An Indexed Bibliography of Genetic Algorithms: Years 1957-1993

compiled by

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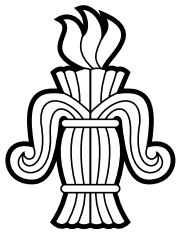

DRAFT

February 13, 1994

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Chapter 1

Preface

> "Living organism are consummate problem solvers. They exhibit a versatility that puts the best computer programs to shame."
>
> *John H. Holland* [1059]

This bibliography contains citations to every genetic algorithm article that can be found in

- the following main proceedings: [876, 878, 1989, 197, 2035, 1503, 2332, 7, 50, 480, 1568, 1939] and
- the volumes 1–5 of the journal "Complex Systems".

The rest of the material has been collected from several sources of genetic algorithm literature including Usenet newsgroup `comp.ai.genetic` and the bibliographies [840, 1981, 119, 127]. The following GA researchers have already kindly supplied their complete GA autobibliographies and/or proofread references to their papers: Wolfgang Banzhaf, Thomas Bäck, Yuval Davidor, Marco Dorigo, Terence C. Fogarty, David B. Fogel, Toshio Fukuda, Richard S. Judson, D. P. Kwok, Carlos B. Lucasius, Zbigniew Michalewics, Melanie Mitchell, Nicholas J. Radcliffe, Colin Reeves, Hans-Paul Schwefel, William M. Spears, Donald S. Szarkowicz, Gilles Venturini, Xiaodong Yin and the editor of this bibliography.
This bibliography is updated on a regular basis and certainly contains many errors and inconsistences. The reader is kindly asked to notice of any errors, missing information, articles etc to the editor, who current prepares a more complete version of this bibliography.

1.1 How to get this report?

Compressed PostScript format versions of this bibliography are available via anonymous ftp from the following sites:

site	*path*	*file*
`garbo.uwasa.fi`	`/pc/research`	`2500GArefs.ps.gz`
`sfi.santafe.edu`	`/pub/EC/refs`	`2500GArefs.ps.gz`

1.2 Acknowledgement

The author wants to acknowledge all, who have kindly supplied references, papers and other information on genetic algorithm literature.

Chapter 2

Statistical summaries

This chapter gives some general statistical summaries of genetic algorithm literature. More detailed indexes can be found in the next chapter.

2.1 Publication type

This bibliography contains published contributions including reports and patents. Manuscripts have been omitted unless accepted for publication. In addition thesis, PhD, M.Sc etc., are also included. The table 2.1 gives the distribution of publication type of the whole bibliography. Observe that the number of journal articles contains also articles published or to be published in unknown forums and main GA proceedings volumes, which are crossreferenced from contributed entries.

type	*number of items*
book	32
part of a collection	139
journal article	544
proceedings article	1377
proceedings	32
report	244
manual	2
PhD thesis	87
M.Sc. thesis	49
manucripts	1
others	14
total	2521

Table 2.1: Distribution of publication type.

2.2 Annual distribution

Table 2.2 gives the number of yearly published GA papers. Observe that the item of the year 1994 is this bibliography. The annual distribution is also shown in fig. 2.1. The average annual growth of GA papers has been approximately 40 % during nearly the last twenty years. From the figure 2.1 we can further estimate that the limit of one thousand papers per year may be broken already in 1994.

year	*items*	*year*	*items*
1957	3	1958	0
1959	1	1960	1
1961	0	1962	4
1963	2	1964	1
1965	3	1966	3
1967	4	1968	2
1969	0	1970	9
1971	5	1972	6
1973	11	1974	7
1975	5	1976	7
1977	6	1978	8
1979	11	1980	13
1981	18	1982	15
1983	19	1984	22
1985	48	1986	42
1987	87	1988	77
1989	162	1990	273
1991	443	1992	555
1993	647	1994	1
total			2521

Table 2.2: Yearly distribution of contributions.

2.3 Classification

Every bibliography item has been given at least one describing keyword or classification by the editor of this bibliography. Keywords occuring most are shown in table 2.3.

