An Indexed Bibliography of Genetic Algorithms Papers Available via ftp and www

compiled by

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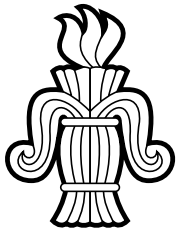

DRAFT September 3, 1998

available via anonymous ftp: site ftp.uwasa.fi directory cs/report94-1 file gaFTPbib.ps.Z

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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 contained 10684 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 have been used systematically

- ACM: *ACM Guide to Computing Literature:* 1979 – 1993/4
- BA: *Biological Abstracts:* July 1996 - Nov. 1997
- ChA: *Chemical Abstracts:* Jan. 1997 - Aug. 1998
- CA: *Computer Abstracts:* Jan. 1993 – Feb. 1995
- CCA: *Computer & Control Abstracts:* Jan. 1992 – Apr. 1998 (except May -95)
- 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. 1997
- P: *Index to Scientific & Technical Proceedings:* Jan. 1986 – Dec. 1997 (except Nov. 1994)
- A: *International Aerospace Abstracts:* Jan. 1995 – Mar. 1998
- N: *Scientific and Technical Aerospace Reports:* Jan. 1993 - Dec. 1995 (except Oct. 1995)
- EI A: *The Engineering Index Annual:* 1987 – 1992
- EI M: *The Engineering Index Monthly:* Jan. 1993 – Apr. 1998 (except May 1997)

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 available via `ftp` and `www` 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?

The complete BiBTEX record for this report is shown below:

```
@TECHREPORT{gaFTPbib,
     KEY = "FTP",
     ANNOTE = "*on,*FIN,bibliography /special",
     AUTHOR = "Jarmo T. Alander",
     TITLE = "Indexed Bibliography of Genetic Algorithms Papers Available via {\tt{ftp}} and {\tt{www}}",
     INSTITUTION = "University of Vaasa, Department of Information Technology and Production Economics",
     TYPE = "Report",
     NUMBER = "94-1-FTP",
     NOTE = "(\ftp{ftp.uwasa.fi}{cs/report94-1}{gaFTPbib.ps.Z})",
     YEAR = 1995
}
```

You can also 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 all GA subbibliographies.

1.2 How to get this report via `Internet`?

Versions of this bibliography are available via anonymous `ftp` and `www` from the following sites:

media	*country*	*site*	*directory*	*file*
`ftp`	Finland	`ftp.uwasa.fi`	`/cs/report94-1`	`gaFTPbib.ps.Z`
`www`	Finland	`http://www.cs.hut.fi`	`~ja/gaFTPbib`	`gaFTPbib.html`

Observe that these versions may be somewhat different and perhaps reduced as compared to this volume that you are now reading. Due to technical problems in transforming LATEXdocuments into `html` ones the `www` versions contain usually less information than the corresponding `ftp` ones. It is also possible that the `www` version is completely unreachable.

The directory also contains some other indexed GA bibliographies shown in table 1.1.

1.3 Acknowledgement

The editor wants to acknowledge all who have kindly supplied references, papers and other information on genetic algorithms available via `ftp` and `www` 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, Joachim Born, Ralf Bruns, I. L. Bukatova, Thomas Bäck, David E. Clark, 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, Mark J. Jakiela, Richard S. Judson, Bryant A. Julstrom, Charles L. Karr, Akihiko Konagaya, Aaron Konstam, John R. Koza, Kristinn Kristinsson, D. P. Kwok, Gregory Levitin, Carlos B. Lucasius, Michael de la Maza, John R. McDonnell, J. J. Merelo, Laurence D. Merkle, Zbigniew Michalewics, Melanie Mitchell, David

