An Indexed Bibliography of Genetic Algorithms in the Latin America, Portugal and Spain

compiled by

Jarmo T. Alander

Dedicated to **Carlos A. Coello Coello**

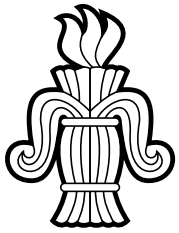
Department of Information Technology and Production Economics

University of Vaasa

P.O. Box 700, FIN-65101 Vaasa, Finland

e-mail: Jarmo.Alander@uwasa.fi
www: http://www.uwasa.fi/~jal
phone: +358-6-324 8444
fax: +358-6-324 8467

Report Series No. 94-1-LATIN



DRAFT February 2, 1999

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

Copyright © 1994, 1995, 1996, 1997, 1998, 1999 Jarmo T. Alander

Trademarks

Product and company names listed are trademarks or trade names of their respective companies.

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 '*'.

Contents

1 Preface **1**
- 1.1 Your contributions erroneous or missing? . . . 1
  - 1.1.1 How to cite this report? . . . 2
- 1.2 How to get this report via `Internet`? . . . 2
- 1.3 Acknowledgement . . . 2

2 Introduction **5**

3 Statistical summaries **7**
- 3.1 Publication type . . . 7
- 3.2 Annual distribution . . . 7
- 3.3 Classification . . . 7
- 3.4 Authors . . . 8
- 3.5 Geographical distribution . . . 8
- 3.6 Conclusions and future . . . 9

4 Indexes **11**
- 4.1 Books . . . 11
- 4.2 Journal articles . . . 11
- 4.3 Theses . . . 11
  - 4.3.1 PhD theses . . . 12
  - 4.3.2 Master's theses . . . 12
- 4.4 Report series . . . 12
- 4.5 Patents . . . 12
- 4.6 Authors . . . 13
- 4.7 Subject index . . . 17
- 4.8 Annual index . . . 20
- 4.9 Geographical index . . . 21

5 Permuted title index **23**

Bibliography **37**

Appendixes **55**

A Abbreviations **55**

B Bibliography entry formats **56**

List of Tables

1.1 Indexed GA subbibliographies. 3

2.1 Queries used to extract this subbibliography from the main database. 5

3.1 Distribution of publication type. 7
3.2 Annual distribution of contributions. 7
3.3 The most popular subjects. 8
3.4 The most popular words used in titles. 8
3.5 The most productive genetic algorithms in the Latin America, Portugal and Spain authors. 8
3.6 The geographical distribution of the authors. 8

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 11251 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

- A: *International Aerospace Abstracts:* Jan. 1995 – Mar. 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 – Apr. 1998 (except May -95)
- ChA: *Chemical Abstracts:* Jan. 1997 - Dec. 1998
- 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)
- N: *Scientific and Technical Aerospace Reports:* Jan. 1993 - Dec. 1995 (except Oct. 1995)
- P: *Index to Scientific & Technical Proceedings:* Jan. 1986 – May 1998 (except Nov. 1994)
- PA: *Physics Abstracts:* Jan. 1997 – Sep. 1998

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 in the Latin America, Portugal and Spain 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:

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`	`gaLATINbib.ps.Z`
`www`	Finland	`http://www.cs.hut.fi`	`~ja/gaLATINbib`	`gaLATINbib.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 in the Latin America, Portugal and Spain 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, 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, 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 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.

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
ga98bib.ps.Z	GA in 1998
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.

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*
`*BRA`	`ANNOTE`	Brazil
`*MEX`	`ANNOTE`	Mexico
`*VNZ`	`ANNOTE`	Venezuela
`*ARG`	`ANNOTE`	Argentina
`*CHILE`	`ANNOTE`	Chile
`*COL`	`ANNOTE`	Columbia
`*POR`	`ANNOTE`	Portugal
`*ESP`	`ANNOTE`	Spain
`*Spanish`	`NOTE`	In Spanish
`*Portuguese`	`NOTE`	In Portuguese

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 in the Latin America, Portugal and Spain literature. More detailed indexes can be found in the next chapter.

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

- **Argentina** 11 references ([10]-[20])
- **Brazil** 45 references ([21]-[65])
- **Chile** 2 references ([66]-[67])
- **Columbia** 1 references ([68]-[68])
- **Mexico** 43 references ([69]-[111])
- **Portugal** 21 references ([112]-[132])
- **Spain** 121 references ([133]-[253])
- **Venezuela** 15 references ([254]-[268])

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*
part of a collection	10
journal article	55
proceedings article	174
report	16
PhD thesis	2
MSc thesis	1
others	1
total	259

Table 3.1: Distribution of publication type.

3.2 Annual distribution

Table 3.2 gives the number of genetic algorithms in the Latin America, Portugal and Spain 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*
1991	1	1992	4
1993	16	1994	41
1995	62	1996	67
1997	49	1998	14
1999	5		
total			259

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.

Words occurring most in titles are shown in table 3.4.

engineering	58
neural networks	30
control	28
optimization	14
hybrid	14
machine learning	13
fuzzy systems	10
others	467

Table 3.3: The most popular subjects.

Fuzzy	54
Optimization	34
Design	28
Evolutionary	24
Learning	22
neural	21
control	15
Distribution	15
Application	15
controller	14
Optimal	13
Genético	12
planning	11
Multiobjective	11
power	10

Table 3.4: The most popular words used in titles.

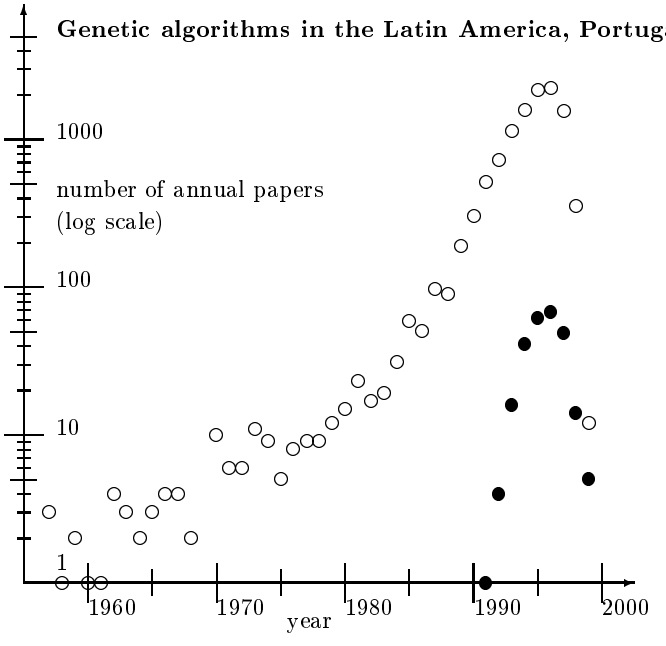


Figure 3.1: The number of papers applying **genetic algorithms in the Latin America, Portugal and Spain** (•) ∘ = total GA papers. Observe that the last two years are most incomplete in the database.

3.4 Authors

Table 3.5 gives the most productive authors.

total number of authors	411
Herrera, Francisco	32
Coello Coello, Carlos A.	26
Lozano, Manuel	23
Verdegay, Jose Luis	16
Cordón, Oscar	11
1 author	9
1 author	8
2 authors	7
3 authors	6
2 authors	5
11 authors	4
15 authors	3
63 authors	2
307 authors	1

Table 3.5: The most productive genetic algorithms in the Latin America, Portugal and Spain 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	259	100.00
Spain	122	47.10
Brazil	45	17.37
Mexico	43	16.60
Portugal	21	8.11
Venezuela	15	5.79
Argentina	4	1.54
Chile	2	0.77
The Netherlands	2	0.77
Colombia	1	0.39
Finland	1	0.39
France	1	0.39
Greece	1	0.39
United States	1	0.39
Unknown country	0	0.00

Table 3.6: The geographical distribution of the authors.

3.6 Conclusions and future

The editor believes that this bibliography contains references to most genetic algorithms in the Latin America, Portugal and Spain 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.

- none

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.

American Journal of Physics, [101]

Analytica Chimica Acta, [207, 232]

Artificial Intelligence Review, [239]

Av. Ing. Quim., [92]

Bad. Oper. Decyzje (Poland), [166]

Biophysical Journal, [238]

Chromatographia, [132]

Civil Engineering Systems, [96, 105]

Computers in Industry, [109]

Egypt. Comput. J. (Egypt), [11]

Electronics Letters, [197, 20]

Engineering Optimization, [106, 108]

Engineering with Computers, [94]

European Journal of Operational Research, [237]

EvoNews, [194]

Expert Systems with Applications, [99]

Finite Elements in Analysis and Design, [264]

Fuzzy Systems & Artificial Intelligence Reports and Letters, [144]

IEEE Transaction on Power Systems, [240]

IEEE Transactions on Pattern Analysis and Machine Intelligence, [200]

IEEE Transactions on Power Systems, [113, 184, 67]

IEEE Transactions on Systems, Man, and Cybernetics, [191]

Inf. Syst. Eng. (Netherlands), [188]

Inform. Autom. (Spain), [183, 195]

Informática y Automática (Spain), [173, 242, 251]

Int. J. Approx. Reason. (USA), [229, 234]

Int. J. Electr. Power Energy Syst. (UK), [64]

Int. J. Power Energy Syst. (USA), [169]

Int. Numer. Meth. Eng., [259]

International Journal of Approximative Reasoning, [82]

International Journal of Intelligent Systems, [203]

Journal of Guidance, Control, and Dynamics, [14]

Knowledge and Information Systems. An International Journal, [107]

Mathware & Soft Computing, [175]

Microelectron. J. (UK), [170, 216, 225]

Midwest Symp Circuits Syst, [35]

Physical Review E, [100, 63]

Sens. Actuators A. Phys. (Switzerland), [244]

Soluciones Avanzadas. Tecnologías de Información, [82, 103, 104]

Statistics and Computing (UK), [226]

Tatra Mt. Math. Publ. (Slovakia), [220]

total 56 articles in 41 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

Tulane University, [87]

Universidad Politécnica de Madrid, [137]

total 2 thesis in 2 schools

4.3.2 Master's theses

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

Instituto Superior Tecnico, [131]

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.

Central University of Venezuela, [258]

Laboratorio Nacional de Informática Avanzada (LANIA), [102]

Tulane University, [73]

Universidad de Granada, [147, 177, 178, 193, 247]

Universidad de Málaga, [133, 141, 241]

University of Granada, [164, 172, 174, 176]

Utrecht University, [114]

total 16 reports in 7 institutes

4.5 Patents

The following list contains the names of the patents of genetic algorithms in the Latin America, Portugal and Spain. The list is arranged in alphabetical order by the name of the patent.

- none

4.6 Authors

The following list contains all genetic algorithms in the Latin America, Portugal and Spain authors and references to their known contributions.

Abdala, Ricardo Skaf, [29]

Abdel-Wahab, A. H., [11]

Aguilar, J., [263]

Aguilar, R., [92]

Aguirre, Arturo Hernández, [85, 97, 103, 104]

Ahonen, Hannu, [53]

Aizpuru, J. R. Z., [148]

Alba, Enrique, [186, 196]

Alba Torres, Enrique A., [149, 241, 242, 243]

Albarran, M. de las Mercedes Gomez, [183]

Aldana Montes, José Francisco, [133, 141, 149, 151, 241, 243]

Almeida, F., [162]

Alonso, C., [208]

Alonso, F., [81]

Amaral, José Nelson, [34]

Anacleto, J. C. Silva, [54]

Anacleto, J. C., [22]

Andreu, J. M., [238]

Annicchiarico, W., [258, 264, 267]

Apolinário Jr., J. A., [39, 55]

Aracil, J., [188]

Araújo, A. N., [232]

Arcos, M. Julia, [207]

Ares, F., [181, 197]

Arraiz, E., [261]

Arroyo, J. M., [184, 195]

Aspiazu, J., [86]

Azevedo, Fernando M. de, [35]

Bakirtzis, A. G., [184]

Barbosa, Helio J. C., [40]

Barcia, R. M., [45, 58]

Barczak, C. L., [21, 27]

Barone, Dante Agusto, [32]

Barone, Dante Augusto Couto, [38]

Barreto, Jorge M., [35]

Barrios, Victor, [265, 266]

Barron, M., [92]

Barruncho, L. M. F., [120, 126]

Barruncho, P. M. S., [127]

Bastos, R. C., [50]

Belmontmoreno, E., [86]

Bernal, A., [219]

Bernal-Agustín, José L., [139, 169, 240]

Bernier, J. L., [182, 222]

Bharadwaj, K. K., [41]

Bisch, Paulo M., [63]

Bolivar, U. S., [262]

Bomfim, A. L. B. do, [52]

Borges, Newton Chaves Kras, [30]

Botazzo Delbum, Alexandre C., [56]

Bousson, K., [124]

Brandao, M. A., [41]

Braunstingl, R., [163]

Bretas, Newton G., [56]

Buckles, Bill P., [103, 104]

Bustillo, Eduardo, [212]

Cadenas, Jose Manuel, [143, 146, 166]

Cain, G., [192]

Calôba, L. P., [39, 55]

Camacho, E. F., [158, 230]

Campodonico, N. M., [37]

Camponogara, Eduardo, [57]

Canas, A., [250]

Candido, M. A. B., [58]

Carazo, J. M., [223]

Carfalhode, A., [60]

Carreno, D., [210]

Carvalho, André C. P. L. F. de, [56]

Carvalho, Luis, [116]

Carvalho, P. M. S., [120, 126, 127]

Casao, Jorge Gasos, [244]

Castellanos, J., [236]

Castillo, Luis, [237]

Castro, J. L., [248]

Castro, Jesus Silva, [257]

Cerrolaza, M., [258, 264, 267]

Cesteros, A. M. F.-P., [183]

Chacon, P., [238]

Chang, O., [255, 256, 260, 262]

Chaves, R. O., [39, 55]

Chavez, Margarita G., [268]

Cheim, L., [47]

Chowdhury, M. M. M., [18]

Christiansen, Alan D., [73, 80, 85, 94, 96, 97, 105, 106]

Cluitmans, L. J. M., [16]

Coello Coello, Carlos A., [71, 73, 74, 75, 76, 77, 78, 80, 81, 82, 83, 84, 85, 87, 94, 96, 97, 99, 102, 103, 104, 105, 106, 107, 108, 109]

Colin, A., [92]

Colmenares, A., [263]

Comellas, F., [245]

Conejo, A. J., [184]

Conejo, A., [195]

Cordón, Oscar, [150, 164, 177, 185, 198, 204, 205, 206, 211, 229, 235]

Cornejo-Rodriguez, A., [79, 93]

Cortez, P., [121]

Costa, Ernesto, [130]

Costa, J. P., [37]

Cotta, Carlos, [186, 209]

Cotta Porras, Carlos, [133, 151]

Coutinho, M.S., [62]

Cruz, I. Lopez, [88]

Cruz, J. M. de la, [201]

Cuesta, P., [142, 161]

Cura, Eliana, [67]

da Rocha Costa, Antonio Carlos, [33]

deAbreuMoreira, D., [49]

Delgado, A., [187]

Delgado, M., [248]

Delibasis, K., [10]
Deris, S., [12]
Desanj, D. S., [59]
Diaz, J. F., [238]
Diniz, L. S., [42]
Donha, D. C., [59]
Dormido, S., [201]
Drummond, Lucia M.A., [31]
Duran, F., [255, 256, 260]
Duro, R. J., [134]
Duro, Richard J., [140]
Eiben, Ágoston E., [119]
Elazhary, H. H. R., [11]
Elsimary, H., [19]
Enab, Y. M., [13]
Engel, Paulo M., [30]
Enns, Russell, [14]
Estevez, Pablo A., [66]
Estivill-Castro, V., [110]
Estrada, L. F., [70]
Eyada, O., [45]
Falcao, D. M., [46, 52]
Falcon, J. F., [246]
FaraydeAquino, L. C., [61]
Farrera, Francisco A., [75, 78]
Farrera, Francisco Alonso, [83, 84, 96, 99]
Ferguson, R., [15]
Fernandes, A. M. D., [50]
Fernández, G., [154, 253]
Fernandez-Pampillon-Casteros, A. M., [216]
Ferreira, L. A. F. M., [120, 126, 127]
Figueiras-Vidal, A. R., [192]
Figueiredo, M., [122]
Filho, E. F. M., [60]
Franco, Aurali B., [268]
Fred, A., [122]
Freitas, A. A., [22]
Galan, M., [135]
Galán, M., [142, 161]
Galante, M., [259, 267]
Garcia, F., [162, 251]
Garcia Nocetti, D. F., [72]
Garg, Vijayendra K., [53]
Garnica, A. O., [170]
Garnica, O., [214]
Garrido, J., [215]
Gatto, Rubens C., [36]
Gauthier, F. O., [45, 58]
Geyer, Claudio Fernando R., [30]
Ginesta, X., [210]
Goddard, J., [88, 89, 90, 98]
Gois, R. S. S., [42]
Gomez-Albarran, M., [216]
Gomez-Skarmeta, A. F., [217]
Gomide, Fernando A. C., [23]
Gomide, Fernando, [24]
Gondim, Paulo R. L., [51]
Gonzalez, A. I., [218]
Gonzalez, Antonio, [233]
González, Antonio, [237]
Gonzalez, Belzyt, [254]
Gonzalez, F. J., [138]
Gonzalez, J., [92]
Gordillo, F., [188, 219]
Gorenstin, B. G., [37]
Gracia, J. de, [232]
Gracias, N., [122]
Grana, M., [218]
Greiner, D., [161]
Gudwin, Ricardo R., [23]
Guesta, P., [135]
Hatziargyriou, N., [118]
Heijligers, M. J. M., [16]
Hernández, Filiberto Santos, [83, 84, 94, 99]
Herráiz, C. Ilia, [182]
Herrera, Francisco, [136, 144, 147, 150, 152, 164, 165, 172, 174, 175, 176, 177, 178, 179, 180, 185, 189, 198, 199, 202, 203, 204, 205, 206, 211, 220, 229, 235, 239, 247, 248, 249]
Herrera-Viedma, E., [136]
Hewahi, N. M., [41]
Hidalgo, J. I., [221, 225]
Izquierdo, M. C. M., [190]
Jack, M. A., [20]
Jaimes-Romero, Fernando J., [95]
Jess, J. A. G., [16]
Jiménez, Fernando, [143, 146, 153, 166]
Jimenez, F., [217, 224]
Jimenez, M., [256, 260, 262]
Jimènez Rendondo, N., [184]
Jones, D. I., [69, 111]
Justo, George Fabris, [38]
Katebi, M. R., [59]
Kateman, Gerrit, [132]
Kazarlis, Spyros A., [184]
Khator, S. K., [58]
Kirner, C., [22, 54]
Kitagawa, K., [12]
Kok, Joost N., [119]
Korel, B., [15]
Krähenbühl, L., [26, 28]
Krahenbuhl, L., [48]
Krambeck, C. P., [21, 27]
Kuijpers, Cindy M. H., [191, 200]
Kuijpers, Cindy M. H, [226]
Lanchares, J., [170, 214, 221, 225]
Larrañaga, Pedro, [191, 200, 226]
Larranaga, P., [218]
Larsen, H. L., [228]
Legey, L. F. L., [43]
Leiva, S., [236]
León, Héctor Hernández, [76]
Li, Y., [18]
Lima, J. L. F. C., [232]
Lima, J., [122]
Lima, W. C. de, [62]
Lobo, F. G., [120, 126]
Lopes, Heitor S., [62]
López, Araceli Yáñez, [77]
Lopez, I., [89, 90]
López, I., [98]
Lopez, O. C., [45]
Lopez, S., [231]

Lozano, J. A., [218]

Lozano, Manuel, [136, 144, 147, 152, 164, 165, 172, 174, 175, 176, 178, 179, 180, 185, 189, 198, 199, 202, 203, 211, 239, 247, 249]

Luca, A. D. de P., [89]

Luca P., A. de, [98]

Lucasius, Carlos B., [132]

Machado, J., [121]

Machado, Ricardo Jose, [65]

Madrid, A. P. de, [201]

Magdalena, Luis, [137, 154, 160, 167, 220, 227, 231, 234, 253]

Malanda, A., [192]

Marabini, R., [223]

Marcano, D., [255, 256, 260, 262]

Marcos, F., [61]

Marin, F. J., [213]

Marin, Francisco Javier, [138, 145, 251, 252]

Marques, R. M. Lopes, [132]

Martin, C. A., [21, 27]

Martin, F. J. Marin, [173]

Martin-Bautista, M. J., [228]

Martins, Weber, [29]

McInnes, F. R., [20]

Mendes, R., [112]

Mendoça, P. R. S., [55]

Mendonca, P. R. S., [39]

Mercedes, de Las, [216]

Merelo, J. J., [155, 182, 193, 222, 223, 250]

Michaelian, K., [91, 101]

Miliani, L., [265]

Miranda, V., [113, 115, 116, 117, 123, 125, 64]

Monasterio, F., [154, 167]

Monasterio-Huelin, F., [234]

Montenegro, Anselmo A, [31]

Montero, G., [135, 142]

Montilla, Guillermo, [265, 266]

Morales, D., [162]

Moran, F., [223, 238, 250]

Moreira, D. de Abreu, [44]

Moreno, E, [181, 197]

Moreno, Jose A., [254]

Moret, Marcelo A., [63]

Morrell, Darryl, [14]

Moura-Pires, F., [128]

Mujika, J., [163]

Munoz-Rodriguez, David, [95]

Murga, R. H., [226]

Murga, Roberto H., [191, 200]

Muruzabal, Jorge, [156, 168]

Nakamiti, Gilberto, [24]

Nascimento, S., [128]

Nebro, Antonio, [133, 151]

Neto, J., [118]

Neves, J., [112, 121]

Nicolaisen, J., [228]

Nicolas, A., [26, 28, 48]

Nicolas, L., [26]

Nobre, F. S. M., [17]

Ochi, Luiz S., [31]

Ojeda, R. G., [35]

Oliveira, Luis, [116]

Oliveira, P. P. B. de, [25]

Oliveira, Pedro P. B. de, [36]

Oliveira, V., [129]

Olmeda, S., [182]

Omatu, S., [12]

Ortega, Guillermo, [157]

Ortega, Maruja F., [261]

Ortiz, M. Cruz, [207]

Paglione, P., [124]

Palma, Rodrigo, [67]

Pan, J. S., [20]

Pantos, E., [238]

Parrazales, R. U., [89]

Paton, A., [250]

Pecas Lopes, J. A., [118]

Peregrín, A., [177]

Pereira, Francisco, [130]

Pereira, M. V. F., [37]

Perez, J. M. S., [183]

Perez, Raul, [233]

Petridis, V., [184]

Pina, A., [129]

Poch, M., [232]

Poza, Mikel, [200]

Poza, M., [226]

Prieto, A., [155, 182, 222, 223, 250]

Proenca, A., [129]

Proenca, Luis Miguel, [113, 115, 116, 117, 123, 125, 64]

Puente, J., [208]

Puigjaner, L., [187]

Ramirez-Jaramillo, E., [91]

Ramos, Antonio Rogerio Machado, [32]

Ramos, Vitorino, [131]

Ramírez-Rosaro, Ignacio J., [139, 169, 240]

Rangel, Naykiavick, [265, 266]

Ranito, J. V., [113, 118]

Ranson, Aaron L., [268]

Redondo, N. J., [195]

Rengarajan, S. R., [181, 197]

Ridao, M. A., [158, 230]

Riquelme, J., [158, 230]

Riveros, J. Fernando V., [68]

Roca, R., [245]

Rocha, Armando Freitas da, [65]

Roda, J., [162]

Rodrigo, J., [236]

Rodriguez, C., [162]

Rodriguez-Paton, A., [236]

Rojas, I., [222]

Romero R., Milton E., [68]

Rosa, L. C., [27]

Roux, Christian, [265]

Rudnick, Hugh, [67]

Sala, Raphael, [194]

Saldanha, R. R., [48]

Sanchez, Carmen Garcia-Alegre, [244]

Sanchez, J. M., [159, 170, 214, 225]

Sanchez-Perez, J. M., [216]

Sandoval, F., [138, 145, 173, 213, 251, 252]
Sanjeevan, K., [187]
Santos, Elisangela M., [31]
Santos, F., [81]
Santos, J., [134, 140]
Santos, M., [201]
Sanz-Bobi, M. A., [215]
Sanz-Gonzalez, Jose L., [171]
Sarabia, Luis A., [207]
Saravia, M. L. M. F. S., [232]
Sarmiento, A., [134]
Schoenmakers, P. J., [132]
Seijas, Juan, [171, 190]
Silva, Carlos, [67]
Simoes, Eduardo do Valle, [38]
Skochinski, E., [181, 197]
Soares, Carlos, [114, 119]
Sobrino, Dolores del Castillo, [244]
Solano, J., [69, 72, 111]
Sole, I., [187]
Souza Jr., Paulo A. de, [53]
Srinivasan, Dipti, [125]
Srinivasan, D., [64]
Srinivasan, V. S., [42]
Stephens, C. R., [100]
Suárez, Alejandro, [68]
Suarez, A., [261]
Suárez, Victor, [141]
Subacius, Vytautas, [265, 266]
Sudarbo, H., [70]
Svendsen, T., [228]
Talukdar, Sarosh N., [57]
Tapia, C., [92]
Taranto, G. N., [46, 52]
Tekinay, Sirin, [95]
Toro, M., [158, 230]
Torrealba, V., [265]
Torres, Michel, [254]
Trelles-Salazar, O., [145]
Troya, J. M., [149, 151]
Troya, José Ma, [186, 209]
Troya, José M., [196, 243]
Ulribe, J. P., [163]
Undrill, P. E., [10]
Urbieta Parrazales, R., [98]
Usunariz, J. A., [148]
Valencia, S. Sanchez, [173]
Valle, M. del, [232]
Varela, R., [208]
Varricchio, S., [47]
Vasconcelos, J. A., [26, 28, 48]
Vasquez, C., [265]
Vazquez-Montiel, S., [79, 93]
Vela, C. R., [208]
Velasco, Juan R., [154, 160, 227, 231, 253]
Verdegay, Jose Luis, [136, 144, 147, 152, 165, 172, 174, 175, 176, 178, 179, 180, 203, 224, 247, 249]
Verdegay, Jose-Luis, [239]
Vieira, Fernando de M. C., [63]
Villahoz, Belén, [207]
Villaneuva, E., [181, 197]
Waelbroeck, H., [100]
Walczowski, L. T., [49, 44]
Wazlawick, Raul Sidnei, [33]
Winter, G., [135, 142, 161]
Yurramendi, Yosu, [191, 200]
Zozayagorostiza, C., [70]
Zuluaga M., Walter A., [68]

total 259 articles by 411 different authors

4.7 Subject index

All subject keywords of the papers given by the editor of this bibliography are shown next.

