## Olivier C Martin

List of Publications by Year in descending order

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#	Article	IF	CITATIONS
1	Quantitative modelling of fine-scale variations in the <i>Arabidopsis thaliana</i> crossover landscape. Quantitative Plant Biology, 2022, 3, .	2.0	2
2	A preference for link operator functions can drive Boolean biological networks towards critical dynamics. Journal of Biosciences, 2022, 47, 1.	1.1	0
3	Minimum complexity drives regulatory logic in Boolean models of living systems. , 2022, 1, .		14
4	Enhancing backcross programs through increased recombination. Genetics Selection Evolution, 2021, 53, 25.	3.0	12
5	Plant roots sense soil compaction through restricted ethylene diffusion. Science, 2021, 371, 276-280.	12.6	145
6	CNVmap: A Method and Software To Detect and Map Copy Number Variants from Segregation Data. Genetics, 2020, 214, 561-576.	2.9	1
7	Development of new genetic resources for faba bean (Vicia faba L.) breeding through the discovery of gene-based SNP markers and the construction of a high-density consensus map. Scientific Reports, 2020, 10, 6790.	3.3	46
8	Recombination suppression in heterozygotes for a pericentric inversion induces the interchromosomal effect on crossovers in Arabidopsis. Plant Journal, 2019, 100, 1163-1175.	5.7	11
9	Probabilities of Multilocus Genotypes in SIB Recombinant Inbred Lines. Frontiers in Genetics, 2019, 10, 833.	2.3	0
10	Iterated Local Search: Framework and Applications. Profiles in Operations Research, 2019, , 129-168.	0.4	94
11	Assessing by Modeling the Consequences of Increased Recombination in Recurrent Selection of <i>Oryza sativa</i> and <i>Brassica rapa</i> . G3: Genes, Genomes, Genetics, 2019, 9, 4169-4181.	1.8	9
12	Highâ€ŧhroughput measurement of recombination rates and genetic interference in <scp><i>Saccharomyces cerevisiae</i></scp> . Yeast, 2018, 35, 431-442.	1.7	4
13	Feedback between environment and traits under selection in a seasonal environment: consequences for experimental evolution. Proceedings of the Royal Society B: Biological Sciences, 2018, 285, 20180284.	2.6	7
14	Responses to auxin signals: an operating principle for dynamical sensitivity yet high resilience. Royal Society Open Science, 2018, 5, 172098.	2.4	6
15	Role of <i>Cis</i> , <i>Trans</i> , and Inbreeding Effects on Meiotic Recombination in <i>Saccharomyces cerevisiae</i> . Genetics, 2018, 210, 1213-1226.	2.9	4
16	Haldane, Waddington and recombinant inbred lines: extension of their work to any number of genes. Journal of Genetics, 2017, 96, 795-800.	0.7	3
17	Amplifying recombination genome-wide and reshaping crossover landscapes in Brassicas. PLoS Genetics, 2017, 13, e1006794.	3.5	43
18	Phenotypic innovation through recombination in genome-scale metabolic networks. Proceedings of the Royal Society B: Biological Sciences, 2016, 283, 20161536.	2.6	13