file	*contents*
ga90bib.ps.Z	GA in 1990
ga91bib.ps.Z	GA in 1991
ga92bib.ps.Z	GA in 1992
ga93bib.ps.Z	GA in 1993
ga94bib.ps.Z	GA in 1994
ga95bib.ps.Z	GA in 1995
ga96bib.ps.Z	GA in 1996
ga97bib.ps.Z	GA in 1997
gaAIbib.ps.Z	GA in artificial intelligence
gaALIFEbib.ps.Z	GA in artificial life
gaARTbib.ps.Z	GA in art and music
gaAUSbib.ps.Z	GA in Australia
gaBASICSbib.ps.Z	Basics of GA
gaBIObib.ps.Z	GA in biosciences including medicine
gaCADbib.ps.Z	GA in Computer Aided Design
gaCHEMPHYSbib.ps.Z	GA in chemistry and physics
gaCONTROLbib.ps.Z	GA in control
gaCSbib.ps.Z	GA in computer science (incl. databases and GP)
gaDBbib.ps.Z	GA in databases
gaECObib.ps.Z	GA in economics and finance
gaENGbib.ps.Z	GA in engineering
gaESbib.ps.Z	Evolution strategies
gaFAR-EASTbib.ps.Z	GA in the Far East (Japan etc)
gaFRAbib.ps.Z	GA in France
gaFTPbib.ps.Z	GA papers available via ftp
gaFUZZYbib.ps.Z	GA and fuzzy logic
gaGERbib.ps.Z	GA in Germany
gaGPbib.ps.Z	genetic programming
gaIMPLEbib.ps.Z	implementations of GA
gaISbib.ps.Z	immune systems
gaJOURNALbib.ps.Z	journal articles
gaLOGISTICSbib.ps.Z	GA in logistics
gaMANUbib.ps.Z	GA in manufacturing
gaMEDITERbib.ps.Z	GA in the Mediterranean
gaNNbib.ps.Z	GA in neural networks
gaNORDICbib.ps.Z	GA in Nordic countries
gaOPTIMIbib.ps.Z	GA and optimization (only a few refs)
gaOPTICSbib.ps.Z	GA in optics and image processing
gaORbib.ps.Z	GA in operations research
gaPARAbib.ps.Z	Parallel and distributed GA
gaPOWERbib.ps.Z	GA in power engineering
gaPROTEINbib.ps.Z	GA in protein research
gaROBOTbib.ps.Z	GA in robotics
gaSAbib.ps.Z	GA and simulated annealing
gaSIGNALbib.ps.Z	GA in signal and image processing
gaTHEORYbib.ps.Z	Theory and analysis of GA
gaTOP10bib.ps.Z	Authors having at least 10 GA papers
gaUKbib.ps.Z	GA in United Kingdom
gaVLSIbib.ps.Z	GA in VLSI design and testing

Table 1.1: Indexed GA subbibliographies.

J. Nettleton, Volker Nissen, Ari Nissinen, Tomasz Ostrowski, Kihong Park, Nicholas J. Radcliffe, Colin R. Reeves, Gordon Roberts, David Rogers, Ivan Santibáñez-Koref, Marc Schoenauer, Markus Schwehm, Hans-Paul Schwefel, Michael T. Semertzidis, Moshe Sipper, William M. Spears, Donald S. Szarkowicz, El-Ghazali Talbi, Masahiro Tanaka, Leigh Tesfatsion, Peter M. Todd, Marco Tomassini, Andrew L. Tuson, Jari Vaario, Gilles Venturini, Hans-Michael Voigt, Roger L. Wainwright, D. Eric Walters, James F. Whidborne, Steward W. Wilson, Xin Yao, and Xiaodong Yin.

The editor also wants to acknowledge Elizabeth Heap-Talvela for her kind proofreading of the manuscript of this bibliography.

Chapter 2

Introduction

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 [7] have been implemented by the author mainly as sets of simple `awk` and `gawk` programs [8, 9].

string	*field*	*class*
`ftp`	`NOTE`	Available via ftp
`www`	`NOTE`	Available in www

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

Chapter 3

Statistical summaries

This chapter gives some general statistical summaries of genetic algorithms available via `ftp` and `www` literature. More detailed indexes can be found in the next chapter.