2.4 Authors

The number of authors in the field is large when compared to the total number of publications. There are nearly as many authors as publications. The

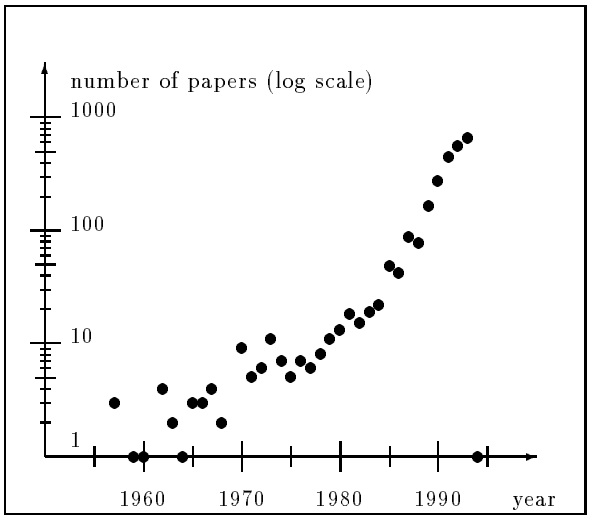

Figure 2.1: The number of yearly published GA papers.

neural networks	293
optimization	165
evolution strategies	153
parallel GA	104
scheduling	73
CAD	70
robotics	69
review	67
classifiers	66
machine learning	58
genetic programming	55
classifier systems	54
control	51
evolution	47
artificial life	45
TSP	43
engineering	42
learning	36
protein folding	35
analysing GA	31
pattern recognition	27
signal processing	26
chemistry	26
evolutionary programming	24
simulated annealing	23
image processing	23
parallel	22
crossover	22
control systems	20
others	3705

Table 2.3: The most popular subjects of the papers.

number of different authors is not known exactly simply, because the names of the authors are not always unique in different references. The author of this bibliography has tried to resolve the differences as much as possible, but there certainly still remain some inconsistences. The table 2.4 gives the most productive authors.

total number of authors	2085
Goldberg, David E.	89
Fogel, David B.	53
Whitley, Darrell	44
Schwefel, Hans-Paul	40
Jong, Kenneth A. De	36
Holland, John H.	35
Grefenstette, John J.	35
Koza, John R.	33
Forrest, Stephanie	30
Deb, Kalyanmoy	30
Mühlenbein, Heinz	28
Liepins, Gunar E.	28
Michalewicz, Zbigniew	25
Harvey, Inman	25
Garis, Hugo de	25
Dorigo, Marco	25
Bäck, Thomas	25
Schaffer, J. David	21
Husbands, Philip	21
Davidor, Yuval	21
Fukuda, Toshio	20
Davis, Lawrence	20
Fogarty, Terence C.	19
Lucasius, Carlos B.	18
Kateman, Gerrit	18
Wilson, Stewart W.	17
Smith, Robert Elliot	17
Karr, Charles L.	17
Hoffmeister, Frank	17
Fogel, Lawrence J.	16
Cliff, David T.	16
Alander, Jarmo T.	16
Spears, William M.	15
Hilliard, M. R.	15
Vose, Michael D.	14
Radcliffe, Nicholas J.	14
Eshelman, Larry J.	14
Banzhaf, Wolfgang	14
Reeves, Colin R.	13
Maniezzo, Vittorio	13
Belew, Richard K.	13
Rechenberg, Ingo	12
Shibata, Takanori	11
Ebeling, Werner	11
Talbi, El-Ghazali	10
Mitchell, Melanie	10
McGregor, Douglas R.	10
Booker, Lashon B.	10
Anon.	10
9 authors	9
12 authors	8
18 authors	7
31 authors	6
50 authors	5
56 authors	4
147 authors	3
356 authors	2
1356 authors	1

Table 2.4: The most productive GA authors.

2.5 Journals

In table 2.5 you can find the list of journals having published five or more articles on genetic algorithms.

Journal	*articles*
Complex Systems	25
Machine Learning	17
Biological Cybernetics	15
IEEE Transactions on Systems, Man, and Cybernetics	12
Evolutionary Computation	12
IEEE Expert	8
BioSystems	7
Analytica Chimica Acta	7
Journal of Theoretical Biology	6
IEEE Transactions on Magnetics	6
Chemometrics and Intelligent Laboratory Systems	6
Transactions of the Society of Instrument and Control Engineers (Japan)	5
Scientific American	5
SIGBIO Newsletter	5
Parallel Computing	5
Artificial Intelligence	5
Annals of Mathematics and Artificial Intelligence	5
AIAA Journal	5
four-articles-only-journals	14
three-articles-only-journals	15
two-articles-only-journals	38
one-article-only-journals	211
total	544

Table 2.5: The journal having most GA articles.