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19	Network architectures and operating principles. Physics of Life Reviews, 2016, 17, 168-171.	2.8	Ο
20	Short relaxation times but long transient times in both simple and complex reaction networks. Journal of the Royal Society Interface, 2016, 13, 20160388.	3.4	4
21	Drivers of structural features in gene regulatory networks: From biophysical constraints to biological function. Physics of Life Reviews, 2016, 17, 124-158.	2.8	10
22	Constrained Allocation Flux Balance Analysis. PLoS Computational Biology, 2016, 12, e1004913.	3.2	136
23	Statistical Physics Methods Provide the Exact Solution to a Long-Standing Problem of Genetics. Physical Review Letters, 2015, 114, 238101.	7.8	5
24	Recombination patterns in maize reveal limits to crossover homeostasis. Proceedings of the National Academy of Sciences of the United States of America, 2015, 112, 15982-15987.	7.1	49
25	Modelling the emergence of polarity patterns for the intercellular transport of auxin in plants. Journal of the Royal Society Interface, 2015, 12, 20141223.	3.4	6
26	Crossover Localisation Is Regulated by the Neddylation Posttranslational Regulatory Pathway. PLoS Biology, 2014, 12, e1001930.	5.6	39
27	Crossover rate between homologous chromosomes and interference are regulated by the addition of specific unpaired chromosomes in <i><scp>B</scp>rassica</i> . New Phytologist, 2014, 201, 645-656.	7.3	45
28	Combined fluorescent and electron microscopic imaging unveils the specific properties of two classes of meiotic crossovers. Proceedings of the National Academy of Sciences of the United States of America, 2014, 111, 13415-13420.	7.1	60
29	Historical contingency and the gradual evolution of metabolic properties in central carbon and genome-scale metabolisms. BMC Systems Biology, 2014, 8, 48.	3.0	10
30	Intraspecific variation of recombination rate in maize. Genome Biology, 2013, 14, R103.	9.6	176
31	Network function shapes network structure: the case of the Arabidopsis flower organ specification genetic network. Molecular BioSystems, 2013, 9, 1726.	2.9	17
32	Hot Regions of Noninterfering Crossovers Coexist with a Nonuniformly Interfering Pathway in Arabidopsis thaliana. Genetics, 2013, 195, 769-779.	2.9	17
33	Shining fresh light on the evolution of photosynthesis. ELife, 2013, 2, e01403.	6.0	2
34	Phenotypic robustness can increase phenotypic variability after nongenetic perturbations in gene regulatory circuits. Journal of Evolutionary Biology, 2011, 24, 1284-1297.	1.7	38
35	CODA (crossover distribution analyzer): quantitative characterization of crossover position patterns along chromosomes. BMC Bioinformatics, 2011, 12, 27.	2.6	29
36	Environmental versatility promotes modularity in genome-scale metabolic networks. BMC Systems Biology, 2011, 5, 135.	3.0	16

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37	Phenotypic plasticity can facilitate adaptive evolution in gene regulatory circuits. BMC Evolutionary Biology, 2011, 11, 5.	3.2	86
38	Distribution of Parental Genome Blocks in Recombinant Inbred Lines. Genetics, 2011, 189, 645-654.	2.9	10
39	Motifs emerge from function in model gene regulatory networks. Proceedings of the National Academy of Sciences of the United States of America, 2011, 108, 17263-17268.	7.1	69
40	Genome-Wide Crossover Distribution in Arabidopsis thaliana Meiosis Reveals Sex-Specific Patterns along Chromosomes. PLoS Genetics, 2011, 7, e1002354.	3.5	221
41	Randomizing Genome-Scale Metabolic Networks. PLoS ONE, 2011, 6, e22295.	2.5	14
42	A Large Maize (Zea mays L.) SNP Genotyping Array: Development and Germplasm Genotyping, and Genetic Mapping to Compare with the B73 Reference Genome. PLoS ONE, 2011, 6, e28334.	2.5	523
43	Genotype networks in metabolic reaction spaces. BMC Systems Biology, 2010, 4, 30.	3.0	49
44	Challenges in experimental data integration within genome-scale metabolic models. Algorithms for Molecular Biology, 2010, 5, 20.	1.2	1
45	Iterated Local Search: Framework and Applications. Profiles in Operations Research, 2010, , 363-397.	0.4	246
46	QUANTIFYING SLOW EVOLUTIONARY DYNAMICS IN RNA FITNESS LANDSCAPES. Journal of Bioinformatics and Computational Biology, 2010, 08, 1027-1040.	0.8	3
47	Two Types of Meiotic Crossovers Coexist in Maize. Plant Cell, 2010, 21, 3915-3925.	6.6	53
48	Return probabilities and hitting times of random walks on sparse Erdös-Rényi graphs. Physical Review E, 2010, 81, 031111.	2.1	9
49	Spatial and Topological Organization of DNA Chains Induced by Gene Co-localization. PLoS Computational Biology, 2010, 6, e1000678.	3.2	73
50	Distribution of essential interactions in model gene regulatory networks under mutation-selection balance. Physical Review E, 2010, 82, 011908.	2.1	15
51	Detailed Recombination Studies Along Chromosome 3B Provide New Insights on Crossover Distribution in Wheat ( <i>Triticum aestivum</i> L.). Genetics, 2009, 181, 393-403.	2.9	157
52	In response to comment on â€~A congruence index for testing topological similarity between trees'. Bioinformatics, 2009, 25, 150-151.	4.1	6
53	Effects of Recombination on Complex Regulatory Circuits. Genetics, 2009, 183, 673-684.	2.9	48
54	Neutral network sizes of biological RNA molecules can be computed and are not atypically small. BMC Bioinformatics, 2008, 9, 464.	2.6	65

