## An Indexed Bibliography of Genetic Algorithms Theory and Comparisons

compiled by

#### Jarmo T. Alander

Department of Electrical Engineering and Automation

University of Vaasa P.O. Box 700, FIN-65101 Vaasa, Finland phone: +358-6-324 8444, fax: +358-6-324 8467

Dedicated to Michael D. Vose

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### Warning

While this bibliography has been compiled with the utmost care, the editor takes no responsibility for any errors, missing information, the contents or quality of the references, nor for the usefulness and/or the consequences of their application. The fact that a reference is included in this publication does not imply a recommendation. The use of any of the methods in the references is entirely at the user's own responsibility. Especially the above warning applies to those references that are marked by trailing '†' (or '\*'), which are the ones that the editor has unfortunately not had the opportunity to read. An abstract was available of the references marked with '\*'.

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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, [1]

The material of this bibliography has been extracted from the genetic algorithm bibliography [2], which when this report was compiled (August 13, 2008) contained 20549 items and which has been collected from several sources of genetic algorithm literature including Usenet newsgroup comp.ai.genetic and the bibliographies [3, 4, 5, 6]. The following index periodicals and databases have been used systematically

- A: International Aerospace Abstracts: Jan. 1995 Sep. 1998
- ACM: ACM Guide to Computing Literature: 1979 1993/4
- BA: Biological Abstracts: July 1996 Aug. 1998
- CA: Computer Abstracts: Jan. 1993 Feb. 1995
- CCA: Computer & Control Abstracts: Jan. 1992 Dec. 1999 (except May -95)
- ChA: Chemical Abstracts: Jan. 1997 Dec. 2000
- CTI: Current Technology Index Jan./Feb. 1993 Jan./Feb. 1994
- DAI: Dissertation Abstracts International: Vol. 53 No. 1 Vol. 56 No. 10 (Apr. 1996)
- EEA: Electrical & Electronics Abstracts: Jan. 1991 Apr. 1998
- EI A: The Engineering Index Annual: 1987 1992
- EI M: The Engineering Index Monthly: Jan. 1993 Apr. 1998 (except May 1997)
- $\bullet$  Esp@cenet patents Apr. 2002
- IEEE: IEEE and IEE Journals Fall 2002
- N: Scientific and Technical Aerospace Reports: Jan. 1993 Dec. 1995 (except Oct. 1995)
- NASA NASA ADS www bibliography database: Dec. 2002
- P: Index to Scientific & Technical Proceedings: Jan. 1986 Dec 1999 (except Nov. 1994)
- PA: Physics Abstracts: Jan. 1997 June 1999
- PubMed: National Library of Medicine Jan. 2000 Oct. 2000
- SPIE Web The International Society for Optical Engineering June 2002

#### 1.1 Your contributions erroneous or missing?

The bibliography database is updated on a regular basis and certainly contains many errors and inconsistences. The editor would be glad to hear from any reader who notices any errors, missing information, articles etc. In the future a more complete version of this bibliography will be prepared for the genetic algorithms theory and comparisons research community and others who are interested in this rapidly growing area of genetic algorithms.

When submitting updates to the database, paper copies of already published contributions are preferred. Paper copies (or ftp ones) are needed mainly for indexing. We are also doing reviews of different aspects and applications of GAs where we need as complete as possible collection of GA papers. Please, do not forget to include complete bibliographical information: copy also proceedings volume title pages, journal table of contents pages, etc. Observe that there exists several versions of each subbibliography, therefore the reference numbers are not unique and should not be used alone in communication, use the key appearing as the last item of the reference entry instead.

Complete bibliographical information is really helpful for those who want to find your contribution in their libraries. If your paper was worth writing and publishing it is certainly worth to be referenced right in a bibliographical database read daily by GA researchers, both newcomers and established ones.

For further instructions and information see ftp.uwasa.fi/cs/GAbib/README.

#### 1.1.1 How to cite this report?

You can use the BiBTEX file GASUB.bib, which is available in our ftp site ftp.uwasa.fi in directory cs/report94-1 and contains records for GA subbibliographies for citing with LATEX/BibTEX.

#### 1.2 How to get this report via Internet?

Versions of this bibliography are available via anonymous ftp or www from the following site:

```
media country site directory file
ftp Finland ftp.uwasa.fi /cs/report94-1 gaTHEORYbib.pdf
```

The directory also contains some other indexed GA bibliographies shown in table A.1. In case you do not find a proper one please let us know: it may be easy to tailor a new one.

### 1.3 Acknowledgement

The editor wants to acknowledge all who have kindly supplied references, papers and other information on genetic algorithms theory and comparisons literature. At least the following GA researchers have already kindly supplied their complete autobibliographies and/or proofread references to their papers: Dan Adler, Patrick Argos, Jarmo T. Alander, James E. Baker, Wolfgang Banzhaf, Helio J. C. Barbosa, Hans-Georg Beyer, Christian Bierwirth, Peter Bober Joachim Born, Ralf Bruns, I. L. Bukatova, Thomas Bäck, Chhandra Chakraborti, Nirupam Chakraborti, David E. Clark, Carlos A. Coello Coello, Yuval Davidor, Dipankar Dasgupta, Marco Dorigo, J. Wayland Eheart, Bogdan Filipič, Terence C. Fogarty, David B. Fogel, Toshio Fukuda, Hugo de Garis, Robert C. Glen, David E. Goldberg, Martina Gorges-Schleuter, Hitoshi Hemmi, Vasant Honavar, Jeffrey Horn, Aristides T. Hatjimihail, Heikki Hyötyniemi Mark J. Jakiela, Richard S. Judson, Bryant A. Julstrom, Charles L. Karr, Akihiko Konagaya, Aaron Konstam, John R. Koza, Kristinn Kristinsson, Malay K. Kundu, D. P. Kwok, Jouni Lampinen, Jorma Laurikkala, Gregory Levitin, Carlos B. Lucasius, Timo Mantere, Michael de la Maza, John R. McDonnell, J. J. Merelo, Laurence D. Merkle, Zbigniew Michalewics, Melanie Mitchell, David J. Nettleton, Volker Nissen, Ari Nissinen, Tatsuya Niwa, Tomasz Ostrowski, Kihong Park, Jakub Podgórski, Timo Poranen, Nicholas J. Radcliffe, Colin R. Reeves, Gordon Roberts, David Rogers, David Romero, Sam Sandqvist, Ivan Santibáñez-Koref, Marc Schoenauer, Markus Schwehm, Hans-Paul Schwefel, Michael T. Semertzidis, Davil L. Shealy, Moshe Sipper, William M. Spears, Donald S. Szarkowicz, El-Ghazali Talbi, Masahiro Acknowledgement 3

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## Chapter 2

## Introduction

"Many scientist, possibly most scientist, just do science without thinking too much about it. They run experiments, make observations, show how certain data conflict with more general views, set out theories, and so on. Periodically, however, some of us—scientists included—step back and look at what is going on in science."