Chapter 3

Indexes

3.1 Books

The following list contains all items classified as books.

3.2 Journal articles

The following list contains the references to every journal article included in this bibliography. The list is arranged in alphabetical order by the name of the journal. See also table 2.5.

?: [2278, 2356]

ACM Computer Surveys: [2086]

ACM Tr. Information Systems: [1145]

ACOUSTICA: [1402]

ACTA Biotheoretica: [166]

Acta Electronica Sinica: [2499]

Adaptive Behavior: [191]

Advances in Applied Mathematics: [1612]

AI Expert: [342, 1248, 1396]

AIAA Journal: [527, 1907, 925, 1732, 1858]

American Scientist: [537]

Analytica Chimica Acta: [272, 712, 1290, 2447, 1411, 2446, 2385]

Angewandte Chemie, Advanced Materials: [1570]

Angewandte Informatik: [1711]

Ann. Oper. Res. (Switzerland): [743]

Annals of Mathematics and Artificial Intelligence: [1211, 1706, 1426, 2417, 2425]

Annals of Operations Research: [1087, 1418, 1889, 2046]

APL Quote Quad: [52]

Applied Artificial Intelligence: [2144]

Applied Mathematics and Computation: [1054]

Applied Optics: [763]

Archiv für Elektronik und Übertragungstechnik: [2520]

Archiv für Elektrotechnik: [169, 867, 764]

Artif. Intell. Eng. (UK): [151]

Artificial Intelligence: [264, 219, 2269, 2355, 172]

Artificial Organs: [1776]

Atoms, Molecules and Clusters: [628]

Aust. Comput. J. (Australia): [2326]

Australian Journal of Biological Sciences: [750]

Automobiltechnische Zeitschrift: [1720]

Behavioural Ecology and Sociobiology: [1806]

Beton- und Stahlbetonbau: [952]

Biochemistry: [314]

BioEngineering: [761]

Biological Cybernetics: [58, 59, 112, 158, 163, 164, 656, 683, 695, 775, 823, 1540, 1556, 2376, 2392]

Biomedizinische Technik: [2023, 1716]

Biopolymers: [249]

BioSystems: [155, 1920, 416, 586, 681, 679, 1833]

Bull. Sci. Assoc. Ing. Electr. Inst. Electrotech. Montefiore: [1741]

BYTE: [1962, 759, 2186, 2384]

Bürotechnik + Automation: [1709]

CC-AI: [1096]

Chem. Phys. Let.: [2481]

Chem.-Ing.Tech.: [1909]

Chemical Engineering Science: [1861]

Chemie-Technik: [1304]

Chemiker-Zeitung: [1660]

Chemometrics and Intelligent Laboratory Systems: [997, 996, 995, 1468, 1463, 522]

Chromatographia: [1516]

Clinical Chemistry: [971, 970]

Cognition and Brain Theory: [417]

Communications of the ACM: [854]

Compel – The International Journal for Computations a: [1821]

Complex Systems: [194, 464, 758, 809, 810, 839, 831, 817, 843, 822, 2143, 826, 1017, 1291, 1642, 1671, 1725, 1743, 1744, 1797, 1838, 63, 1747, 2358, 1425]

Composites Engineering: [323]

Comput. Chem.: [208]

Comput. Geotech. (UK): [2118]

Comput. & Chem.: [2480]

Computer Aided Design: [1399]

Computer Graphics: [2120]

Computer Methods in Applied Mechanics and Engineering: [1801]

Computer Physics Communications: [2133]

Computers and Mathematics with Applications: [162]

Computers in Biology and Medicine: [241, 2493]

Computers in Chemical Engineering: [65]

Computers in Industry: [2327]

Computers & Industrial Engineering: [242, 2341, 1372, 2377]

Computers & Mathematics with Applications: [95, 81, 675, 1581]

Computers & Operations Research: [1114, 426, 1405, 1887]

Computers & Structures: [1171]

Creative Computing: [1835]

Cryptologia: [2171]

Cybernetica: [9]