adaption
  fuzzy, [199]
adaptive GA
  fuzzy, [202]
agents, [44, 49, 228]
agriculture
  greenhouses, [88, 90]
AI, [24]
analysing GA
  crossover, [172, 174]
  diversity, [172, 174]
  evolution equation, [100]
  in machine learning, [200]
antennas
  aperture, [181]
  array, [256]
  linear array, [255, 262]
  linear arrays, [260]
application
  elevators, [23]
applications
  examples, [161]
artificial intelligence, [11, 191]
automata
  finite state, [170]
  finite state machine, [214]
Bayes networks, [191]
Bayesian networks
  learning, [200]
bibliography
  fuzzy logic, [164]
  fuzzy logic and GA, [211]
Boltzman machines
  design, [68]
CAD
  optical devices, [79]
channel assignment, [95]
chemistry
  analytical, [50, 207, 232]
  chromatography, [132]
  geo-, [50]
  inorganic, [91, 101]
  physical, [91, 92, 101]
ciphers, [39]
classifier systems
  fuzzy, [168]
classifiers, [112]
clustering, [218]
  fuzzy, [128, 231]
clusters
  atom, [101]
coding
  real, [136, 178, 172, 174, 175, 189, 203, 239]
  variable length, [230]
coding theory
  constant weight codes, [245]
comparison
  fuzzy approach, [32]
  fuzzy sets, [43]
  hybrid, [48]
  random search, [182]
  simulated annealing, [182, 63]
computer graphics, [212]
computer science, [221]
  operating systems, [22]
control, [253, 110]
  elevators, [23]
  fuzzy, [247, 21, 137, 24, 27, 154, 150, 157, 160, 163, 165, 176, 180, 206, 227, 229, 234]
  greenhouse, [88]
  greenhouse climate, [90]
  inverted pendulum, [12, 219]
  modelling, [205]
  optimal, [219]
  power, [52]
  power systems, [46]
  traffic lights, [24]
  vehicle, [32]
controller
  fuzzy, [222]
controllers
  fuzzy, [177, 167, 185, 186, 204, 205]
  fuzzy-PID, [201]
  neural, [18]
  PID, [201]
crossover, [136, 172, 174, 191, 203]
  heuristic, [189]
  PMX, [191]
cryptology, [39, 55]
databases
  query optimization, [149]
databeases
  compression, [76]
design, [221]
distribution
  systems, [240]
distribution network
  optimization, [169]
distribution network planning, [126]
distribution networks, [116, 117, 123]
distribution systems, [139]
  restoration, [56]
diversity, [136, 172, 174, 189, 203]
DNA
  sequence comparison, [190]
echocardiography, [265, 266]
economics
  power transmission, [67]
electromagnetics, [26, 255]
electronics
  digital, [159, 225]
  layout design, [44]

energy minimization, [91]

engineering

aerospace, [142, 157, 36, 171, 124]

civil, [83, 237]

design, [109]

power, [253, 113, 139, 115, 116, 117, 118, 37, 169, 120, 184, 67, 123, 195, 46, 48, 125, 52, 56, 126, 213, 127, 64, 240]

radio, [255, 256, 181, 260, 197, 262, 61]

structural, [267, 135, 71, 73, 74, 75, 78, 81, 83, 84, 258, 87, 259, 94, 96, 99, 264]

telecommunications, [245]

transportation, [153]

vehicle, [70]

engineering design, [106]

evolution, [25]

evolution strategies, [158]

Michigan, [218]

expert systems

fuzzy, [50]

rule learning, [215]

fault detection, [19]

FEM, [267, 135]

shape design, [264]

fitting, [132]

Fourier series, [266]

functions

Royal road, [130]

fussy systems

rule based, [217]

fuzzy GA, [152]

fuzzy logic, [224]

fuzzy reasoning, [168]

fuzzy rules, [253, 98]

fuzzy sets, [115, 116, 150, 153, 117, 123, 228]

fuzzy systems, [244, 136, 143, 166, 175, 185, 89, 189, 220]

rule based, [235]

games

MasterMind, [182]

mastermind, [193]

min-max, [40]

GATES, [132]

generations

100, [63]

genetic programming, [188, 219]

control rules, [186]

GENIAL, [134]

GPS?, [36]

graphs

drawing, [261]

hybrid

branch and bound, [133]

branch and bound techniques, [151]

evolution strategies, [204, 205]

fuzzy, [146, 172]

fuzzy logic, [198]

interior point, [195]

Lagrangian, [48]

neural network, [17]

neural networks, [39, 187]

simulated annealing, [181, 63]

hybris

fuzzy, [17]

hydraulics

tank model, [42]

hydrodynamics

FEM, [142]

image proceesing?, [122]

image processing, [10, 171, 86, 131]

classification, [223]

medical, [265, 266]

pattern recognition, [210]

imaging

medical, [10]

implementation

C++, [132]

molecular computing, [236]

object-oriented, [112]

PVM, [162]

transputer, [162]

information retrieval, [228]

insulators, [26, 28]

inverted pendulum, [219]

job shop scheduling, [114]

knapsack problem, [209]

layout design, [44]

load balancing, [22, 149]

logic programs, [208]

logistics, [143]

truck routing, [194]

LVQ, [155]

machine learning, [24, 154, 167, 176, 185, 89, 98, 229, 233]

fuzzy, [248, 179]

in optimization, [130]

rule based, [215]

manufacturing

JSS, [148]

NC machines, [27]

medicine

cardiology, [265, 266, 257]

learning, [62]

messy GA, [18]

microscopy, [223]

motion planning, [158]

multi level logic

circuits, [159]

mutation

Cauchy-Lorentz, [63]

Gaussian, [63]

navigation, [14]

networks

planning, [113]

neural networks, [246, 241, 242, 243, 250, 252, 30, 33, 38, 173, 19, 212]

neural networks

Bayesian, [226]

classification, [223]

control, [227]

design, [66]

forecasting, [213]

fuzzy, [65]

Hopfield, [55]

image processing, [210]
learning, [263]
learning rules, [268]
LVQ, [155]
radial basis, [13]
structure, [18]
time series, [121]
topology, [29, 60]
training, [134, 140]
non-supervised learning, [33]
novelty filter, [19]
optics
lens design, [93]
telescopes, [79]
optimization
combinatorial, [133]
constrained, [57, 108]
fuzzy systems, [144]
multi, [63]
multiobjective, [166, 80, 85, 87, 57, 102, 105, 106]
pareto, [57]
penalty, [109]
pH, [132]
parallel computing, [22]
parallel GA, [112, 141, 145, 31, 162, 20, 129, 68]
parallel processing, [149]
parameter estimation, [42]
physics
electricity, [26]
fields, [26]
piping
water, [237]
placement optimization, [49]
planning
distributed, [127]
trajectory, [32]
popular
optimization, [77]
population size
100, [132]
2, [63]
500, [63]
power distribution systems, [240]
production economics, [237]
proteins
structure, [238]
PVM, [145]
reasoning, [191]
regression, [53]
nonlinear, [187]
relational databases, [149]
review, [251]
analysing real coded GA, [239]
fuzzy logic, [211]
power systems, [125]
real coded GA, [239]
robotics, [111]
control, [69]
manipulator control, [230]
manipulator design, [85]
mobile, [163, 14]
walking, [137]
routing, [138, 145, 183, 216]
rule based systems, [176, 185, 186, 89]
fuzzy, [248, 249, 179, 206, 217]
rule-based systems, [41]
rules, [165]
rules based system
control, [180]
scheduling
constrained, [45]
flowshop, [254]
job shop, [114]
JSS, [148, 119, 58]
science
discovery, [11]
security
power systems, [118]
shape design, [258]
FEM, [264]
signal processing, [244, 20]
electrocardiographs, [257]
neural networks, [35]
time delays, [192]
ultrasound, [72]
simulated annealing, [197]
simulation, [25]
complex systems, [54]
spectroscopy, [207]
Mössbauer, [53]
X-ray scattering, [238]
Stahel-Donoho, [156]
statistics
maximum likelihood, [47]
time series, [187]
survey
multiobjective optimization, [102, 107]
system planning, [37]
Tea: etsi proceedingsin nimi, [28]
telecommunication
cellular networks, [51]
telecommunications
cellular, [95]
testing
protocols, [196]
software, [15]
time series
forecasting, [121]
traffic control, [138]
trajectory planning, [111]
transportation, [146, 166, 224]
transportation problems, [143]
TSP, [151, 31, 191]
tutorial, [34, 82, 103, 104]
in Spanish, [147]
power systems, [64]
ultrasound
Doppler, [72]
unit commitment, [195]
100 units, [184]
vector quantization, [20]
Viterbi, [14]
VLSI
design, [16, 49]
VLSI design
combinatorial logic, [97]
wire harness, [70]

4.8 Annual index

The following table gives references to the contributions by the year of publishing.

1991, [246]

1992, [241, 251, 253, 65]

1993, [242, 243, 265, 266, 244, 245, 110, 267, 247, 248, 249, 132, 250, 268, 252, 111]

1994, [21, 133, 134, 22, 23, 135, 136, 137, 138, 112, 113, 24, 25, 139, 140, 114, 69, 141, 26, 142, 70, 27, 143, 71, 10, 144, 145, 115, 72, 28, 146, 73, 147, 116, 74, 75, 76, 77, 154, 177, 178]

1995, [29, 148, 149, 30, 78, 150, 151, 66, 254, 152, 153, 255, 155, 117, 31, 156, 157, 118, 32, 158, 159, 119, 79, 160, 33, 161, 11, 162, 34, 163, 164, 12, 13, 14, 15, 16, 165, 166, 167, 256, 168, 17, 35, 36, 37, 169, 170, 171, 38, 80, 172, 173, 81, 174, 82, 175, 83, 176, 84, 85, 179, 180]

1996, [39, 181, 86, 40, 182, 41, 120, 257, 258, 183, 18, 87, 184, 185, 121, 186, 88, 187, 42, 19, 259, 89, 188, 122, 67, 189, 90, 190, 91, 191, 43, 192, 260, 193, 123, 44, 45, 261, 92, 194, 195, 46, 47, 48, 93, 49, 196, 197, 124, 94, 198, 50, 51, 199, 20, 95, 200, 262, 125, 201, 96, 202, 97, 203, 204, 205, 206]

1997, [52, 263, 53, 54, 55, 207, 56, 208, 57, 58, 209, 210, 126, 211, 59, 212, 60, 213, 61, 127, 214, 215, 98, 216, 217, 218, 219, 62, 220, 221, 222, 223, 224, 225, 226, 227, 228, 128, 229, 129, 130, 230, 68, 231, 232, 99, 233, 234, 235]

1998, [264, 100, 236, 237, 238, 239, 63, 101, 64, 240, 131, 102, 103, 104]

1999, [105, 106, 107, 108, 109]

4.9 Geographical index

The following table gives references to the contributions by country.

- Argentina: [12, 13, 18, 19]
- Brazil: [65, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63, 64]
- Chile: [66, 67]
- Colombia: [68]
- Mexico: [110, 111, 69, 70, 71, 72, 73, 74, 75, 76, 77, 78, 79, 80, 81, 82, 83, 84, 85, 86, 87, 88, 89, 90, 91, 92, 93, 94, 95, 96, 97, 98, 99, 100, 101, 102, 103, 104, 105, 106, 107, 108, 109]
- Portugal: [112, 113, 114, 115, 116, 117, 118, 120, 121, 122, 123, 124, 125, 126, 127, 128, 129, 130, 131]
- Spain: [246, 241, 251, 253, 242, 243, 244, 245, 267, 247, 248, 249, 250, 252, 133, 134, 135, 136, 137, 138, 139, 140, 141, 142, 143, 144, 145, 146, 147, 154, 177, 178, 148, 149, 150, 151, 152, 153, 155, 156, 157, 158, 159, 160, 161, 162, 163, 164, 165, 166, 167, 168, 169, 170, 171, 172, 173, 174, 175, 176, 179, 180, 181, 182, 183, 184, 185, 186, 187, 188, 189, 190, 191, 192, 193, 194, 195, 196, 197, 198, 199, 200, 201, 202, 203, 204, 205, 206, 207, 208, 209, 210, 211, 212, 213, 214, 215, 216, 217, 218, 219, 220, 221, 222, 223, 224, 225, 226, 227, 228, 229, 230, 231, 232, 233, 234, 235, 236, 237, 238, 239, 240]
- The Netherlands: [132, 119]
- Venezuela: [265, 266, 268, 254, 255, 256, 257, 258, 259, 260, 261, 262, 263, 264]

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.

[67] **access** Economically adapted transmission-syst. in open • schemes - Appl. of GAs

[207] **acemethacin** GA-based wavelength sel. in multicomponent spectrometric determinations by PLS: Appl. on indomethacin and • mixture

[199] **Adaptation** of GA parameters based on fuzzy logic cntr.

[67] **adapted** Economically • transmission-syst. in open access schemes - Appl. of GAs

[228] **adaptive** An appr. to an • info retrieval agent using GAs with fuzzy set genes

[142] – Mesh generation and • remeshing by GAs on transonic flow simulation

[192] • + Darwinian appr. for the estimation and tracking of time delays

[122] • contour estimation with GAs

[202] • GAs based on fuzzy techniques

[41] • hierarchical censored production rule-based syst. : a GA appr.

[228] **agent** An appr. to an adaptive info retrieval • using GAs with fuzzy set genes

[33] **agents** Non-supervised sensory-motor • learning

[49] – Placement opt. using behavior based software • and the GA

[44] – Placement opt. using behavior-based software • and the GA

[124] **aircraft** An opt. • conflict resolution syst. based on hybrid models

[103] **Alemana** Estrategias Evolutivas: La Versión • del Algoritmo Genético (Parte I)

[104] – Estrategias Evolutivas: La Versión • del Algoritmo Genético (Parte II)

[207] **algorithm-based** Gen. • wavelength sel. in multicomponent spectrometric determinations by PLS: Appl. on indomethacin and acemethacin mixture

[18] – Messy gen. • new learning-method for structurally optimized neurofuzzy cntr.

[204] **algorithm–evolution** A hybrid gen. • strategy process for learning fuzzy logic cntr. knowledge bases

[242] **algorithmos** Aplicación de los • genéticos para el diseño de redes neuronales [Appl. of GAs for the design of neural networks]

[241] – Los • genéticos como heurístico en problemas de optimización

[141] • genéticos paralelos para problemas combinatorios sobre sistemas multiprocesadores de memoria distribuida

[77] **Algoritmo** El • Genético como Alternativa a la Prog. ación Dinámica

[103] **Algoritmo** Estrategias Evolutivas: La Versión Alemana del • Genético (Parte I)

[104] – Estrategias Evolutivas: La Versión Alemana del • Genético (Parte II)

[31] **algoritmo** Um • paralelo distribuido para o travelling purchaser problem [A par. distr. alg. for the traveling salesman problem]

[16] **allocation** High-level synthesis sch. and • using GAs

[77] **Alternativa** El Algoritmo Genético como • a la Prog. ación Dinámica

[86] **analysis** Parameter determination for quantitative pixel • using GAs

[200] – Structure learning of Bayesian networks by GAs: a perf. • of cntr. parameters

[178] – Tackling real-coded GAs: operators and tools for behavioural •

[239] – Tackling real-coded GAs: Operators and tools for behavioural •

[10] **anatomical** GAs and deformable geometric models for • object recognition

[208] **AND** A gen. appr. to computing independent • par. in logic prog.

[243] **ANN** Full automatic • design: a gen. appr.

[38] – Novel intelligent environment dedicated to • fast prototyping

[55] **annealed** Cryptanalysis of speech signals ciphered by TSP using • Hopfield neural network and GAs

[39] – Cryptanalysis of speech signals ciphered by TSP using • hopfield neural-network and GAs

[256] **antenna** Synthesis of • arrays using GAs

[197] **antenna array** Appl. of GAs and simulated annealing technique in optimising the aperture distributions of • patterns

[260] **antenna arrays** Aplication of GAs for the synthesis of linear •

[181] – Appl. of GAs and simulated annealing technique in opt. the aperture distributions of •

[255] – Synthesis of multiple beam linear • using GAs

[197] **aperture** Appl. of GAs and simulated annealing technique in optimising the • distributions of antenna array patterns

[181] – Appl. of GAs and simulated annealing technique in opt. the • distributions of antenna arrays

[137] **aplicación** Estudio de la coordinación inteligente en robots bípedos: • de lógica borrosa y algoritmos genéticos

[242] • de los alg. os genéticos para el diseño de redes neuronales [Appl. of GAs for the design of neural networks]

[147] **aplicaciones** Algoritmos genéticos: Fundamentos, extensiones y •

[260] **Aplication** of GAs for the synthesis of linear antenna arrays

[177] **Applicability** of the fuzzy operators in the design of fuzzy logic cntr.

[242] **Application** Aplicación de los alg. os genéticos para el diseño de redes neuronales • of GAs for the design of neural networks]
[67] **Application** Economically adapted transmission-syst. in open access schemes - • of GAs
[207] – GA-based wavelength sel. in multicomponent spectrometric determinations by PLS: • on indomethacin and acemethacin mixture
[23] – GAs and discrete event syst. : an •
[115] – GAs and fuzzy models – an • to gas and electricity distribution planning under uncertainty
[145] – GAs on lan-message passing architectures using PVM: • to the routing problem
[173] – Gen. prog. : foundations and • on the opt. of NNs
[42] • of a GA for calibration and structural modification of tank model
[197] • of GAs and simulated annealing technique in optimising the aperture distributions of antenna array patterns
[181] • of GAs and simulated annealing technique in opt. the aperture distributions of antenna arrays
[20] • of par. GA and property of multiple global optima to VQ codevector index assignment for noisy channels
[37] • of stochastic opt. to power syst. planning and operation
[169] – Opt. of power distribution network design by • of GAs
[249] **applications** GA • to fuzzy logic based syst.
[139] – GAs • to the opt. power distribution syst. design
[154, 167] **applied** Evol. -based learning • to fuzzy cntr.
[240] – GAs • to the design of large power distribution syst.
[187] – Hybrid syst. : neural networks and GAs • in nonlinear regression and time series forecasting
[253] – Inductive learning • to fossil power plants cntr. opt.
[69] – Parameter determination for a GA • to robot cntr.
[144] **Applying** GAs in fuzzy opt. problems
[11] • GAs in scientific discovery: a case study
[22] • GAs to the load balancing problem
[229] **approximate** A three-stage evol. process for learning descriptive and • fuzzy-logic-cntr. knowledge bases from examples
[60] **architectures** Evol. design of MLP neural network •
[145] – GAs on lan-message passing • using PVM: Appl. to the routing problem
[51] **area** GAs and the location • partitioning problem in cellular networks
[71] **Armaduras** Uso de Algoritmos Genéticos para el Diseño Optimo de •
[256] **arrays** Synthesis of antenna • using GAs
[121] **artificial** An evol. • neural network time series forecasting syst.
[140] – Evol. generation and training of recurrent • neural networks
[118] **assessment** Derivation of classification structures for fast evaluation of dynamic security • in power syst. using GAs
[20] **assignment** Appl. of par. GA and property of multiple global optima to VQ codevector index • for noisy channels
[79] **astronomical** Design of • telescopes of two mirrors using GA in the stage of opt.
[171] **attitude** Two spacecraft • determination using NNs and image processing
[243] **automatic** Full • ANN design: a gen. appr.
[157] – GAs for fuzzy cntr. of • docking with a space station
[70] **automotive** Use of GAs to optimize the cost of • wire harness
[75] **Axial** Uso de Algoritmos Genéticos para la Optimización de Columnas no Prismáticas Sometidas a Carga •
[96] **axially** A GA for the opt. design of • loaded non-prismatic columns
[30] **backpropagation** Um estudo de paralelismo em redes •
[149] **balancing** A GA for load • in par. query evaluation for deductive relational databases
[85] – Use of GAs for multiobjective opt. of counterweight • of robot arms
[133] **basadas** Diseño y evaluación de técnicas mixtas • en algoritmos genéticos y de branch-and-bound para la resolución de problemas de optimización conbinatoria
[234] **base** A fuzzy logic cntr. with learning through the evol. of its knowledge •
[180] – Design of a cntr. rules • based on GAs
[229] **bases** A three-stage evol. process for learning descriptive and approximate fuzzy-logic-cntr. knowledge • from examples
[76] – Compresión de • de Datos
[191] **Bayesian network** Learning • structures by searching for best ordering with GA
[226] **Bayesian networks** Decomposing • triangulation of the moral graph with GAs
[200] – Structure learning of • by GAs: a perf. analysis of cntr. parameters
[255] **beam** Synthesis of multiple • linear antenna arrays using GAs
[94] **beams** A simple GA for the design of reinforced concrete •
[83] – An appr. to opt. design of reinforced concrete • using GAs
[81, 99] – Opt. design of reinforced concrete • using GAs
[78] – Use of GAs for the opt. design of reinforced concrete •
[49] **behavior** Placement opt. using • based software agents and the GA
[44] **behavior-based** Placement opt. using • software agents and the GA
[132] **behaviour** Modelling chromatographic • as a function of pH and solvent composition in RPLC
[25] – Simulation of exaptive •
[178] **behavioural** Tackling real-coded GAs: operators and tools for • analysis
[239] – Tackling real-coded GAs: Operators and tools for • analysis
[26] **BEM** Design opt. using the • coupled with GA
[164] **bibliography** A classified review on the combination fuzzy logic – GAs •
[264] **bidimensional** Opt. of finite element • models: an appr. based on GAs
[198] **bidirectional** On the • integration of GAs and fuzzy logic
[223] **biological** A GA-optimized neural network for classification of • particles from electron-microscopy images
[68] **Boltzmann machines** design using GAs in a par. environment
[225] **Boolean** networks decomposition using GAs
[29] – Sistema gen. o hierarquico para escolha topolsgica de redes neurais Booleanas [A hierarchical genetic syst. for selecting topology of • NNs]
[29] **Booleanas** Sistema gen. o hierarquico para escolha topolsgica de redes neurais • [A hierarchical genetic syst. for selecting topology of Boolean NNs]
[137] **borrosa** Estudio de la coordinación inteligente en robots bípedos: aplicación de lógica • y algoritmos genéticos
[266] **boundary** Model-based epicardial • detection using GAs
[265] – Model-based, knowledge-based epicardial • detector
[151] **branch and bound techniques** Hybridizing GAs with • for the resolution of the TSP
[133] **branch-and-bound** Diseño y evaluación de técnicas mixtas basadas en algoritmos genéticos y de • para la resolución de problemas de optimización conbinatoria
[42] **calibration** Appl. of a GA for • and structural modification of tank model
[75] **Carga** Uso de Algoritmos Genéticos para la Optimización de Columnas no Prismáticas Sometidas a • Axial
[51] **cellular networks** GAs and the location area partitioning problem in •
[95] **cellural systems** Channel assignment in • using GAs
[41] **censored** Adaptive hierarchical • production rule-based syst. : a GA appr.
[15] **chaining** Software test data generation using the • appr.
[95] **Channel assignment** in cellural syst. using GAs
[20] **channels** Appl. of par. GA and property of multiple global optima to VQ codevector index assignment for noisy •
[50] **chemical-analyses** A fuzzy expert-syst. for qualitative • of minerals
[201] **choice** Between fuzzy-PID and PID-conventional cntr. : a good •
[35] – GAs in the opt. • of neural networks for signal processing
[132] **chromatographic** Modelling • behaviour as a function of pH and solvent composition in RPLC
[55] **ciphered** Cryptanalysis of speech signals • by TSP using annealed Hopfield neural network and GAs