David L., Hull, [7]

The table 2.1 gives the queries that have been used to extract this bibliography. The query system as well as the indexing tools used to compile this report from the BiBTEX-database [8] have been implemented by the author mainly as sets of simple awk and gawk programs [9, 10].

string	field	class
analysing	ANNOTE	Analysing GA
code	ANNOTE	Coding
coding	ANNOTE	Coding
convergence	ANNOTE	Convergence
crossover	ANNOTE	Analysing GA
deception	ANNOTE	Deception
diversity	ANNOTE	Diversity
fitness	ANNOTE	Fitness function
landscape	TITLE	Fitness landscape
Landscape	TITLE	Fitness landscape
mutation	ANNOTE	Analysing GA
recombination	ANNOTE	Recombination
selection	ANNOTE	Selection
subpopulation	ANNOTE	Subpopulations
theory	ANNOTE	Theory
Markov	ANNOTE	Markov chain analysis
comparison	ANNOTE	Comparisons
meta GA	ANNOTE	Meta GA
Vose	AUTHOR	Vose's articles
FOGA	CROSSREF	Foundations of GA

Table 2.1: Queries used to extract this subbibliography from the source database.

#### Hint

## Chapter 3

## Statistical summaries

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

References to each class (c.f table 2.1) are listed below:

- Analysing GA 1017 references ([11]-[1027])
- Coding 240 references ([1028]-[1267])
- **Comparisons** 485 references ([1268]-[1752])
- **Convergence** 23 references ([1753]-[1775])
- **Deception** 24 references ([1776]-[1799])
- **Diversity** 60 references ([1800]-[1859])
- **Fitness function** 115 references ([1860]-[1974])
- Fitness landscape 23 references ([1975]-[1997])
- Foundations of GA 44 references ([1998]-[2041])
- Markov chain analysis 75 references ([2042]-[2116])
- Meta GA 6 references ([2117]-[2122])
- **Recombination** 30 references ([2123]-[2152])
- **Selection** 192 references ([2153]-[2344])
- **Subpopulations** 10 references ([2345]-[2354])
- **Theory** 100 references ([2355]-[2454])
- Vose's articles 24 references ([2455]-[2478])

Observe that each reference is included (by the computer) only to one of the above classes (see the queries for classification in table 2.1; the textual order in the query gives priority for classes).

#### 3.1 Publication type

This bibliography contains published contributions including reports and patents. All unpublished manuscripts have been omitted unless accepted for publication. In addition theses, PhD, MSc etc., are also included whether or not published somewhere.

Table 3.1 gives the distribution of publication type of the whole bibliography. Observe that the number of journal articles may also include articles published or to be published in unknown forums.

type	$number\ of\ items$
book	16
section of a book	2
part of a collection	57
journal article	895
proceedings article	1284
report	131
PhD thesis	62
MSc thesis	20
others	6
total	2473

Table 3.1: Distribution of publication type.

### 3.2 Annual distribution

Table 3.2 gives the number of genetic algorithms theory and comparisons papers published annually. The annual distribution is also shown in fig. 3.1. The average annual growth of GA papers has been approximately 40 % during late 70's early 90's.

### 3.3 Classification

year	items	year	items
1962	1	1963	0
1964	0	1965	0
1966	0	1967	0
1968	0	1969	0
1970	1	1971	0
1972	3	1973	0
1974	1	1975	1
1976	1	1977	0
1978	2	1979	0
1980	2	1981	0
1982	0	1983	0
1984	1	1985	4
1986	2	1987	11
1988	6	1989	20
1990	34	1991	91
1992	109	1993	127
1994	219	1995	265
1996	298	1997	280
1998	245	1999	220
2000	125	2001	124
2002	112	2003	70
2004	24	2005	22
2006	27	2007	19
2008	6		
total			2473

Table 3.2: Annual distribution of contributions.

Every bibliography item has been given at least one describing keyword or classification by the editor of this bibliography. Keywords occurring most are shown in table 3.3.

Total	2334
analysing GA	769
comparison	$\frac{491}{196}$
coding crossover	$\frac{190}{192}$
engineering	118
selection	112
genetic programming	108
mutation	95
fitness neural networks	81 71
optimization	58
TSP	58
parallel GA	57
hybrid	57
population size	$\frac{54}{54}$
diversity evolution strategies	$\frac{54}{53}$
scheduling	51
analysing GP	50
image processing	47
feature selection	43
recombination	42
machine learning chemistry	41 40
theory	38
fitness landscape	36
spectroscopy	35
game theory	35
evolution	35
medicine	31
analysing ES	31 30
protein folding deception	30 29
convergence	29
control	28
implementation	27
quantum computing	25
proteins	25
pattern recognition fitness function	25
classification	$\frac{25}{25}$
regression	23
GARP	22
ecology	19
signal processing	18
review	18
mutations fuzzy systems	18 17
biology	17
telecommunications	16
wavelength selection	15
graphs	15
generations	15
biodiversity CAD	15 15
manufacturing	$\frac{15}{14}$
coevolution	14
physics	13
economics	13
optics	12
operators	12
VLSI design	12 12
vlsi design simulated annealing	12 11
alastroma matica	11

 ${\it electromagnetics}$ 

11

### 3.4 Authors

Table 3.4 gives the most productive authors.

total number of authors	3588
Goldberg, David E.	52
Beyer, Hans-Georg	30
Mühlenbein, Heinz	29
Vose, Michael D.	27
Fogel, David B.	23
Deb, Kalyanmoy	21
Bäck, Thomas	20
Alander, Jarmo T.	19
Whitley, Darrell	16
Fogarty, Terence C.	15
Jong, Kenneth A. De	14
Radcliffe, Nicholas J.	13
Whitley, Darrell L.	13
Banzhaf, Wolfgang	12
Spears, William M.	12
Voigt, Hans-Michael	12
Eiben, Ágoston E.	11
Herrera, Francisco	11
Kargupta, Hillol	11
Mathias, Keith E.	11
Ross, Peter	11
Heckendorn, Robert B.	10
Kok, Joost N.	10
Lozano, Manuel	10
Rana, Soraya	10
Schaffer, J. David	10
Schwefel, Hans-Paul	10
10 authors	9
8 authors	8
14 authors	7
19 authors	6
43 authors	5
68 authors	4
153 authors	3
421 authors	2
2825 authors	1

Table 3.4: The most productive genetic algorithms theory and comparisons authors.