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

- **Available in www** 91 references ([10]-[100])
- **Available via ftp** 320 references ([101]-[419])

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; query order 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	12
part of a collection	14
journal article	34
proceedings article	189
proceedings	5
report	136
manual	1
PhD thesis	15
MSc thesis	4
others	1
total	411

Table 3.1: Distribution of publication type.

3.2 Annual distribution

Table 3.2 gives the number of genetic algorithms available via `ftp` and `www` 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 almost the last twenty years.

year	*items*	*year*	*items*
1990	2	1991	12
1992	26	1993	44
1994	60	1995	127
1996	67	1997	65
1998	8		
total			411

Table 3.2: Annual distribution of contributions.

3.3 Classification

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.

bibliography	59
neural networks	32
analysing GA	26
engineering	25
machine learning	24
control	22
image processing	21
parallel GA	20
genetic programming	20
optimization	18
implementation	15
comparison	15
robotics	14
scheduling	12
review	12
controllers	10
others	713

Table 3.3: The most popular subjects.

3.4 Authors

Table 3.4 gives the most productive authors.

total number of authors	393
Alander, Jarmo T.	78
Herrera, Francisco	29
Lozano, Manuel	23
Harvey, Inman	14
Verdegay, Jose Luis	14
Radcliffe, Nicholas J.	13
Cliff, David T.	12
Saito, Hideo	12
Cordón, Oscar	11
2 authors	9
3 authors	7
3 authors	6
4 authors	5
11 authors	4
24 authors	3
60 authors	2
276 authors	1

Table 3.4: The most productive genetic algorithms available via `ftp` and `www` authors.

3.5 Geographical distribution

The following table gives the geographical distribution of authors, when the country of the author was known. Over 80% of the references of the main database are classified by country.

country	*abs*	*%*
Total	411	100.00
Finland	124	30.17
United States	89	21.65
United Kingdom	63	15.33
Spain	26	6.33
Germany (incl. DDR)	25	6.08
Japan	15	3.65
France	13	3.16
The Netherlands	10	2.43
Italy	5	1.22
Portugal	5	1.22
Australia	4	0.97
Sweden	4	0.97
Canada	3	0.73
Czech Republic	3	0.73
Denmark	3	0.73
Greece	3	0.73
Austria	2	0.49
Byelorussia	2	0.49
Switzerland	2	0.49
Brazil	1	0.24
China (incl. Hong Kong)	1	0.24
Hungary	1	0.24
Ireland	1	0.24
Russia	1	0.24
Singapore	1	0.24
Taiwan R.o.C.	1	0.24
Turkey	1	0.24
Unknown country	-3	-0.73

Table 3.5: The geographical distribution of the authors.

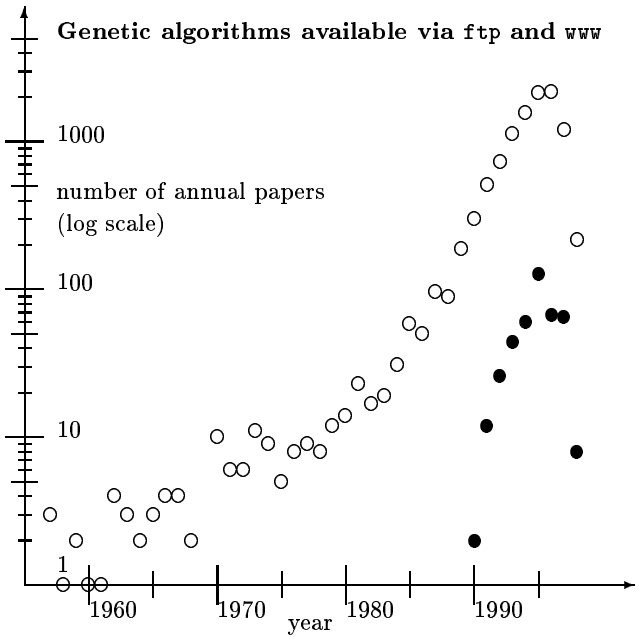

Figure 3.1: The number of papers applying **genetic algorithms available via `ftp` and `www`** (•) ∘ = total GA papers. Observe that the last two years are most incomplete in the database.