Cybernetics and Systems: [419, 664, 676, 1353]

Der Konstrukteur: [771]

Discrete Applied Mathematics: [2317, 1309]

Dr. Dobb's Journal: [347, 1629, 2170]

Dædalus: [1058]

E und M: [1662, 2363]

Ecological Modelling: [1300]

EDV in Medizin und Biologie: [2016]

Electric Power Systems Research: [2501]

Electronic Engineering Times: [1185, 1186]

Electronics Letters: [1810, 1818]

Eng. Technol. (Japan): [1477]

Engineering Applications of Artificial Intelligence: [642]

Engineering with Computers: [803, 804]

EOS: [752]

Ergonomics: [1793]

European Journal of Biochemistry: [1783]

European Journal of Operational Research: [2244, 520]

Europhysics Letters: [275, 1618]

Evolutionary Computation: [182, 231, 1206, 564, 678, 728, 2132, 908, 1697, 1578, 1654, 130]

Evolutionary Economics: [94]

Feinwerktechnik: [1710]

Feinwerktechnik und Meßtechnik: [61]

Fluid Phase Equilibria: [243]

Frequenz: [2011]

Future Generation Computer Systems: [432]

Geophysical Journal International: [2077, 1970]

Geophysical Research Letters: [1176, 1180, 780, 2467]

Geophysics: [2195]

Helsingin Sanomat: [1769, 1770, 2335, 2334]

Helvetica Physica Acta: [514]

IEE Colloquium on VLSI Design Methodologies: [742]

IEE Proceedings - J Optoelectronics: [1589]

IEE Proceedings, Part G: Electronic Circuits and Systems: [2201]

IEEE Bulletin on Database Engineering: [1573]

IEEE Computer Graphics and Applications: [919]

IEEE Computer Society Technical Committee on Microprogramming and Microarchitecture: [1894]

IEEE Control Systems Magazine: [1474]

IEEE Expert: [2295, 195, 1166, 892, 2026, 80, 2075, 2117]

IEEE Journal of Oceanic Engineering: [674]

IEEE Spectrum: [76]

IEEE Transactions on Biomedical Engineering: [1777]

IEEE Transactions on Computer-Aided Design: [392, 2084]

IEEE Transactions on Computer-Aided Design of Integrated Circuits and Systems: [388, 1964, 1471]

IEEE Transactions on Energy Conversion: [1390]

IEEE Transactions on Fuzzy Systems: [1255]

IEEE Transactions on Magnetics: [865, 1819, 866, 1261, 1820, 1478]

IEEE Transactions on Military Electronics: [289]

IEEE Transactions on Neural Networks: [299, 666]

IEEE Transactions on Power Delivery: [1905]

IEEE Transactions on Power Systems: [1688, 2367]

IEEE Transactions on Systems, Man, and Cybernetics: [1196, 569, 2333, 877, 1068, 1318, 1167, 1361, 1532, 2344, 1595, 2402]

IEICE Transactions on Fundamentals of Electronics Communications and Computer Sciences: [2276]

IEICE Transactions on Information and Systems: [1679]

IMA Journal of Mathematics Applied in Business and Industry: [655]

Image and Vision Computing: [1002]

Industrial Management + Data Systems: [1103]

Industrial Solutions: [2013]

Inform. Autom. (Spain): [46]

Informatica y Automatica (Spain): [1509]

Information Processing Letters: [349]

Integration, the VLSI Journal: [352]

International Journal Computers and Mathematics: [1178]

International Journal Man-Machine Studies: [1790]

International Journal of Approximative Reasoning: [339]

International Journal of Artificial Intelligence: [1814]

International Journal of Computer Aided VLSI Design: [109]

International Journal of Expert Systems Research and Applications: [1718]

International Journal of Intelligent Systems: [1419, 1998, 2497]

International Journal of Policy Analysis and Information Systems: [1044]

International Journal of Quantum Chemistry: [1214]

International Journal on Computer Integrated Manufacturing: [1117]

Isotopenpraxis: [2469]

J. Jpn. Soc. Simul. Technol. (Japan): [2487]

J. Korea Inf. Sci. Soc. (South Korea): [1283]

J. Mol. Graphics: [1772]

Japanese Journal on Condensed Matter Research: [1689]

Journal of Artificial Intelligence Research: [2396]