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55	Multifunctionality and Robustness Trade-Offs in Model Genetic Circuits. Biophysical Journal, 2008, 94, 2927-2937.	0.5	27
56	Adaptive networks of trading agents. Physical Review E, 2008, 78, 046106.	2.1	4
57	A congruence index for testing topological similarity between trees. Bioinformatics, 2007, 23, 3119-3124.	4.1	176
58	Innovation and robustness in complex regulatory gene networks. Proceedings of the National Academy of Sciences of the United States of America, 2007, 104, 13591-13596.	7.1	305
59	Robustness Can Evolve Gradually in Complex Regulatory Gene Networks with Varying Topology. PLoS Computational Biology, 2007, 3, e15.	3.2	318
60	Sex-Specific Crossover Distributions and Variations in Interference Level along Arabidopsis thaliana Chromosome 4. PLoS Genetics, 2007, 3, e106.	3.5	123
61	Population size effects in evolutionary dynamics on neutral networks and toy landscapes. Journal of Statistical Mechanics: Theory and Experiment, 2007, 2007, P05011-P05011.	2.3	6
62	Network of inherent structures in spin glasses: Scaling and scale-free distributions. Physical Review E, 2007, 76, 051107.	2.1	18
63	Patterns of Recombination and MLH1 Foci Density Along Mouse Chromosomes: Modeling Effects of Interference and Obligate Chiasma. Genetics, 2007, 176, 1453-1467.	2.9	22
64	Sinusoidal swinging dynamics of the telomere repair and cell growth activation functions of telomerase in rat liver cancer cells. FEBS Letters, 2007, 581, 125-130.	2.8	3
65	Magnetic exponents of two-dimensional Ising spin glasses. Physical Review B, 2007, 76, .	3.2	4
66	New structural variation in evolutionary searches of RNA neutral networks. BioSystems, 2007, 90, 475-485.	2.0	29
67	Temperature chaos in two-dimensional Ising spin glasses with binary couplings: a further case for universality. Journal of Statistical Mechanics: Theory and Experiment, 2006, 2006, L10001-L10001.	2.3	16
68	Finite-size scaling in Villain's fully frustrated model and singular effects of plaquette disorder. Europhysics Letters, 2006, 73, 779-785.	2.0	8
69	Two- and Three-Locus Tests for Linkage Analysis Using Recombinant Inbred Lines. Genetics, 2006, 173, 451-459.	2.9	21
70	From simple to complex networks: Inherent structures, barriers, and valleys in the context of spin glasses. Physical Review E, 2006, 73, 036110.	2.1	18
71	Statistics of the number of minima in a random energy landscape. Physical Review E, 2006, 74, 061112.	2.1	11
72	Strong Universality and Algebraic Scaling in Two-Dimensional Ising Spin Glasses. Physical Review Letters, 2006, 96, 237205.	7.8	58

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73	Low T scaling in the binary 2d spin glass. Biophysical Chemistry, 2005, 115, 109-114.	2.8	Ο
74	Random multi-index matching problems. Journal of Statistical Mechanics: Theory and Experiment, 2005, 2005, P09006-P09006.	2.3	19
75	Spatial correlation functions in three-dimensional Ising spin glasses. Physical Review B, 2005, 72, .	3.2	11
76	Thermodynamics of 2 <i>d</i> lsing Spin Glasses with Binary Couplings on Large Lattices Using Exact Computations of Partition Functions. Progress of Theoretical Physics Supplement, 2005, 157, 17-24.	0.1	0
77	Frozen Glass Phase in the Multi-index Matching Problem. Physical Review Letters, 2004, 93, 217205.	7.8	19
78	Critical Thermodynamics of the Two-Dimensional±JIsing Spin Glass. Physical Review Letters, 2004, 92, 117202.	7.8	37
79	Toward a Theory of Marker-Assisted Gene Pyramiding. Genetics, 2004, 168, 513-523.	2.9	156
80	Large deviations in spin-glass ground-state energies. European Physical Journal B, 2004, 41, 365-375.	1.5	33
81	Glass models on Bethe lattices. European Physical Journal B, 2003, 37, 55-78.	1.5	123
82	Iterated Local Search. , 2003, , 320-353.		461
83	Energy exponents and corrections to scaling in Ising spin glasses. Physical Review B, 2003, 68, .	3.2	84
84	Local excitations of a spin glass in a magnetic field. Physical Review B, 2003, 68, .	3.2	13
85	Scalings of Domain Wall Energies in Two Dimensional Ising Spin Glasses. Physical Review Letters, 2003, 91, 087201.	7.8	58
86	Temperature Chaos, Rejuvenation, and Memory in Migdal-Kadanoff Spin Glasses. Physical Review Letters, 2003, 91, 097201.	7.8	23
87	Absence of an Equilibrium Ferromagnetic Spin-Glass Phase in Three Dimensions. Physical Review Letters, 2002, 89, 267202.	7.8	8
88	Discreteness and entropic fluctuations in generalized-random-energy-model-like systems. Physical Review B, 2002, 66, .	3.2	2
89	Temperature chaos in a replica-symmetry-broken spin glass model—A hierarchical model with temperature chaos. Europhysics Letters, 2002, 60, 316-322.	2.0	6
90	Non-compact local excitations in spin-glasses. Europhysics Letters, 2002, 58, 321-327.	2.0	20