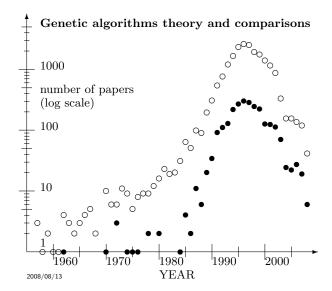


Figure 3.1: The number of papers applying genetic algorithms theory and comparisons ( $\bullet$ , N=2483) and total GA papers ( $\circ$ , N=20549). Observe that the last few years are most incomplete in the database.

### 3.5 Geographical distribution

Table 3.5 gives the geographical distribution of authors, when the country of the author was known. Over 80% of the references of the GA source database are classified by country.

2008/08/13	special		comparison		all	
country	n	%	$\delta [\%]$	$\Delta [\%]$	N	%
Total	2365	100.00			19371	100.00
United States	773	32.68	+4.88	+18	5386	27.80
United Kingdom	251	10.61	+0.35	+3	1987	10.26
Germany	216	9.13	+2.15	+31	1353	6.98
Japan	197	8.33	-4.08	-33	2404	12.41
China	93	3.93	-0.89	-18	933	4.82
Finland	75	3.17	-0.55	-15	720	3.72
Italy	64	2.71	-0.18	-6	559	2.89
Australia	55	2.33	-0.14	-6	479	2.47
France	54	2.28	-0.25	-10	491	2.53
India	49	2.07	+0.54	+35	296	1.53
Spain	47	1.99	+0.30	+18	328	1.69
The Netherlands	42	1.78	+0.76	+75	197	1.02
South Korea	41	1.73	-0.57	-25	446	2.30
Canada	39	1.65	+0.12	+8	296	1.53
Taiwan	34	1.44	-0.69	-32	412	2.13
Austria	30	1.27	+0.66	+108	118	0.61
Belgium	29	1.23	+0.39	+46	163	0.84
The Czech Republic	29	1.23	+0.50	+68	141	0.73
Switzerland	27	1.14	+0.26	+30	170	0.88
Brazil	20	0.85	-0.01	-1	167	0.86
Others	197	8.29	-0.28	-3	1660	8.57

Table 3.5: The geographical distribution of the authors working on genetic algorithms theory and comparisons (n) compared  $(\delta$  and  $\Delta)$  to all authors in the field of GAs (N). In the *comparison* column:  $\delta\% = \%special - \%all$  and  $\Delta = (1 - \frac{nN_{Total}}{Nn_{Total}}) \times 100\%$ .  $\Delta$  is the relative (%) deviation from the expected number of special papers. Observe that joint papers may have authors from several countries and that not all authors have been attributed to a country.

#### 3.6 Conclusions and future

The editor believes that this bibliography contains references to most genetic algorithms theory and comparisons contributions upto and including the year 1998 and the editor hopes that this bibliography could give some help to those who are working or planning to work in this rapidly growing area of genetic algorithms.

## Chapter 4

## **Indexes**

#### 4.1 Books

The following list contains all items classified as books.

Adaptation in Natural and Artificial Systems, [2443, 2444]

Adaptive Learning by Genetic Algorithms, Analytical Results and Applications to Economic Models, [2405]

Convergence Properties of Evolutionary Algorithms, [458]

Efficient and Accurate Parallel Genetic Algorithms, [27]

Estimation of Distribution Algorithms: A New Tool for Evolutionary Computation, [87]

Evolutionary Algorithms, The Role of Mutation and Recombination, [56]

Evolutionary Optimization in Dynamic Environments, [1869]

Genetic Algorithms — Principles and Perspectives, [138]

Genetic Algorithms: Principles and Perspectives, A Guide to GA Theory, [179]

Genetic Programming: On Programming Computers by Means of Natural Selection and Genetics, [2447]

Noisy Optimization with Evolution Strategies, [115]

The Simple Genetic Algorithm, [2466]

The Theory of Evolution Strategies, [108]

Theory of Deductive Systems and its Applications, [790]

Without Miracles, Universal Selection Theory and the Second Darwinian Revolution, [2238]

total 15 books

#### 4.2 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.

Acad. Radiol., [2309]

Academy of Sciences of the USSR, Institute of Radio Engineering and Electronics, Moscow, [752]

ACM Computer Surveys, [2122]

ACM Computing Surveys, [1321]

ACM Transactions on Design Automation of Electronic Systems (TODAES), [1319]

Acta Crystallographica Section B: Structural Science, [1577]

Acta Electron. Sin. (China), [683]

Acta Electronica Sinica (China), [1153, 2414]

Acta Physica Sinica, [1086]

Acta Polytech. Czech Tech. Univ. Prague (Czech Republic), [1565]

Adv. Eng. Softw. (UK), [1919]

Adv. in Appl. Probab., [595]

Advanced Technology for Developers, [1768, 1056, 1057, 929, 1737]

Advances in Applied Mathematics, [953]

Advances in Engineering Computational Technology, [559]

Agricultural Sciences in China, [1350]

AI Expert, [1403]

AIAA Journal, [1692]

Analytica Chimica Acta, [2169, 2192, 2206, 207, 2215, 2220, 1411, 1430, 2254, 719, 1853, 1718]

Analytical Chemistry, [1400, 2243, 2253]

Annals of Mathematics and Artificial Intelligence, [1776, 221, 242, 2460, 756, 775, 2475, 2115, 1799]

Annals of Operations Research, [1619]