[39] – Cryptanalysis of speech signals • by TSP using annealed hopfield neural-network and GAs
[97] **circuits** Using GAs to design combinational logic •
[101] **Cl** Evolving few-ion clusters of Na and •
[223] **classification** A GA-optimized neural network for • of biological particles from electron-microscopy images
[118] – Derivation of • structures for fast evaluation of dynamic security assessment in power syst. using GAs
[164] **classified** A • review on the combination fuzzy logic – GAs bibliography
[168] **classifier** Fuzzy and probabilistic reasoning in simple learning • syst.
[112] **classifiers** GAs, • and par. – An object-oriented appr.
[90] **climate** Greenhouse • cntr. by evol. computation - GAs and evol. ary prog.
[88] – Greenhouse • cntr. by evol. computation: GAs and evol. ary prog.
[128] **clustering** A gen. appr. to fuzzy • with a validity measure fitness function
[218] – Experimental results of a Michigan-like evol. strategy for non-stationary •
[231] – Gen. fuzzy • for the definition of fuzzy sets
[101] **clusters** Evolving few-ion • of Na and Cl
[91] – Evolving • with GAs
[245] **codes** Using GAs to design constant weight •
[221] **codesign** Functional partitioning for hardware-software • using GAs
[20] **codevector** Appl. of par. GA and property of multiple global optima to VQ • index assignment for noisy channels
[222] **coding** A new appr. to fuzzy cntr. designing and • via GAs
[131] **Cognition** Evol. and • in Image Analysis
[62] **cognitive** An evol. appr. to simulate • feedback learning in medical domain
[111] **collision-free** Generation of • paths, a gen. appr.
[232] **colorimetric** Evaluation of nat. computation techniques in the modeling and opt. of a sequential injection flow syst. for • iron(III) determination
[75] **Columnas** Uso de Algoritmos Genéticos para la Optimización de • no Prismáticas Sometidas a Carga Axial
[96] **columns** A GA for the opt. design of axially loaded non-prismatic •
[164] **combination** A classified review on the • fuzzy logic – GAs bibliography
[155] – G-LVQ, a • of GAs and LVQ
[97] **combinational logic** Using GAs to design • circuits
[141] **combinatorios** Alg. os genéticos paralelos para problemas • sobre sistemas multiprocesadores de memoria distribuida
[77] **como** El Algoritmo Genético • Alternativa a la Prog. ación Dinámica
[241] – Los alg. os genéticos • heurístico en problemas de optimización
[162] **comparative** A • study of two distr. syst. : PVM and transputers
[190] **comparison** GA for DNA/RNA sequence •
[119] • of two Rep. for the simple and the enhanced job-shop Sch. problem
[250] **competitive** Opt. of a • learning neural network by GAs
[110] – The design of • alg. via GAs
[54] **complex systems** A new appr. for GA as a support to the simulation of •
[132] **composition** Modelling chromatographic behaviour as a function of pH and solvent • in RPLC
[107] **comprehensive** A • survey of evol. -based multiobjective opt. techniques
[76] **Compresión** de Bases de Datos
[232] **computation** Evaluation of nat. • techniques in the modeling and opt. of a sequential injection flow syst. for colorimetric iron(III) determination
[114] – Evol. • for the job-shop sch. problem
[64] – Evol. • in power syst.
[125] – Evol. • in power syst.
[34] – GAs and evol. •
[90] – Greenhouse climate cntr. by evol. • - GAs and evol. ary prog.
[88] – Greenhouse climate cntr. by evol. • GAs and evol. ary prog.
[236] – Molecular • for GAs
[208] **computing** A gen. appr. to • independent AND par. in logic prog.
[133] **conbinatoria** Diseño y evaluación de técnicas mixtas basadas en algoritmos genéticos y de branch-and-bound para la resolución de problemas de optimización •
[43] **concepts** The • of fuzzy sets and GAs: contrasts and similarities of expectations and development patterns (or would you rather mutate or go fuzzy?)
[94] **concrete** A simple GA for the design of reinforced • beams
[83] – An appr. to opt. design of reinforced • beams using GAs
[81, 99] – Opt. design of reinforced • beams using GAs
[78] – Use of GAs for the opt. design of reinforced • beams
[84] **Concreto** Diseño Optimo de Vigas de • Reforzado mediante Algoritmos Genéticos
[124] **conflict** An opt. aircraft • resolution syst. based on hybrid models
[203] **connectives** Dynamic and heuristic fuzzy • based crossover operators for cntr. the diversity and convergence of real-coded GAs
[172] – Fuzzy • based crossover operators to model GAs pop. diversity
[189] – Heuristic crossovers for real-coded GAs based on fuzzy •
[175] – The use of fuzzy • to design real-coded GAs
[245] **constant** Using GAs to design • weight codes
[61] **constellations** Generating fading-resistant • using GA
[57] **constrained** A GA for • and multiobjective opt.
[193] **constraint** Gen. Mastermind, a case of dynamic • opt.
[182] – Solving *MasterMind* using GAs and simulated annealing: a case of dynamic • opt.
[108] **constraints** Treating • as objectives for single-objective evol. opt.
[122] **contour** Adaptive • estimation with GAs
[43] **contrasts** The concepts of fuzzy sets and GAs: • and similarities of expectations and development patterns (or would you rather mutate or go fuzzy?)
[46] **control** A gen. -based • design for damping power syst. inter-area oscillations
[176] – A learning process for fuzzy • rules using GAs
[180] – Design of a • rules base based on GAs
[206] – Generating and selecting fuzzy • rules using evol. strategies and GAs
[59] – GA for weight sel. in H • design
[157] – GAs for fuzzy • of automatic docking with a space station
[90] – Greenhouse climate • by evol. computation - GAs and evol. ary prog.
[88] – Greenhouse climate • by evol. computation: GAs and evol. ary prog.
[253] – Inductive learning appl. to fossil power plants • opt.
[32] – Intelligent solutions for cybernetics vehicle •
[219] – Opt. • of an inverted pendulum by gen. prog. : practical aspects
[69] – Parameter determination for a GA appl. to robot •
[200] – Structure learning of Bayesian networks by GAs: a perf. analysis of • parameters
[138] – The routing problem in traffic • using GAs
[160] **control systems** GAs in fuzzy •
[234] **controller** A fuzzy logic • with learning through the evol. of its knowledge base
[204] – A hybrid GA–ES process for learning fuzzy logic • knowledge bases
[222] – A new appr. to fuzzy • designing and coding via GAs
[163] – A wall following robot with a fuzzy logic • optimized by a GA
[199] **controllers** Adaptation of GA parameters based on fuzzy logic •
[177] – Applicability of the fuzzy operators in the design of fuzzy logic •
[201] – Between fuzzy-PID and PID-conventional • a good choice
[186] – Evol. design of fuzzy logic •
[154, 167] – Evol. -based learning appl. to fuzzy •
[18] – Messy GA-based new learning-method for structurally optimized neurofuzzy •
[247] – Tuning fuzzy logic • by GA
[165] – Tuning fuzzy-logic • by GAs
[52] – Tuning of power syst. damping • using GAs

[174] **controlling** Dynamic and heuristic crossover operators for • the diversity and convergence of real-coded GAs
[203] – Dynamic and heuristic fuzzy connectives based crossover operators for • the diversity and convergence of real-coded GAs
[174] **convergence** Dynamic and heuristic crossover operators for cntr. the diversity and • of real-coded GAs
[203] – Dynamic and heuristic fuzzy connectives based crossover operators for cntr. the diversity and • of real-coded GAs
[120] – Opt. distribution network expansion planning under uncertainty by evol. decision •
[137] **coordinación** Estudio de la • inteligente en robots bípedos: aplicación de lógica borrosa y algoritmos genéticos
[158] **Coordinated** motion planning of manipulators by ES
[70] **cost** Use of GAs to optimize the • of automotive wire harness
[85] **counterweight** Use of GAs for multiobjective opt. of • balancing of robot arms
[26] **coupled** Design opt. using the BEM • with GA
[48] – GA • with a deterministic method for opt. in electromagnetics
[203] **crossover** Dynamic and heuristic fuzzy connectives based • operators for cntr. the diversity and convergence of real-coded GAs
[174] **crossover operators** Dynamic and heuristic • for cntr. the diversity and convergence of real-coded GAs
[172] – Fuzzy connectives based • to model GAs pop. diversity
[189] **crossovers** Heuristic • for real-coded GAs based on fuzzy connectives
[55] **Cryptanalysis** of speech signals ciphered by TSP using annealed Hopfield neural network and GAs
[39] • of speech signals ciphered by TSP using annealed hopfield neural-network and GAs
[32] **cybernetics** Intelligent solutions for • vehicle cntr.
[46] **damping** A gen. -based cntr. design for • power syst. inter-area oscillations
[52] – Tuning of power syst. • cntr. using GAs
[192] **Darwinian** Adaptive + • appr. for the estimation and tracking of time delays
[149] **databases** A GA for load balancing in par. query evaluation for deductive relational •
[76] **Datos** Compresión de Bases de •
[120] **decision** Opt. distribution network expansion planning under uncertainty by evol. • convergence
[127] **decision-making** An evol. appr. to • in distribution planning
[226] **Decomposing** Bayesian networks: triangulation of the moral graph with GAs
[225] **decomposition** Boolean networks • using GAs
[38] **dedicated** Novel intelligent environment • to ANN fast prototyping
[149] **deductive** A GA for load balancing in par. query evaluation for • relational databases
[231] **definition** Gen. fuzzy clustering for the • of fuzzy sets
[10] **deformable** GAs and • geometric models for anatomical object recognition
[100] **degrees** Effective • of freedom in GAs
[103] **del** Estrategias Evolutivas: La Versión Alemana • Algoritmo Genético (Parte I)
[104] – Estrategias Evolutivas: La Versión Alemana • Algoritmo Genético (Parte II)
[194] **delivery** DISTOS: Efficient petrol • syst. using optimized truck routing
[118] **Derivation** of classification structures for fast evaluation of dynamic security assessment in power syst. using GAs
[229] **descriptive** A three-stage evol. process for learning • and approximate fuzzy-logic-cntr. knowledge bases from examples
[96] **design** A GA for the opt. • of axially loaded nonprismatic columns
[46] – A gen. -based cntr. • for damping power syst. inter-area oscillations
[94] – A simple GA for the • of reinforced concrete beams
[83] – An appr. to opt. • of reinforced concrete beams using GAs
[87] – An Empirical Study of Evol. Techniques for Multiobjective Opt. in Eng. •
[242] – Aplicación de los alg. os genéticos para el diseño de redes neuronales [Appl. of GAs for the • of neural networks]
[177] – Applicability of the fuzzy operators in the • of fuzzy logic cntr.
[68] – Boltzmann machines • using GAs in a par. environment
[186] – Evol. • of fuzzy logic cntr.
[60] – Evol. • of MLP neural network architectures
[235] – Evol. • of TSK fuzzy rule-based syst. using
[243] – Full automatic ANN • a gen. appr.
[59] – GA for weight sel. in H cntr. •
[139] – GAs appl. to the opt. power distribution syst. •
[240] – GAs appl. to the • of large power distribution syst.
[93] – Lens • using GA in the stage of opt.
[106] – MOSES: A multiobjective opt. tool for eng. •
[180] • of a cntr. rules base based on GAs
[79] • of astronomical telescopes of two mirrors using GA in the stage of opt.
[26] • opt. using the BEM coupled with GA
[81, 99] – Opt. • of reinforced concrete beams using GAs
[169] – Opt. of power distribution network • by appl. of GAs
[175] – The use of fuzzy connectives to • real-coded GAs
[110] – The • of competitive alg. via GAs
[78] – Use of GAs for the opt. • of reinforced concrete beams
[97] – Using GAs to • combinational logic circuits
[245] – Using GAs to • constant weight codes
[134] **designer** GENIAL: an evol. recurrent neural network • and trainer
[222] **designing** A new appr. to fuzzy cntr. • and coding via GAs
[185] – A three-stage method for • gen. fuzzy syst. by learning from examples
[66] • max-min propagation NNs by hyperplane switching
[73] **Designs** Opt. of Truss • using GAs
[266] **detection** Model-based epicardial boundary • using GAs
[265] **detector** Model-based, knowledge-based epicardial boundary •
[232] **determination** Evaluation of nat. computation techniques in the modeling and opt. of a sequential injection flow syst. for colorimetric iron(III) •
[69] – Parameter • for a GA appl. to robot cntr.
[86] – Parameter • for quantitative pixel analysis using GAs
[171] – Two spacecraft attitude • using NNs and image processing
[207] **determinations** GA-based wavelength sel. in multicomponent spectrometric • by PLS: Appl. on indomethacin and acemethacin mixture
[233] **determining** Using info measures for • the relevence of the predictive variables in learning problems
[48] **deterministic method** GA coupled with a • for opt. in electromagnetics
[43] **development** The concepts of fuzzy sets and GAs: contrasts and similarities of expectations and • patterns (or would you rather mutate or go fuzzy?)
[77] **Dinámica** El Algoritmo Genético como Alternativa a la Prog. ación •
[11] **discovery** Applying GAs in scientific • a case study
[23] **discrete** GAs and • event syst. : an appl.
[74] • opt. of trusses using GAs
[252] **discrete-time** Gen. synthesis of • recurrent neural network
[184] **Discussion** [of [269]]
[242] **diseño** Aplicación de los alg. os genéticos para el • de redes neuronales [Appl. of GAs for the design of neural networks]
[84] • Optimo de Vigas de Concreto Reforzado mediante Algoritmos Genéticos
[133] • y evaluación de técnicas mixtas basadas en algoritmos genéticos y de branch-and-bound para la resolución de problemas de optimización conbinatoria
[71] – Uso de Algoritmos Genéticos para el • Optimo de Armaduras
[123] **dispersed** Dynamic planning of distribution networks including • generation
[194] **DISTOS** Efficient petrol delivery syst. using optimized truck routing
[141] **distribuida** Alg. os genéticos paralelos para problemas combinatorios sobre sistemas multiprocesadores de memoria •
[31] **distribuido** Um algoritmo paralelo • para o travelling purchaser problem [A par. distr. alg. for the traveling salesman problem]

[31] **distributed** Um algoritmo paralelo distribuido para o travelling purchaser problem [A par. • alg. for the traveling salesman problem]
[162] **distributed systems** A comparative study of two • PVM and transputers
[117] **distribution** A general methodology for • planning under uncertainty, including GAs and fuzzy models in a multi-criteria environment
[127] – An evol. appr. to decision-making in • planning
[115] – GAs and fuzzy models – an appl. to gas and electricity • planning under uncertainty
[113] – GAs in opt. multistage • network planning
[237] • network opt. : Finding the most economic solution by using GA
[120] – Opt. • network expansion planning under uncertainty by evol. decision convergence
[169] – Opt. of power • network design by appl. of GAs
[126] **Distribution network** expansion planning under uncertainty: a hedging alg. in an evol. appr.
[116] **distribution networks** Dynamic planning of • for minimum regret strategies
[123] – Dynamic planning of • including dispersed generation
[139] **distribution systems** GAs appl. to the opt. power • design
[240] – GAs appl. to the design of large power •
[56] – Opt. energy restoration in • using gen. alg.
[197] **distributions** Appl. of GAs and simulated annealing technique in optimising the aperture • of antenna array patterns
[181] – Appl. of GAs and simulated annealing technique in opt. the aperture • of antenna arrays
[174] **diversity** Dynamic and heuristic crossover operators for cntr. the • and convergence of real-coded GAs
[203] – Dynamic and heuristic fuzzy connectives based crossover operators for cntr. the • and convergence of real-coded GAs
[172] – Fuzzy connectives based crossover operators to model GAs pop. •
[190] **DNA/RNA** GA for • sequence comparison
[157] **docking** GAs for fuzzy cntr. of automatic • with a space station
[62] **domain** An evol. appr. to simulate cognitive feedback learning in medical •
[36] **Doppler** An experience in satellite • positioning using an evol. appr.
[261] **drawing** A GA for • graphs in an interactive environment
[118] **dynamic** Derivation of classification structures for fast evaluation of • security assessment in power syst. using GAs
[193] – Gen. Mastermind, a case of • constraint opt.
[174] • and heuristic crossover operators for cntr. the diversity and convergence of real-coded GAs
[203] • and heuristic fuzzy connectives based crossover operators for cntr. the diversity and convergence of real-coded GAs
[116] • planning of distribution networks for minimum regret strategies
[123] • planning of distribution networks including dispersed generation
[182] – Solving *MasterMind* using GAs and simulated annealing: a case of • constraint opt.
[237] **economic** Distribution network opt. : Finding the most • solution by using GA
[67] **Economically** adapted transmission-syst. in open access schemes - Appl. of GAs
[194] **Efficient** DISTOS: • petrol delivery syst. using optimized truck routing
[242] **el** Aplicación de los alg. os genéticos para • diseño de redes neuronales [Appl. of GAs for the design of neural networks]
[77] • Algoritmo Genético como Alternativa a la Prog. ación Dinámica
[71] – Uso de Algoritmos Genéticos para • Diseño Optimo de Armaduras
[213] **Electric** load forecasting with gen. neural networks
[115] **electricity** GAs and fuzzy models – an appl. to gas and • distribution planning under uncertainty
[257] **Electrocardiographic** signal analysis using GAs (GAs)
[48] **electromagnetics** GA coupled with a deterministic method for opt. in •
[223] **electron-microscopy** A GA-optimized neural network for classification of biological particles from • images
[264] **element** Opt. of finite • bidimensional models: an appr. based on GAs
[30] **em** Um estudo de paralelismo • redes backpropagation
[87] **Empirical** An • Study of Evol. Techniques for Multiobjective Opt. in Eng. Design
[56] **energy** Opt. • restoration in distribution syst. using gen. alg.
[87] **Engineering** An Empirical Study of Evol. Techniques for Multiobjective Opt. in • Design
[106] – MOSES: A multiobjective opt. tool for • design
[109] – Use of a self-adaptive penalty appr. for • opt. problems
[119] **enhanced** Comparison of two Rep. for the simple and the • job-shop Sch. problem
[117] **environment** A general methodology for distribution planning under uncertainty, including GAs and fuzzy models in a multi-criteria •
[261] – A GA for drawing graphs in an interactive •
[68] – Boltzmann machines design using GAs in a par. •
[38] – Novel intelligent • dedicated to ANN fast prototyping
[129] – Par. GAs in a networked workstation •
[265] **epicardial** Model-based, knowledge-based • boundary detector
[266] – Model-based • boundary detection using GAs
[92] **equation of state** Parametric opt. of an • by GAs
[29] **escolha** Sistema gen. o hierarquico para • topolsgica de redes neurais Booleanas [A hierarchical genetic syst. for selecting topology of Boolean NNs]
[192] **estimation** Adaptive + Darwinian appr. for the • and tracking of time delays
[122] – Adaptive contour • with GAs
[103] **Estrategias** Evolutivas: La Versión Alemana del Algoritmo Genético (Parte I)
[104] • Evolutivas: La Versión Alemana del Algoritmo Genético (Parte II)
[30] **estudo** Um • de paralelismo em redes backpropagation
[133] **evaluación** Diseño y • de técnicas mixtas basadas en algoritmos genéticos y de branch-and-bound para la resolución de problemas de optimización conbinatoria
[149] **evaluation** A GA for load balancing in par. query • for deductive relational databases
[118] – Derivation of classification structures for fast • of dynamic security assessment in power syst. using GAs
[232] • of nat. computation techniques in the modeling and opt. of a sequential injection flow syst. for colorimetric iron(III) determination
[23] **event** GAs and discrete • syst. : an appl.
[234] **evolution** A fuzzy logic cntr. with learning through the • of its knowledge base
[158] – Coordinated motion planning of manipulators by • strategies
[131] • and Cognition in Image Analysis
[114] • computation for the job-shop sch. problem
[246] – Simulated • of modular networks
[206] **evolution strategies** Generating and selecting fuzzy cntr. rules using • and GAs
[218] **evolution strategy** Experimental results of a Michigan-like • for non-stationary clustering
[229] **evolutionary** A three-stage • process for learning descriptive and approximate fuzzy-logic-cntr. knowledge bases from examples
[87] – An Empirical Study of • Techniques for Multiobjective Opt. in Eng. Design
[36] – An experience in satellite Doppler positioning using an • appr.
[45] – An • alg. for resource-constrained project sch. and multiple execution modes
[127] – An • appr. to decision-making in distribution planning
[62] – An • appr. to simulate cognitive feedback learning in medical domain
[121] – An • artificial neural network time series forecasting syst.
[166] – An • prog. for the multiobjective solid transportation problem with fuzzy goals
[126] – Distribution network expansion planning under uncertainty: a hedging alg. in an • appr.
[34] – GAs and • computation
[134] – GENIAL: an • recurrent neural network designer and trainer

[90] – Greenhouse climate cntr. by • computation - GAs and • prog.
[88] – Greenhouse climate cntr. by • computation: GAs and • prog.
[64] • computation in power syst.
[125] • computation in power syst.
[186] • design of fuzzy logic cntr.
[60] • design of MLP neural network architectures
[235] • design of TSK fuzzy rule-based syst. using
[140] • generation and training of recurrent artificial neural networks
[120] – Opt. distribution network expansion planning under uncertainty by • decision convergence
[263] – Recognition alg. using • learning on the random neural networks
[98] – Rule learning in fuzzy syst. using • prog.
[89] – Rule learning in fuzzy syst. using • prog.
[108] – Treating constraints as objectives for single-objective • opt.
[107] **evolutionary-based** A comprehensive survey of • multiobjective opt. techniques
[154, 167] • learning appl. to fuzzy cntr.
[103] **Evolutivas** Estrategias • La Versión Alemana del Algoritmo Genético (Parte I)
[104] – Estrategias • La Versión Alemana del Algoritmo Genético (Parte II)
[24] **evolutive** An • fuzzy mechanism based on past experiences
[153] – Fuzzy multi-objective solid transportation problem via • prog.
[65] • fuzzy neural networks
[91] **Evolving** clusters with GAs
[101] • few-ion clusters of Na and Cl
[25] **exaptive** Simulation of • behaviour
[45] **execution** An evol. alg. for resource-constrained project sch. and multiple • modes
[126] **expansion** Distribution network • planning under uncertainty: a hedging alg. in an evol. appr.
[120] – Opt. distribution network • planning under uncertainty by evol. decision convergence
[43] **expectations** The concepts of fuzzy sets and GAs: contrasts and similarities of • and development patterns (or would you rather mutate or go fuzzy?)
[36] **experience** An • in satellite Doppler positioning using an evol. appr.
[215] – Learning rules from the • of an expert syst. using GAs
[24] **experiences** An evolutive fuzzy mechanism based on past •
[218] **Experimental** results of a Michigan-like evol. strategy for non-stationary clustering
[21] **Experiments** in fuzzy cntr. using GAs
[215] **expert system** Learning rules from the experience of an • using GAs
[50] **expert-system** A fuzzy • for qualitative chemical-analyses of minerals
[147] **extensiones** Algoritmos genéticos: Fundamentos, • y aplicaciones
[210] **Facial** image recognition using neural networks and GAs
[61] **fading-resistant** Generating • constellations using GA
[118] **fast** Derivation of classification structures for • evaluation of dynamic security assessment in power syst. using GAs
[38] – Novel intelligent environment dedicated to ANN • prototyping
[19] **fault-detection** Impl. of neural-network and GAs for novelty filters for •
[62] **feedback** An evol. appr. to simulate cognitive • learning in medical domain
[101] **few-ion** Evolving • clusters of Na and Cl
[19] **filters** Impl. of neural-network and GAs for novelty • for fault-detection
[170] **finite** A GA for reducing the number of states in incompletely specified • state machines
[264] – Opt. of • element bidimensional models: an appr. based on GAs
[267] **finite element** Opt. of structural and • models via GAs
[214] **Finite state machine** opt. using GAs
[128] **fitness function** A gen. appr. to fuzzy clustering with a validity measure •
[53] **Fitting** of a Mössbauer spectrum using a GA
[232] **flow** Evaluation of nat. computation techniques in the modeling and opt. of a sequential injection • syst. for colorimetric iron(III) determination
[142] – Mesh generation and adaptive remeshing by GAs on transonic • simulation
[254] **flowshop** A hybrid GA appr. for the 'no-wait' • sch. problem
[163] **following** A wall • robot with a fuzzy logic cntr. optimized by a GA
[121] **forecasting** An evol. artificial neural network time series • syst.
[213] – Electric load • with gen. neural networks
[187] – Hybrid syst. : neural networks and GAs appl. in nonlinear regression and time series •
[253] **fossil** Inductive learning appl. to • power plants cntr. opt.
[173] **foundations** Gen. prog. : • and appl. on the opt. of NNs
[100] **freedom** Effective degrees of • in GAs
[132] **function** Modelling chromatographic behaviour as a • of pH and solvent composition in RPLC
[221] **Functional** partitioning for hardware-software codesign using GAs
[147] **Fundamentos** Algoritmos genéticos: • extensiones y aplicaciones
[17] **fusion** Gen. -neuro-fuzzy syst. : a promising •
[117] **fuzzy** A general methodology for distribution planning under uncertainty, including GAs and • models in a multicriteria environment
[150] – A general study on gen. • syst.
[146] – A GA for the multiobjective solid transportation problem: a • appr.
[143] – A GA for the multiobjective solid transportation problem: a • appr.
[128] – A gen. appr. to • clustering with a validity measure fitness function
[248] – A learning method of • reasoning by GAs
[176] – A learning process for • cntr. rules using GAs
[222] – A new appr. to • cntr. designing and coding via GAs
[50] – A • expert-syst. for qualitative chemical-analyses of minerals
[234] – A • logic cntr. with learning through the evol. of its knowledge base
[202] – Adaptive GAs based on • techniques
[166] – An evol. prog. for the multiobjective solid transportation problem with • goals
[24] – An evolutive • mechanism based on past experiences
[177] – Applicability of the • operators in the design of fuzzy logic cntr.
[144] – Applying GAs in • opt. problems
[203] – Dynamic and heuristic • connectives based crossover operators for cntr. the diversity and convergence of real-coded GAs
[235] – Evol. design of TSK • rule-based syst. using
[154, 167] – Evol. -based learning appl. to • cntr.
[65] – Evolutive • neural networks
[206] – Generating and selecting • cntr. rules using evol. strategies and GAs
[217] – Generating and tuning • rules using hybrid syst.
[179] – Generating • rules from examples using GAs
[157] – GAs for • cntr. of automatic docking with a space station
[160] – GAs in • cntr. syst.
[231] – Gen. • clustering for the definition of • sets
[220] – Gen. • syst.
[189] – Heuristic crossovers for real-coded GAs based on • connectives
[168] • and probabilistic reasoning in simple learning CSs
[172] • connectives based crossover operators to model GAs pop. diversity
[205] • ident. by means of GAs
[153] • multi-objective solid transportation problem via evolutive prog.
[136] • tools to improve GAs
[224] – Obtaining • solutions to the • solid transportation problem with GAs
[98] – Rule learning in • syst. using evol. prog.
[152] – Tackling • GA
[43] – The concepts of fuzzy sets and GAs: contrasts and similarities of expectations and development patterns (or would you rather mutate or go •