3.6 Conclusions and future

The editor believes that this bibliography contains references to most genetic algorithms available via `ftp` and `www` 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.

Chaos theory in the financial markets. Applying fractals, Fuzzy logic, Genetic algorithms, Swrn Simulation & the Monte Carlo Method to Manage Market, [12]

Computational Intelligence for Optimization, [65]

Evolutionary Algorithms in Engineering Applications, [69]

Genetic Algorithms and Grouping Problems, [70]

Genetic Algorithms for Control and Signal Processing (Advances in Industrial Control), [77]

Genetic Algorithms for Machine Learning, [16]

Genetic Algorithms for Pattern Recognition, [56]

Genetic Algorithms & Engineering Design, [91]

Learning Algorithms: Theory and Applications in Signal Processing, Control and Communications, [74]

Neural Network Training Using Genetic Algorithms, [64]

Practical Genetic Algorithms, [97]

Without Miracles, Universal Selection Theory and the Second Darwinian Revolution, [32]

total 12 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.

Archives of Control Sciences, [245]

Artificial Intelligence, [311]

Complex Systems, [358]

DIMACS, [155]

Evolutionary Computation, [66, 67, 73, 78, 89, 92, 367]

Fuzzy Systems & Artificial Intelligence Reports and Letters, [135]

IEE Proceedings C: Generation, Transmission and Distribution, [109]

IEE Proceedings, Vision, Image, Signal Processing, [47]

IEEE Transactions on Power Systems, [21]

International Journal of Approximative Reasoning, [155]

International Journal of Intelligent Systems, [246]

Journal of Chemical Physics, [75]

Journal of Computer-Aided Molecular Design, [36]

Journal of Molecular Biology, [84]

Lettre du Transputer et des Calculateurs Distribués, [373]

Machine Learning, [316]

Mathware & Soft Computing, [201]

Molecular Simulations, [96]

Neural Computing and Applications, [364]

Nucleic Acids Research, [54]

Pattern Recognition Letters, [42]

Scientific Computing World, [71]

Technique et Science Informatique TSI, [371]

Transactions of the Institute of Electronics, Information and Communication Engineers A (Japan), [41]

Transactions of the Institute of Electronics, Information and Communication Engineers of Japan D-II, [58]

Transactions of the Socety of Instrument and Control Engineers, [87]

Transactions of the Society of Instrument and Control Engineers (Japan), [23]

University Computing, [304, 305]

total 35 articles in 28 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

Carleton University, [166]

George Mason University, [82]

Harvard University, [99]

Illinois Institute of Technology, [125]

Michigan State University, [86]

Oxford University, [161]

University of California, [353]

University of Durham, [193]

University of Huddersfield, [62]

University of Illinois at Urbana-Champaign, [186, 198]

University of London, [238]

University of Rochester, [281]

University of Southern California, [144]

University of Surrey, [93]

total 15 thesis in 14 schools

4.3.2 Master's theses

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

University of Edinburgh, [22]

University of Erlangen and The University of Tennessee, [122]

University of Nebraska-Lincoln, [128]

University of Vaasa, [278]

total 4 thesis in 4 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.