Appl. Intell., Int. J. Artif. Intell. Neural Netw. Complex Probl.-Solving Technol (Netherlands), [506] Applied Optics, Complexity, (USA), [1722, 938] [356] Applied Physics A, Materials Science & Processing, [51] Comptes Rendus de l'Académie des Sciences I, Mathétique, [215] Applied Soft Computing, [1070, 122] Comput. Artif. Intell. (Slovakia), [679] Applied Spectroscopy, Comput. Chem. Eng., [1624] Arpakannus, [1083] Comput. Econ., Artif. Life Robot. (Japan), [1214, 1228] Comput. Ind. Eng. (UK), [444] Artificial Intelligence, [84, 2259, 388, 1527, 425, 2469, 2476] Comput. Intell. (USA), [1661] Artificial Intelligence for Engineering Design, Analysis and Comput.-Aided Civ. Infrastruct. Eng. (USA), [634] Manufacturing, [1866] Artificial Intelligence in Medicine, [1550, 1610] Computer, [54, 1521] Computer Applications in the Biosciences (CABIOS), [989, Artificial Intelligence Review, [2199, 2380, 551, 1233] Artificial Life, [1827, 2283] Computer Physics Communications, [1270, 1595, 1660] ASCE Journal of Water Resource Planning and Manage-Computer Today, [1305, 2187] ment, [1393] Computer-Aided Design, [1091] Atmospheric Environment Part A General Topics, [1250] Computer-Aided Innovation of New Materials, [792] Australian Journal of Intelligent Information Processing Systems, [132] Computers and Chemistry, [1601] Autom. Electr. Power Syst. (China), [397] Computers Chem., Autom. Tech. Prax. (Germany), [477] Computers Chem. (Oxford), [441] Autom. tech. Prax. (Germany), [1596] Computers in Chemical Engineering, [1633, 1646, 1654] Auton. Robots (Netherlands), [1930] Computers & Chemistry, [1215] Behavioral Ecology, [2213] Computers & Industrial Engineering, [823, 825, 1130, 878] Beijing University of Aeronautics and Astronautics, Jour-Computers & Mathematics with Applications, [2381, 1667, nal, [1663] 2106, 1713] Biochemistry, [1175] Computers & Operations Research, [1278, 1283, 2059, 1359, 1380, 1389, 831, 258, 850, 284, 2073, 1498, 871, 1533, 1922, Biodiversity Science, [1352] 1583, 492, 588, 1848, 1744] Bioinformatics, [2058, 1322, 2211] Computers & Structures, [1517] Biological Conservation, [1822] Computing Anticipatory Systems, Biological Cybernetics, [1681, 2107, 1016, 769, 927, 1971, 1972] Conservation Biology, [2374, 250, 1133, 428, 433, 522, 610, 911] BioSystems, Control Theory Appl. (China), [403, 404, 1001, 613] Biosystems Engineering, [2217, 2223] CSC News, [1675] Biotechnology and Bioengineering, [1334, 2221] Curr. Opin. Chem. Biol., [1845] Boln. Asoc. esp. Ent., [1819] Current Opinion in Biotechnology, [2123] BT Technology Journal, [61] Current Science, [1820] Bull. Eur. Assoc. Theor. Comput. Sci. EATCS, [526] Cybernetics and Systems, [135, 243, 287, 726, 2441, 1961] Bull. Fac. Eng. Univ. Tokushima (Japan), [1659] Daziran Tansuo, [543] Bulletin of the European Association for Theoretical Com-DDT, [1847] puter Science, [2419] Decis Support Syst. (Netherlands), [1639] C. R. Acad. Sci. Paris Sér. I Math, [35] Decis. Sci. (USA), Cancer Letters, [1568] Discrete Applied Mathematics, [1246] CERN, [699] Diversity and Distribution, [1351] Chemical Reviews, [1587] Ecography, [1343, 1348, 1354] Chemometrics and Intelligent Laboratory Systems, [1061, Ecological indicators, [1812] 1320, 2222, 1416, 1604, 2297, 1241] Ecological Modelling, [1987, 1818, 1821] Chin. J. Comput. (China), [515] Ecological Monographs, [1347] Chin. J. Electron. (China), [372, 903] Electric Power Systems Research, [1364, 1439] Communications of the ACM, [635] Electrical Engineering in Japan, [198] Complex Systems, [1071, 1098, 2064, 834, 245, 854, 306, Electron Commun Jpn Part III Fundam Electron Sci., 353, 393, 443, 766, 767, 770, 1959, 1255, 1793, 2113, 2448, 1964, 1727, 798, 809, 1983, 2470, 2472] [1169] Complex Systems (USA), [1136] Electron. Eng. Aust. (Australia), [1613] Complexity (USA), [2406, 542] Electronics Letters, [1072, 948, 1398, 1410, 1118, 1600, 651] Journal articles 13

- Engineering Applications of Artificial Intelligence, [1865, 883]
- Engineering Computations, [1276, 1516]
- Engineering Optimization, [1314]
- Ethology and Sociobiology, [1969]
- Eur. J. Oper. Res., [987]
- Eur. J. Oper. Res. (Netherlands), [713]
- European Journal of Operational Research, [23, 2042, 1290, 1295, 1442, 2072, 865, 1512, 1523, 1540, 2083, 573, 1645, 1656, 2428, 1670]
- European Journal of Operations Research, [785]
- Europhysics Letters, [1874, 1002]
- Evol. comput. (USA), [704]
- Evolutionary Computation, [2046, 2458, 2461, 1114, 255, 294, 296, 2400, 1478, 336, 344, 400, 411, 414, 415, 440, 1980, 2463, 527, 544, 547, 2464, 592, 594, 596, 902, 1007, 2465, 623, 658, 671, 711, 2437, 2442, 2114]
- Evolutionary Computing, [1842, 621, 695]
- Evolutionary Ecology Research, [2155, 2185]
- EvoNews, [2260]
- Expert Systems Applications (UK), [1617]
- Expert Systems with Applications, [534]
- Exposition. Math., [373
- Finite Elements in Analysis and Design, [2366]
- Fortschrittsberichte der VDI-Zeitschriften, [574, 607]
- Fund. Inform., [364, 538]
- Fundam. Inform. (Netherlands), [407]
- Fuzzy Sets and Systems, [910]
- Games Econ. Behav., [2397]
- Genetic Programming and Evolvable Machines, [81, 98, 101, 109, 1308, 130, 1087, 144, 1089, 152, 1349]
- Geophysical Journal International, [1962]
- Geophysical Prospecting, [2216]
- Global Change Biology, [1342]
- Global Ecology and Biogeography, [1815]
- Guangxue Xuebao, [1698]
- Helvetica Physica Acta, [1703]
- Human Feredity, [954]
- Hydroinformatics'98, [1644]
- IEE Proc., Commun. (UK), [1170]
- IEE Proceedings Software, [77]
- IEE Proceedings Vision, Image and Signal Processing, [2166]
- IEE Proceedings C: Generation, Transmission and Distribution, [1534]
- IEE Proceedings J: Optoelectronics, [1263]
- IEE Proceedings, Computers and Digital Techniques, [827, 1459]
- IEEE Communications Letters, [1272]
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- IEEE Transactions on Information Technology is Biomedicine, [1326, 1668]
- IEEE Transactions on Knowledge and Data Engineering, [430, 1676]
- IEEE Transactions on Magnetics, [78, 1095, 202, 1424, 1429, 1625, 1700, 1701]
- IEEE Transactions on Neural Networks, [228, 241, 1757, 2087]
- IEEE Transactions on Pattern Analysis and Machine Intelligence, [422, 2267]
- IEEE Transactions on Power Systems, [1805, 1328, 1494, 1496, 1502, 868, 1576, 1628, 1251, 1728]
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IEEJ Transactions on Electronics, Information and Systems, [2200]