Journal of Atmospheric and Oceanic Technology: [167]

Journal of Biomolecular Structure & Dynamics: [2291]

Journal of Chemical Information and Computer Sciences: [711, 364, 2386]

Journal of Chemometrics: [1397]

Journal of Computational Chemistry: [1216, 1549, 2292]

Journal of Computers in Civil Engineering: [805]

Journal of Cybernetics: [315, 2400]

Journal of Economic Behaviour and Organization: [1378, 1675]

Journal of Engineering for Power: [2154]

Journal of Evolutionary Economics: [1512]

Journal of Experimental and Theoretical Artificial Intelligence: [1422, 1453, 1423, 2433]

Journal of Global Optimization: [868]

Journal of Guidance Control and Dynamics: [1357]

Journal of Intelligent Material Systems and Structures: [435]

Journal of Japanese Society for Artificial Intelligence: [1294, 1320, 2488]

Journal of Korean Institute of Telematics and Electronics: [1759]

Journal of Magnetic Resonance: [1289, 756]

Journal of Magnetic Response: [2476]

Journal of Mathematical Biology: [1498]

Journal of Mathematical Sociology: [754]

Journal of Modeling, Measurement and Control, C: [1097]

Journal of Molecular Biology: [2309]

Journal of Molecular Structure: [755]

The Mathematica Journal: [753]

The New York Times: [64]

The Structural Engineer: [1170]

The Visual Computer: [2124]

Tiede 2000: [78]

Trac-Trends in Analytical Chemistry: [1466]

Trans. Inf. Process. Soc. Jpn. (Japan): [1264]

Trans. Int. Meas. Control (UK): [328]

Trans. Korean Inst. Electr. Eng. (South Korea): [1124]

Transaction of Systems, Control and Information: [1138]

Transaction of the Institute of Electronics, Information and Communication Engineers A (Japan): [2236]

Transaction of the Institute of Electronics, Information and Communication Engineers D-I (Japan): [2238]

Transaction of the Institute of Electronics, Information and Communication Engineers D-II (Japan): [1676, 1677, 1680, 2486]

Transactions of the ASME: [153, 1229]

Transactions of the Canadian Society for Mechanical Engineering: [1383]

Transactions of the Institute of Electrical Engineers of Japan C: [1303]

Transactions of the Institute of Electronics, Information and Communication Engineers (Japan): [1301]

Transactions of the Society of Instrument and Control Engineers (Japan): [27, 1137, 1968, 1701, 2247]

Transactions Research Record, Highway Capacity and Traffic Flow, Transportation Research Board: [746]

Trends in Analytical Chemistry: [1462]

University Computing: [179, 180]

Verfahrenstechnik: [1609]

Water Research: [2451]

Water Resources Research: [2375]

Wirtschaftsinformatik: [2018, 1232, 1233, 1316]

Zeitschrift für allgemeine Mikrobiologie: [1881]

Zeitschrift für Angewandte Mathematik und Mechanik: [2021]

Zeitschrift für Physik D - Atoms, Molecules and Clusters: [992, 1373]

3.3 Thesis

The following two lists contains thesis, first PhD thesis and then Master's etc thesis, arranged in alphabetical order by the name of the school.

3.3.1 PhD thesis

?: [793, 1985]

Carnegie-Mellon University: [21]

Colorado State University: [184]

Gesamthochschule Wupperthal: [979]

Humboldt-Universität: [265]

Imperial College for Science: [454]

Michigan State University: [1977]

New Mexico State University: [75]

New York University: [2390]

North Dakota State University of Agriculture and Applied Sciences: [2490, 1223, 2256]

Oregon Graduate Institute of Science and Technology: [1955]

Politechnico di Milano: [562]

Polytechnic University: [348]

Purdue University: [1175]

Ruhruniversität Bochum: [1001]

Stanford University: [1938]

Technische Universität der Berlin: [212, 2388, 930, 1034, 1664, 1443, 901, 1870, 1908, 2002, 2039]

The Ohio State University: [66, 1108]

The Pennsylvania State University: [1412]

The University of Michigan: [1398]

The University of Tennessee: [912]

The University of Wisconsin - Madison: [2494]

Tulane University: [71]

University of Alabama: [526, 1245, 1274, 2136, 2322]

University of Alberta: [300, 2109]