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91	Chaotic temperature dependence in a model of spin glasses. European Physical Journal B, 2002, 28, 199-208.	1.5	34
92	Iterated Local Search. SSRN Electronic Journal, 2001, , .	0.4	9
93	Discrete energy landscapes and replica symmetry breaking at zero temperature. Europhysics Letters, 2001, 53, 749-755.	2.0	12
94	Statistical mechanics methods and phase transitions in optimization problems. Theoretical Computer Science, 2001, 265, 3-67.	0.9	130
95	Zero-Temperature Responses of a 3D Spin Glass in a Magnetic Field. Physical Review Letters, 2001, 87, 197204.	7.8	36
96	Equilibrium valleys in spin glasses at low temperature. Physical Review B, 2001, 64, .	3.2	3
97	Hierarchical approach for computing spin glass ground states. Physical Review E, 2001, 64, 056704.	2.1	25
98	Large-scale low-energy excitations in 3-d spin glasses. European Physical Journal B, 2000, 18, 467-477.	1.5	30
99	A geometrical picture for finite-dimensional spin glasses. Europhysics Letters, 2000, 49, 794-800.	2.0	30
100	Spin and Link Overlaps in Three-Dimensional Spin Glasses. Physical Review Letters, 2000, 85, 3013-3016.	7.8	136
101	Houdayer and Martin Reply:. Physical Review Letters, 2000, 84, 1057-1057.	7.8	6
102	Ising Spin Glasses in a Magnetic Field. Physical Review Letters, 1999, 82, 4934-4937.	7.8	39
103	Renormalization for Discrete Optimization. Physical Review Letters, 1999, 83, 1030-1033.	7.8	39
104	The Stochastic Traveling Salesman Problem: Finite Size Scaling and the Cavity Prediction. Journal of Statistical Physics, 1999, 94, 739-758.	1.2	32
105	Cut Size Statistics of Graph Bisection Heuristics. SIAM Journal on Optimization, 1999, 10, 231-251.	2.0	30
106	Scaling Universalities ofkth-Nearest Neighbor Distances on Closed Manifolds. Advances in Applied Mathematics, 1998, 21, 424-436.	0.7	24
107	Comparing mean field and Euclidean matching problems. European Physical Journal B, 1998, 6, 383-393.	1.5	28
108	Droplet Phenomenology and Mean Field in a Frustrated Disordered System. Physical Review Letters, 1998, 81, 2554-2557.	7.8	11

