-56.		0
111	A Systems Immunology Approach to the Host-Tumor Interaction: Large-Scale Patterns of Natural Autoantibodies Distinguish Healthy and Tumor-Bearing Mice. PLoS ONE, 2009, 4, e6053.	2.5	36
112	Taking Advantage: High-Affinity B Cells in the Germinal Center Have Lower Death Rates, but Similar Rates of Division, Compared to Low-Affinity Cells. Journal of Immunology, 2009, 183, 7314-7325.	0.8	86
113	Viruses selectively mutate their CD8+ T-cell epitopesâ€"a large-scale immunomic analysis. Bioinformatics, 2009, 25, i39-i44.	4.1	31
114	What cycles the cell? -Robust autonomous cell cycle models. Mathematical Medicine and Biology, 2009, 26, 337-359.	1.2	2
115	Human selfâ€protein CD8⁺ Tâ€cell epitopes are both positively and negatively selected. European Journal of Immunology, 2009, 39, 1056-1065.	2.9	13
116	In-silico cell surface modeling reveals mechanism for initial steps of B-cell receptor signal transduction. Molecular Immunology, 2009, 46, 3141-3150.	2.2	13
117	The HIV hide and seek game: an immunogenomic analysis of the HIV epitope repertoire. Aids, 2009, 23, 1311-1318.	2.2	27
118	Precise score for the prediction of peptides cleaved by the proteasome. Bioinformatics, 2008, 24, 477-483.	4.1	38
119	Listeriosis: A Model for the Fine Balance Between Immunity and Morbidity. Epidemiology, 2008, 19, 581-587.	2.7	12
120	Self-emergence of knowledge trees: Extraction of the Wikipedia hierarchies. Physical Review E, 2007, 76, 016106.	2.1	62
121	Phase-Dependent Immune Evasion of Herpesviruses. Journal of Virology, 2007, 81, 9536-9545.	3.4	38
122	Virus-epitope vaccine design: Informatic matching the HLA-I polymorphism to the virus genome. Molecular Immunology, 2007, 44, 1253-1261.	2.2	37
123	An optimal algorithm for counting network motifs. Physica A: Statistical Mechanics and Its Applications, 2007, 381, 482-490.	2.6	31
124	The emergence of goals in a self-organizing network: A non-mentalist model of intentional actions. Neural Networks, 2007, 20, 156-171.	5.9	11
125	The evolution of mathematical immunology. Immunological Reviews, 2007, 216, 9-20.	6.0	39
126	Microscopic noise, adaptation and survival in hostile environments. European Physical Journal B, 2007, 56, 141-148.	1.5	19

#	Article	IF	Citations
127	T-cell epitope repertoire as predicted from human and viral genomes. Molecular Immunology, 2006, 43, 559-569.	2.2	35
128	Catalyst-induced growth with limited catalyst lifespan and competition. Journal of Theoretical Biology, 2006, 241, 307-320.	1.7	13
129	Mutation parameters from DNA sequence data using graph theoretic measures on lineage trees. Bioinformatics, 2006, 22, e332-e340.	4.1	7
130	Copying nodes versus editing links: the source of the difference between genetic regulatory networks and the WWW. Bioinformatics, 2006, 22, 581-588.	4.1	25
131	Editing Anti-DNA B Cells by Vλx. Journal of Experimental Medicine, 2004, 199, 337-346.	8.5	42
132	Inevitably reborn: The reawakening of extinct innovations. Technological Forecasting and Social Change, 2004, 71, 881-896.	11.6	11
133	Functional connectivity of the prefrontal cortex and the amygdala in posttraumatic stress disorder. Biological Psychiatry, 2004, 55, 263-272.	1.3	185
134	Proliferation and Competition in Discrete Biological Systems. , 2004, , 225-242.		0
135	Cerebral blood flow in depressed patients: a methodological comparison of statistical parametric mapping and region of interest analyses. Psychiatry Research - Neuroimaging, 2003, 122, 49-57.	1.8	26
136	Cerebral blood flow in chronic symptomatic mild traumatic brain injury. Psychiatry Research - Neuroimaging, 2003, 124, 141-152.	1.8	118
137	Proliferation and Competition in Discrete Biological Systems. Bulletin of Mathematical Biology, 2003, 65, 375-396.	1.9	31
138	Dynamical Analysis of a Degenerate Primary and Secondary Humoral Immune Response. Bulletin of Mathematical Biology, 2003, 65, 535-545.	1.9	7
139	Resting regional cerebral perfusion in recent posttraumatic stress disorder. Biological Psychiatry, 2003, 54, 1077-1086.	1.3	133
140	The Importance of Thermodynamic Equilibrium for High Throughput Gene Expression Arrays. Biophysical Journal, 2003, 84, 124-135.	0.5	67
141	Estimating Hypermutation Rates from Clonal Tree Data. Journal of Immunology, 2003, 171, 4639-4649.	0.8	85
142	World-Size Global Markets Lead to Economic Instability. Artificial Life, 2003, 9, 357-370.	1.3	26
143	Analysis of B cell receptor production and rearrangement. Seminars in Immunology, 2002, 14, 169-190.	5.6	26
144	D is for different—differences between H and L chain rearrangement. Seminars in Immunology, 2002, 14, 239-241.	5.6	7

#	Article	IF	Citations
145	Modeling the Influence of TH1- and TH2-type Cells in Autoimmune Diseases. Journal of Autoimmunity, 2001, 17, 311-321.	6.5	11
146	HIV time hierarchy: winning the war while, loosing all the battles. Physica A: Statistical Mechanics and Its Applications, 2001, 289, 178-190.	2.6	47
147	Modeling complexity in biology. Physica A: Statistical Mechanics and Its Applications, 2001, 297, 242-252.	2.6	31
148	Volatility driven market in a generalized Lotkaâ€"Voltera formalism. Physica A: Statistical Mechanics and Its Applications, 2001, 302, 220-233.	2.6	26
149	The importance of being discrete: Life always wins on the surface. Proceedings of the National Academy of Sciences of the United States of America, 2000, 97, 10322-10324.	7.1	173
150	Two Step Selection for Bias in Î² Chain V-J Pairing. Frontiers in Immunology, 0, 13, .	4.8	1