Akademie der Wissenschaft der DDR, [306]

Argonne National Laboratory, [136]

Aristotle University of Thessaloniki, [107]

Bolt Beranek and Newman, [350]

California Institute of Technology, [299]

Carnegie-Mellon University, [11, 44]

Edinburgh Parallel Computing Centre, [111, 354, 356, 357, 359, 362, 363]

Florida Atlantic University, [4]

International Computer Science Institute (ICSI), [310, 312, 313]

Iowa State University, [337]

Leiden University, [194]

Michigan State University, [48]

Mitsubishi Electric Corp., [303]

Mitsubishi Electric Research Laboratories, [302]

National University of Singapore, [366]

Naval Research Laboratory, [184]

RST Corporation, [68, 90, 94]

Ruhr-Universität Bochum, [38]

Santa Fe Institute, [168, 315, 342, 343]

Swiss Federal Institute of Technology (ETH), [178]

Technische Universität der Berlin, [171, 308, 309, 352]

The University of Texas at Austin, [349]

Universidad de Granada, [142, 203, 204, 332]

University of Bristol, [211]

University of California at Berkley, [18]

University of Cambridge, [53]

University of Durham, [351]

University of Granada, [181, 199, 200, 202]

University of Illinois at Urbana-Champaign, [148, 150, 177, 183, 195, 317, 318, 319, 338, 344]

University of Nebraska-Lincoln, [85, 282]

University of Strathclyde, [345, 346, 347]

University of Sussex, [114, 117, 119, 123, 320, 321, 322, 323, 324, 325, 326, 327, 328, 329, 331]

University of Vaasa, [103, 104, 105, 106, 139, 191, 241, 255, 256, 294, 375, 376, 377, 378, 379, 380, 381, 382, 383, 384, 385, 386, 387, 388, 389, 390, 391, 392, 393, 394, 395, 396, 397, 398, 399, 400, 401, 402, 403, 404, 405, 406, 407, 408, 409, 410, 411, 412, 413, 414, 415, 416, 417, 418, 419]

total 136 reports in 33 institutes

4.5 Patents

The following list contains the names of the patents of genetic algorithms available via `ftp` and `www`. The list is arranged in alphabetical order by the name of the patent.

- none

4.6 Authors

The following list contains all genetic algorithms available via `ftp` and `www` authors and references to their known contributions.

Abela, J., [295, 296, 298]

Abramson, David, [295, 296, 297, 298]

Adami, Chris, [299]

Adamidis, Panagiotis, [107]

Adams, William, [46]

Ahuactzin, Juan-Manuel, [372, 374]

Alander, Jarmo T., [101, 103, 104, 105, 106, 108, 132, 139, 140, 143, 146, 176, 191, 234, 241, 242, 244, 247, 249, 251, 253, 254, 255, 256, 259, 280, 283, 288, 289, 290, 291, 292, 294, 375, 376, 377, 378, 379, 380, 381, 382, 383, 384, 385, 386, 387, 388, 389, 390, 391, 392, 393, 394, 395, 396, 397, 398, 399, 400, 401, 402, 403, 404, 405, 406, 407, 408, 409, 410, 411, 412, 413, 414, 415, 416, 417, 418, 419]

Altenberg, Lee, [141]

Amin, Shara, [258]

Anderson, Charles W., [28]

Anderson, R. W., [89]

Ansari, Nirwan, [65]

Aspnäs, Anders, [208]

Astola, Jaakko, [158]

Atlan, Laurent, [300]

Autere, Antti, [133, 143]

Back, Barbro, [147]

Bäck, Thomas, [19, 367]

Baiardi, Fabrizio, [182]

Bakirtzis, A. G., [109, 159]

Bala, Jerzy W., [66]

Baluja, Shumeet, [11, 44, 45]

Banzhaf, Wolfgang, [165, 190, 301, 302, 303]

Batali, J., [67]

Baum, Eric B., [31]

Beasley, David, [304, 305]

Bentley, Peter J., [62]

Berg, J. van den, [131]

Bertoni, Alberto, [311, 312]

Bessière, Pierre, [369, 372, 374]

Biles, William E., [265]

Blickle, Tobias, [110, 149, 178]

