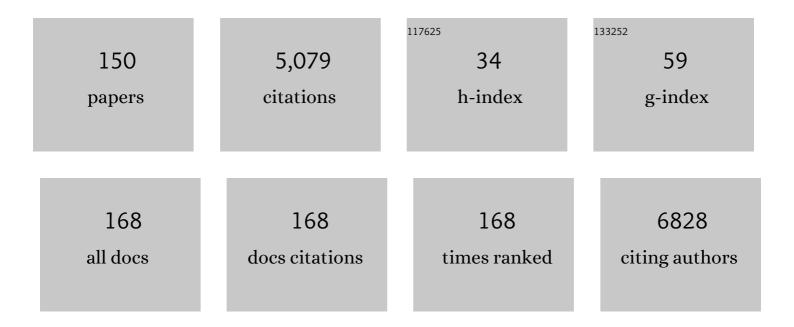
Yoram Louzoun

List of Publications by Year in descending order

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#	Article	IF	CITATIONS
1	Mother and infant coordinate heart rhythms through episodes of interaction synchrony. , 2011, 34, 569-577.		426
2	Rep‣eq: uncovering the immunological repertoire through nextâ€generation sequencing. Immunology, 2012, 135, 183-191.	4.4	252
3	Brain-to-Brain Synchrony during Naturalistic Social Interactions. Scientific Reports, 2017, 7, 17060.	3.3	236
4	Functional connectivity of the prefrontal cortex and the amygdala in posttraumatic stress disorder. Biological Psychiatry, 2004, 55, 263-272.	1.3	185
5	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
6	Resting regional cerebral perfusion in recent posttraumatic stress disorder. Biological Psychiatry, 2003, 54, 1077-1086.	1.3	133
7	Mathematical modelling and evaluation of the different routes of transmission of lumpy skin disease virus. Veterinary Research, 2012, 43, 1.	3.0	130
8	Progesterone Increases Bifidobacterium Relative Abundance during Late Pregnancy. Cell Reports, 2019, 27, 730-736.e3.	6.4	130
9	Cerebral blood flow in chronic symptomatic mild traumatic brain injury. Psychiatry Research - Neuroimaging, 2003, 124, 141-152.	1.8	118
10	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
11	Prediction of Specific TCR-Peptide Binding From Large Dictionaries of TCR-Peptide Pairs. Frontiers in Immunology, 2020, 11, 1803.	4.8	110
12	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
13	A mathematical model for pancreatic cancer growth and treatments. Journal of Theoretical Biology, 2014, 351, 74-82.	1.7	102
14	Increased RNA Editing May Provide a Source for Autoantigens in Systemic Lupus Erythematosus. Cell Reports, 2018, 23, 50-57.	6.4	91
15	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
16	Sleep-Wake Transitions in Premature Neonates Predict Early Development. Pediatrics, 2011, 128, 706-714.	2.1	86
17	Estimating Hypermutation Rates from Clonal Tree Data. Journal of Immunology, 2003, 171, 4639-4649.	0.8	85
18	Machine learning can identify newly diagnosed patients with CLL at high risk of infection. Nature Communications, 2020, 11, 363.	12.8	75

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19	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
20	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
21	The Importance of Thermodynamic Equilibrium for High Throughput Gene Expression Arrays. Biophysical Journal, 2003, 84, 124-135.	0.5	67
22	System-wide Analysis of the T Cell Response. Cell Reports, 2016, 14, 2733-2744.	6.4	67
23	Modulation of cytokine patterns and microbiome during pregnancy in IBD. Gut, 2020, 69, 473-486.	12.1	64
24	Self-emergence of knowledge trees: Extraction of the Wikipedia hierarchies. Physical Review E, 2007, 76, 016106.	2.1	62
25	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
26	Microbial signature in IgE-mediated food allergies. Genome Medicine, 2020, 12, 92.	8.2	60
27	Support vector machine-based differentiation between aggressive and chronic periodontitis using microbial profiles. International Dental Journal, 2018, 68, 39-46.	2.6	53
28	Unbiased classification of spatial strategies in the Barnes maze. Bioinformatics, 2016, 32, 3314-3320.	4.1	51
29	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
30	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
31	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
32	Editing Anti-DNA B Cells by Vλx. Journal of Experimental Medicine, 2004, 199, 337-346.	8.5	42
33	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
34	The evolution of mathematical immunology. Immunological Reviews, 2007, 216, 9-20.	6.0	39
35	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
36	Phase-Dependent Immune Evasion of Herpesviruses. Journal of Virology, 2007, 81, 9536-9545.	3.4	38