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109	Mean Field and Corrections for the Euclidean Minimum Matching Problem. Physical Review Letters, 1997, 79, 167-170.	7.8	7
110	Combining simulated annealing with local search heuristics. Annals of Operations Research, 1996, 63, 57-75.	4.1	146
111	A numerical study of persistence length effects on DNA conformation in sequencing electrophoresis. Electrophoresis, 1996, 17, 1420-1424.	2.4	2
112	Finite Size and Dimensional Dependence in the Euclidean Traveling Salesman Problem. Physical Review Letters, 1996, 76, 1188-1191.	7.8	77
113	Partitioning of unstructured meshes for load balancing. Concurrency and Computation: Practice and Experience, 1995, 7, 303-314.	0.5	30
114	Memory capacity in large idiotypic networks. Bulletin of Mathematical Biology, 1995, 57, 109-136.	1.9	2
115	Finite population-size effects in projection Monte Carlo methods. Physical Review E, 1995, 51, 3679-3693.	2.1	18
116	PROJECTION MONTE CARLO METHODS: AN ALGORITHMIC ANALYSIS. International Journal of Modern Physics C, 1995, 06, 693-723.	1.7	8
117	Pairing Hamiltonian by a path integral Monte Carlo procedure. Physical Review C, 1993, 47, 2610-2615.	2.9	18
118	Large-step markov chains for the TSP incorporating local search heuristics. Operations Research Letters, 1992, 11, 219-224.	0.7	176
119	Discrete velocities for solitary-wave solutions selected by self-induced transparency. Physical Review A, 1991, 43, 1549-1563.	2.5	18
120	Asymptotics of Partial Differential Equations and the Renormalisation Group. NATO ASI Series Series B: Physics, 1991, , 375-383.	0.2	10
121	Solitary-Waves in Self-Induced Transparency. NATO ASI Series Series B: Physics, 1991, , 327-336.	0.2	2
122	Critical dynamics of one-dimensional irreversible systems. Physica D: Nonlinear Phenomena, 1990, 45, 345-354.	2.8	2
123	Position space calculation of a two-loop lattice diagram. Journal of Physics A, 1990, 23, 1575-1587.	1.6	3
124	Solitary-wave velocity selection in self-induced transparency. Physical Review Letters, 1990, 65, 2638-2641.	7.8	11
125	Anomalous dimensions and the renormalization group in a nonlinear diffusion process. Physical Review Letters, 1990, 64, 1361-1364.	7.8	128
126	Intermediate asymptotics and renormalization group theory. Journal of Scientific Computing, 1989, 4, 355-372.	2.3	121

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127	Random walks for on-lattice DLA simulations. Journal of Physics A, 1988, 21, 827-832.	1.6	2
128	Saffman-Taylor fingers with anisotropic surface tension. Physical Review A, 1987, 35, 3989-3992.	2.5	67
129	Origin of sidebranching in dendritic growth. Physical Review A, 1987, 35, 1382-1390.	2.5	45
130	Strongly coupled QCD with a Euclidean version of the SLAC derivative. Nuclear Physics B, 1987, 279, 684-710.	2.5	2
131	A comparison of Langevin and microcanonical simulations for fermions. Nuclear Physics B, 1987, 280, 497-509.	2.5	4
132	Fast evaluation of lattice Green functions. Journal of Physics A, 1987, 20, 5095-5111.	1.6	9
133	Systematic errors in Monte Carlo methods for fermions. Nuclear Physics B, 1986, 264, 89-98.	2.5	9
134	Computer techniques for lattice gauge theories. Computer Physics Communications, 1986, 40, 173-179.	7.5	1
135	Hadronic matrix elements at strong coupling. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 1986, 174, 94-98.	4.1	8
136	Gauge-invariant spin glasses. Physical Review B, 1986, 34, 301-305.	3.2	5
137	Novel ordering in theXYspin glass. Physical Review B, 1986, 34, 2032-2034.	3.2	Ο
138	Random walks on the Sierpinski Gasket. Journal De Physique, 1986, 47, 1663-1669.	1.8	3
139	Lyapunov exponents of stochastic dynamical systems. Journal of Statistical Physics, 1985, 41, 249-261.	1.2	18
140	Seeing asymptotic freedom in SU(3) lattice gauge theory. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 1985, 153, 87-91.	4.1	24
141	Reducing the number of flavors in the microcanonical method. Physical Review D, 1985, 31, 435-437.	4.7	21
142	Scaling in lattice QCD with Kogut-Susskind fermions. Physical Review D, 1985, 31, 1768-1770.	4.7	1
143	Correlated subtractions for computer simulations. Nuclear Physics B, 1985, 251, 425-438.	2.5	2
144	The quark model on the lattice. Nuclear Physics B, 1985, 261, 79-103.	2.5	11

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145	Algebraic properties of cellular automata. Communications in Mathematical Physics, 1984, 93, 219-258.	2.2	305
146	Chiral symmetry breaking in strongly coupled lattice gauge theory. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 1983, 131, 419-422.	4.1	20
147	Mesons and baryons at large N and strong coupling. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 1983, 130, 411-414.	4.1	11
148	The Schwinger model via a local Monte Carlo algorithm. Nuclear Physics B, 1982, 203, 297-310.	2.5	23
149	Monte Carlo estimates of the mass gap of the O(2) and O(3) spin models in 1+1 dimensions. Nuclear Physics B, 1982, 205, 188-220.	2.5	86