Boneh, Dan, [31]

Bonnet, Jérôme, [300]

Born, Joachim, [306, 307, 308, 309]

Bounsaythip, Catherine, [209, 259]

Bove, Jr., V. Michael, [81]

Boyd, Ian D., [111]

Branke, Jürgen, [179, 210, 260]

Bucher, Frank, [260]

Bull, David R., [304, 305]

Burgess, Colin J., [180, 211]

Burton, Anthony Richard, [93]

Buydens, Lutgarde M. C., [220]

Cabestaing, François, [279]

Cameron, George G., [47]

Camponogara, Eduardo, [261]

Cantú-Paz, Erick, [150]

Caruana, Rich, [44, 45]

Carvalho, Luis, [26]

Castro, J. L., [333]

Cejtin, H., [270]

Chalmers, Alan G., [180, 211]

Chen, J. R., [74]

Chen, Shu-Heng, [275]

Cheng, Runwei, [91]

Chiva, Emmanual, [113]

Chorafas, Dimitris N., [12]

Chu, Chee-Hung H., [112]

Cliff, David T., [114, 117, 119, 151, 322, 323, 325, 326, 327, 328, 329, 331]

Cockcroft, Victor, [208]

Collins, Robert James, [353]

Colombetti, Marco, [310, 313]

Cootes, T. F., [35]

Cordón, Oscar, [152, 181, 192, 199, 203, 212, 235, 245, 248, 250, 252]

Coveney, Peter V., [96]

Crutchfield, James P., [168, 342, 343]

Cziko, Gary, [32]

Das, Rajarshi, [28, 168]

Dasgupta, Dipankar, [69, 345, 346, 347]

Deb, Kalyanmoy, [318]

Delgado, M., [333]

Delibasis, Konstantinos K., [47]

Dexter, Terrence W., [49]

Dominic, Stephen, [28]

Dorigo, Marco, [310, 311, 312, 313]

Duponcheele, Georges, [153]

East, Ian R., [169]

Edengren, Magnus, [154]

Eiben, Ágoston E., [172, 194]

Ericson, Christer, [115]

Falkenauer, Emanuel, [70]

Ferland, Jacques A., [155]

Fernández-Villacañas, J. L., [258]

Fleurent, Charles, [155]

Floréen, Patrik B. J., [116]

Fogel, David B., [4]

Forrest, Stephanie, [14, 314, 315, 316, 335]

Fränti, Pasi, [262]

Fredriksson, Kimmo, [263]

F.Smith, Stephen, [13]

Fukunaga, Alex, [15]

Fullmer, Brad, [348]

Furuhashi, Takeshi, [33]

Garigliano, Roberto, [351]

Garlick, Mark A., [71]

Garrett, Charles, [31]

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Chapter 5

Permuted title index

The words of the titles of the articles are shown in the next table arranged in alphabetical order. The most common words have been excluded. The key word is shown by a disk (•) in the title field with the exception that it is omitted when appearing as the first word of the title after shown keyword. The other abbreviation used to compress titles are shown in appendix A.