[175] – The use of • connectives to design real-coded GAs
[21] **fuzzy control** Experiments in • using GAs
[27] **Fuzzy controllers** and GAs in NC machine tool
[164] **fuzzy logic** A classified review on the combination • – GAs bibliography
[204] – A hybrid GA–ES process for learning • cntr. knowledge bases
[163] – A wall following robot with a • cntr. optimized by a GA
[199] – Adaptation of GA parameters based on • cntr.
[177] – Applicability of the fuzzy operators in the design of • cntr.
[186] – Evol. design of • cntr.
[249] – GA appl. to • based syst.
[198] – On the bidirectional integration of GAs and •
[247] – Tuning • cntr. by GA
[115] **fuzzy models** GAs and • – an appl. to gas and electricity distribution planning under uncertainty
[228] **fuzzy set** An appr. to an adaptive info retrieval agent using GAs with • genes
[43] **fuzzy sets** The concepts of • and GAs: contrasts and similarities of expectations and development patterns (or would you rather mutate or go fuzzy?)
[185] **fuzzy systems** A three-stage method for designing gen. • by learning from examples
[89] – Rule learning in • using evol. prog.
[165] **fuzzy-logic** Tuning • cntr. by GAs
[229] **fuzzy-logic-controller** A three-stage evol. process for learning descriptive and approximate • knowledge bases from examples
[201] **fuzzy-PID** Between • and PID-conventional cntr. : a good choice
[184] **[269]** Discussion [of •
[102] **GA-based** An Updated Survey of • Multiobjective Opt. Techniques
[105] **GA-based** Two new • methods for multiobjective opt.
[223] **GA-optimized** A • neural network for classification of biological particles from electron-microscopy images
[115] **gas** GAs and fuzzy models – an appl. to • and electricity distribution planning under uncertainty
[148] **GA/TS** a hybrid appr. for job shop sch. in a production syst. .
[77] **Genético** El Algoritmo • como Alternativa a la Prog. ación Dinámica
[103] **Genético** Estrategias Evolutivas: La Versión Alemana del Algoritmo • (Parte I)
[104] – Estrategias Evolutivas: La Versión Alemana del Algoritmo • (Parte II)
[141] **genéticos** Alg. os • paralelos para problemas combinatorios sobre sistemas multiprocesadores de memoria distribuida
[147] – Algoritmos • Fundamentos, extensiones y aplicaciones
[242] – Aplicación de los alg. os • para el diseño de redes neuronales [Appl. of GAs for the design of neural networks]
[84] – Diseño Optimo de Vigas de Concreto Reforzado mediante Algoritmos •
[133] – Diseño y evaluación de técnicas mixtas basadas en algoritmos • y de branch-and-bound para la resolución de problemas de optimización conbinatoria
[137] – Estudio de la coordinación inteligente en robots bípedos: aplicación de lógica borrosa y algoritmos •
[82] – Introducción a los Algoritmos •
[241] – Los alg. os • como heurístico en problemas de optimización
[71] – Uso de Algoritmos • para el Diseño Optimo de Armaduras
[206] **Generating** and selecting fuzzy cntr. rules using evol. strategies and GAs
[217] • and tuning fuzzy rules using hybrid syst.
[61] • fading-resistant constellations using GA
[179] • fuzzy rules from examples using GAs
[123] **generation** Dynamic planning of distribution networks including dispersed •
[140] – Evol. • and training of recurrent artificial neural networks
[142] – Mesh • and adaptive remeshing by GAs on transonic flow simulation
[135] – Mesh • using GAs
[111] • of collision-free paths, a gen. appr.
[15] – Software test data • using the chaining appr.
[228] **genes** An appr. to an adaptive info retrieval agent using GAs with fuzzy set •
[46] **genetic-based** A • cntr. design for damping power syst. inter-area oscillations
[17] **Genetic-neuro-fuzzy** syst. : a promising fusion
[29] **genetico** Sistema • hierarquico para escolha topolsgica de redes neurais Booleanas [A hierarchical gen. syst. for selecting topology of Boolean NNs]
[75] **Genéticos** Uso de Algoritmos • para la Optimización de Columnas no Prismáticas Sometidas a Carga Axial
[56] **genetics** Opt. energy restoration in distribution syst. using • alg.
[134] **GENIAL** an evol. recurrent neural network designer and trainer
[10] **geometric** GAs and deformable • models for anatomical object recognition
[212] **global** A neuro-evol. unbiased • illumination alg.
[20] **global optima** Appl. of par. GA and property of multiple • to VQ codevector index assignment for noisy channels
[155] **G-LVQ** a combination of GAs and LVQ
[166] **goals** An evol. prog. for the multiobjective solid transportation problem with fuzzy •
[226] **graph** Decomposing Bayesian networks: triangulation of the moral • with GAs
[261] **graphs** A GA for drawing • in an interactive environment
[90] **Greenhouse** climate cntr. by evol. computation - GAs and evol. ary prog.
[88] • climate cntr. by evol. computation: GAs and evol. ary prog.
[221] **hardware-software** Functional partitioning for • codesign using GAs
[126] **hedging** Distribution network expansion planning under uncertainty: a • alg. in an evol. appr.
[241] **heurístico** Los alg. os genéticos como • en problemas de optimización
[174] **heuristic** Dynamic and • crossover operators for cntr. the diversity and convergence of real-coded GAs
[203] – Dynamic and • fuzzy connectives based crossover operators for cntr. the diversity and convergence of real-coded GAs
[189] • crossovers for real-coded GAs based on fuzzy connectives
[41] **hierarchical** Adaptive • censored production rule-based syst. : a GA appr.
[29] – Sistema gen. o hierarquico para escolha topolsgica de redes neurais Booleanas [A • genetic syst. for selecting topology of Boolean NNs]
[29] **hierarquico** Sistema gen. o • para escolha topolsgica de redes neurais Booleanas [A hierarchical genetic syst. for selecting topology of Boolean NNs]
[16] **High-level** synthesis sch. and allocation using GAs
[55] **Hopfield** Cryptanalysis of speech signals ciphered by TSP using annealed • neural network and GAs
[39] **hopfield** Cryptanalysis of speech signals ciphered by TSP using annealed • neural-network and GAs
[58] **hybrid** A • appr. to solve real make-to-order job shop sch. problems
[254] – A • GA appr. for the 'no-wait' flowshop sch. problem
[209] – A • GA for the 0-1 multiple knapsack problem
[204] – A • GA–ES process for learning fuzzy logic cntr. knowledge bases
[124] – An opt. aircraft conflict resolution syst. based on • models
[148] – GA/TS: a • appr. for job shop sch. in a production syst. .
[217] – Generating and tuning fuzzy rules using • syst.
[187] **Hybrid system** neural networks and GAs appl. in nonlinear regression and time series forecasting
[151] **Hybridizing** GAs with branch and bound techniques for the resolution of the TSP
[66] **hyperplane** Designing max-min propagation NNs by • switching
[205] **identification** Fuzzy • by means of GAs
[13] **identifying** GA for • selfgenerating radial basis neural networks
[212] **illumination** A neuro-evol. unbiased global • alg.
[210] **image** Facial • recognition using neural networks and GAs
[131] **Image Analysis** Evol. and Cognition in •

[171] **image processing** Two spacecraft attitude determination using NNs and •
[223] **images** A GA-optimized neural network for classification of biological particles from electron-microscopy •
[72] **Implementation** of a parametric spectral estimator using GAs
[19] • of neural-network and GAs for novelty filters for fault-detection
[170] **incompletely** A GA for reducing the number of states in • specified finite state machines
[208] **independent** A gen. appr. to computing • AND par. in logic prog.
[230] **individuals** Using GAs with variable-length • for planning two-manipulators motion
[207] **indomethacin** GA-based wavelength sel. in multicomponent spectrometric determinations by PLS: Appl. on • and acemethacin mixture
[253] **Inductive** learning appl. to fossil power plants cntr. opt.
[130] **influence** The • of learning in the opt. of Royal road functions
[228] **information** An appr. to an adaptive • retrieval agent using GAs with fuzzy set genes
[244] – Gen. processing of the sensorial •
[233] – Using • measures for determining the relevence of the predictive variables in learning problems
[232] **injection** Evaluation of nat. computation techniques in the modeling and opt. of a sequential • flow syst. for colorimetric iron(III) determination
[28] **insulators** Opt. of • using a GA
[198] **integration** On the bidirectional • of GAs and fuzzy logic
[137] **inteligente** Estudio de la coordinación • en robots bípedos: aplicación de lógica borrosa y algoritmos genéticos
[32] **Intelligent** solutions for cybernetics vehicle cntr.
[38] – Novel • environment dedicated to ANN fast prototyping
[261] **interactive** A GA for drawing graphs in an • environment
[46] **inter-area** A gen. -based cntr. design for damping power syst. • oscillations
[195] **interior point** Unit commitment by • GAs
[82] **Introducción** a los Algoritmos Genéticos
[219] **inverted pendulum** Opt. cntr. of an • by gen. prog. : practical aspects
[12] – Stabilization of • by the GA
[232] **iron(III** Evaluation of nat. computation techniques in the modeling and opt. of a sequential injection flow syst. for colorimetric • determination
[148] **job shop scheduling** GA/TS: a hybrid appr. for • in a production syst. .
[58] **job shop scheduling problems** A hybrid appr. to solve real make-to-order •
[119] **job-shop** Comparison of two Rep. for the simple and the enhanced • Sch. problem
[114] **job-shop scheduling problem** Evol. computation for the •
[209] **knapsack problem** A hybrid GA for the 0-1 multiple •
[234] **knowledge** A fuzzy logic cntr. with learning through the evol. of its • base
[229] – A three-stage evol. process for learning descriptive and approximate fuzzy-logic-cntr. • bases from examples
[204] **knowledge bases** A hybrid GA–ES process for learning fuzzy logic cntr. •
[265] **knowledge-based** Model-based, • epicardial boundary detector
[145] **lan-message** GAs on • passing architectures using PVM: Appl. to the routing problem
[188] **large-scale** Finding the opt. policy for a • syst. using gen. prog.
[234] **learning** A fuzzy logic cntr. with • through the evol. of its knowledge base
[204] – A hybrid GA–ES process for • fuzzy logic cntr. knowledge bases
[229] – A three-stage evol. process for • descriptive and approximate fuzzy-logic-cntr. knowledge bases from examples
[185] – A three-stage method for designing gen. fuzzy syst. by • from examples
[248] – A • method of fuzzy reasoning by GAs
[176] – A • process for fuzzy cntr. rules using GAs
[62] – An evol. appr. to simulate cognitive feedback • in medical domain
[154, 167] – Evol. -based • appl. to fuzzy cntr.
[168] – Fuzzy and probabilistic reasoning in simple • CSs
[268] – GA like • rule for neural networks
[253] – Inductive • appl. to fossil power plants cntr. opt.
[191] • Bayesian network structures by searching for best ordering with GA
[215] • rules from the experience of an expert syst. using GAs
[33] – Non-supervised sensory-motor agents •
[250] – Opt. of a competitive • neural network by GAs
[263] – Recognition alg. using evol. • on the random neural networks
[98] – Rule • in fuzzy syst. using evol. prog.
[89] – Rule • in fuzzy syst. using evol. prog.
[200] – Structure • of Bayesian networks by GAs: a perf. analysis of cntr. parameters
[130] – The influence of • in the opt. of Royal road functions
[233] – Using info measures for determining the relevence of the predictive variables in • problems
[18] **learning-method** Messy GA-based new • for structurally optimized neurofuzzy cntr.
[93] **Lens** design using GA in the stage of opt.
[47] **likelihood** A GA solution to the maximum • statistical problem
[260] **linear** Aplication of GAs for the synthesis of • antenna arrays
[255] – Synthesis of multiple beam • antenna arrays using GAs
[262] **linear-array** Synthesis of • using Schelkunoffs method and GAs
[149] **load** A GA for • balancing in par. query evaluation for deductive relational databases
[213] – Electric • forecasting with gen. neural networks
[22] **load balancing problem** Applying GAs to the •
[96] **loaded** A GA for the opt. design of axially • non-prismatic columns
[51] **location** GAs and the • area partitioning problem in cellular networks
[234] **logic** A fuzzy • cntr. with learning through the evol. of its knowledge base
[159] – Multilevel • synthesis using alg. based on nat. processes
[208] **logic programs** A gen. appr. to computing independent AND par. in •
[242] **los** Aplicación de • alg. os genéticos para el diseño de redes neuronales [Appl. of GAs for the design of neural networks]
[82] – Introducción a • Algoritmos Genéticos
[241] • alg. os genéticos como heurístico en problemas de optimización
[238] **Low-resolution** structures of proteins in solution retrieved from X-ray scattering with a GA
[155] **LVQ** G-LVQ, a combination of GAs and •
[27] **machine tool** Fuzzy cntr. and GAs in NC •
[170] **machines** A GA for reducing the number of states in incompletely specified finite state •
[58] **make-to-order** A hybrid appr. to solve real • job shop sch. problems
[158] **manipulators** Coordinated motion planning of • by ES
[182] ***MasterMind*** Solving • using GAs and simulated annealing: a case of dynamic constraint opt.
[193] **Mastermind** Gen. • a case of dynamic constraint opt.
[47] **maximum** A GA solution to the • likelihood statistical problem
[66] **max-min** Designing • propagation NNs by hyperplane switching
[128] **measure** A gen. appr. to fuzzy clustering with a validity • fitness function
[233] **measures** Using info • for determining the relevence of the predictive variables in learning problems
[24] **mechanism** An evolutive fuzzy • based on past experiences
[84] **mediante** Diseño Optimo de Vigas de Concreto Reforzado • Algoritmos Genéticos
[62] **medical** An evol. appr. to simulate cognitive feedback learning in • domain
[141] **memoria** Alg. os genéticos paralelos para problemas combinatorios sobre sistemas multiprocesadores de • distribuida
[142] **Mesh** generation and adaptive remeshing by GAs on transonic flow simulation

[135] • generation using GAs
[18] **Messy** GA-based new learning-method for structurally optimized neurofuzzy cntr.
[248] **method** A learning • of fuzzy reasoning by GAs
[185] – A three-stage • for designing gen. fuzzy syst. by learning from examples
[117] **methodology** A general • for distribution planning under uncertainty, including GAs and fuzzy models in a multicriteria environment
[105] **methods** Two new GA-based • for multiobjective opt.
[218] **Michigan-like** Experimental results of a • evol. strategy for non-stationary clustering
[50] **minerals** A fuzzy expert-syst. for qualitative chemical-analyses of •
[63] **minima** Alg. for multiple • search
[116] **minimum** Dynamic planning of distribution networks for • regret strategies
[40] **min-max problems** A GA for •
[79] **mirrors** Design of astronomical telescopes of two • using GA in the stage of opt.
[133] **mixtas** Diseño y evaluación de técnicas • basadas en algoritmos genéticos y de branch-and-bound para la resolución de problemas de optimización conbinatoria
[207] **mixture** GA-based wavelength sel. in multicomponent spectrometric determinations by PLS: Appl. on indomethacin and acemethacin •
[60] **MLP** Evol. design of • neural network architectures
[42] **model** Appl. of a GA for calibration and structural modification of tank •
[172] – Fuzzy connectives based crossover operators to • GAs pop. diversity
[266] **Model-based** epicardial boundary detection using GAs
[265] • knowledge-based epicardial boundary detector
[232] **modeling** Evaluation of nat. computation techniques in the • and opt. of a sequential injection flow syst. for colorimetric iron(III) determination
[132] **Modelling** chromatographic behaviour as a function of pH and solvent composition in RPLC
[117] **models** A general methodology for distribution planning under uncertainty, including GAs and fuzzy • in a multicriteria environment
[124] – An opt. aircraft conflict resolution syst. based on hybrid •
[10] – GAs and deformable geometric • for anatomical object recognition
[264] – Opt. of finite element bidimensional • an appr. based on GAs
[267] – Opt. of structural and finite element • via GAs
[45] **modes** An evol. alg. for resource-constrained project sch. and multiple execution •
[42] **modification** Appl. of a GA for calibration and structural • of tank model
[246] **modular** Simulated evol. of • networks
[236] **Molecular** computation for GAs
[226] **moral** Decomposing Bayesian networks: triangulation of the • graph with GAs
[106] **MOSES** A multiobjective opt. tool for eng. design
[158] **motion** Coordinated • planning of manipulators by ES
[230] – Using GAs with variable-length individuals for planning two-manipulators •
[207] **multicomponent** GA-based wavelength sel. in • spectrometric determinations by PLS: Appl. on indomethacin and acemethacin mixture
[117] **multi-criteria** A general methodology for distribution planning under uncertainty, including GAs and fuzzy models in a • environment
[159] **Multilevel** logic synthesis using alg. based on nat. processes
[107] **multiobjective** A comprehensive survey of evol. -based • opt. techniques
[57] – A GA for constrained and • opt.
[146] – A GA for the • solid transportation problem: a fuzzy appr.
[143] – A GA for the • solid transportation problem: a fuzzy appr.
[80] – An appr. to • opt. using GAs
[87] – An Empirical Study of Evol. Techniques for • Opt. in Eng. Design
[166] – An evol. prog. for the • solid transportation problem with fuzzy goals
[102] – An Updated Survey of GA-based • Opt. Techniques
[153] **multi-objective** Fuzzy • solid transportation problem via evolutive prog.
[106] **multiobjective** MOSES: A • opt. tool for eng. design
[105] – Two new GA-based methods for • opt.
[85] – Use of GAs for • opt. of counterweight balancing of robot arms
[141] **multiprocesadores** Alg. os genéticos paralelos para problemas combinatorios sobre sistemas • de memoria distribuida
[113] **multistage** GAs in opt. • distribution network planning
[43] **mutate** The concepts of fuzzy sets and GAs: contrasts and similarities of expectations and development patterns (or would you rather • or go fuzzy?)
[101] **Na** Evolving few-ion clusters of • and Cl
[232] **natural** Evaluation of • computation techniques in the modeling and opt. of a sequential injection flow syst. for colorimetric iron(III) determination
[159] – Multilevel logic synthesis using alg. based on • processes
[14] **Navigation** Terrain-Aided • Using the Viterbi Alg.
[27] **NC** Fuzzy cntr. and GAs in • machine tool
[237] **network** Distribution • opt. : Finding the most economic solution by using GA
[113] – GAs in opt. multistage distribution • planning
[120] – Opt. distribution • expansion planning under uncertainty by evol. decision convergence
[169] – Opt. of power distribution • design by appl. of GAs
[129] **networked** Par. GAs in a • workstation environment
[225] **networks** Boolean • decomposition using GAs
[66] – Designing max-min propagation neural • by hyperplane switching
[173] – Gen. prog. : foundations and appl. on the opt. of neural •
[246] – Simulated evol. of modular •
[29] – Sistema gen. o hierarquico para escolha topolsgica de redes neurais Booleanas [A hierarchical genetic syst. for selecting topology of Boolean neural •
[171] – Two spacecraft attitude determination using neural • and image processing
[29] **neurais** Sistema gen. o hierarquico para escolha topolsgica de redes • Booleanas [A hierarchical genetic syst. for selecting topology of Boolean NNs]
[66] **neural** Designing max-min propagation • networks by hyperplane switching
[173] – Gen. prog. : foundations and appl. on the opt. of • networks
[29] – Sistema gen. o hierarquico para escolha topolsgica de redes neurais Booleanas [A hierarchical genetic syst. for selecting topology of Boolean • networks]
[171] – Two spacecraft attitude determination using • networks and image processing
[223] **neural network** A GA-optimized • for classification of biological particles from electron-microscopy images
[121] – An evol. artificial • time series forecasting syst.
[55] – Cryptanalysis of speech signals ciphered by TSP using annealed Hopfield • and GAs
[60] – Evol. design of MLP • architectures
[252] – Gen. synthesis of discrete-time recurrent •
[134] – GENIAL: an evol. recurrent • designer and trainer
[250] – Opt. of a competitive learning • by GAs
[242] **neural networks** Aplicación de los alg. os genéticos para el diseño de redes neuronales [Appl. of GAs for the design of •
[213] – Electric load forecasting with gen. •
[140] – Evol. generation and training of recurrent artificial •
[65] – Evolutive fuzzy •
[210] – Facial image recognition using • and GAs
[13] – GA for identifying selfgenerating radial basis •
[268] – GA like learning rule for •
[35] – GAs in the opt. choice of • for signal processing
[187] – Hybrid syst. : • and GAs appl. in nonlinear regression and time series forecasting
[263] – Recognition alg. using evol. learning on the random •
[39] **neural-network** Cryptanalysis of speech signals ciphered by TSP using annealed hopfield • and GAs
[19] – Impl. of • and GAs for novelty filters for fault-detection
[212] **neuro-evolutionary** A • unbiased global illumination alg.
[18] **neurofuzzy** Messy GA-based new learning-method for structurally optimized • cntr.

[242] **neuronales** Aplicación de los alg. os genéticos para el diseño de redes • [Appl. of GAs for the design of neural networks]
[20] **noisy** Appl. of par. GA and property of multiple global optima to VQ codevector index assignment for • channels
[187] **nonlinear** Hybrid syst. : neural networks and GAs appl. in • regression and time series forecasting
[96] **non-prismatic** A GA for the opt. design of axially loaded • columns
[218] **non-stationary** Experimental results of a Michigan-like evol. strategy for • clustering
[33] **Non-supervised** sensory-motor agents learning
[19] **novelty** Impl. of neural-network and GAs for • filters for fault-detection
[254] **no-wait** A hybrid GA appr. for the • flowshop sch. problem
[170] **number** A GA for reducing the • of states in incompletely specified finite state machines
[10] **object** GAs and deformable geometric models for anatomical • recognition
[108] **objectives** Treating constraints as • for single-objective evol. opt.
[112] **object-oriented** GAs, classifiers and par. – An • appr.
[224] **Obtaining** fuzzy solutions to the fuzzy solid transportation problem with GAs
[67] **open** Economically adapted transmission-syst. in • access schemes - Appl. of GAs
[37] **operation** Appl. of stochastic opt. to power syst. planning and •
[177] **operators** Applicability of the fuzzy • in the design of fuzzy logic cntr.
[203] – Dynamic and heuristic fuzzy connectives based crossover • for cntr. the diversity and convergence of real-coded GAs
[178, 239] – Tackling real-coded GAs: • and tools for behavioural analysis
[96] **optimal** A GA for the • design of axially loaded non-prismatic columns
[83] – An appr. to • design of reinforced concrete beams using GAs
[124] – An • aircraft conflict resolution syst. based on hybrid models
[188] – Finding the • policy for a large-scale syst. using gen. prog.
[139] – GAs appl. to the • power distribution syst. design
[35] – GAs in the • choice of neural networks for signal processing
[113] – GAs in • multistage distribution network planning
[219] • cntr. of an inverted pendulum by gen. prog. : practical aspects
[81, 99] • design of reinforced concrete beams using GAs
[120] • distribution network expansion planning under uncertainty by evol. decision convergence
[56] • energy restoration in distribution syst. using gen. alg.
[78] – Use of GAs for the • design of reinforced concrete beams
[26] **optimisation** Design • using the BEM coupled with GA
[197] **optimising** Appl. of GAs and simulated annealing technique in • the aperture distributions of antenna array patterns
[133] **optimización** Diseño y evaluación de técnicas mixtas basadas en algoritmos genéticos y de branch-and-bound para la resolución de problemas de • conbinatoria
[241] – Los alg. os genéticos como heurístico en problemas de •
[75] – Uso de Algoritmos Genéticos para la • de Columnas no Prismáticas Sometidas a Carga Axial
[107] **optimization** A comprehensive survey of evol. -based multiobjective • techniques
[57] – A GA for constrained and multiobjective •
[80] – An appr. to multiobjective • using GAs
[87] – An Empirical Study of Evol. Techniques for Multiobjective • in Eng. Design
[102] – An Updated Survey of GA-based Multiobjective • Techniques
[144] – Applying GAs in fuzzy • problems
[79] – Design of astronomical telescopes of two mirrors using GA in the stage of •
[74] – Discrete • of trusses using GAs
[237] – Distribution network • Finding the most economic solution by using GA
[232] – Evaluation of nat. computation techniques in the modeling and • of a sequential injection flow syst. for colorimetric iron(III) determination
[214] – Finite state machine • using GAs
[48] – GA coupled with a deterministic method for • in electromagnetics
[251] – GAs: a strategy for search and •
[193] – Gen. Mastermind, a case of dynamic constraint •
[173] – Gen. prog. : foundations and appl. on the • of NNs
[253] – Inductive learning appl. to fossil power plants cntr. •
[93] – Lens design using GA in the stage of •
[106] – MOSES: A multiobjective • tool for eng. design
[250] • of a competitive learning neural network by GAs
[264] • of finite element bidimensional models: an appr. based on GAs
[28] • of insulators using a GA
[169] • of power distribution network design by appl. of GAs
[267] • of structural and finite element models via GAs
[73] • of Truss Designs using GAs
[92] – Parametric • of an equation of state by GAs
[49] – Placement • using behavior based software agents and the GA
[44] – Placement • using behavior-based software agents and the GA
[182] – Solving *MasterMind* using GAs and simulated annealing: a case of dynamic constraint •
[258] – Structural • alg. based on gen. simulation
[130] – The influence of learning in the • of Royal road functions
[108] – Treating constraints as objectives for single-objective evol. •
[105] – Two new GA-based methods for multiobjective •
[109] – Use of a self-adaptive penalty appr. for eng. • problems
[85] – Use of GAs for multiobjective • of counterweight balancing of robot arms
[259] **optimize** GAs as an appr. to • real-world trusses
[70] – Use of GAs to • the cost of automotive wire harness
[163] **optimized** A wall following robot with a fuzzy logic cntr. • by a GA
[194] – DISTOS: Efficient petrol delivery syst. using • truck routing
[18] – Messy GA-based new learning-method for structurally • neurofuzzy cntr.
[181] **optimizing** Appl. of GAs and simulated annealing technique in • the aperture distributions of antenna arrays
[84] **Optimo** Diseño • de Vigas de Concreto Reforzado mediante Algoritmos Genéticos
[71] – Uso de Algoritmos Genéticos para el Diseño • de Armaduras
[191] **ordering** Learning Bayesian network structures by searching for best • with GA
[46] **oscillations** A gen. -based cntr. design for damping power syst. inter-area •
[141] **para** Alg. os genéticos paralelos • problemas combinatorios sobre sistemas multiprocesadores de memoria distribuida
[242] – Aplicación de los alg. os genéticos • el diseño de redes neuronales [Appl. of GAs for the design of neural networks]
[133] – Diseño y evaluación de técnicas mixtas basadas en algoritmos genéticos y de branch-and-bound • la resolución de problemas de optimización conbinatoria
[29] – Sistema gen. o hierarquico • escolha topolsgica de redes neurais Booleanas [A hierarchical genetic syst. for selecting topology of Boolean NNs]
[31] – Um algoritmo paralelo distribuido • o travelling purchaser problem [A par. distr. alg. for the traveling salesman problem]
[71] – Uso de Algoritmos Genéticos • el Diseño Optimo de Armaduras
[75] – Uso de Algoritmos Genéticos • la Optimización de Columnas no Prismáticas Sometidas a Carga Axial
[30] **paralelismo** Um estudo de • em redes backpropagation
[31] **paralelo** Um algoritmo • distribuido para o travelling purchaser problem [A par. distr. alg. for the traveling salesman problem]
[141] **paralelos** Alg. os genéticos • para problemas combinatorios sobre sistemas multiprocesadores de memoria distribuida
[149] **parallel** A GA for load balancing in • query evaluation for deductive relational databases