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37	Precise score for the prediction of peptides cleaved by the proteasome. Bioinformatics, 2008, 24, 477-483.	4.1	38
38	HLA class I haplotype diversity is consistent with selection for frequent existing haplotypes. PLoS Computational Biology, 2017, 13, e1005693.	3.2	38
39	Virus-epitope vaccine design: Informatic matching the HLA-I polymorphism to the virus genome. Molecular Immunology, 2007, 44, 1253-1261.	2.2	37
40	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
41	T-cell epitope repertoire as predicted from human and viral genomes. Molecular Immunology, 2006, 43, 559-569.	2.2	35
42	Universal peptide vaccines – Optimal peptide vaccine design based on viral sequence conservation. Vaccine, 2011, 29, 8745-8753.	3.8	35
43	Maintenance of the human memory T cell repertoire by subset and tissue site. Genome Medicine, 2021, 13, 100.	8.2	35
44	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
45	Interleukin 11±-Deficient Mice Have an Altered Gut Microbiota Leading to Protection from Dextran Sodium Sulfate-Induced Colitis. MSystems, 2018, 3, .	3.8	33
46	Modeling complexity in biology. Physica A: Statistical Mechanics and Its Applications, 2001, 297, 242-252.	2.6	31
47	Proliferation and Competition in Discrete Biological Systems. Bulletin of Mathematical Biology, 2003, 65, 375-396.	1.9	31
48	An optimal algorithm for counting network motifs. Physica A: Statistical Mechanics and Its Applications, 2007, 381, 482-490.	2.6	31
49	Viruses selectively mutate their CD8+ T-cell epitopes—a large-scale immunomic analysis. Bioinformatics, 2009, 25, i39-i44.	4.1	31
50	Self-Antigen-Driven Thymic B Cell Class Switching Promotes T Cell Central Tolerance. Cell Reports, 2016, 17, 387-398.	6.4	31
51	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
52	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
53	The HIV hide and seek game: an immunogenomic analysis of the HIV epitope repertoire. Aids, 2009, 23, 1311-1318.	2.2	27
54	Volatility driven market in a generalized Lotka–Voltera formalism. Physica A: Statistical Mechanics and Its Applications, 2001, 302, 220-233.	2.6	26

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55	Analysis of B cell receptor production and rearrangement. Seminars in Immunology, 2002, 14, 169-190.	5.6	26
56	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
57	World-Size Global Markets Lead to Economic Instability. Artificial Life, 2003, 9, 357-370.	1.3	26
58	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
59	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
60	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
61	Somatic hypermutation targeting is influenced by location within the immunoglobulin V region. Molecular Immunology, 2011, 48, 1477-1483.	2.2	22
62	Brain activation and heart rate during script-driven traumatic imagery in PTSD: Preliminary findings. Psychiatry Research - Neuroimaging, 2012, 204, 155-160.	1.8	21
63	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
64	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
65	Microscopic noise, adaptation and survival in hostile environments. European Physical Journal B, 2007, 56, 141-148.	1.5	19
66	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
67	Adaptive shut-down of EEG activity predicts critical acidemia in the near-term ovine fetus. Physiological Reports, 2015, 3, e12435.	1.7	19
68	Impact of the shedding level on transmission of persistent infections in Mycobacterium avium subspecies paratuberculosis (MAP). Veterinary Research, 2016, 47, 38.	3.0	19
69	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
70	Level of neo-epitope predecessor and mutation type determine T cell activation of MHC binding peptides. , 2019, 7, 135.		18
71	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
72	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