[115] **Abstract** GA review • of a MS thesis]
[281] **Abstraction** Hierarchical Learning with Procedural • Mechnisms
[416] **Active** Indexed Bibliography of Most • Researchers of GAs
[352] **adaptation** A derandomized appr. to self • of evol. strategies
[236] • of GA parameters based on fuzzy logic cntr.
[324] – Species • GAs: The basis for a continuing SAGA
[237] **adaptive** An inquiry into the behavior of • operator probabilities in steady-state GAs
[30] – G3.5 Learning to break things: • testing of intelligent cntr.
[325] – Incremental evol. of neural network architechtures for • behaviour
[329] – Incremental evol. of neural network architectures for • behaviour
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[233] • fuzzy PI-cntr. opt. by GA: A simulation study
[243] • GAs based on fuzzy techniques
[228] **aerospace engineering** Pareto gen. solution for multiobjective MDO in •
[310] **agents** Robot shaping: Developing situated • through learning
[313] – Training • to perform sequential behavior
[76] **agoric** Combining • and gen. methods in stochastic design
[34] **air traffic control planning** Evol. computation in •
[298] **aircraft** Computing opt. schedules for landing •
[174] **airfoil** The reconstruction of an • in 2D potential flow using a GA on a par. computer
[363] **algebra** The • of GAs
[48] **ALgorithm** An Introduction to GALOPPS – The "Genetic • Optimized for Portability and Parallelism" syst.
[86] **Algorithm-Based** Gen. • Sch. Syst. for Dynamic Job-Shop Scheduling Problems
[248] **algorithm–evolution** A hybrid gen. • strategy process for learning fuzzy logic cntr. knowledge bases
[247] **allocation** Comparison of elevator • methods
[283] – GAs in elevator • problem
[327] **Analysing** recurrent dynamical networks evolved for robot cntr.
[344] **analysis** An • of Boltzmann tournament sel.
[166] – An • of Gen. Prog.
[354, 358] – Equivalence class • of GAs
[355, 356] – Forma • and random respectful recombination
[326] • of evolved sensory-motor cntr.
[38] • of possible genome-dependence of mutation rates in GAs
[204] – Tackling real-coded GAs: operators and tools for behavioural •
[82] – The Design and • of a Computational Model of Cooperative Coevol.
[15] **animated** Automatic cntr. of physically realistic • figures using EP
[99] **Animation** Global Opt. for Articulated Figures: Molecular Structure Prediction and Motion Synthesis for •
[316] **anomalous** What makes a problem hard for a GA? Some • results and their explanation
[142] **aplicaciones** Algoritmos genéticos: Fundamentos, extensiones y •
[203] **Applicability** of the fuzzy operators in the design of fuzzy logic cntr.
[24] **application** GAs and fuzzy models – an • to gas and electricity distribution planning under uncertainty
[357, 364] – Gen. set recombination and its • to neural network topology opt.
[55] – Gen. prog. for improved data mining: An • to the biochemistry of protein interactions
[27] • of GA to stereo matching
[42] • of GAs to stereo matching of images
[277] – Strategy of co-evol. of transposons and host genome: • to evol. computations
[208] – Use of GAs to learn ligand recognition concepts: • to the GPCR superfamily
[4] **Applications** A Bibliography of Evol. Computation & •
[108] **Applications** Editorial of the 2nd Finnish Workshop on Gen. Alg. and Their •
[193] **Applications** Evol. Alg. in AI: A Comparative Study Through •
[69] – Evol. Alg. in Eng. •
[112] – GA search of multiresolution tree with • in data compression
[334] – GA • to fuzzy logic based syst.
[176] – GAs in industrial • – A bibliography
[214] – Industrial • of evol. alg. at Siemens AG
[74] – Learning Alg. : Theory and • in Signal Processing, Cntr. and Communications
[180] – Optimum Transputer configurations for real • requiring global communications
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[145] **Applications** Proc. of the First Nordic Workshop on GAs and their • (1NWGA)
[293] – Proc. of the Fourth Nordic Workshop on GAs and their • (4NWGA)
[102] – Proc. of the Second Finnish Workshop on GAs and their •