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J. Shanghai Jiaotong Univ. (China), [2292]

J. Shanghai Univ. (China), [682]

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J. Stat. Plan. Inference (Netherlands), [427]

J. Tsinghua Univ., Sci. Technol. (China), [1216]

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Journal of Complex Systems, [560]

Journal of Computational Chemistry, [1509, 1715]

Journal of Computer-Aided Molecular Design, [1331, 1594, 1643]

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Journal of Economic Dynamics & Control, [2373] Management Science, [2415] Materials and Manufacturing Processes, [1338] Journal of Evolutionary Biology, [2188] Math. Commun. (Croatia), [1239] Journal of Evolutionary Economics, [2417, 2451] Math. Comput. Model. (UK), [964, 1909] Journal of Experimental and Theoretical Artificial Intelligence, [2467, 2468] Math. Comput. Modelling, [1431] Journal of Global Optimization, [951] Mathematical and Computer Modeling, [2043] Journal of Heuristics, Mathematical and Computer Modelling, [1699, 1711] Journal of Heuristics (Netherlands), [1575] Mathematical Biosciences, [934] Mathware & Soft Computing, [1134] Journal of Intelligent and Fuzzy Systems, [1077, 1937] Mem. Inst. Oswaldo Cruz, [1988] Journal of Intelligent & Fuzzy Systems, [1905, 1916] Memoirs of the Faculty of Engineering, Okayama Univer-Journal of Mathematical Biology, [692] sity, [967] Journal of Mathematical Chemistry, [1978] Methods of Information in Medicine, [1666] Journal of Modern Optics, [1088] Microprocessing and Microprogramming, Journal of Molecular Biology, [1271] Microprocessors and Microprogramming, [1441] Journal of Molecular Evolution, [1052] Microprocessors and Microsystems, [1040] Journal of Molecular Structure, [2333] Microscopy Research and Technique, [1333] Journal of Nanjing University of Aeronautics & Astronau-Microwave and Optical Technology Letters, [1602] tics, [2355] Mini-Micro Syst. (China), [1225] Journal of Near Indrared Spectroscopy, [2224] Modell Simul Mater Sci Eng (UK), [1641] Journal of Near Infrared Spectroscopy, [2279] Molecular Ecology, [1881] Journal of Network and Computer Applications, [2081] Molecular Simulations, [1626] Journal of Non-Equilibrium Thermodynamics, Natural Computing, [121] Journal of Optimization Theory and Applications, [536, Nature, [945, 2365, 2368, 2371] 1846, 1694] Nature (UK), [696] Journal of Parallel and Distributed Computing, [1299] Nature Biotechnology, [818, 820, 2144] Journal of Pharmacokinetics and Biopharmaceutics, [1579] Naval Research Logistics, [1642] Journal of Physics A: Mathematical and General, [520] Neural Computat. Appl., [1592] Journal of Scientific Computing, [183] Neural Computation, Journal of Soviet Mathematics, [788, 789] Neural Network World, [2338] Journal of Systems Science, [1810] Neural Networks, [1069, 1190] Journal of the American Water Resources Association, Neural Parallel Sci. Comput. (USA), [727] [1655] Neural Process. Lett. (Netherlands), [1140] Journal of the Chemical Society - Faraday Transactions, Neuropsychobiology, [2271, 2287] [885] Nippon Kikai Gakkai Ronbunshu A Hen, Journal of the Franklin Institute, [701] Nonlinear Analysis-Theory Methods & Application, [2408] Journal of the Institute of Systems, Control, and Information Engineers (Japan), [1769] Nucl. Phys. Proc. Suppl., [2425] Nuclear Physics B, Proceedings Supplement, [2357] Journal of the Operational Research Society, [18, 1306, 1318, 1551] Omega, [1339] Journal of the Society of Instrument and Control Engineers, Operations Research, [1814, 876] [776] Opt. Commun., [1546] Journal of Theoretical Biology, [1886, 276, 424, 446, 490, Optical Engineering, [1637, 1213] 1935, 2303, 1966, 1967, 1970] Optics Communications, [549] Journal of Water Resources Planning and Management, Optics Letters, [1096] [1356] Parallel Computing, [1437, 1709] JSME International, Journal C, [266] Parallel Processing Letters, [919] Kikai Gijutsu Kenkyusho Shoho, [1440] Pattern Recognition, [2051, 886, 899] Knowledge-Based Systems (UK), [1236] Pattern Recognition Letters, [2194, 1436, 453, 1585, 2100, Kwart. Elektron. Telekomun. (Poland), 2311, 2337] Kybernetes, [791] Philosophical Transactions of the Royal Society of London Machine Learning, [1249, 762, 1736] B Biological Sciences, [2294]