[20] – Appl. of • GA and property of multiple global optima to VQ codevector index assignment for noisy channels
[68] – Boltzmann machines design using GAs in a • environment
[129] • GAs in a networked workstation environment
[31] – Um algoritmo paralelo distribuido para o travelling purchaser problem [A • distr. alg. for the traveling salesman problem]
[208] **parallelism** A gen. appr. to computing independent AND • in logic prog.
[112] – GAs, classifiers and • – An object-oriented appr.
[69] **Parameter** determination for a GA appl. to robot cntr.
[86] • determination for quantitative pixel analysis using GAs
[199] **parameters** Adaptation of GA • based on fuzzy logic cntr.
[200] – Structure learning of Bayesian networks by GAs: a perf. analysis of cntr. •
[72] **parametric** Impl. of a • spectral estimator using GAs
[92] • opt. of an equation of state by GAs
[103] **Parte** Estrategias Evolutivas: La Versión Alemana del Algoritmo Genético • I)
[104] – Estrategias Evolutivas: La Versión Alemana del Algoritmo Genético • II)
[223] **particles** A GA-optimized neural network for classification of biological • from electron-microscopy images
[221] **partitioning** Functional • for hardware-software codesign using GAs
[51] – GAs and the location area • problem in cellular networks
[145] **passing** GAs on lan-message • architectures using PVM: Appl. to the routing problem
[24] **past** An evolutive fuzzy mechanism based on • experiences
[111] **paths** Generation of collision-free • a gen. appr.
[197] **patterns** Appl. of GAs and simulated annealing technique in optimising the aperture distributions of antenna array •
[43] – The concepts of fuzzy sets and GAs: contrasts and similarities of expectations and development • (or would you rather mutate or go fuzzy?)
[109] **penalty** Use of a self-adaptive • appr. for eng. opt. problems
[200] **performance** Structure learning of Bayesian networks by GAs: a • analysis of cntr. parameters
[194] **petrol** DISTOS: Efficient • delivery syst. using optimized truck routing
[132] **pH** Modelling chromatographic behaviour as a function of • and solvent composition in RPLC
[201] **PID-conventional** Between fuzzy-PID and • cntr. : a good choice
[161] **pitfalls** GAs: A stochastic improvement technique. Tools, skills, • and examples
[86] **pixel** Parameter determination for quantitative • analysis using GAs
[49] **Placement** opt. using behavior based software agents and the GA
[44] • opt. using behavior-based software agents and the GA
[117] **planning** A general methodology for distribution • under uncertainty, including GAs and fuzzy models in a multicriteria environment
[127] – An evol. appr. to decision-making in distribution •
[37] – Appl. of stochastic opt. to power syst. • and operation
[158] – Coordinated motion • of manipulators by ES
[126] – Distribution network expansion • under uncertainty: a hedging alg. in an evol. appr.
[116] – Dynamic • of distribution networks for minimum regret strategies
[123] – Dynamic • of distribution networks including dispersed generation
[115] – GAs and fuzzy models – an appl. to gas and electricity distribution • under uncertainty
[113] – GAs in opt. multistage distribution network •
[120] – Opt. distribution network expansion • under uncertainty by evol. decision convergence
[230] – Using GAs with variable-length individuals for • two-manipulators motion
[207] **PLS** GA-based wavelength sel. in multicomponent spectrometric determinations by • Appl. on indomethacin and acemethacin mixture
[188] **policy** Finding the opt. • for a large-scale syst. using gen. prog.
[172] **population** Fuzzy connectives based crossover operators to model GAs • diversity
[36] **positioning** An experience in satellite Doppler • using an evol. appr.
[64] **power** Evol. computation in • syst.
[139] – GAs appl. to the opt. • distribution syst. design
[240] – GAs appl. to the design of large • distribution syst.
[169] – Opt. of • distribution network design by appl. of GAs
[253] **power plants** Inductive learning appl. to fossil • cntr. opt.
[46] **power system** A gen. -based cntr. design for damping • inter-area oscillations
[37] – Appl. of stochastic opt. to • planning and operation
[52] – Tuning of • damping cntr. using GAs
[118] **power systems** Derivation of classification structures for fast evaluation of dynamic security assessment in • using GAs
[125] – Evol. computation in •
[219] **practical** Opt. cntr. of an inverted pendulum by gen. prog. : • aspects
[233] **predictive** Using info measures for determining the relevence of the • variables in learning problems
[75] **Prismáticas** Uso de Algoritmos Genéticos para la Optimización de Columnas no • Sometidas a Carga Axial
[168] **probabilistic** Fuzzy and • reasoning in simple learning CSs
[146] **problem** A GA for the multiobjective solid transportation • a fuzzy appr.
[47] – A GA solution to the maximum likelihood statistical •
[254] – A hybrid GA appr. for the 'no-wait' flowshop sch. •
[119] – Comparison of two Rep. for the simple and the enhanced job-shop Sch. •
[51] – GAs and the location area partitioning • in cellular networks
[224] – Obtaining fuzzy solutions to the fuzzy solid transportation • with GAs
[138] – The routing • in traffic cntr. using GAs
[31] – Um algoritmo paralelo distribuido para o travelling purchaser • [A par. distr. alg. for the traveling salesman problem]
[141] **problemas** Alg. os genéticos paralelos para • combinatorios sobre sistemas multiprocesadores de memoria distribuida
[133] – Diseño y evaluación de técnicas mixtas basadas en algoritmos genéticos y de branch-and-bound para la resolución de • de optimización conbinatoria
[241] – Los alg. os genéticos como heurístico en • de optimización
[144] **problems** Applying GAs in fuzzy opt. •
[109] – Use of a self-adaptive penalty appr. for eng. opt. •
[233] – Using info measures for determining the relevence of the predictive variables in learning •
[204] **process** A hybrid GA–ES • for learning fuzzy logic cntr. knowledge bases
[176] – A learning • for fuzzy cntr. rules using GAs
[229] – A three-stage evol. • for learning descriptive and approximate fuzzy-logic-cntr. knowledge bases from examples
[159] **processes** Multilevel logic synthesis using alg. based on nat. •
[244] **processing** Gen. • of the sensorial info
[41] **production** Adaptive hierarchical censored • rule-based syst. : a GA appr.
[148] **production system** GA/TS: a hybrid appr. for job shop sch. in a •
[77] **Programación** El Algoritmo Genético como Alternativa a la • Dinámica
[188] **programming** Finding the opt. policy for a large-scale syst. using gen. •
[153] – Fuzzy multi-objective solid transportation problem via evolutive •
[173] – Gen. • foundations and appl. on the opt. of NNs
[45] **project** An evol. alg. for resource-constrained • sch. and multiple execution modes
[17] **promising** Gen. -neuro-fuzzy syst. : a • fusion
[66] **propagation** Designing max-min • NNs by hyperplane switching
[20] **property** Appl. of par. GA and • of multiple global optima to VQ codevector index assignment for noisy channels

[238] **proteins** Low-resolution structures of • in solution retrieved from X-ray scattering with a GA
[196] **Protocol** GAs for • Validation
[38] **prototyping** Novel intelligent environment dedicated to ANN fast •
[31] **purchaser** Um algoritmo paralelo distribuido para o travelling • problem [A par. distr. alg. for the traveling salesman problem]
[162] **PVM** A comparative study of two distr. syst. : • and transputers
[145] – GAs on lan-message passing architectures using • Appl. to the routing problem
[50] **qualitative** A fuzzy expert-syst. for • chemical-analyses of minerals
[86] **quantitative** Parameter determination for • pixel analysis using GAs
[149] **query** A GA for load balancing in par. • evaluation for deductive relational databases
[13] **radial basis** GA for identifying selfgenerating • neural networks
[263] **random** Recognition alg. using evol. learning on the • neural networks
[43] **rather** The concepts of fuzzy sets and GAs: contrasts and similarities of expectations and development patterns (or would you • mutate or go fuzzy?)
[58] **real** A hybrid appr. to solve • make-to-order job shop sch. problems
[174] **real-coded** Dynamic and heuristic crossover operators for cntr. the diversity and convergence of • GAs
[203] – Dynamic and heuristic fuzzy connectives based crossover operators for cntr. the diversity and convergence of • GAs
[189] – Heuristic crossovers for • GAs based on fuzzy connectives
[178] – Tackling • GAs: operators and tools for behavioural analysis
[239] – Tackling • GAs: Operators and tools for behavioural analysis
[175] – The use of fuzzy connectives to design • GAs
[259] **real-world** GAs as an appr. to optimize • trusses
[248] **reasoning** A learning method of fuzzy • by GAs
[168] – Fuzzy and probabilistic • in simple learning CSs
[210] **recognition** Facial image • using neural networks and GAs
[10] – GAs and deformable geometric models for anatomical object •
[263] • alg. using evol. learning on the random neural networks
[140] **recurrent** Evol. generation and training of • artificial neural networks
[252] – Gen. synthesis of discrete-time • neural network
[134] – GENIAL: an evol. • neural network designer and trainer
[242] **redes** Aplicación de los alg. os genéticos para el diseño de • neuronales [Appl. of GAs for the design of neural networks]
[29] – Sistema gen. o hierarquico para escolha topolsgica de • neurais Booleanas [A hierarchical genetic syst. for selecting topology of Boolean NNs]
[30] – Um estudo de paralelismo em • backpropagation
[170] **reducing** A GA for • the number of states in incompletely specified finite state machines
[84] **Reforzado** Diseño Optimo de Vigas de Concreto • mediante Algoritmos Genéticos
[187] **regression** Hybrid syst. : neural networks and GAs appl. in nonlinear • and time series forecasting
[116] **regret** Dynamic planning of distribution networks for minimum • strategies
[94] **reinforced** A simple GA for the design of • concrete beams
[83] – An appr. to opt. design of • concrete beams using GAs
[81, 99] – Opt. design of • concrete beams using GAs
[78] – Use of GAs for the opt. design of • concrete beams
[149] **relational** A GA for load balancing in par. query evaluation for deductive • databases
[233] **relevence** Using info measures for determining the • of the predictive variables in learning problems
[142] **remeshing** Mesh generation and adaptive • by GAs on transonic flow simulation
[119] **representations** Comparison of two • for the simple and the enhanced job-shop Sch. problem
[133] **resolución** Diseño y evaluación de técnicas mixtas basadas en algoritmos genéticos y de branch-and-bound para la • de problemas de optimización conbinatoria
[124] **resolution** An opt. aircraft conflict • syst. based on hybrid models
[151] – Hybridizing GAs with branch and bound techniques for the • of the TSP
[45] **resource-constrained** An evol. alg. for • project sch. and multiple execution modes
[56] **restoration** Opt. energy • in distribution syst. using gen. alg.
[228] **retrieval** An appr. to an adaptive info • agent using GAs with fuzzy set genes
[238] **retrieved** Low-resolution structures of proteins in solution • from X-ray scattering with a GA
[164] **review** A classified • on the combination fuzzy logic – GAs bibliography
[163] **robot** A wall following • with a fuzzy logic cntr. optimized by a GA
[69] – Parameter determination for a GA appl. to • cntr.
[85] **robot arms** Use of GAs for multiobjective opt. of counterweight balancing of •
[137] **robots** Estudio de la coordinación inteligente en • bípedos: aplicación de lógica borrosa y algoritmos genéticos
[183, 216] **routing** A • strategy based on GAs
[194] – DISTOS: Efficient petrol delivery syst. using optimized truck •
[138] – The • problem in traffic cntr. using GAs
[145] **routing problem** GAs on lan-message passing architectures using PVM: Appl. to the •
[130] **Royal road functions** The influence of learning in the opt. of •
[132] **RPLC** Modelling chromatographic behaviour as a function of pH and solvent composition in •
[268] **rule** GA like learning • for neural networks
[98] • learning in fuzzy syst. using evol. prog.
[89] • learning in fuzzy syst. using evol. prog.
[235] **rule-based** Evol. design of TSK fuzzy • syst. using
[41] **rule-based system** Adaptive hierarchical censored production • a GA appr.
[176] **rules** A learning process for fuzzy cntr. • using GAs
[180] – Design of a cntr. • base based on GAs
[206] – Generating and selecting fuzzy cntr. • using evol. strategies and GAs
[217] – Generating and tuning fuzzy • using hybrid syst.
[179] – Generating fuzzy • from examples using GAs
[215] – Learning • from the experience of an expert syst. using GAs
[36] **satellite** An experience in • Doppler positioning using an evol. appr.
[238] **scattering** Low-resolution structures of proteins in solution retrieved from X-ray • with a GA
[254] **scheduling** A hybrid GA appr. for the 'no-wait' flow-shop • problem
[45] – An evol. alg. for resource-constrained project • and multiple execution modes
[119] – Comparison of two Rep. for the simple and the enhanced job-shop • problem
[16] – High-level synthesis • and allocation using GAs
[262] **Schelkunoffs method** Synthesis of linear-array using • and GAs
[67] **schemes** Economically adapted transmission-syst. in open access • - Appl. of GAs
[11] **scientific** Applying GAs in • discovery: a case study
[63] **search** Alg. for multiple minima •
[251] – GAs: a strategy for • and opt.
[156] – Topology-based gen. • for the Stahel-Donoho estimator
[191] **searching** Learning Bayesian network structures by • for best ordering with GA
[118] **security** Derivation of classification structures for fast evaluation of dynamic • assessment in power syst. using GAs
[206] **selecting** Generating and • fuzzy cntr. rules using evol. strategies and GAs
[29] – Sistema gen. o hierarquico para escolha topolsgica de redes neurais Booleanas [A hierarchical genetic syst. for • topology of Boolean NNs]
[59] **selection** GA for weight • in H cntr. design
[207] – GA-based wavelength • in multicomponent spectrometric determinations by PLS: Appl. on indomethacin and acemethacin mixture

[109] **self-adaptive** Use of a • penalty appr. for eng. opt. problems
[13] **selfgenerating** GA for identifying • radial basis neural networks
[244] **sensorial** Gen. processing of the • info
[33] **sensory-motor** Non-supervised • agents learning
[190] **sequence** GA for DNA/RNA • comparison
[232] **sequential** Evaluation of nat. computation techniques in the modeling and opt. of a • injection flow syst. for colorimetric iron(III) determination
[231] **sets** Gen. fuzzy clustering for the definition of fuzzy •
[257] **signal analysis** Electrocardiographic • using GAs (GAs)
[35] **signal processing** GAs in the opt. choice of neural networks for •
[55] **signals** Cryptanalysis of speech • ciphered by TSP using annealed Hopfield neural network and GAs
[39] – Cryptanalysis of speech • ciphered by TSP using annealed hopfield neural-network and GAs
[43] **similarities** The concepts of fuzzy sets and GAs: contrasts and • of expectations and development patterns (or would you rather mutate or go fuzzy?)
[62] **simulate** An evol. appr. to • cognitive feedback learning in medical domain
[246] **Simulated** evol. of modular networks
[197] **simulated annealing** Appl. of GAs and • technique in optimising the aperture distributions of antenna array patterns
[181] – Appl. of GAs and • technique in opt. the aperture distributions of antenna arrays
[182] – Solving *MasterMind* using GAs and • a case of dynamic constraint opt.
[54] **simulation** A new appr. for GA as a support to the • of complex syst.
[142] – Mesh generation and adaptive remeshing by GAs on transonic flow •
[25] • of exaptive behaviour
[258] – Structural opt. alg. based on gen. •
[108] **single-objective** Treating constraints as objectives for • evol. opt.
[29] **Sistema** gen. o hierarquico para escolha topolsgica de redes neurais Booleanas [A hierarchical genetic syst. for selecting topology of Boolean NNs]
[141] **sistemas** Alg. os genéticos paralelos para problemas combinatorios sobre • multiprocesadores de memoria distribuida
[161] **skills** GAs: A stochastic improvement technique. Tools, • pitfalls and examples
[141] **sobre** Alg. os genéticos paralelos para problemas combinatorios • sistemas multiprocesadores de memoria distribuida
[15] **Software** test data generation using the chaining appr.
[49] – Placement opt. using behavior based • agents and the GA
[44] – Placement opt. using behavior-based • agents and the GA
[146] **solid** A GA for the multiobjective • transportation problem: a fuzzy appr.
[143] – A GA for the multiobjective • transportation problem: a fuzzy appr.
[166] – An evol. prog. for the multiobjective • transportation problem with fuzzy goals
[153] – Fuzzy multi-objective • transportation problem via evolutive prog.
[224] – Obtaining fuzzy solutions to the fuzzy • transportation problem with GAs
[47] **solution** A GA • to the maximum likelihood statistical problem
[237] – Distribution network opt. : Finding the most economic • by using GA
[238] – Low-resolution structures of proteins in • retrieved from X-ray scattering with a GA
[32] **solutions** Intelligent • for cybernetics vehicle cntr.
[224] – Obtaining fuzzy • to the fuzzy solid transportation problem with GAs
[132] **solvent** Modelling chromatographic behaviour as a function of pH and • composition in RPLC
[182] **Solving** *MasterMind* using GAs and simulated annealing: a case of dynamic constraint opt.
[75] **Sometidas** Uso de Algoritmos Genéticos para la Optimización de Columnas no Prismáticas • a Carga Axial
[157] **space** GAs for fuzzy cntr. of automatic docking with a • station
[171] **spacecraft** Two • attitude determination using NNs and image processing
[170] **specified** A GA for reducing the number of states in incompletely • finite state machines
[72] **spectral estimator** Impl. of a parametric • using GAs
[207] **spectrometric** GA-based wavelength sel. in multicomponent • determinations by PLS: Appl. on indomethacin and acemethacin mixture
[55] **speech** Cryptanalysis of • signals ciphered by TSP using annealed Hopfield neural network and GAs
[39] – Cryptanalysis of • signals ciphered by TSP using annealed hopfield neural-network and GAs
[12] **Stabilization** of inverted pendulum by the GA
[79] **stage** Design of astronomical telescopes of two mirrors using GA in the • of opt.
[93] – Lens design using GA in the • of opt.
[156] **Stahel-Donoho estimator** Topology-based gen. search for the •
[170] **state** A GA for reducing the number of states in incompletely specified finite • machines
[170] **states** A GA for reducing the number of • in incompletely specified finite state machines
[157] **station** GAs for fuzzy cntr. of automatic docking with a space •
[47] **statistical** A GA solution to the maximum likelihood • problem
[161] **stochastic** GAs: A • improvement technique. Tools, skills, pitfalls and examples
[37] **stochastic optimization** Appl. of • to power syst. planning and operation
[158] **strategies** Coordinated motion planning of manipulators by evol. •
[116] – Dynamic planning of distribution networks for minimum regret •
[204] **strategy** A hybrid GA–evol. • process for learning fuzzy logic cntr. knowledge bases
[183, 216] – A routing • based on GAs
[251] – GAs: a • for search and opt.
[42] **structural** Appl. of a GA for calibration and • modification of tank model
[258] • opt. alg. based on gen. simulation
[267] – Opt. of • and finite element models via GAs
[18] **structurally** Messy GA-based new learning-method for • optimized neurofuzzy cntr.
[200] **Structure** learning of Bayesian networks by GAs: a perf. analysis of cntr. parameters
[118] **structures** Derivation of classification • for fast evaluation of dynamic security assessment in power syst. using GAs
[191] – Learning Bayesian network • by searching for best ordering with GA
[238] – Low-resolution • of proteins in solution retrieved from X-ray scattering with a GA
[54] **support** A new appr. for GA as a • to the simulation of complex syst.
[107] **survey** A comprehensive • of evol. -based multiobjective opt. techniques
[102] – An Updated • of GA-based Multiobjective Opt. Techniques
[66] **switching** Designing max-min propagation NNs by hyperplane •
[260] **synthesis** Aplication of GAs for the • of linear antenna arrays
[252] – Gen. • of discrete-time recurrent neural network
[16] – High-level • sch. and allocation using GAs
[159] – Multilevel logic • using alg. based on nat. processes
[256] • of antenna arrays using GAs
[262] • of linear-array using Schelkunoffs method and GAs
[255] • of multiple beam linear antenna arrays using GAs
[152] **Tackling** fuzzy GA
[178] • real-coded GAs: operators and tools for behavioural analysis
[239] • real-coded GAs: Operators and tools for behavioural analysis
[42] **tank** Appl. of a GA for calibration and structural modification of • model
[107] **techniques** A comprehensive survey of evol. -based multiobjective opt. •
[202] – Adaptive GAs based on fuzzy •

[232] – Evaluation of nat. computation • in the modeling and opt. of a sequential injection flow syst. for colorimetric iron(III) determination
[79] **telescopes** Design of astronomical • of two mirrors using GA in the stage of opt.
[14] **Terrain-Aided** Navigation Using the Viterbi Alg.
[15] **test data** Software • generation using the chaining appr.
[229] **three-stage** A • evol. process for learning descriptive and approximate fuzzy-logic-cntr. knowledge bases from examples
[185] – A • method for designing gen. fuzzy syst. by learning from examples
[192] **time delays** Adaptive + Darwinian appr. for the estimation and tracking of •
[121] **time series** An evol. artificial neural network • forecasting syst.
[187] – Hybrid syst. : neural networks and GAs appl. in nonlinear regression and • forecasting
[106] **tool** MOSES: A multiobjective opt. • for eng. design
[136] **tools** Fuzzy • to improve GAs
[161] – GAs: A stochastic improvement technique. • skills, pitfalls and examples
[178] – Tackling real-coded GAs: operators and • for behavioural analysis
[239] – Tackling real-coded GAs: Operators and • for behavioural analysis
[29] **topology** Sistema gen. o hierarquico para escolha topolsgica de redes neurais Booleanas [A hierarchical genetic syst. for selecting • of Boolean NNs]
[156] **Topology-based** gen. search for the Stahel-Donoho estimator
[29] **topolsgica** Sistema gen. o hierarquico para escolha • de redes neurais Booleanas [A hierarchical genetic syst. for selecting topology of Boolean NNs]
[192] **tracking** Adaptive + Darwinian appr. for the estimation and • of time delays
[138] **traffic** The routing problem in • cntr. using GAs
[134] **trainer** GENIAL: an evol. recurrent neural network designer and •
[140] **training** Evol. generation and • of recurrent artificial neural networks
[67] **transmission-systems** Economically adapted • in open access schemes - Appl. of GAs
[142] **transonic** Mesh generation and adaptive remeshing by GAs on • flow simulation
[146] **transportation** A GA for the multiobjective solid • problem: a fuzzy appr.
[224] – Obtaining fuzzy solutions to the fuzzy solid • problem with GAs
[143] **transportation problem** A GA for the multiobjective solid • a fuzzy appr.
[166] – An evol. prog. for the multiobjective solid • with fuzzy goals
[153] – Fuzzy multi-objective solid • via evolutive prog.
[162] **transputers** A comparative study of two distr. syst. : PVM and •
[31] **traveling salesman problem** Um algoritmo paralelo distribuido para o travelling purchaser problem [A par. distr. alg. for the •
[31] **travelling** Um algoritmo paralelo distribuido para o • purchaser problem [A par. distr. alg. for the traveling salesman problem]
[108] **Treating** constraints as objectives for single-objective evol. opt.
[226] **triangulation** Decomposing Bayesian networks: • of the moral graph with GAs
[194] **truck** DISTOS: Efficient petrol delivery syst. using optimized • routing
[73] **Truss** Opt. of • Designs using GAs
[74] **trusses** Discrete opt. of • using GAs
[259] – GAs as an appr. to optimize real-world •
[235] **TSK** Evol. design of • fuzzy rule-based syst. using
[55] **TSP** Cryptanalysis of speech signals ciphered by • using annealed Hopfield neural network and GAs
[39] – Cryptanalysis of speech signals ciphered by • using annealed hopfield neural-network and GAs
[151] – Hybridizing GAs with branch and bound techniques for the resolution of the •
[217] **tuning** Generating and • fuzzy rules using hybrid syst.
[247] • fuzzy logic cntr. by GA
[165] • fuzzy-logic cntr. by GAs
[52] • of power syst. damping cntr. using GAs
[230] **two-manipulators** Using GAs with variable-length individuals for planning • motion
[212] **unbiased** A neuro-evol. • global illumination alg.
[117] **uncertainty** A general methodology for distribution planning under • including GAs and fuzzy models in a multicriteria environment
[126] – Distribution network expansion planning under • a hedging alg. in an evol. appr.
[115] – GAs and fuzzy models – an appl. to gas and electricity distribution planning under •
[120] – Opt. distribution network expansion planning under • by evol. decision convergence
[195] **Unit commitment** by interior point GAs
[102] **Updated** An • Survey of GA-based Multiobjective Opt. Techniques
[71] **Uso** de Algoritmos Genéticos para el Diseño Optimo de Armaduras
[75] • de Algoritmos Genéticos para la Optimización de Columnas no Prismáticas Sometidas a Carga Axial
[196] **Validation** GAs for Protocol •
[128] **validity** A gen. appr. to fuzzy clustering with a • measure fitness function
[230] **variable-length** Using GAs with • individuals for planning two-manipulators motion
[233] **variables** Using info measures for determining the relevence of the predictive • in learning problems
[32] **vehicle** Intelligent solutions for cybernetics • cntr.
[103] **Versión** Estrategias Evolutivas: La • Alemana del Algoritmo Genético (Parte I)
[104] – Estrategias Evolutivas: La • Alemana del Algoritmo Genético (Parte II)
[84] **Vigas** Diseño Optimo de • de Concreto Reforzado mediante Algoritmos Genéticos
[14] **Viterbi** Terrain-Aided Navigation Using the • Alg.
[20] **VQ** Appl. of par. GA and property of multiple global optima to • codevector index assignment for noisy channels
[163] **wall** A • following robot with a fuzzy logic cntr. optimized by a GA
[207] **wavelength** GA-based • sel. in multicomponent spectrometric determinations by PLS: Appl. on indomethacin and acemethacin mixture
[59] **weight** GA for • sel. in H cntr. design
[245] – Using GAs to design constant • codes
[70] **wire harness** Use of GAs to optimize the cost of automotive •
[129] **workstation** Par. GAs in a networked • environment
[43] **would** The concepts of fuzzy sets and GAs: contrasts and similarities of expectations and development patterns (or • you rather mutate or go fuzzy?)
[238] **X-ray** Low-resolution structures of proteins in solution retrieved from • scattering with a GA

Bibliography

[1] John H. Holland. Genetic algorithms. *Scientific American*, 267(1):44–50, 1992. `ga:Holland92a`.