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[160] **application-specific** Deriving fault tolerant • neural nets using a massively par. GA
[345] – Designing • neural networks using the structured GA
[93] **applied** A hybrid neuro-gen. pattern evol. syst. • to musical composition
[53] – GAs • to protein structure prediction
[12] **Applying** Chaos theory in the financial markets. • fractals, Fuzzy logic, GAs, Swrn Simulation & the Monte Carlo Method to Manage Market
[135] • GAs in fuzzy opt. problems
[40] • GAs to the testing of intelligent cntr.
[325] **architechtures** Incremental evol. of neural network • for adaptive behaviour
[328] **architecture** Gen. convergence in a species of evolved robot cntr. •
[173] – Implementing GAs in a tree shape computer •
[329] **architectures** Incremental evol. of neural network • for adaptive behaviour
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[377] **Art** Indexed Bibliography of GAs in • and Music
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[99] **Articulated** Global Opt. for • Figures: Molecular Structure Prediction and Motion Synthesis for Animation
[123] **artificial** Design of • neural networks using GAs: Review and prospect
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[309] – Evol. structuring of • neural networks
[331] – General visual robot cntr. networks via • evol.
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[111] • gas network pipe sizing with GAs
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Notations

†(ref) = the bibliography item does not belong to my collection of genetic papers.
(ref) = citation source code. ACM = ACM Guide to Computing Literature, EEA = Electrical & Electronics Abstracts, BA = Biological Abstracts, CCA = Computers & Control Abstracts, CTI = Current Technology Index, EI = The Engineering Index (A = Annual, M = Monthly), DAI = Dissertation Abstracts International, P = Index to Scientific & Technical Proceedings, BackBib = Thomas Bäck's unpublished bibliography, Fogel/Bib = David Fogel's EA bibliography, etc
* = only abstract seen.
? = data of this field is missing (BiBTeX-format).

The last field in each reference item in `Teletype` font is the BiBTEXkey of the corresponding reference.

Appendix A

Abbreviations

The following other abbreviations were used to compress the titles of articles in the permutation title index:

AI	= Artificial Intelligence
Alg.	= Algorithm(s)
AL	= Artificial Life
ANN(s)	= Artificial Neural Net(work)(s)
Appl.	= Application(s), Applied
Appr.	= Approach(es)
Cntr.	= Control, Controlled,
	= Controlling, Controller(s)
Coll.	= Colloquium
Comb.	= Combinatorial
Conf.	= Conference
CS(s)	= Classifier System(s)
Distr.	= Distributed
Eng.	= Engineering
EP	= Evolutionary Programming
ES	= Evolutionsstrategie(n),
	= Evolution(ary) strategies
Evol.	= Evolution, Evolutionary
ExS(s)	= Expert System(s)
FF(s)	= Fitness Function(s)
GA(s)	= Genetic Algorithm(s)
Gen.	= Genetic(s), Genetical(ly)
GP	= Genetic Programming
Ident.	= Identification
Impl.	= Implementation(s)
Int.	= International
ImPr	= Image Processing
JSS	= Job Shop Scheduling
ML	= Machine Learning
Nat.	= Natural
NN(s)	= Neural Net(work)(s)
Opt.	= Optimization, Optimal,
	= Optimizer(s), Optimierung
OR	= Operation(s) Research
Par.	= Parallel, Parallelism
Perf.	= Performance
Pop.	= Population(s), Populational(ly)
Proc.	= Proceedings
Prog.	= Programming, Program(s), Programmed
Prob.	= Problem(s)
QAP	= Quadratic Assignment Problem
Rep.	= Representation(s), Representational(ly)
SA	= Simulated Annealing
Sch.	= Scheduling, Schedule(s)
Sel.	= Selection, Selectionism
Symp.	= Symposium
Syst.	= System(s)
Tech.	= Technical, Technology
TSP	= Travel(l)ing Salesman Problem

Appendix B

Bibliography entry formats

footnotesize This documentation was prepared with LaTeX and reproduced from camera-ready copy supplied by the editor. The ones who are familiar with BibTeX may have noticed that the references are printed using `abbrv` bibliography style and have no difficulties in interpreting the entries. For those not so familiar with BibTeX are given the following formats of the most common entry types. The optional fields are enclosed by "[ ]" in the format description. Unknown fields are shown by "?". † after the entry means that neither the article nor the abstract of the article was available for reviewing and so the reference entry and/or its indexing may be more or less incomplete.
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. †.

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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.