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Physica D, [2384, 521] Physical Review A, [2372, 252, 286, 2403, 1044] [2362, 94, 2378, 537, 539, 541, 1634, Physical Review E, 642, 668] Physical Review Letters, [1861, 1074, 111, 116, 226, 1422, 1006, 693] Physics in Medicine & Biology, [1066] Power Engineering Journal, [1651] Proc. CSEE (China), Proc. Inst. Mech. Eng. I, J. Syst. Control Eng. (UK), Proceedings of the Institution of Mechanical Engineers, Part D, (Journal of Automobile Engineering), [1732] Proceedings of the National Academy of Sciences of the United States of America, [1804, 72, 1079, 1808, 822, 190, 1362, 898, 1026] Proceedings of the Royal Society B-Biological Sciences, Proceedings of the Royal Society of London A, [2423] Progress of Theoretical Physics Supplement, [40] Protein Engineering, [1385, 1414] Protein Science, [950, 384] Proteins: Structure, Function, and Genetics, [1423, 1993, 1994, 1662] Quim. Nova, [2189] Química Nova, [2190] RAIRO-APII-JESA J. Eur. Syst. Autom. (France), [1614] Random Structures Algorithms, [67, 722] Real-Time Systems, Recent Progress in Molecular and Comparative Endocrinology, [565] Rep. Math. Phys., [2367] Rev. Mod. Phys., [1304] Reviews in Molecular Biotechnology, [2124, 2182] Reviews of Modern Physics, [2401] Robot. Auton. Syst. (Netherlands), Robotica. [1419] Robotics and Autonomous Systems, [349, 2090] Sci. China Ser. E, [468, 507] Sci. Program., [1390] Science, [2125, 2126] Scientific American. [1017] Sensors and Actuators A, [1097] SIAM Journal on Computing, [29] SIAM Review, [110] SIGCSE Bulletin, [469] SIGMICRO Newsletter, [1054] SIGPLAN Notices, [1229] Silva Fennica, [1315]

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and Communication Engineers D-I, [897]

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Transactions of the Institute of Electronics, Information, and Communication Engineers D-II (Japan), [2084,

1182, 2086, 1621, 1218]

Transactions of the Institute of Electronics, Information,

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Vaasan Yliopistolehti, [1878] Vivek (India), [474] VLSI Design, [1522]

Water Resources Research, [44]

Wuhan Univ. J. Nat. Sci. (China), [358]

total 895 articles in 453 series

#### 4.3 Theses

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

#### 4.3.1 PhD theses

Air Force Instutute of Technology, [161]

Boston University, [156] Carleton University, [269]

Catholic University of Nijmegen, [2286] Colorado State University, [237, 1262]

George Mason University, [609]

Helsinki University of Technology, [140, 1877, 1606]

Hong Kong Polytechnic University, [182] Illinois Institute of Technology, [2345]

Kansas State University, [1451]

Katholic University of Leuven, [282] Katholieke Universiteit Nijmegen, [472]

Louisiana State University of Agricultural and Mechanical College, [1954]

New Jersey Institute of Technology, [2067]

New Mexico State University, [742]

North Dakota State University of Agriculture and Applied Sciences, [923]

Oxford University, [1438]

Queen's University at Kingston, [1607] Rensselaer Polytechnic Institute, [1324]

Rijksuniversiteit Groningen, [2177]

State University of New York at Binghamton, [1454]

Stockholm University, [1599]
Syracuse University, [840]
Texas Tech University, [217]
The Ohio State University, [1682]

The University of Memphis, [1099, 1382]

The University of Michigan, [1418]

Tulane University, [741]
University College, [787]

University of Alabama in Huntsville, [2128]

University of Cincinnati, [224]
University of Dortmund, [654]
University of Durham, [1470]
University of Florida, [811]
University of Granada, [2280]

University of Illinois at Urbana-Champaign, [302, 319]

University of Michigan, [747, 763, 2352]

University of Minnesota, [1695]

University of Missouri - Rolla, [921, 1774]

University of Montpellier II, [1813]
University of New Hamshire, [1206]
University of New Mexico, [1976]

University of Stirling, [1257]
University of Tampere, [1332]
University of Turku, [1051]
University of Vaasa, [205]

University of the West of England, [131]

Universität Dortmund, [2130]
Universität Hildesheim, [327]
Utah State University, [2246, 1449]
Vanderbilt University, [744, 801]

Virginia Polytechnic Institute and State University, [1752]

total 62 thesis in 52 schools

#### 4.3.2 Master's theses

This list includes also "Diplomarbeit", "Tech. Lic. Theses", etc.

Blekinge Institute of Technology, [154] Brigham Young University, [1538]

Concordia University, [933]

Helsinki University of Technology, [2356]

Massachusetts Institute of Technology, [1138]

University of Alberta, [1977]
University of Dortmund, [2146, 2453]
University of Georgia, [1336]
University of Helsinki, [1908]

University of Illinois at Urbana-Champaign, [796]

University of Tampere, [1532] University of Tulsa, [2354]

University of Vaasa, [1507, 1510]

Universität Siegen, [757]

Vanderbilt University, [1023, 1765]

Victoria University of Wellington, [1258]

Wayne State University, [2321]

total 20 thesis in 17 schools

#### 4.4 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.

?, [1705]

Australian Defence Force Academy, [1897]

Carnegie-Mellon University, [1360, 856]

Cincinnati University, [273]

 ${\bf Colorado~State~University,}\quad {\bf [1798]}$ 

Department of Environment, [1588]

Edinburgh Parallel Computing Centre, [806, 808, 2150]

Eindhoven University of Technology, [2439]

Electrotechnical Laboratory, [2065, 435]

George Mason University, [1725]

IDSIA, [88]

IEICE, [2116]

Imperial College, [2089]

Institute for New Generation Computer Technology, [2066]

International Computer Science Institute (ICSI), [1955]

Johannes-Kepler-Universität Linz, [153]

Kyoto University, [1084] Leiden University, [857]

Los Alamos National Laboratory, [2131, 761]

MIT, [2329] Mitsubishi Electric Corp., [745]

NASA, [304, 1688, 749]

Naval Center for Applied Research in Artificial Intelligence,

[315]

Naval Research Laboratory, [855]

Naval Research Laboratory AI Center, [941]

Navy Research Laboratory, [1015]

Ochanomizu University, [1609]

Parks & Wildlife Service, [1840]

Pennsylvania State University, [751]

Planning Research Corporation, [1412]

Plymouth Engineering Design Centre, [758, 759]

Politecnico di Milano, [1723, 1724]

Ruhr-Universität Bochum, [971]

Rutgers University, [882]

Santa Fe Institute, [1409, 305, 482, 746]

Science Transfer Corporation and University of Delaware,

[1710]

Sverdrup Technology, [2332]

Swiss Federal Institute of Technology (ETH), [1461]

Swiss Federal Institute of Technology Zurich, [1702]

TUCS, [41, 618, 625]

Technische Universität Wien, [1770]

Technische Universität der Berlin, [1751]

Tennessee University, [795]

The Santa Fe Institute, [290]

The University of Edinburgh, [2276]

Tulane University, [740, 930]

Universidad de Granada,[1137]