[2] Jarmo T. Alander. *An indexed bibliography of genetic algorithms: Years 1957-1993*. Art of CAD Ltd., Vaasa (Finland), 1994. (over 3000 GA references).

[3] David E. Goldberg, Kelsey Milman, and Christina Tidd. Genetic algorithms: A bibliography. IlliGAL Report 92008, University of Illinois at Urbana-Champaign, 1992. `ga:Goldberg92f`.

[4] N. Saravanan and David B. Fogel. A bibliography of evolutionary computation & applications. Technical Report FAU-ME-93-100, Florida Atlantic University, Department of Mechanical Engineering, 1993. (available via anonymous `ftp` site `magenta.me.fau.edu` directory `/pub/ep-list/bib` file `EC-ref.ps.Z`) `ga:Fogel93c`.

[5] Thomas Bäck. Genetic algorithms, evolutionary programming, and evolutionary strategies bibliographic database entries. (personal communication) `ga:Back93bib`, 1993.

[6] 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. `ga:Schwefel92d`.

[7] Leslie Lamport. *LaTeX: A Document Preparation System. User's Guide and Reference manual.* Addison-Wesley Publishing Company, Reading, MA, 2 edition, 1994.

[8] Alfred V. Aho, Brian W. Kernighan, and Peter J. Weinberger. *The AWK Programming Language*. Addison-Wesley Publishing Company, Reading, MA, 1988.

[9] Diane Barlow Close, Arnold D. Robbins, Paul H. Rubin, and Richard Stallman. *The GAWK Manual*. Cambridge, MA, 0.15 edition, April 1993.

[10] K. Delibasis and P. E. Undrill. Genetic algorithms and deformable geometric models for anatomical object recognition. In *Proceedings of the IEE Colloquium on 'Genetic Algorithms in Image Processing and Vision'*, volume ?, pages 8/1–8/7, London, UK, 20. October 1994. IEE, London, UK. †CCA724/95 `ga94bDelibasi`.

[11] A. H. Abdel-Wahab and H. H. R. Elazhary. Applying genetic algorithms in scientific discovery: a case study. *Egypt. Comput. J. (Egypt)*, 23(1):69–76, 1995. †CCA41137/95 `ga95bAbdel-Wahab`.

[12] S. Deris, S. Omatu, and K. Kitagawa. Stabilization of inverted pendulum by the genetic algorithm. In *Proceedings of the 1995 IEEE International Conference on Systems, Man and Cybernetics*, volume 5, pages 4372–4377, Vancouver, BC (Canada), 22.-25. October 1995. IEEE 1995, New York, NY. †CCA1856/95 `ga95bDeris`.

[13] Y. M. Enab. Genetic algorithm for identifying selfgenerating radial basis neural networks. In *Proceedings of the 4th International Conference on Artificial Neural Networks*, pages 65–70, Cambridge, UK, 26.-28. June 1995. IEE, Stevenage (UK). †EI M14872/95 `ga95bEnab`.

[14] Russell Enns and Darryl Morrell. Terrain-aided navigation using the viterbi algorithm. *Journal of Guidance, Control, and Dynamics*, 18(6):1444–1449, 1995. (TARKASTA ONKO GA-ARTIKKELI) `ga95bEnns`.

[15] R. Ferguson and B. Korel. Software test data generation using the chaining approach. In ?, editor, *Proceedings of the International Test Conference*, pages 703–709, Washington, DC, USA, 21.-25. October 1995. Int. Test Conference, Altoona, PA, USA. †CCA48230/95 `ga95bFerguson`.

[16] M. J. M. Heijligers, L. J. M. Cluitmans, and J. A. G. Jess. High-level synthesis scheduling and allocation using genetic algorithms. In ?, editor, *Proceedings of the ASP-DAC95/CHDL95/VLSI95. Asia and South Pacific Design Automation Conference. IFIP International conference on Computer Hardware Description Languages and their Applications. IFIP International Conference on Very Large Scale Integration*, pages 61–66, Chiba (Japan), 29. August- 1. September 1995. Nihon Gakkai Jimu Senta, Tokyo, Japan. †EEA39329/96 `ga95bHeijligers`.

[17] F. S. M. Nobre. Genetic-neuro-fuzzy systems: a promising fusion. In *Proceedings of 1995 IEEE International Conference on Fuzzy Systems. The International Joint Conference of the Fourth IEEE International Conference on Fuzzy Systems and The Second International Fuzzy Engineering Symposium*, volume 1, pages 259–266, Yokohama (Japan), 20.-24. March 1995. IEEE, New York, NY. †CCA60777/95 `ga95bNobre`.

[18] M. M. M. Chowdhury and Y. Li. Messy genetic algorithm-based new learning-method for structurally optimized neurofuzzy controllers. In *Proceedings of the IEEE International Conference on Industrial Technology*, pages 274–278, Shanghai, China, 2.-6. December 1996. IEEE, New York, NY. †P75728 `ga96aChowdhury`.

[19] H. Elsimary. Implementation of neural-network and genetic algorithms for novelty filters for fault-detection. In George G. Cameron, H. Hassoun, and C. Melvin A. Jerdee, editors, *Proceedings of the 39th Midwest Symposium on Circuits and Systems*, volume I-III, pages 1432–1435, Ames, AI, 18.-21. August 1996. IEEE, New York, NY. †P74974 `ga96aElsimary`.

[20] J. S. Pan, F. R. McInnes, and M. A. Jack. Application of parallel genetic algorithm and property of multiple global optima to VQ codevector index assignment for noisy channels. *Electronics Letters*, 32(4):296–297, 1996. `ga96bJSPan`.

[21] C. L. Barczak, C. A. Martin, and C. P. Krambeck. Experiments in fuzzy control using genetic algorithms. In *Proceedings of the 1994 IEEE International Symposium on Industrial Electronics (ISIE'94)*, pages 426–428, Santiago (Chile), 25.-27. May 1994. IEEE, New York. †CCA 77271/94 `ga94aBarczak`.

[22] A. A. Freitas, J. C. Anacleto, and C. Kirner. Applying genetic algorithms to the load balancing problem. In R. Baezayates, editor, *Proceedings of the 13th International Conference of the Chilean-Computer-Science-Society/ 1st National Meeting on Computer Science*, pages 7–14, La Serena (Chile), 14.-16. October 1994. Plenum Press, New York. †P63073/95 `ga94aFreitas`.

[23] Ricardo R. Gudwin and Fernando A. C. Gomide. Genetic algorithms and discrete event systems: an application. In ICEC'94 [270], pages 742–745. `ga94aGudwin`.

[24] Gilberto Nakamiti and Fernando Gomide. An evolutive fuzzy mechanism based on past experiences. In EUFIT'94 [271], pages 1211–1217. `ga94aNakamiti`.

[25] P. P. B. de Oliveira. Simulation of exaptive behaviour. In Davidor et al. [272], pages 354–364. †CCA 37575/95 `ga94aOliveira`.

[26] J. A. Vasconcelos, L. Krähenbühl, L. Nicolas, and A. Nicolas. Design optimisation using the BEM coupled with genetic algorithm. In ?, editor, *Proceedings of the Second International Conference on Computation in Electromagnetics*, IEE Conference Publications No. 384, pages 60–63, London (UK), 12.-14. April 1994. IEE, London. †EEA 51018 `ga94aVasconcelos`.

[27] C. L. Barczak, L. C. Rosa, C. A. Martin, and C. P. Krambeck. Fuzzy controllers and genetic algorithms in NC machine tool. In *Proceedings of the IASTED International Conference, Systems and Control '94*, pages 177–179, Lugano (Switzerland), 20.-22. June 1994. IASTED, USA. †CCA 88035/94 `ga94bBarczak`.

[28] J. A. Vasconcelos, L. Krähenbühl, and A. Nicolas. Optimization of insulators using a genetic algorithm. In ?, editor, *Proceedings of the Second International Workshop (ETSI LOPPU NIMESTA)*, volume ?, pages 273–276, Leuven (Belgium), 17.-20. May 1994. Plenum, New York, NY. †EEA82984/95 `ga94bVasconcelos`.

[29] Ricardo Skaf Abdala and Weber Martins. Sistema genetico hierarquico para escolha topolsgica de redes neurais booleanas [A hierarchical genetic system for selecting topology of boolean neural networks]. In ?, editor, *Proceedings of the Second Brazilian Symposium on Neural Networks*, page ?, Sao Carlos, SP - Brazil, 18.-20. October 1995. The Brazilian Computer Science Society. (in Portuguese) †conf. prog. `ga95aAbdala`.

[30] Newton Chaves Kras Borges, Paulo M. Engel, and Claudio Fernando R. Geyer. Um estudo de paralelismo em redes backpropagation. In ?, editor, *Proceedings of the Second Brazilian Symposium on Neural Networks*, page ?, Sao Carlos, SP - Brazil, 18.-20. October 1995. The Brazilian Computer Science Society. (in Portuguese) †conf. prog. `ga95aBorges`.

[31] Anselmo A Montenegro, Elisangela M. Santos, Lucia M.A. Drummond, and Luiz S. Ochi. Um algoritmo paralelo distribuido para o travelling purchaser problem [A parallel distributed algorithm for the traveling salesman problem]. In ?, editor, *Proceedings of the Second Brazilian Symposium on Neural Networks*, page ?, Sao Carlos, SP - Brazil, 18.-20. October 1995. The Brazilian Computer Science Society. (in Portuguese) †conf. prog. `ga95aMontenegro`.

[32] Antonio Rogerio Machado Ramos and Dante Agusto Barone. Intelligent solutions for cybernetics vehicle control. In *Proceedings of the 1995 IEEE International Conference on Systems, Man and Cybernetics*, volume 4, pages 2983–2987, Vancouver, BC (Canada), 22.-25. October 1995. IEEE, Piscataway, NJ. †EI M033350/96 `ga95aRamos`.

[33] Raul Sidnei Wazlawick and Antonio Carlos da Rocha Costa. Non-supervised sensory-motor agents learning. In Pearson et al. [273], pages 49–52. ga95aWazlawick.

[34] José Nelson Amaral. Genetic algorithms and evolutionary computation. In ?, editor, *Proceedings of the Second Brazilian Symposium on Neural Networks*, page ?, Sao Carlos, SP - Brazil, 18.-20. October 1995. The Brazilian Computer Science Society. †conf. prog. ga95bAmaral.

[35] R. G. Ojeda, Fernando M. de Azevedo, and Jorge M. Barreto. Genetic algorithms in the optimal choice of neural networks for signal processing. *Midwest Symp Circuits Syst*, 2(?):1361–1364, 1995. (ETSI KONFERENSSIN TIEDOT) †EI M129874/96 ga95bOjeda.

[36] Pedro P. B. de Oliveira and Rubens C. Gatto. An experience in satellite Doppler positioning using an evolutionary approach. In ?, editor, *Proceedings of the 1995 Advanced and Next-Generation Satellites*, volume SPIE-2583, pages 448–458, Paris (France), 25.-28. September 1995. Society of Photo-Optical Instrumentation Engineers, Bellingham, WA. †A96-16651 ga95bOliveira.

[37] M. V. F. Pereira, N. M. Campodonico, B. G. Gorenstin, and J. P. Costa. Application of stochastic optimization to power system planning and operation. In *Proceedings of the Stockholm Power Tech International Symposium on Electric Power Engineering*, volume 1, pages 234–239, Stockholm, Sweden, 18.-22. June 1995. IEEE, New York, NY. †EEA91064/96 ga95bPereira.

[38] Eduardo do Valle Simoes, George Fabris Justo, and Dante Augusto Couto Barone. Novel intelligent environment dedicated to ANN fast prototyping. In *Proceedings of the 1995 IEEE International Conference on Systems, Man and Cybernetics*, volume 1, pages 863–867, Vancouver, BC (Canada), 22.-25. October 1995. IEEE, Piscataway, NJ. †EI M039635/95 ga95bdoValleSimoes.

[39] J. A. Apolinário Jr., P. R. S. Mendonca, R. O. Chaves, and L. P. Calôba. Cryptanalysis of speech signals ciphered by TSP using annealed hopfield neural-network and genetic algorithms. In George G. Cameron, M. Hassoun, A. Jerdee, and C. Melvin, editors, *Proceedings of the 39th Midwest Symposium on Circuits and Systems*, volume I-III, pages 821–826, Ames, IA, 18.-21. August 1996. IEEE, New York, NY. †CCA 65571/97 P74974 ga96aApolinario.

[40] Helio J. C. Barbosa. A genetic algorithm for min-max problems. In Erik D. Goodman, V. L. Uskov, and Wiliam F. Punch III, editors, *Proceedings of the First International Conference on Evolutionary Computation and its Applications (EvCA'96)*, pages 99–109, Moscow (Russia), 24.-27. June 1996. Institute of High Performance Computer Systems of the Russian Academy of Sciences. ga96aBarbosa.

[41] K. K. Bharadwaj, N. M. Hewahi, and M. A. Brandao. Adaptive hierarchical censored production rule-based system: a genetic algorithm approach. In *Proceedings of the Advances in Artificial Intelligence 13th Brazilian Symposium on Artificial Intelligence, SBIA'96*, pages 81–90, Curitiba, Brazil, 23.-25. October 1996. Springer-Verlag, Berlin (Germany). †CCA23790/97 ga96aBharadwaj.

[42] L. S. Diniz, R. S. S. Gois, and V. S. Srinivasan. Application of a genetic algorithm for calibration and structural modification of tank model. In W. R. Blain, editor, *Proceedings of the Hydraulic Engineering Software VI*, volume ?, page ?, George Town, Malaysia, September 1996. Computational Mechanics Publication Ltd, Southampton. †P73347 ga96aDiniz.

[43] L. F. L. Legey. The concepts of fuzzy sets and genetic algorithms: contrasts and similarities of expectations and development patterns (or would you rather mutate or go fuzzy?). In *Proceedings of the 1996 Biennial Conference of the North American Fuzzy Information Processing Society (NAFIPS)*, pages 515–518, Berkeley, CA, 19.-22. June 1996. IEEE, New York, NY. †EEA 92513/96 ga96aLegey.

[44] D. de Abreu Moreira and L. T. Walczowski. Placement optimization using behavior-based software agents and the genetic algorithm. In *Proceedings of the Third IEEE International Conference on Electronics, Circuits, and Systems*, volume 1-2, pages 255–258, Rodos, Greece, 13.-16. October 1996. IEEE, New York, NY. †P74941 EEA 71893/97 ga96aMoreira.

[45] O. C. Lopez, R. M. Barcia, O. Eyada, and F. O. Gauthier. An evolutionary algorithm for resource-constrained project scheduling and multiple execution modes. In *Proceedings of the Advances in Artificial Intelligence 13th Brazilian Symposium on Artificial Intelligence, SBIA96*, pages 101–110, Curitiba, Brazil, 23.-25. October 1996. Springer-Verlag, Berlin (Germany). †CCA19667/97 ga96aOCLopez.

[46] G. N. Taranto and D. M. Falcao. A genetic-based control design for damping power system inter-area oscillations. In *Proceedings of the 35th IEEE Conference on Decision and Control*, volume 4, pages 4389–4394, Kobe (Japan), 11.-13. December 1996. IEEE, Piscataway, NJ. †CCA 36545/97 ga96aTaranto.

[47] S. Varricchio and L. Cheim. A genetic algorithm solution to the maximum likelihood statistical problem. In *Proceedings of the 1996 IEEE International Conference on Systems, Man and Cybernetics*, volume 3, pages 1983–1988, Beijing, China, 14.-17. October 1996. IEEE, New York, NY. †CCA24517/97 ga96aVarricch.

[48] J. A. Vasconcelos, R. R. Saldanha, L. Krahenbuhl, and A. Nicolas. Genetic algorithm coupled with a deterministic method for optimization in electromagnetics. In *Proceedings of the Seventh Biennial IEEE Conference on Electromagnetic Field Computation*, page 289, Okayama (Japan), 18.-20. March 1996. IEEE, New York. †EEA 112153/96 `ga96aVasconcelos`.

[49] D. deAbreuMoreira and L. T. Walczowski. Placement optimization using behavior based software agents and the genetic algorithm. In *Proceedings of the Third IEEE International Conference on Electronics, Circuits, and Systems, ICECS 96*, volume 1, pages 255–258, Rodos, Greece, 13.-16. October 1996. IEEE, New York, NY. †CCA69003/97 `ga96adeAbreuMoreira`.

[50] A. M. D. Fernandes and R. C. Bastos. A fuzzy expert-system for qualitative chemical-analyses of minerals. In J. K. Lee, J. Liebowitz, and Y. M. Chae, editors, *Proceedings of the Third World Congress on Expert Sytems*, volume I, II, page ?, Seoul (South Korea), 5.-9. February 1996. Cognizant Communications Corp., Elmsford. †P69301 `ga96bFernandes`.

[51] Paulo R. L. Gondim. Genetic algorithms and the location area partitioning problem in cellular networks. In *Proceedings of the 1996 IEEE 46th Vehicular Technology Conference*, volume 3, pages 1835–1838, Atlanta, GA, USA, 28. April - 1. May 1996. IEEE, Piscataway, NJ. †EI M121047/96 `ga96bGondim`.

[52] A. L. B. do Bomfim, G. N. Taranto, and D. M. Falcao. Tuning of power system damping controllers using genetic algorithms. In *Proceedings of the International Conference on Intelligent System Application to Power Systems*, pages 79–83, Seoul (South Korea), 6.-10. July 1997. Korean Inst. Electr. Eng., Seoul, South Korea. †CCA11251/98 `ga97aALBBomfim`.

[53] Hannu Ahonen, Paulo A. de Souza Jr., and Vijayendra K. Garg. Fitting of a Mössbauer spectrum using a genetic algorithm. In *Proceedings of the 1997 39th Midwest Symposium on Circuits and Systems*, volume 2, pages 781–784, Ames, Iowa, 18.-11. August 1997. IEEE, Piscataway, NJ. `ga97aAhonen`.

[54] J. C. Silva Anacleto and C. Kirner. A new approach for genetic algorithm as a support to the simulation of complex systems. In *Proceedings of the 1997 IEEE International Conference on Systems, Man, and Cybernetics*, volume 2, pages 1251–1256, Orlando, FL, 12.-15. October 1997. IEEE, New York (USA). †CCA6281/98 `ga97aAnacleto`.

[55] J. A. Apolinário Jr., P. R. S. Mendoça, R. O. Chaves, and L. P. Calôba. Cryptanalysis of speech signals ciphered by TSP using annealed Hopfield neural network and genetic algorithms. In *Proceedings of the 1997 39th Midwest Symposium on Circuits and Systems*, volume 2, pages 821–824, Ames, Iowa, 18.-11. August 1997. IEEE, Piscataway, NJ. `ga97aApolinario`.

[56] Alexandre C. Botazzo Delbum, André C. P. L. F. de Carvalho, and Newton G. Bretas. Optimal energy restoration in distribution systems using genetics algorithms. In Blumenstein [274], pages 150–154. `ga97aBottazzoDelbem`.

[57] Eduardo Camponogara and Sarosh N. Talukdar. A genetic algorithm for constrained and multiobjective optimization. In Jarmo T. Alander, editor, *Proceedings of the Third Nordic Workshop on Genetic Algorithms and their Applications (3NWGA)*, pages 49–62, Helsinki (Finland), 18.-22. August 1997. Finnish Artificial Intelligence Society (FAIS). (available via anonymous `ftp` site `ftp.uwasa.fi` directory `cs/3NWGA` file `Camponogara.ps.Z`) `ga97aCamponogara`.

[58] M. A. B. Candido, S. K. Khator, R. M. Barcia, and F. O. Gauthier. A hybrid approach to solve real make-to-order job shop scheduling problems. In *Proceedings of the 6th Industrial Engineering Research Conference*, pages 204–209, Miami Beach, FL, 17.-18. May 1997. Inst. Ind. Eng., Norcross, GA, USA. †CCA71541/97 `ga97aCandido`.

[59] D. C. Donha, D. S. Desanj, and M. R. Katebi. Genetic algorithm for weight selection in H control design. In *Proceedings of the IEE Colloquium on Industrial Applications of Intelligent Control*, pages 5/1–5/3, London, UK, 1. May 1997. IEE, London, UK. †CCA62908/97 `ga97aDCDonha`.

[60] E. F. M. Filho and A. Carfalhode. Evolutionary design of MLP neural network architectures. In *Proceedings of the 4th Brazilian Symposium on Neural Networks*, pages 58–65, Goiania, Brazil, 3.-5. December 1997. IEEE Computer Society Press, Los Alamitos , CA. `ga97aEFMFilho`.

[61] L. C. FaraydeAquino and F. Marcos. Generating fading-resistant constellations using genetic algorithm. In *Proceedings of the 1997 SBMO/IEEE MTT-S International Microwave and Optoelectronics Conference*, volume 2, pages 719–723, Natal, Brazil, 11.-14 August 1997. IEEE, New York, NY. †EEA51114/98 `ga97aFaraydeA`.

[62] Heitor S. Lopes, M.S. Coutinho, and W. C. de Lima. An evolutionary approach to simulate cognitive feedback learning in medical domain. In Elie Sanchez, Toshio Shibata, and Lotfi A. Zadeh, editors, *Genetic Algorithms and Fuzzy Logic Systems*, pages 193–207. World Scientific, Singapore, 1997. †Lopes `ga97aHSLopes`.

[63] Marcelo A. Moret, Paulo M. Bisch, and Fernando de M. C. Vieira. Algorithm for multiple minima search. *Physical Review E*, 57(3):R2535–R2538, March 1998. ga98aMAMoret.

[64] V. Miranda, D. Srinivasan, and Luis Miguel Proenca. Evolutionary computation in power systems. *Int. J. Electr. Power Energy Syst. (UK)*, 20(2):89–98, 1998. †EEA42483/98 ga98aMiranda.

[65] Ricardo Jose Machado and Armando Freitas da Rocha. Evolutive fuzzy neural networks. In *Proceedings of the 1992 IEEE International Conference on Fuzzy Systems (FUZZ-IEEE)*, pages 493–500, San Diego, CA, 8.-12. March 1992. IEEE, New York. †EI 035270 ga:daRocha92a.

[66] Pablo A. Estevez. Designing max-min propagation neural networks by hyperplane switching. In ICEC'95 [275], pages 596–601. †prog. ga95aEstevez.

[67] Hugh Rudnick, Rodrigo Palma, Eliana Cura, and Carlos Silva. Economically adapted transmission-systems in open access schemes - application of genetic algorithms. *IEEE Transactions on Power Systems*, 11(3):1427–1440, August 1996. (Proceedings of the 1996 IEEE/PES Winter and 1995 Summer Meetings) ga96aHRudnick.

[68] Milton E. Romero R., J. Fernando V. Riveros, Alejandro Suárez, and Walter A. Zuluaga M. Boltzmann machines design using genetic algorithms in a parallel environment. In Blumenstein [274], pages 176–180. ga97aRomeroR.

[69] J. Solano and D. I. Jones. Parameter determination for a genetic algorithm applied to robot control. In *International Conference on Control'94*, volume 1 of *IEE Conference Publication No. 389*, pages 765–770, Coventry (UK), 21.-24. March 1994. IEE, London. †CCA 53623/94 ga94aSolano.

[70] C. Zozayagorostiza, H. Sudarbo, and L. F. Estrada. Use of genetic algorithms to optimize the cost of automotive wire harness. In R. Baezayates, editor, *Proceedings of the 13th International Conference of the Chilean-Computer-Science-Society/ 1st National Meeting on Computer Science*, pages 103–118, La Serena (Chile), 14.-16. October 1994. Plenum Press, New York. †P63073/95 ga94aZozayagorostiza.

[71] Carlos A. Coello Coello. Uso de algoritmos genéticos para el diseño optimo de armaduras. In *Congreso Nacional de Informática "Herramientas Estratégicas para los Mercados Globales"*, pages 290–305, México, D. F., June 1994. Fundación Arturo Rosenblueth. (In Spanish; available via www URL: http://www.lania.mx/ccoello/papers.html) †CoelloCoello ga94bCoelloCoello.