University of Bonn: [189, 2351]

University of California: [395]

University of California at San Diego: [673]

University of Cambridge: [1527]

University of Cincinnati:[2289]

University of Dortmund:[951]

University of Edinburgh:[1837]

University of Florida: [1428, 490]

University of Heidelberg:[11, 511]

University of Helsinki: [1965]

University of Houston: [1799]

University of Michigan: [135, 225, 255, 343, 1194, 719, 747, 796, 853, 902, 1067, 1226, 1520, 1775, 1805, 1914, 1947, 2251, 2389]

University of North Carolina at Chapel Hill: [1159]

University of North Carolina at Charlotte: [2079]

University of Pittsburgh:[1945, 2146]

University of Pretoria: [549]

University of Reading: [149]

University of Stirling: [933]

Universität-Gesamthochschule Essen: [1394]

Vanderbilt University: [140, 1784]

3.3.2 Master's thesis

This list includes also "Dimplomarbeit", "Tech. Lic. Thesis", etc.

?: [1834]

Bergische Universität: [921]

Conservatoire National des Artes et Metiers Centre Regional Associe de Grenoble: [356]

Eindhoven University of Technology: [2304]

Helsinki University of Technology: [1976]

Hochschule der Bundeswehr München: [1910]

Johannes Kepler Universität: [622]

Technische Universität Wien: [1808]

Technische Universität der Berlin: [590, 784, 1413, 1698, 2008, 2036, 2177, 2311]

University of Alabama: [523, 2135, 2078]

University of British Columbia: [1358]

University of California at San Diego: [663]

University of Dortmund: [192, 538, 862, 1298, 1374, 1493, 1631, 2014, 1957, 2031, 2175, 955, 2345, 2407]

University of East Anglia: [1231]

University of Edinburgh: [616]

University of Idaho: [765, 998]

University of Illinois at Urbana-Champaign: [1723]

University of North Carolina at Charlotte: [2192]

University of Paderborn: [2264]

University of Tennessee: [2371]

University of Wales: [1504]

Universität Kaiserslautern: [986]

Universität Oldenburg: [51]

Vanderbilt University: [1950]

Victoria University of Wellington: [1020]

Wayne State University: [776]

3.4 The main GA proceedings

The following table contains the pure GA conference proceedings and conference proceedings that contain a considerable amount of GA papers. At the end of the list you can find the references that can be found in these main GA proceedings.

1993 IEEE International Conference on Neural Networks: [3]

Advances in Neural Information Processing Systems 2, Proceedings of the Neural Information Processing Systems (NIPS): [2282]

Artificial Life II, Proceedings of the Workshop on Artificial Life Held February, 1990 in Santa Fe, New Mexico: [1389]

Artificial Life III: [1386]

Artificial Life, The Proceedings of an Interdisciplinary Workshop on the Synthesis and Simulation of Living Systems: [1387]

Artificial Neural Nets and Genetic Algorithms: [50]

COGANN-92, International Workshop on Combinations of Genetic Algorithms and Neural Networks: [1999]

Emergent Computation: Self-Organizing, Collective, and Cooperative Phenomena in Natural and Artificial Computing Networks: [723]

Evolution and Optimization '89, Selected Papers on Evolution Theory, Combinatorial Optimization, and Related Topics: [2350]

FOGA-92, Proceedings of Workshop on the Foundations of Genetic Algorithms and Classifier Systems: [2419]

Foundations of Genetic Algorithms: [1863]

From Animals to Animats, Proceedings of the Second International Conference on Simulation of Adaptive Behavior (SAB92): [1939]

Genetic Algorithms and Simulated Annealing: [473]

Genetic Algorithms and their Applications: Proceedings of the Second International Conference on Genetic Algorithms and Their Applications: [878]

IJCNN'93-NAGOYA Proceedings of 1993 International Joint Conference on Neural Networks: [4]

Neural Networks and Combinatorial Optimization in Civil and Structural Engineering: [2279]

Parallel Problem Solving from Nature, (Proceedings of the 1st Workshop on Parallel Problem Solving from Nature (PPSN1), Dortmund, 1.-3. Oct. 1990): [2035]

Parallel Problem Solving from Nature, 2: [1503]

Parallelism, Learning, Evolution. Workshop on Evolutionary Models and Strategies - WOPPLOT 89: [188]