Universita degli Studi di Milano, [233]

University College London, [1795]

University of Alabama, [750, 924, 765, 768]

University of Alberta, [754]

University of California at Berkley, [1379]

University of Cambridge, [1245]

University of Dortmund, [148, 859, 1683, 1686, 2436, 1773]

University of Granada, [316, 324]

University of Illinois at Urbana-Champaign, [236, 253, 291, 2398, 2399, 1254, 771, 1958, 773, 1786, 1850, 1787, 1788,

1789, 1790, 774, 2110, 1852, 2326]

University of Joensuu, [1493]

University of Michigan, [362, 467, 2088, 2098, 1766, 1687]

University of North Carolina at Charlotte, [1771]

University of Plymouth, [2251]

University of San Diego, [1248]

University of Sussex, [2383, 2148]

University of Tampere, [1275, 1490]

University of Tennessee, [2473]

University of Turku, [1375]

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University of Vaasa, [1060, 2344, 2454]

Universität Dortmund, [238, 314, 323]

Universität Hildesheim, [1759, 311, 322]

Université McGill, [843]

Washington State University, [1231]

total 125 reports in 70 institutes

#### 4.5 Patents

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

Code compaction by evolutionary algorithm, [1076]

Constructing classification weights matrices for pattern recognition systems using rediced element feature subsets, [2230]

Employing synthetic genes in genetic algorithms, information encoding and non-replicative encryption, [1081]

Fitness function circuit, [1868]

Method and apparatus for preforming mutations in a genetic algorithm-based underwater tracking system, [999]

total 5 patents

### 4.6 Authors

The following list contains all genetic algorithms theory and comparisons authors and references to their known contributions.

Aamu, Andoo,	[1305]	Ahuja, Sanjay P.,	[1355]	Amin, S.,	[454]
Aarts, E. H. L.,	[1246, 2439,	Aickelin, U.,	[1318]	Amini, Mohammad M.,	[573]
2108]		Aita, Takuyo,	[1935]	Ampy, Derrick,	[450]
Abbass, H. A.,	[175]	Aizawa, A.,	[530]	Anand, Vic,	[940]
Abbott, L. A.,	[1357]	Aizawa, Akiko N.,	[2381]	Anantha, Y.,	[2071]
Abboud, Nicolas,	[1656]	Aizawa, Akiko,	[331]	Andersen, Hans Christi	an, [2265]
Abderramán, Jesús C.,	[2044]	,		Anderson, K. S.,	[639]
Abe, M.,	[1578]	Aizawa, J.,	[562]	Anderson, Peter G.,	[92, 2230,
Abela, J.,	[1679]	Akamatsu, N., 994, 1004, 1008]	[1915, 1916,	1910]	[1242]
Abkevich, Victor I.,	[898]	Akamatsu, Norio,	[1937]	Anderson, Robert P., Anderson-Cook, Christi	[1343] ine M [145]
Abrahamsson, Christoff	fer, [1320]	Akatsuka, N.,	[1392]	Andre, David,	[1161, 505]
Abramson, David,	[1327, 1679]	Akca, Irfan,	[2216]	Andrews, Martin,	[1030]
Abu-Lebdeh, G.,	[634]	Akhond, Morteza,	[2214]	Angeline, P. J.,	[1925, 545]
Abu-Zitar, R.,	[135]	Akinari, Yoshinori,	[1424]	Angeline, P.,	[590]
Ackley, David H.,	[1680]	Alabas, C.,	[1306]	Angeline, Peter J., 863, 877, 1584, 16	[2376, 134, 03, 628]
Adachi, N.,	[1830, 2310]	Alander, Jarmo T.,	[1303,	Angus, J. E.,	[964]
Adachi, S.,	[666]	1985, 1986, 208, 2 2342, 1974, 2343,	1060, 12, 13, 14,	Anheyer, Thomas,	[963, 1751]
Adachi, Susumu,	[33]	15, 2344, 2454, 16	, 2153]	Ankenbrandt, Carol An	•
Adalm, C.,	[696]	Alba, Enrique,	[735]	2002, 741]	, , , ,
Adami, C.,	[2426]	Albert, Laura A.,	[38]	Ann, SouGuil,	[1118]
Adami, Christoph,	[945]	Albizuri, F. X.,	[2104]	Annaiyappa, Pradeepku	ımar V., [742]
Adelsberger, H. H.,	[1547]	Aldershof, B.,	[638]	Annaluru, Rajeev,	[1329]
Adewuya, A. A.,	[1138]	Aldrich, Chris,	[1495]	Annunziato, M.,	[203]
Adgar, A.,	[1425]	Alford, Cecil,	[2074]	Anon.,	[1412, 1056]
Adiche, H.,	[1622]	Ali, Shahid,	[1358]	Antonisse, Hendrik Jan 2003]	nes, [1247,
Affenzeller, Michael,	[2183, 1806,	Allahverdyan, A. E.,	[2424, 2427]	Anzai, Kenji,	[1169]
1807, 1810, 1811,	•	Allan, G.,	[1551]	Arabas, J.,	[1000]
Agapie, A., 629]	[2046, 509,	Almaini, A. E. A.,	[1459]	Arabas, Jaroslaw,	[841]
Agapie, Alexandru,	[2082, 529,	Alonso, Antonio A.,	[1616]	Araki, Miyuhiko,	[1749]
2097]	•	Alonso, José,	[1096]	Araújo, Miguel B.,	[1345]
Aggarwal, Charu C.,	[876]	Altiparmak, F.,	[1306]	Arciniegas, Fabio,	[2178]
Agrawal, S.,	[566]	Alves, Teresa P.,	[1334]	Arena, Paolo,	[95]
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Book: Author(s), Title, Publisher, Publisher's address, year.

#### Example

John H. Holland. Adaptation in Natural and Artificial Systems. The University of Michigan Press, Ann Arbor, 1975.

Journal article: Author(s), Title, Journal, volume(number): first page – last page, [month,] year.

#### Example

David E. Goldberg. Computer-aided gas pipeline operation using genetic algorithms and rule learning. Part I: Genetic algorithms in pipeline optimization. *Engineering with Computers*, 3(?):35-45, 1987. † .

Note: the number of the journal unknown, the article has not been seen.

**Proceedings article**: Author(s), Title, editor(s) of the proceedings, *Title of Proceedings*, [volume,] pages, location of the conference, date of the conference, publisher of the proceedings, publisher's address.