[72] J. Solano and D. F. Garcia Nocetti. Implementation of a parametric spectral estimator using genetic algorithms. In *International Conference on Control'94*, volume 1 of *IEE Conference Publication No. 389*, pages 754–759, Coventry (UK), 21.-24. March 1994. IEE, London. †CCA 51948/94 ga94bSolano.

[73] Carlos A. Coello Coello and Alan D. Christiansen. Optimization of truss designs using genetic algorithms. Technical Report TUTR-CS-94-102, Tulane University, Department of Computer Science, New Orleans, LA, November 1994. †CoelloCoello ga94cCoelloCoello.

[74] Carlos A. Coello Coello. Discrete optimization of trusses using genetic algorithms. In J. G. Chen, F. G. Attia, and D. L. Crabtree, editors, *EXPERSYS-94. The Sixth International Conference on Artificial Intelligence and Expert Systems Applications*, pages 331–336, Houston, TX, December 1994. I.I.T.T. International, Technology Transfer Series. (available via www URL: http://www.lania.mx/ccoello/papers.html) †CoelloCoello ga94dCoelloCoello.

[75] Carlos A. Coello Coello and Francisco A. Farrera. Uso de algoritmos genéticos para la optimización de columnas no prismáticas sometidas a carga axial. In *Memoria del 1er. Congreso Internacional de Investigación en Ciencias Computacionales*, pages 207–218, Metepec, Edo. de México, September 1994. Instituto Tecnológico de Toluca. (available via www URL: http://www.lania.mx/ccoello/papers.html) †CoelloCoello ga94eCoelloCoello.

[76] Carlos A. Coello Coello and Héctor Hernández León. Compresión de bases de datos. In *Actas del VIII Simposio Internacional en Aplicaciones de Informática*, pages 87–94, Antofagasta, Chile, November 1994. Universidad Católica del Norte. (In Spanish; available via www URL: http://www.lania.mx/ccoello/papers.html) †CoelloCoello ga94fCoelloCoello.

[77] Carlos A. Coello Coello and Araceli Yáñez López. El algoritmo genético como alternativa a la programación dinámica. In *Actas del VIII Simposio Internacional en Aplicaciones de Informática*, pages 151–157, Antofagasta, Chile, November 1994. Universidad Católica del Norte. (In Spanish; available via www URL: http://www.lania.mx/ccoello/papers.html) †CoelloCoello ga94gCoelloCoello.

[78] Carlos A. Coello Coello and Francisco A. Farrera. Use of genetic algorithms for the optimal design of reinforced concrete beams. In S. Hernández, M. El-Sayed, and C. A. Brebbia, editors, *Computer Aided Design of Structures IV. Structural Optimization*, pages 209–216. Computational Mechanics Publications, Miami, FL, September 1995. (available via www URL: http://www.lania.mx/ccoello/papers.html) †CoelloCoello ga95aCoelloCoello.

[79] S. Vazquez-Montiel and A. Cornejo-Rodriguez. Design of astronomical telescopes of two mirrors using genetic algorithm in the stage of optimization. In ?, editor, *Proceedings of the 2nd Iberoamerican Meeting in Optics*, volume SPIE-2730, pages 449–452, Guanajuato (Mexico), 18. -22. September 1995. The International Society for Optical Engineering, Bellingham, WA. †A96-30460 `ga95aVazquez-Montiel`.

[80] Carlos A. Coello Coello and Alan D. Christiansen. An approach to multiobjective optimization using genetic algorithms. In Cihan H. Dagli, Metin Akay, C. L. Philip Chen, Benito R. Fernández, and Joydeep Ghosh, editors, *Intelligent Engineering Systems Through Artificial Neural Networks. Volume 5. Fuzzy Logic and Evolutionary Programming*, pages 411–416. ASME Press, St. Louis, Missouri, November 1995. (available via `www` URL: `http://www.lania.mx/ccoello/papers.html`) †CoelloCoello `ga95cCoelloCoello`.

[81] Carlos A. Coello Coello, F. Santos, and F. Alonso. Optimal design of reinforced concrete beams using genetic algorithms. In Francisco J. Cantú, Rogelio Soto, Moraima Campbell, and José M. Sánchez, editors, *Proceedings of the Eight International Symposium on Artificial Intelligence*, pages 245–252, Monterrey, México, October 1995. Instituto Tecnológico y de Estudios Superiores de Monterrey, ITESM. (available via `www` URL: `http://www.lania.mx/ccoello/papers.html`) †CoelloCoello `ga95dCoelloCoello`.

[82] Carlos A. Coello Coello. Introducción a los algoritmos genéticos. *Soluciones Avanzadas. Tecnologías de Información*, 3(17):5–11, January 1995. (In Spanish; available via `www` URL: `http://www.lania.mx/ccoello/papers.html`) †CoelloCoello `ga95eCoelloCoello`.

[83] Carlos A. Coello Coello, Filiberto Santos Hernández, and Francisco Alonso Farrera. An approach to optimal design of reinforced concrete beams using genetic algorithms. In M. H. Hamza, editor, *Proceedings of the IASTED International Conference on Applied Modelling, Simulation and Optimization*, pages 141–144, Cancún, México, June 1995. IASTED-ACTA Press. (available via `www` URL: `http://www.lania.mx/ccoello/papers.html`) †CoelloCoello `ga95fCoelloCoello`.

[84] Carlos A. Coello Coello, Filiberto Santos Hernández, and Francisco Alonso Farrera. Diseño optimo de vigas de concreto reforzado mediante algoritmos genéticos. In *2do. Congreso Internacional de Investigación en Ciencias Computacionales*, Zacatepec, México, September 1995. Instituto Tecnológico de Zacatepec. (In Spanish; available via `www` URL: `http://www.lania.mx/ccoello/papers.html`) †CoelloCoello `ga95hCoelloCoello`.

[85] Carlos A. Coello Coello, Alan D. Christiansen, and Arturo Hernández Aguirre. Use of genetic algorithms for multiobjective optimization of counterweight balancing of robot arms. In Jacob J. G. Chen, editor, *EXPERSYS-95 Expert Systems Applications and Artificial Intelligence*, pages 243–248, San Francisco, CA, November 1995. I. I. T. T. International, Technology Transfer Series. (available via `www` URL: `http://www.lania.mx/ccoello/papers.html`) †CoelloCoello `ga95iCoelloCoello`.

[86] J. Aspiazu and E. Belmontmoreno. Parameter determination for quantitative pixel analysis using genetic algorithms. In T. Vodinh, editor, *Proceedings of the Society of Photo-Optical Instrumentation Engineers*, volume SPI-2835, pages 5–10, Denver, CO, 6.-8. August 1996. SPIE – The International Society for Optical Engineering. †P73795 `ga96aAspiazu`.

[87] Carlos A. Coello Coello. *An Empirical Study of Evolutionary Techniques for Multiobjective Optimization in Engineering Design*. PhD thesis, Tulane University, Department of Computer Science, New Orleans, LA, 1996. †CoelloCoello `ga96aCoelloCoello`.

[88] I. Lopez Cruz and J. Goddard. Greenhouse climate control by evolutionary computation: genetic algorithms and evolutionary programs. In ?, editor, *Proceedings of the Sixth International Conference on Computers in Agriculture*, volume ?, pages 892–898, Cancun, Mexico, 11.-14. June 1996. American Soc. Agric. Eng, St. Joseph, MI (USA). †CCA96121/96 `ga96aCruz`.

[89] J. Goddard, R. U. Parrazales, I. Lopez, and A. D. de P. Luca. Rule learning in fuzzy systems using evolutionary programs. In *Proceedings of the 39th Midwest Symposium on Circuits and Systems*, volume 2, pages 703–706, Ames, IA (USA), 18.-21. August 1996. IEEE, New York, NY. †CCA63066/97 `ga96aGoddard`.

[90] I. Lopez and J. Goddard. Greenhouse climate control by evolutionary computation - genetic algorithms and evolutionary programs. In ?, editor, *Proceedings of the Sixth International Conference on Computers in Agriculture*, volume ?, pages 892–898, Cancun, Mexico, June 1996. Amer. Soc. Agricultural Engineers, St. Joseph. †P76009 `ga96aILopez`.

[91] K. Michaelian and E. Ramirez-Jaramillo. Evolving clusters with genetic algorithms. In Gerardo Cisneros, editor, *Comput. Chem. Chem. Eng., Proceedings of 3rd the UNAM-CRAY Supercomput. Conf.*, pages 40–51, ?, ? 1996. World Scientific, Singapore. †ChA 196802/98 `ga96aKMichaelian`.

[92] R. Aguilar, J. Gonzalez, C. Tapia, A. Colin, and M. Barron. Parametric optimization of an equation of state by genetic algorithms. *Av. Ing. Quim.*, 6(2):221–224, ? 1996. †ChA 250044r/97 `ga96aRAguilar`.

[93] S. Vazquez-Montiel and A. Cornejo-Rodriguez. Lens design using genetic algorithm in the stage of optimization. In J. S. Chang, J. H. Lee, S. Y. Lee, and C. H. Nam, editors, *Proceedings of the 17th Congress of the International Commission for Optics: Optics for Science and New Technology*, volume SPIE-?, page ?, Taejon (Korea), 19.-23. August 1996. SPIE - Int. Soc. Optical. Engineering, Bellingham. †P72698 ga96aVazquezmontiel.

[94] Carlos A. Coello Coello, Alan D. Christiansen, and Filiberto Santos Hernández. A simple genetic algorithm for the design of reinforced concrete beams. *Engineering with Computers*, 13(4):?, 1996. †CoelloCoello ga96bCoelloCoello.

[95] Fernando J. Jaimes-Romero, David Munoz-Rodriguez, and Sirin Tekinay. Channel assignment in cellural systems using genetic algorithms. In *Proceedings of the 1996 IEEE 46th Vehicular Technology Conference*, volume 2, pages 741–745, Atlanta, GA, 28. April-1. May 1996. IEEE, Piscataway, NJ. †EI M125247/96 ga96bJaimes-Romero.

[96] Carlos A. Coello Coello, Alan D. Christiansen, and Francisco Alonso Farrera. A genetic algorithm for the optimal design of axially loaded non-prismatic columns. *Civil Engineering Systems*, 14:111–146, 1996. †CoelloCoello ga96cCoelloCoello.

[97] Carlos A. Coello Coello, Alan D. Christiansen, and Arturo Hernández Aguirre. Using genetic algorithms to design combinational logic circuits. In Cihan H. Dagli, Metin Akay, C. L. Philip Chen, Benito R. Fernández, and Joydeep Ghosh, editors, *Intelligent Engineering Systems Through Artificial Neural Networks. Volume 6. Fuzzy Logic and Evolutionary Programming*, pages 391–396. ASME Press, St. Louis, Missouri, November 1996. †CoelloCoello ga96dCoelloCoello.

[98] J. Goddard, R. Urbieta Parrazales, I. López, and A. de Luca P. Rule learning in fuzzy systems using evolutionary programs. In *Proceedings of the 1997 39th Midwest Symposium on Circuits and Systems*, volume 2, pages 703–706, Ames, Iowa, 18.-11. August 1997. IEEE, Piscataway, NJ. ga97aGoddard.

[99] Carlos A. Coello Coello, Filiberto Santos Hernández, and Francisco Alonso Farrera. Optimal design of reinforced concrete beams using genetic algorithms. *Expert Systems with Applications*, 12(1):101–108, January 1997. (available via www URL: http://www.lania.mx/ccoello/papers.html) †CoelloCoello ga97bCoelloCoello.

[100] C. R. Stephens and H. Waelbroeck. Effective degrees of freedom in genetic algorithms. *Physical Review E*, 57(3):3251–3264, March 1998. ga98aCRStephens.

[101] K. Michaelian. Evolving few-ion clusters of Na and Cl. *American Journal of Physics*, 66(3):231–240, ? 1998. ga98aMichaelian.

[102] Carlos A. Coello Coello. An updated survey of ga-based multiobjective optimization techniques. Technical Report Lania-RD-98-08, Laboratorio Nacional de Informática Avanzada (LANIA), Xalapa, Veracruz, México, December 1998. (available via www URL: http://www.lania.mx/ccoello/papers.html) †CoelloCoello ga98bCoelloCoello.

[103] Arturo Hernández Aguirre, Carlos A. Coello Coello, and Bill P. Buckles. Estrategias Evolutivas: La Versión Alemana del Algoritmo Genético (Parte I). *Soluciones Avanzadas. Tecnologías de Información*, 6(62):38–45, October 1998. (In Spanish; available via www URL: http://www.lania.mx/ccoello/papers.html) †CoelloCoello ga98cCoelloCoello.

[104] Arturo Hernández Aguirre, Carlos A. Coello Coello, and Bill P. Buckles. Estrategias Evolutivas: La Versión Alemana del Algoritmo Genético (Parte II). *Soluciones Avanzadas. Tecnologías de Información*, 6(64):47–53, December 1998. (In Spanish; available via www URL: http://www.lania.mx/ccoello/papers.html) †CoelloCoello ga98dCoelloCoello.

[105] Carlos A. Coello Coello and Alan D. Christiansen. Two new GA-based methods for multiobjective optimization. *Civil Engineering Systems*, 1999. (In Press; available via www URL: http://www.lania.mx/ccoello/papers.html) †CoelloCoello ga99aCoelloCoello.

[106] Carlos A. Coello Coello and Alan D. Christiansen. MOSES: A multiobjective optimization tool for engineering design. *Engineering Optimization*, 31(3):?, 1999. (In Press; available via www URL: http://www.lania.mx/ccoello/papers.html) †CoelloCoello ga99bCoelloCoello.

[107] Carlos A. Coello Coello. A comprehensive survey of evolutionary-based multiobjective optimization techniques. *Knowledge and Information Systems. An International Journal*, 1999. (Accepted for publication; available via www URL: http://www.lania.mx/ccoello/papers.html) †CoelloCoello ga99cCoelloCoello.

[108] Carlos A. Coello Coello. Treating constraints as objectives for single-objective evolutionary optimization. *Engineering Optimization*, 32, 1999. (Accepted for publication; available via www URL: http://www.lania.mx/ccoello/papers.html) †CoelloCoello ga99dCoelloCoello.

[109] Carlos A. Coello Coello. Use of a self-adaptive penalty approach for engineering optimization problems. *Computers in Industry*, 1999. (Accepted for publication; available via www URL: http://www.lania.mx/ccoello/papers.html) †CoelloCoello ga99eCoelloCoello.

[110] V. Estivill-Castro. The design of competitive algorithms via genetic algorithms. In *Proceedings of the Fifth International Conference on Computing and Information*, pages 305–309, Sudbury, Ont. (Canada), 27.-29. May 1993. IEEE Computer Society Press, Los Alamitos, CA. †CCA 58284/94 ga:Estivill-C93a.

[111] J. Solano and D. I. Jones. Generation of collision-free paths, a genetic approach. In *Proceedings of the IEE Colloquium on Genetic Algorithms for Control and Systems Engineering*, volume Digest No. 1993/130, pages 5/1–5/6, London, 28. May 1993. IEE, London. †CCA 65526/93 ga:Solano93a.

[112] R. Mendes and J. Neves. Genetic algorithms, classifiers and parallelism – an object-oriented approach. In J. Liebowitz, editor, *Moving Toward Expert Systems Globally in the 21st Century, Proceedings of the 2nd World Congress on Expert Systems*, pages 1199–1206, Lisbon (Portugal), 10.-14. January 1994. Cognizant Communications Corp., Elmsford. †P63788/95 ga94aMendes.

[113] V. Miranda, J. V. Ranito, and Luis Miguel Proenca. Genetic algorithms in optimal multistage distribution network planning. *IEEE Transactions on Power Systems*, 9(4):1927–1933, 1994. (Proceedings of the IEEE/PES 1994 Winter Meeting, New York, Jan 30. - Feb 3. available via www URL: www.inescn.ps/ acsilva/papers.html) ga94aMiranda.

[114] Carlos Soares. Evolution computation for the job-shop scheduling problem. Report UU-CS-1994-52, Utrecht University, Department of Computer Science, 1994. †ga95aSoares = [119]
ga94aSoares.

[115] V. Miranda and Luis Miguel Proenca. Genetic algorithms and fuzzy models – an application to gas and electricity distribution planning under uncertainty. In ?, editor, *Proceedings of the Third International Workshop on Rough Sets and Soft Computing*, pages 43–50, San Jose, CA, 10.-12. November 1994. San Jose State University, San Jose, CA. (available via www URL: www.inescn.ps/ acsilva/papers.html) †CCA 45431/95 ga94bMiranda.

[116] V. Miranda, Luis Miguel Proenca, Luis Oliveira, and Luis Carvalho. Dynamic planning of distribution networks for minimum regret strategies. In ?, editor, *CIRED94*, page ?, (Belgium), ? 1994. ? (available via www URL: www.inescn.ps/ acsilva/papers.html) †Proenca ga94cMiranda.

[117] V. Miranda and Luis Miguel Proenca. A general methodology for distribution planning under uncertainty, including genetic algorithms and fuzzy models in a multi-criteria environment. In *Stockholm Power Tech International Symposium on Electric Power Engineering*, pages 832–837, Stockholm (Sweden), 18.-22. June 1995. IEEE, New York, NY. †Proenca ga95aMiranda.

[118] J. A. Pecas Lopes, J. V. Ranito, J. Neto, and N. Hatziargyriou. Derivation of classification structures for fast evaluation of dynamic security assessment in power systems using genetic algorithms. In *Proceedings of the Stockholm Power Tech International Symposium on Electric Power Engineering*, volume 5, pages 641–646, Stockholm, Sweden, 18.-22. June 1995. IEEE, New York, NY. †EEA101974/96 ga95aPecasLopes.

[119] Carlos Soares, Ágoston E. Eiben, and Joost N. Kok. Comparison of two representations for the simple and the enhanced job-shop scheduling problem. In Jarmo T. Alander, editor, *Proceedings of the First Nordic Workshop on Genetic Algorithms and their Applications (1NWGA)*, Proceedings of the University of Vaasa, Nro. 2, pages 173–188, Vaasa (Finland), 9.-12. January 1995. University of Vaasa. (available via anonymous ftp site ftp.uwasa.fi directory cs/1NWGA file Soares.ps.Z) ga95aSoares.

[120] P. M. S. Carvalho, L. A. F. M. Ferreira, F. G. Lobo, and L. M. F. Barruncho. Optimal distribution network expansion planning under uncertainty by evolutionary decision convergence. In *Proceedings of the Twelfth Power Systems Computation Conference*, volume 2, pages 1242–1246, Dresden (Germany), 20.-23. August 1996. Power Syst. Comput. Conference, Zurich, Switzerland. †EEA90846/97 ga96aCarvalho.

[121] P. Cortez, J. Machado, and J. Neves. An evolutionary artificial neural network time series forecasting system. In *Proceedings of the IASTED International Conference on Artificial Intelligence, Expert Systems and Neural Networks*, pages 278–281, Honolulu, HI, 19.-21. August 1996. IASTED, Anaheim, CA (USA). †CCA54348/97 ga96aCortez.

[122] N. Gracias, J. Lima, M. Figueiredo, and A. Fred. Adaptive contour estimation with genetic algorithms. In *Proceedings of the 1996 IEEE International Conference on Systems, Man and Cybernetics*, volume 3, pages 2265–2269, Beijing, China, 14.-17. October 1996. IEEE, New York, NY. †CCA19003/97 ga96aGracias.

[123] V. Miranda and Luis Miguel Proenca. Dynamic planning of distribution networks including dispersed generation. In ?, editor, *Proceedings of the CIRED'96*, page ?, Buenos Aires (Argentina), December 1996. ? (to appear) †Proenca ga96aMiranda.

[124] K. Bousson and P. Paglione. An optimal aircraft conflict resolution system based on hybrid models. In *Proceedings of the 20th ICAS, Congress*, pages 2065–2080, Naples, Italy, 8.-13. September 1996. American Institute of Aeronautics and Astronautics, Reston, VA. †A96-40752 `ga96bBousson`.

[125] V. Miranda, Dipti Srinivasan, and Luis Miguel Proenca. Evolutionary computation in power systems. In ?, editor, *Proceedings of the PSCC'96*, page ?, Dresden (Germany), ? 1996. ? (to appear) †Proenca `ga96bMiranda`.

[126] P. M. S. Carvalho, L. A. F. M. Ferreira, F. G. Lobo, and L. M. F. Barruncho. Distribution network expansion planning under uncertainty: a hedging algorithm in an evolutionary approach. In *Proceedings of the 20th International Conference on Power Industry Computer Applications*, volume ?, pages 10–15, Columbus, OH, 11.-16. May 1997. IEEE, New York, NY. †EEA103593/97 `ga97aCarvalho`.

[127] L. A. F. M. Ferreira, P. M. S. Carvalho, and P. M. S. Barruncho. An evolutionary approach to decision-making in distribution planning. In *Proceedings of the 14th International Conference and Exhibition on Electricity Distribution*, volume 6, pages 6/1–6/5, Birmingham, UK, 2.-5. June 1997. IEE, London, UK. †EEA90991/97 `ga97aFerreira`.

[128] S. Nascimento and F. Moura-Pires. A genetic approach to fuzzy clustering with a validity measure fitness function. In ?, editor, *Proceedings of the Second International Symposium on Intelligent Data Analysis (IDA-97)*, page ?, London (UK), 4.-6. August 1997. ? (to appear: available via `www` URL: `http://web.dcs.bbk.ac.uk/ida97.html`) †conf. prog. `ga97aNascimento`.

[129] V. Oliveira, A. Pina, and A. Proenca. Parallel genetic algorithms in a networked workstation environment. In *Proceedings of the Applications of High Performance Computing in Engineering V*, volume ?, pages 93–102, Santiago Compste (Spain), July 1997. Computational Mechanics Publications, Ltd., Southhampton, UK. †P77022 `ga97aOliveira`.

[130] Francisco Pereira and Ernesto Costa. The influence of learning in the optimization of royal road functions. In Pavel Ošmera, editor, *Proceedings of the 3rd International Mendel Conference on Genetic Algorithms, Optimization problems, Fuzzy Logic, Neural networks, Rough Sets (MENDEL'97)*, pages 244–249, Brno (Czech Republic), 25.-27. June 1997. Technical University of Brno. `ga97aPereira`.

[131] Vitorino Ramos. Evolution and cognition in image analysis. Master's thesis, Instituto Superior Tecnico, 1998. †comp.ai.genetic `ga98aVRamos`.

[132] R. M. Lopes Marques, P. J. Schoenmakers, Carlos B. Lucasius, and Gerrit Kateman. Modelling chromatographic behaviour as a function of pH and solvent composition in RPLC. *Chromatographia*, 36:83–95, 1993. (in the Proceedings of the 19th International Symposium on Chromatography, Aix-en-Provence (France), 13.-18. Sept. 1992) `ga:Lucasius93g`.

[133] Carlos Cotta Porras, Antonio Nebro, and José Francisco Aldana Montes. Diseño y evaluación de técnicas mixtas basadas en algoritmos genéticos y de branch-and-bound para la resolución de problemas de optimización conbinatoria. Internal Reseach Technical Report LCC-ID-94/10, Universidad de Málaga, Departemento de Lenguajes y Ciencias de la Computación, 1994. (in Spanish) †Alba Torres `ga94aCotta`.

[134] R. J. Duro, J. Santos, and A. Sarmiento. GENIAL: an evolutionary recurrent neural network designer and trainer. In *Proceedings of the 4th International Workshop*, pages 295–301, Ontario (Canada), 16.-20. May 1994. Springer-Verlag, Berlin (Germany). †CCA 81499/96 `ga94aDuro`.

[135] P. Guesta, G. Montero, M. Galan, and G. Winter. Mesh generation using genetic algorithms. In M. Papadrakakis B. H. V. Topping, editor, *Proceedings of the Advances in Structural Optimization*, Athens (Greece), August 30.-September 1. 1994. Civil Comp. Press, Edingburgh. †P64952 `ga94aGuesta`.

[136] Francisco Herrera, E. Herrera-Viedma, Manuel Lozano, and Jose Luis Verdegay. Fuzzy tools to improve genetic algorithms. In EUFIT'94 [271], pages 1532–1539. (available via anonymous `ftp` site `decsai.ugr.es` directory `pub/arai/tech_rep/ga-fl` file `eufit94.ps.Z`) `ga94aHerrera`.

[137] Luis Magdalena. *Estudio de la coordinación inteligente en robots bípedos: aplicación de lógica borrosa y algoritmos genéticos*. PhD thesis, Universidad Politécnica de Madrid, 1994. †[160] `ga94aMagdalena`.

[138] Francisco Javier Marin, F. J. Gonzalez, and F. Sandoval. The routing problem in traffic control using genetic algorithms. In ?, editor, *Proceedings of the 2nd IFAC Symposium on Intelligent Components and Instruments for Control Applications*, page ?, Budapest (Hungary), 8.-10. June 1994. IFAC. `ga94aMarin`.

[139] Ignacio J. Ramírez-Rosaro and José L. Bernal-Agustín. Genetic algorithms applications to the optimal power distribution systems design. In ?, editor, *Proceedings of the IASTED International Conference*, volume ?, pages 74–78, Lugano, Switzerland, 20.-22. June 1994. IASTED, Anaheim, CA (USA). †CCA51832/97 `ga94aRamirez-Rosado`.

[140] J. Santos and Richard J. Duro. Evolutionary generation and training of recurrent artificial neural networks. In ICEC'94 [270], pages 759–763. ga94aSantos.

[141] Victor Suárez and José Francisco Aldana Montes. Algorithmos genéticos paralelos para problemas combinatorios sobre sistemas multiprocesadores de memoria distribuida. Internal Reseach Technical Report LCC-ID-94/7, Universidad de Málaga, Departemento de Lenguajes y Ciencias de la Computación, 1994. (in Spanish) †Alba Torres ga94aSuarez.

[142] G. Winter, G. Montero, P. Cuesta, and M. Galán. Mesh generation and adaptive remeshing by genetic algorithms on transonic flow simulation. In ?, editor, *Proceedings of Computational Fluid Dynamics'94*, volume ?, pages 281–287, ?, ? 1994. John Wiley & Sons, New York. †[161] ga94aWinter.