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73	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
74	Coexistence of productive and non-productive populations by fluctuation-driven spatio-temporal patterns. Theoretical Population Biology, 2014, 96, 20-29.	1.1	16
75	Mid size cliques are more common in real world networks than triangles. Network Science, 2014, 2, 387-402.	1.0	15
76	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
77	Projection of Gut Microbiome Pre- and Post-Bariatric Surgery To Predict Surgery Outcome. MSystems, 2021, 6, e0136720.	3.8	14
78	Catalyst-induced growth with limited catalyst lifespan and competition. Journal of Theoretical Biology, 2006, 241, 307-320.	1.7	13
79	Human selfâ€protein CD8 ⁺ Tâ€cell epitopes are both positively and negatively selected. European Journal of Immunology, 2009, 39, 1056-1065.	2.9	13
80	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
81	Listeriosis: A Model for the Fine Balance Between Immunity and Morbidity. Epidemiology, 2008, 19, 581-587.	2.7	12
82	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
83	GRIMM: GRaph IMputation and matching for HLA genotypes. Bioinformatics, 2019, 35, 3520-3523.	4.1	12
84	Modeling the Influence of TH1- and TH2-type Cells in Autoimmune Diseases. Journal of Autoimmunity, 2001, 17, 311-321.	6.5	11
85	Inevitably reborn: The reawakening of extinct innovations. Technological Forecasting and Social Change, 2004, 71, 881-896.	11.6	11
86	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
87	Random distance dependent attachment as a model for neural network generation in the Caenorhabditis elegans. Bioinformatics, 2010, 26, 647-652.	4.1	11
88	Estimating Differential Entropy using Recursive Copula Splitting. Entropy, 2020, 22, 236.	2.2	11
89	Empirical extraction of mechanisms underlying real world network generation. Physica A: Statistical Mechanics and Its Applications, 2010, 389, 5308-5318.	2.6	10
90	DUSTER: dynamic contrast enhance up-sampled temporal resolution analysis method. Magnetic Resonance Imaging, 2016, 34, 442-450.	1.8	10

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91	Microbiome Preprocessing Machine Learning Pipeline. Frontiers in Immunology, 2021, 12, 677870.	4.8	10
92	HLA haplotype frequency estimation for heterogeneous populations using a graph-based imputation algorithm. Human Immunology, 2021, 82, 746-757.	2.4	10
93	Balance between absorbing and positive fixed points in resource consumption models. Physical Review E, 2012, 86, 031146.	2.1	9
94	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
95	Estimate of within population incremental selection through branch imbalance in lineage trees. Nucleic Acids Research, 2016, 44, e46-e46.	14.5	9
96	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
97	Effects of distribution of infection rate on epidemic models. Physical Review E, 2016, 94, 022409.	2.1	8
98	Evidence for Shaping of Light Chain Repertoire by Structural Selection. Frontiers in Immunology, 2018, 9, 1307.	4.8	8
99	D is for different—differences between H and L chain rearrangement. Seminars in Immunology, 2002, 14, 239-241.	5.6	7
100	Dynamical Analysis of a Degenerate Primary and Secondary Humoral Immune Response. Bulletin of Mathematical Biology, 2003, 65, 535-545.	1.9	7
101	Mutation parameters from DNA sequence data using graph theoretic measures on lineage trees. Bioinformatics, 2006, 22, e332-e340.	4.1	7
102	Origins and specificity of auto-antibodies in Sm+ SLE patients. Journal of Autoimmunity, 2018, 90, 94-104.	6.5	7
103	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
104	Long-term context-dependent genetic adaptation of the viral genetic cloud. Bioinformatics, 2019, 35, 1907-1915.	4.1	7
105	Cross-modality deep learning-based prediction of TAP binding and naturally processed peptide. Immunogenetics, 2018, 70, 419-428.	2.4	6
106	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
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	Diffusion rate determines balance between extinction and proliferationin birth-death processes. Mathematical Biosciences and Engineering, 2013, 10, 523-550.	1.9	6