#### Example

John R. Koza. Hierarchical genetic algorithms operating on populations of computer programs. In N. S. Sridharan, editor, *Eleventh International Joint Conference on Artificial Intelligence (IJCAI-89)*, pages 768–774, Detroit, MI, 20.-25. August 1989. Morgan Kaufmann, Palo Alto, CA. †.

Technical report: Author(s), Title, type and number, institute, year.

#### Example

Thomas Bäck, Frank Hoffmeister, and Hans-Paul Schwefel. Applications of evolutionary algorithms. Technical Report SYS-2/92, University of Dortmund, Department of Computer Science, 1992.

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Global optimisation and search heuristics called genetic algorithm mimics evolution in nature using recombination and selection from a set of solution trials called population. One of the most prominent attractive features of genetic algorithms from the practical point of view of software techniques is their simplicity, which makes them easy to implement and tailor to solve practical search and optimisation problems.

In spite of the seemingly simple processing, the genetic algorithms are good at solving some problems that are known to be hard. The simplicity, generality, flexibility, parallelism, and the good problem solving capability have made genetic algorithm very popular among various disciplines desperately searching methods to solve difficult optimisation problems.

Observe that our server has also a selection of our papers on genetic algorithms and other computational topics. See our bibliographies or file ftp.uwasa.fi/cs/README for further details.

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ga90bib.ps.Z			GA in 1990
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ga02bib.ps.Z	557	·	GA in 2002
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gaCONTROLbib.ps.Z	1766	2008/03/12	GA in control and process engineering
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gaEARLYbib.ps.Z	723	2008/03/12	GA in yearly yeas (upto 1989) <b>new</b>
gaEAST-EURObib.ps.Z	679	2003/07/09	GA in the Eastern Europe
gaECObib.pdf	1503	2008/03/20	GA in economics and finance
gaECOLbib.pdf	111	2008/08/11	GA in ecology and biodiversity (new: 1.8.2008)
gaELMAbib.pdf	481	2008/03/20	GA in electromagnetics
gaESbib.pdf	464	2008/08/13	Evolution strategies
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gaFEMbib.pdf	71	2008/08/08	GA & FEM (new May 2008)
gaFRAbib.ps.Z	462	2003/07/09	GA in France
gaFTPbib.ps.Z	1353	2003/07/09	GA papers available via web (ftp and www)
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gaGEObib.ps.Z	312	2005/06/30	GA in geosciences
gaGERbib.ps.Z	1586	2004/09/22	GA in Germany, Austria, and Switzerland
gaGPbib.ps.Z	971	2008/08/13	genetic programming
gaIMPLEbib.ps.Z	1291	2003/07/09	implementations of GA
gaINDIAbib.ps.Z	276	2003/05/23	GA in India
gaINVERSEbib.ps.Z	244	2008/08/11	GA in inverse problems (new: Aug 2007)
gaISbib.ps.Z	81	2007/11/01	immune systems
gaJAPANbib.ps.Z	$     \begin{array}{r}       2404 \\       211     \end{array} $	2008/05/22 2008/08/13	GA in Japan Learning Classifier Systems
gaLCSbib.ps.Z gaLASERbib.ps.Z	55	2008/04/03	GA and lasers (new: April 2008)
gaLATINbib.ps.Z	649	2003/07/09	GA in Latin America, Portugal & Spain
gaLOGISTICSbib.ps.Z	630	2003/07/09	GA in logistics (incl. TSP)
gaMANUbib.ps.Z	000	2009/01/03	GA in manufacturing
gaMATHbib.ps.Z	770	2003/07/09	GA in mathematics
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111	2005/01/25	GA in military applications	1
gaMLbib.ps.Z	897	2007/11/02	GA in machine learning <b>new</b>
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gaNANObib.ps.Z	109	2008/04/07	GA in nanotechnology <b>new</b>
gaNIRbib.ps.Z	163	2007/08/23	GA in NIRS (spectroscopy) <b>new</b>
gaNNbib.ps.Z	1800	2008/03/12	GA in neural networks
gaNORDICbib.ps.Z	925	2008/08/13	GA in Nordic countries
		2008/07/28	GA in optics and image processing
gaOPTICSbib.ps.Z	1643	2006/01/26	ari in optics and image processing
gaOPTICSbib.ps.Z gaOPTIMIbib.ps.Z	923	2003/07/09	GA and optimization (only a few refs)

...table continues on the next page...

file	#  refs	updated	contents
gaPARAbib.ps.Z	766	2003/12/16	Parallel and distributed GA
gaPARETObib.ps.Z	406	2003/07/09	Pareto optimization
gaPATENTbib.ps.Z	458	2003/07/09	GA patents
gaPATTERNbib.ps.Z	1528	2007/11/06	GA in pattern recognition incl. LCS (new)
gaPHYSbib.ps.Z	2313	2008/04/07	GA in physical sciences; previously in gaCHEMPHYSbib.ps.Z
gaPIEZObib.ps.Z	51	2008/03/26	GA & piezo ( <b>new: March 2008</b> )
gaPOWERbib.ps.Z	939	2008/08/13	GA in power engineering
gaPROTEINbib.ps.Z	491	2008/03/12	GA in protein research
gaQCbib.ps.Z	539	2008/03/11	quantum computing
gaREMOTEbib.pdf	275	2008/08/11	GA in remote sensing (new: 1.8.2008)
gaROBOTbib.pdf	745	2007/11/01	GA in robotics
gaSAbib.pdf	307	2003/07/09	GA and simulated annealing
gaSCHEDULINGbib.pdf	785	2006/09/06	GA in scheduling
gaSELECTIONbib.ps.Z	273	2007/09/20	Selection in GAs (new)
gaSIGNALbib.ps.Z	2230	2008/03/11	GA in signal and image processing
gaSIMULAbib.ps.Z	939	2003/07/09	GA in simulation
gaTELEbib.ps.Z	784	2004/02/26	GA in telecom
gaTHEORYbib.ps.Z	2483	2008/08/13	Theory and analysis of GA
gaTHESESbib.ps.Z	556	2008/03/12	PhD etc theses
gaUKbib.ps.Z	1998	2008/05/22	GA in United Kingdom
gaVLSIbib.ps.Z	806	2008/04/07	GA in electronics, VLSI design and testing

Table A.1: Indexed genetic algorithm special bibliographies available online in directory ftp://ftp.uwasa.fi/cs/report94-1. New updates also as .pdf files.