Proceedings of the 1st Annual Conference on Evolutionary Programming: [684]

Proceedings of the 2nd Annual Conference on Evolutionary Programming: [685]

Proceedings of the Fifth International Conference on Genetic Algorithms: [727]

Proceedings of the First International Conference on Genetic Algorithms and Their Applications: [876]

Proceedings of the First International Conference on Simulation of Adaptive Behavior: From animals to animats: [1568]

Proceedings of the Fourth International Conference on Genetic Algorithms: [197]

Proceedings of the IEE Colloquium on Genetic Algorithms for Control and Systems Engineering: [2, 5]

Proceedings of the IEE/IEEE Workshop on Natural Algorithms in Signal Processing: [6]

Proceedings of the IEEE Workshop on Genetic Algorithms, Neural Networks and Simulated Annealing applied to problems in signal and image processing: [783]

Proceedings of the Third International Conference on Genetic Algorithms: [1989]

Self-organization and life, from simple rules to global complexity, Proceedings of the Second European Conference on Artificial Life: [7]

Toward a Practice of Autonomous System: Proceedings of the First European Conference on Artificial Life: [2332]

in [1386]: [963, 2182]

in [1]: [1868]

in [1389]: [22, 202, 203, 398, 714, 2399, 1014, 1168, 1263, 1334, 1388, 1432, 1476, 1859, 1866, 2198]

in [50]: [1975, 102, 42, 1189, 1188, 48, 150, 168, 185, 246, 92, 338, 330, 600, 429, 611, 542, 597, 609, 634, 312, 757, 214, 1235, 2502, 1016, 374, 623, 1021, 1608, 247, 1153, 1154, 2378, 1267, 1307, 1385, 1435, 864, 1494, 1502, 1685, 1667, 1731, 777, 773, 1590, 1764, 1796, 1822, 2006, 1892, 1886, 1924, 2066, 2151, 2191, 1379, 2262, 2277, 956, 2365, 507, 506]

in [1999]: [340, 587, 594, 905, 934, 1813, 450, 2000, 2107, 2001, 442, 1260]

in [473]: [2283]

in [2332]: [1031, 117, 215, 221, 303, 1715, 958, 978, 1604, 1078, 1330, 1362, 1552, 1555, 1566, 770, 1637, 96, 1756, 2274, 1767, 2121, 2127, 2169, 281, 2339, 501]

in [7]: [2450, 451, 999, 2093, 2298, 1139, 1281, 1591, 1228, 1433, 1487, 1497, 2268, 1707, 1825, 508]

in [684]: [99, 100, 669, 668, 2072, 670, 692, 2070, 1391, 1544, 1745, 62, 1543, 1619, 1812]

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3.5 Report series

The following list contains references to all papers published as technical reports. The list is arranged in alphabetical order by the name of the institute.

AEG Forschungsinstitut:[2037]
Advanced Telecommunications Research Institute International: [2315]
Aerodynamische Versuchsanstalt Göttingen: [2199]
Akademie der Wissenschaften der DDR: [305]
Army Strategic Defense Command: [705]
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California Institute of Technology: [24]
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Deutsches Elektronen-Synchrotron: [270]
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Indiana University: [1455, 2203, 2205]
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North Carolina A & T State University: [1071]

3.6 Patents

The following list contains the names of the patents of genetic algorithms and genetic programming. The list is arranged in alphabetical order by the name of the patent.

A non-linear genetic process for data encoding and for solving problems using automatically defined functions: [1350]

A non-linear genetic process for problem solving using spontaneously emergent self-replicating and self-improving entities: [1351]

Adaptive computing system cabable of learning and discovery: [1062]

Method of controlling a classifier system: [1063]

Non-linear genetic algorithms for solving problems: [1327]

Non-linear genetic algorithms for solving problems by finding a fit composition of functions: [1328]

Non-linear genetic process for use with co-evolving populations: [1346]

3.7 Authors

The following list contains all authors and references to their known contributions.

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3.8 Subject index

All subject keywords of the papers given by the editor of this bibliography are shown next. The keywords "neural networks", "optimization", and "evolution strategies" have been omitted in this list because of their high occurrence rate.

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Notations

† = the bibliography item does not belong to the authors collection of genetic papers.