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109	Optimal viral immune surveillance evasion strategies. Theoretical Population Biology, 2011, 80, 233-243.	1.1	5
110	Predator-prey dynamics in a uniform medium lead to directed percolation and wave-train propagation. Physical Review E, 2012, 85, 031911.	2.1	5
111	Mathematical Conditions for Induced Cell Differentiation and Trans-differentiation in Adult Cells. Bulletin of Mathematical Biology, 2013, 75, 819-844.	1.9	5
112	Directed triadic closure and edge deletion mechanism induce asymmetry in directed edge properties. European Physical Journal B, 2015, 88, 1.	1.5	5
113	Evolution through bursts: Network structure develops through localized bursts in time and space. Network Science, 2016, 4, 293-313.	1.0	5
114	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
115	Naive and memory T cells TCR–HLA-binding prediction. Oxford Open Immunology, 2022, 3, .	2.8	5
116	Evolution of viral life-cycle in response to cytotoxic T lymphocyte-mediated immunity. Journal of Theoretical Biology, 2012, 310, 3-13.	1.7	4
117	Long loops of information flow in genetic networks highlight an inherent directionality. Systems Biomedicine (Austin, Tex), 2013, 1, 47-54.	0.7	4
118	Modeling coverage gaps in haplotype frequencies via Bayesian inference to improve stem cell donor selection. Immunogenetics, 2018, 70, 279-292.	2.4	4
119	Topology of products similarity network for market forecasting. Applied Network Science, 2019, 4, .	1.5	4
120	Invasion Rate Versus Diversity in Population Dynamics with Catastrophes. Physical Review Letters, 2020, 124, 158301.	7.8	4
121	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
122	Edge removal balances preferential attachment and triad closing. Physical Review E, 2013, 88, 042815.	2.1	3
123	Genes related to differentiation are correlated with the gene regulatory network structure. Bioinformatics, 2014, 30, 406-413.	4.1	3
124	Two state model for a constant disease hazard in paratuberculosis (and other bovine diseases). Veterinary Research, 2015, 46, 67.	3.0	3
125	Topological similarity as a proxy to content similarity. Journal of Complex Networks, 2016, 4, 38-60.	1.8	3
126	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

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127	Editorial: HLA and KIR Diversity and Polymorphisms: Emerging Concepts. Frontiers in Immunology, 2021, 12, 701398.	4.8	3
128	What cycles the cell? -Robust autonomous cell cycle models. Mathematical Medicine and Biology, 2009, 26, 337-359.	1.2	2
129	Effect of Vaccination in Environmentally Induced Diseases. Bulletin of Mathematical Biology, 2011, 73, 1101-1117.	1.9	2
130	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
131	Viral CD8 T cell epitope nucleotide composition shows evidence of short- and long-term evolutionary strategies. Immunogenetics, 2015, 67, 15-24.	2.4	2
132	Single haplotype admixture models using large scale HLA genotype frequencies to reproduce human admixture. Immunogenetics, 2019, 71, 589-604.	2.4	2
133	Self-driven criticality in a stochastic epidemic model. Physical Review E, 2021, 103, 062303.	2.1	2
134	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
135	Commensal pathogens as a source of a coexistence mechanism. Journal of Theoretical Biology, 2015, 370, 45-52.	1.7	1
136	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
137	Family-size variability grows with collapse rate in a birth-death-catastrophe model. Physical Review E, 2018, 98, 012416.	2.1	1
138	Evaluating methods for Avian avulavirus-1 whole genome sequencing. Gene: X, 2019, 721, 100004.	2.3	1
139	Two stage approach to functional network reconstruction for binary time-series. European Physical Journal B, 2019, 92, 1.	1.5	1
140	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
141	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
142	Evaluation of the number of undiagnosed infected in an outbreak using source of infection measurements. Scientific Reports, 2021, 11, 3601.	3.3	1
143	Initial growth rates of malware epidemics fail to predict their reach. Scientific Reports, 2021, 11, 11750.	3.3	1
144	Two Step Selection for Bias in \hat{I}^2 Chain V-J Pairing. Frontiers in Immunology, 0, 13, .	4.8	1

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145	Optimal network modification for spectral radius dependent phase transitions. New Journal of Physics, 2016, 18, 093039.	2.9	Ο
146	Natural emergence of a core structure in networks via clique percolation. Physical Review E, 2018, 98, .	2.1	0
147	Proliferation and Competition in Discrete Biological Systems. , 2004, , 225-242.		0
148	Emergence of Intentional Procedures in Self-Organizing Neural Networks. , 2010, , 47-56.		0
149	Evolutionary Principles in Viral Epitopes. Lecture Notes on Mathematical Modelling in the Life Sciences, 2013, , 59-83.	0.4	Ο
150	Sampling bias minimization in disease frequency estimates. Journal of Theoretical Biology, 2022, 534, 110972.	1.7	0