[143] Jose Manuel Cadenas and Fernando Jiménez. A genetic algorithm for the multiobjective solid transportation problem: a fuzzy approach. In *Proceedings of the 4th International Workshop, Current Issues in Fuzzy Technologies*, pages 70–75, Murcia (Spain), 1.-3. June 1994. Villa Madruzzo, Trento, Italy. † ga94bCadenas.

[144] Francisco Herrera, Manuel Lozano, and Jose Luis Verdegay. Applying genetic algorithms in fuzzy optimization problems. *Fuzzy Systems & Artificial Intelligence Reports and Letters*, 3(1):39–52, ? 1994. (available via anonymous ftp site decsai.ugr.es directory pub/arai/tech_rep/ga-fl file FSAI.ps.Z) ga94bHerrera.

[145] Francisco Javier Marin, O. Trelles-Salazar, and F. Sandoval. Genetic algorithms on lan-message passing architectures using PVM: Application to the routing problem. In Davidor et al. [272], pages 534–543. †CCA 41225/95 ga94bMarin.

[146] Jose Manuel Cadenas and Fernando Jiménez. A genetic algorithm for the multiobjective solid transportation problem: a fuzzy approach. In ?, editor, *Proceedings for the Decicated Conferences on Mechatronics and Supercomputing Applications in the Transportation Industries*, pages 327–334, Aachen, Germany, 31. October-4. November 1994. Automotive Automat. (Croydon, UK). †CCA70425/96 ga94cCadenas.

[147] Francisco Herrera, Manuel Lozano, and Jose Luis Verdegay. Algoritmos genéticos: Fundamentos, extensiones y aplicaciones. Technical Report DECSAI 94105, Universidad de Granada, ETS de Ingeniería Informaática, 1994. (available via anonymous ftp site decsai.ugr.es directory pub/arai/tech_rep/ga-fl file arbor.ps.Z) ga94cHerrera.

[148] J. R. Z. Aizpuru and J. A. Usunariz. GA/TS: a hybrid approach for job shop scheduling in a production system. In ?, editor, *Proceedings of the 7th Portuguense Conference on Artificial Intelligence EPIA'95*, pages 153–164, Funchal (Portugal), 3.-6. October 1995. Springer-Verlag, Berlin. †CCA 16783/96 ga95aAizpuru.

[149] Enrique A. Alba Torres, José Francisco Aldana Montes, and J. M. Troya. A genetic algorithm for load balancing in parallel query evaluation for deductive relational databases. In Pearson et al. [273], pages 479–482. ga95aAlba.

[150] Oscar Cordón and Francisco Herrera. A general study on genetic fuzzy systems. In Winter et al. [276], pages 33–57. (available via anonymous ftp site decsai.ugr.es directory pub/arai/tech_rep/ga-fl file gfs.ps.Z) ga95aCordon.

[151] Carlos Cotta Porras, José Francisco Aldana Montes, Antonio Nebro, and J. M. Troya. Hybridizing genetic algorithms with branch and bound techniques for the resolution of the TSP. In Pearson et al. [273], pages 277–280. ga95aCotta.

[152] Francisco Herrera, Manuel Lozano, and Jose Luis Verdegay. Tackling fuzzy genetic algorithm. In Winter et al. [276], pages 167–189. (available via anonymous ftp site decsai.ugr.es directory pub/arai/tech_rep/ga-fl file fga.ps.Z) ga95aHerrera.

[153] Fernando Jiménez. Fuzzy multi-objective solid transportation problem via evolutive programming. In ?, editor, *Proceedings of the 15th International Conference (AI'95)*, volume ?, page ?, Montpellier (France), 27.-30. June 1995. ? (to appear) †prog ga95aJimenez.

[154] Luis Magdalena, Juan R. Velasco, G. Fernández, and F. Monasterio. Evolutionary-based learning applied to fuzzy controllers. In *Proceedings of the 4th IEEE International Conference on Fuzzy Systems and the 2nd International Fuzzy Engineering Symposium*, volume III, pages 1111–1118, ?, March 1994. IEEE, New York. †[160] ga95aMagdalena.

[155] J. J. Merelo and A. Prieto. G-LVQ, a combination of genetic algorithms and LVQ. In Pearson et al. [273], pages 92–95. ga95aMerelo.

[156] Jorge Muruzabal. Topology-based genetic search for the Stahel-Donoho estimator. In ICEC'95 [275], pages 138–142. †prog. ga95aMuruzabal.

[157] Guillermo Ortega. Genetic algorithms for fuzzy control of automatic docking with a space station. In ICEC'95 [275], pages 157–161. †prog. ga95aOrtega.

[158] M. A. Ridao, J. Riquelme, E. F. Camacho, and M. Toro. Coordinated motion planning of manipulators by evolution strategies. In *Proceedings of the Tenth International Conference on Appications of Artificial Intelligence in Engineering*, pages 245–252, Udine, Italy, 4.-6. July 1995. Comput. Mech. Publications, Southampton (UK). †CCA26689/97 `ga95aRidao`.

[159] J. M. Sanchez. Multilevel logic synthesis using algorithms based on natural processes. In *Proceedings of the 1995 20th International Conference on Microelectronics*, volume 2, pages 823–828, Nis (Serbia), 12.-14. September 1995. IEEE, Piscataway, NJ. †EI M095873/96 `ga95aSanchez`.

[160] Juan R. Velasco and Luis Magdalena. Genetic algorithms in fuzzy control systems. In Winter et al. [276], pages 141–165. `ga95aVelasco`.

[161] G. Winter, M. Galán, P. Cuesta, and D. Greiner. Genetic algorithms: A stochastic improvement technique. tools, skills, pitfalls and examples. In Winter et al. [276], pages 217–249. `ga95aWinter`.

[162] F. Almeida, F. Garcia, J. Roda, D. Morales, and C. Rodriguez. A comparative study of two distributed systems: PVM and transputers. In ?, editor, *Proceedings of the 1995 World Transputer Congress*, pages 244–258, Harrogate, UK, 4.-6. September 1995. IOS Press, Amsterdam. †CCA29089/96 `ga95bAlmeida`.

[163] R. Braunstingl, J. Mujika, and J. P. Ulribe. A wall following robot with a fuzzy logic controller optimized by a genetic algorithm. In *Proceedings of the 1995 IEEE International Conference on Fuzzy Systems*, volume 5, pages 77–82, Yokohama (Japan), 20.-24. March 1995. IEEE, New York, NY. †CCA71243/95 `ga95bBraunstingl`.

[164] Oscar Cordón, Francisco Herrera, and Manuel Lozano. A classified review on the combination fuzzy logic – genetic algorithms bibliography. Technical Report DECSAI 95129, University of Granada, Department of Computer Science and Artificial Intelligence, 1995. (available via `www` URL: `http://decsai.ugr.es/herrera/fl-ga.html`, available via anonymous `ftp` site `decsai.ugr.es` directory `pub/arai/tech_rep/ga-fl` file `rev-bib.ps.Z`) `ga95bCordon`.

[165] Francisco Herrera, Manuel Lozano, and Jose Luis Verdegay. Tuning fuzzy-logic controllers by genetic algorithms, 1995. (paper presented at CIFT'93 workshop on Current Issues on Fuzzy Logic, Rongecno (Trento) Italy, 3.-4. June 1993, available via anonymous `ftp` site `decsai.ugr.es` directory `pub/tech_rep/ga-fl` file `IJAR.ps.Z`)* `ga95bHerrera`.

[166] Fernando Jiménez and Jose Manuel Cadenas. An evolutionary program for the multiobjective solid transportation problem with fuzzy goals. *Bad. Oper. Decyzje (Poland)*, ?(2):5–20, ? 1995. †CCA 87695/96 `ga95bJimenez`.

[167] Luis Magdalena and F. Monasterio. Evolutionary-based learning applied to fuzzy controllers. In *Proceedings of the 1995 IEEE International Conference on Fuzzy Systems*, volume 3, pages 1111–1118, Yokohama (Japan), 20.-24. March 1995. IEEE, New York, NY. †CCA70161/95 `ga95bMagdalena`.

[168] Jorge Muruzabal. Fuzzy and probabilistic reasoning in simple learning classifier systems. In ICEC'95 [275], pages 262–266. †prog. `ga95bMuruzabal`.

[169] Ignacio J. Ramírez-Rosaro and José L. Bernal-Agustín. Optimization of power distribution network design by application of genetic algorithms. *Int. J. Power Energy Syst. (USA)*, 15(3):104–110, 1995. †CCA96160/95 `ga95bRamirez-Rosaro`.

[170] J. M. Sanchez, A. O. Garnica, and J. Lanchares. A genetic algorithm for reducing the number of states in incompletely specified finite state machines. *Microelectron. J. (UK)*, 26(5):463–470, 1995. †CCA81916/95 `ga95bSanchez`.

[171] Juan Seijas and Jose L. Sanz-Gonzalez. Two spacecraft attitude determination using neural networks and image processing. In *Proceedings of the 1st International Conference*, volume 2492, pages 985–994, Orlando, FL, 17.-21. April 1995. Society of Photo- Optical Instrumentation Engineers, Bellingham, WA. †A95-44471 `ga95bSeijas`.

[172] Francisco Herrera, Manuel Lozano, and Jose Luis Verdegay. Fuzzy connectives based crossover operators to model genetic algorithms population diversity. Technical Report DECSAI-95110, University of Granada, Department of Computer Science and Artificial Intelligence, 1995. (to appear in *Mathware & Soft Computing*) †[152] `ga95cHerrera`.

[173] F. J. Marin Martin, S. Sanchez Valencia, and F. Sandoval. Genetic programming: foundations and application on the optimization of neural networks. *Informática y Automática (Spain)*, 28(4):30–44, 1995. (in Spanish) † `ga95cMartin`.

[174] Francisco Herrera, Manuel Lozano, and Jose Luis Verdegay. Dynamic and heuristic crossover operators for controlling the diversity and convergence of real-coded genetic algorithms. Technical Report DECSAI-95113, University of Granada, Department of Computer Science and Artificial Intelligence, 1995. (available via anonymous `ftp` site `decsai.ugr.es` directory `pub/arai/tech_rep/ga-fl` file `HD-crossovers.ps.Z`) †[152] `ga95dHerrera`.

[175] Francisco Herrera, Manuel Lozano, and Jose Luis Verdegay. The use of fuzzy connectives to design real-coded genetic algorithms. *Mathware & Soft Computing*, 1(3):239–251, ? 1995. (available via anonymous `ftp` site `decsai.ugr.es` directory `pub/arai/tech_rep/ga-fl` file `Mathware95.ps.Z`) `ga95eHerrera`.

[176] Francisco Herrera, Manuel Lozano, and Jose Luis Verdegay. A learning process for fuzzy control rules using genetic algorithms. Technical Report DECSAI-95108, University of Granada, Department of Computer Science and Artificial Intelligence, 1995. (available via anonymous `ftp` site `decsai.ugr.es` directory `pub/tech_rep/ga-fl` file `LP-FCR-GA.ps.Z`) `ga95fHerrera`.

[177] Oscar Cordón, Francisco Herrera, and A. Peregrín. Applicability of the fuzzy operators in the design of fuzzy logic controllers. Technical Report DECSAI 95111, Universidad de Granada, ETS de Ingeniería Informaática, 1994. (available via anonymous `ftp` site `decsai.ugr.es` directory `pub/arai/tech_rep/ga-fl` file `95111.ps.Z`) `ga95gHerrera`.

[178] Francisco Herrera, Manuel Lozano, and Jose Luis Verdegay. Tackling real-coded genetic algorithms: operators and tools for behavioural analysis. Technical Report DECSAI 95107, Universidad de Granada, ETS de Ingeniería Informaática, 1994. (available via anonymous `ftp` site `decsai.ugr.es` directory `pub/arai/tech_rep/ga-fl` file `RCGA.ps.Z`) `ga95hHerrera`.

[179] Francisco Herrera, Manuel Lozano, and Jose Luis Verdegay. Generating fuzzy rules from examples using genetic algorithms. In B. Bouchon-Meunier, R. R. Yager, and Lotfi A. Zadeh, editors, *Fuzzy Logic and Soft Computing*, pages 11–20. World Scientific, Singapore, 1995. `ga95iHerrera`.

[180] Francisco Herrera, Manuel Lozano, and Jose Luis Verdegay. Design of a control rules base based on genetic algorithms. In ?, editor, *Proceedings of the 6th IFSA World Conference*, volume 1, pages 265–268, Sao Paulo (Brazil), ? 1995. IFSA? `ga95jHerrera`.

[181] F. Ares, S. R. Rengarajan, E. Villaneuva, E. Skochinski, and E Moreno. Application of genetic algorithms and simulated annealing technique in optimizing the aperture distributions of antenna arrays. In *Proceedings of the IEEE Antennas and Propagation Society International Symposium*, volume 2, pages 806–809, Baltimore, MD, 21.-26. July 1996. IEEE, New York , NY. †EEA34398/97 `ga96aAres`.

[182] J. L. Bernier, C. Ilia Herráiz, J. J. Merelo, S. Olmeda, and A. Prieto. Solving *mastermind* using GAs and simulated annealing: a case of dynamic constraint optimization. In Voigt et al. [277], pages 554–563. `ga96aBernier`.

[183] A. M. F.-P. Cesteros, M. de las Mercedes Gomez Albarran, and J. M. S. Perez. A routing strategy based on genetic algorithms. *Inform. Autom. (Spain)*, 29(3):3–15, 1996. In Spanish †EEA21456/97 `ga96aCesteros`.

[184] A. J. Conejo, N. Jimènez Rendondo, J. M. Arroyo, Spyros A. Kazarlis, A. G. Bakirtzis, and V. Petridis. Discussion [of [269]]. *IEEE Transactions on Power Systems*, 11(1):91–92, February 1996. `ga96aConejo`.

[185] Oscar Cordón, Francisco Herrera, and Manuel Lozano. A three-stage method for designing genetic fuzzy systems by learning from examples. In Voigt et al. [277], pages 720–729. (available via anonymous `ftp` site `decsai.ugr.es` directory `pub/arai/tech_rep/ga-fl` file `paper_104.ps.Z`) `ga96aCordon`.

[186] Carlos Cotta, Enrique Alba, and José Ma Troya. Evolutionary design of fuzzy logic controllers. In *Proceedings of the 1996 IEEE International Symposium on Intelligent Control*, pages 127–132, Dearnborn, MI, 15.-18. September 1996. IEEE, New York. `ga96aCotta`.

[187] A. Delgado, L. Puigjaner, K. Sanjeevan, and I. Sole. Hybrid system: neural networks and genetic algorithms applied in nonlinear regression and time series forecasting. In ?, editor, *Proceedings of the 12th Sympisium, Computational Statistics*, volume ?, pages 217–222, Barcelona, Spain, 26.-30. August 1996. Physica-Verlag, Heidelberg, Germany. †EEA427/97 `ga96aDelgado`.

[188] F. Gordillo and J. Aracil. Finding the optimal policy for a large-scale system using genetic programming. *Inf. Syst. Eng. (Netherlands)*, 2(3-4):277–287, 1996. †CCA76389/97 `ga96aGordillo`.

[189] Francisco Herrera and Manuel Lozano. Heuristic crossovers for real-coded genetic algorithms based on fuzzy connectives. In Voigt et al. [277], pages 336–345. (available via anonymous `ftp` site `decsai.ugr.es` directory `pub/arai/tech_rep/ga-fl` file `paper_86.ps.Z`) `ga96aHerrera`.

[190] M. C. M. Izquierdo and Juan Seijas. Genetic algorithm for DNA/RNA sequence comparison. In *Proceedings of the 8th European Simulation Symposium*, volume 2, pages 98–101, Genoa, Italy, 24.-26. October 1996. SCS, San Diego, CA. †CCA32090/97 `ga96aIzquierd`.

[191] Pedro Larrañaga, Cindy M. H. Kuijpers, Roberto H. Murga, and Yosu Yurramendi. Learning Bayesian network structures by searching for best ordering with genetic algorithm. *IEEE Transactions on Systems, Man, and Cybernetics*, 26(4):487–493, July 1996. ga96aLarranaga.

[192] A. Malanda, A. R. Figueiras-Vidal, and G. Cain. Adaptive + Darwinian approach for the estimation and tracking of time delays. In ?, editor, *Proceedings of the Eighth European Signal Processing Conference*, volume 1, pages 196–199, Trieste, Italy, 10.-13. September 1996. Edizioni LINT Trieste, Trieste, Italy. †CCA12900/98 ga96aMalanda.

[193] J. J. Merelo. Genetic Mastermind, a case of dynamic constraint optimization. GeNeura Technical Report G-96-1, Universidad de Granada, 1996. †[182] ga96aMerelo.

[194] Raphael Sala. DISTOS: Efficient petrol delivery system using optimized truck routing. *EvoNews*, 1(2):11–12, December 1996. ga96aRSala.

[195] N. J. Redondo, A. Conejo, and J. M. Arroyo. Unit commitment by interior point genetic algorithms. *Inform. Autom. (Spain)*, 29(1):39–52, 1996. In Spanish †EEA90968/96 ga96aRedondo.

[196] Enrique Alba and José M. Troya. Genetic algorithms for protocol validation. In Voigt et al. [277], pages 870–879. ga96bAlba.

[197] F. Ares, S. R. Rengarajan, E. Villaneuva, E. Skochinski, and E Moreno. Application of genetic algorithms and simulated annealing technique in optimising the aperture distributions of antenna array patterns. *Electronics Letters*, 32(3):148–149, 1996. ga96bAres.

[198] Oscar Cordón, Francisco Herrera, and Manuel Lozano. On the bidirectional integration of genetic algorithms and fuzzy logic. In *Proceedings of the Second Online Workshop on Evolutionary Computation (WEC2)*, pages 13–16, Nagoya (Japan), 4.-22. March 1996. ? (available via anonymous ftp site decsai.ugr.es directory pub/arai/tech_rep/ga-fl file bid-gafl.ps.Z) ga96bCordon.

[199] Francisco Herrera and Manuel Lozano. Adaptation of genetic algorithm parameters based on fuzzy logic controllers. In Francisco Herrera and Jose Luis Verdegay, editors, *Genetic Algorithms and Soft Computing*, pages 95–125. Physica-Verlag, ?, 1996. (available via anonymous ftp site decsai.ugr.es directory pub/arai/tech_rep/ga-fl file adap-ga.ps.Z) ga96bHerrera.

[200] Pedro Larrañaga, Mikel Poza, Yosu Yurramendi, Roberto H. Murga, and Cindy M. H. Kuijpers. Structure learning of Bayesian networks by genetic algorithms: a performance analysis of control parameters. *IEEE Transactions on Pattern Analysis and Machine Intelligence*, 18(9):912–926, September 1996. ga96bLarranaga.

[201] M. Santos, J. M. de la Cruz, S. Dormido, and A. P. de Madrid. Between fuzzy-PID and PID-conventional controllers: a good choice. In *Proceedings of the 1996 Biennial Conference of the North American Fuzzy Information Processing Society - NAFIPS*, pages 123–127, Berkeley, CA, 19.-22. June 1996. IEEE, New York, NY. †CCA78807/96 ga96bSantos.

[202] Francisco Herrera and Manuel Lozano. Adaptive genetic algorithms based on fuzzy techniques. In ?, editor, *Information Processing and Management of Uncertainty in Knowledge-Based Systems (IPMU)*, pages 775–780, ?, ? 1996. ? (available via anonymous ftp site decsai.ugr.es directory pub/arai/tech_rep/ga-fl file gen-ipmu96.ps.Z) ga96cHerrera.

[203] Francisco Herrera, Manuel Lozano, and Jose Luis Verdegay. Dynamic and heuristic fuzzy connectives based crossover operators for controlling the diversity and convergence of real-coded genetic algorithms. *International Journal of Intelligent Systems*, 11(?):1013–1041, ? 1996. (available via anonymous ftp site decsai.ugr.es directory pub/arai/tech_rep/ga-fl file IJIS.ps.Z) ga96dHerrera.

[204] Oscar Cordón and Francisco Herrera. A hybrid genetic algorithm–evolution strategy process for learning fuzzy logic controller knowledge bases. In Francisco Herrera and Jose Luis Verdegay, editors, *Genetic Algorithms and Soft Computing*, pages 251–278. Physica-Verlag, ?, 1996. (available via anonymous ftp site decsai.ugr.es directory pub/arai/tech_rep/ga-fl file ga-es-flc.ps.Z) ga96eCordon.

[205] Oscar Cordón and Francisco Herrera. Fuzzy identification by means of genetic algorithms. In D. Driankov, H. Hellendoorn, and R. Palm, editors, *Fuzzy Identification: A User's Handbook*, page ? Springer-Verlag, Berlin, 1996. (also as technical report DECSAI-96107, available via anonymous ftp site decsai.ugr.es directory pub/arai/tech_rep/ga-fl file fimga.ps.Z) ga96fCordon.

[206] Oscar Cordón and Francisco Herrera. Generating and selecting fuzzy control rules using evolution strategies and genetic algorithms. In ?, editor, *Information Processing and Management of Uncertainty in Knowledge-Based Systems (IPMU)*, pages 733–738, ?, ? 1996. ? (available via anonymous ftp site decsai.ugr.es directory pub/arai/tech_rep/ga-fl file gen-ipmu96.ps.Z) ga96gCordon.

[207] M. Julia Arcos, M. Cruz Ortiz, Belén Villahoz, and Luis A. Sarabia. Genetic algorithm-based wavelength selection in multicomponent spectrometric determinations by PLS: Application on indomethacin and acemethacin mixture. *Analytica Chimica Acta*, 339(1-2):63–77, 28. February 1997. ga97aArcos.

[208] C. R. Vela, C. Alonso, R. Varela, and J. Puente. A genetic approach to computing independent AND parallelism in logic programs. In *Proceedings of the International Work-Conference on Artificial and Natural Neural Networks*, volume ?, pages 566–575, Lanzarote (Spain), 4.-6. June 1997. Springer-Verlag, Berlin (Germany). †CCA84916/97 ga97aCRVela.

[209] Carlos Cotta and José Ma Troya. A hybrid genetic algorithm for the 0-1 multiple knapsack problem. In George D. Smith and Nigel C. Steele, editors, *Proceedings of the International Conference on Artificial Neural Networks and Genetic Algorithms*, pages 250–254, Norwich, UK, 2.-4. April 1997. Springer-Verlag, Berlin. ga97aCarCotta.

[210] D. Carreno and X. Ginesta. Facial image recognition using neural networks and genetic algorithms. In ?, editor, *Proceedings of the 7th International Conference, CAIP97*, pages 605–612, Kiel, Germany, 10.-12. September 1997. Springer-Verlag, Berlin. †CCA103389/97 ga97aCarreno.

[211] Oscar Cordón, Francisco Herrera, and Manuel Lozano. Fuzzy evolutionary computation. In Pedrycz [278], chapter 1.2 On the combination of fuzzy logic and evolutionary computation: A short review and bibliography, pages 33–56. ga97aCordon.

[212] Eduardo Bustillo. A neuro-evolutionary unbiased global illumination algorithm. In J.Dorsey and Ph. Slusallek, editors, *Renderin Techniques '97, Proceedings of the Eurographics Workshop*, pages 263–274, St. Etienne (France), 16.-18. June 1997. Springer-Verlag, Berlin. ga97aEBustillo.

[213] F. J. Marin and F. Sandoval. Electric load forecasting with genetic neural networks. In George D. Smith and Nigel C. Steele, editors, *Proceedings of the International Conference on Artificial Neural Networks and Genetic Algorithms*, pages 49–52, Norwich, UK, 2.-4. April 1997. Springer-Verlag, Berlin. ga97aFJMarin.

[214] O. Garnica, J. Lanchares, and J. M. Sanchez. Finite state machine optimization using genetic algorithms. In *Proceedings of the Second International Conference on Genetic Algorithms in Engineering Systems: Innovations and Applications*, volume ?, pages 283–289, Glasgow (UK), 2.-4. September 1997. IEE, London (UK). †CCA3988/98 ga97aGarnica.

[215] J. Garrido and M. A. Sanz-Bobi. Learning rules from the experience of an expert system using genetic algorithms. In *Proceedings of the Second International Conference on Genetic Algorithms in Engineering Systems: Innovations and Applications*, volume ?, pages 226–231, Glasgow, UK, 2.-4. September 1997. IEE, London, UK. †CCA6172/98 ga97aGarrido.

[216] de Las Mercedes, M. Gomez-Albarran, A. M. Fernandez-Pampillon-Casteros, and J. M. Sanchez-Perez. A routing strategy based on genetic algorithms. *Microelectron. J. (UK)*, 28(6-7):641–656, 1997. †CCA24706/98 ga97aGomez-Al.

[217] A. F. Gomez-Skarmeta and F. Jimenez. Generating and tuning fuzzy rules using hybrid systems. In *Proceedings of the 1997 6th IEEE International Conference on Fuzzy Systems*, volume 1, pages 247–252, Barcelona, Spain, 1.-5. July 1997. IEEE, Piscataway, NJ. †EI M005363/98 ga97aGomez-Sk.

[218] A. I. Gonzalez, M. Grana, J. A. Lozano, and P. Larranaga. Experimental results of a Michigan-like evolution strategy for non-stationary clustering. In George D. Smith and Nigel C. Steele, editors, *Proceedings of the International Conference on Artificial Neural Networks and Genetic Algorithms*, pages 555–559, Norwich, UK, 2.-4. April 1997. Springer-Verlag. ga97aGonzalez.

[219] F. Gordillo and A. Bernal. Optimal control of an inverted pendulum by genetic programming: practical aspects. In George D. Smith and Nigel C. Steele, editors, *Proceedings of the International Conference on Artificial Neural Networks and Genetic Algorithms*, pages 393–396, Norwich, UK, 2.-4. April 1997. Springer-Verlag, Berlin. ga97aGordillo.

[220] Francisco Herrera and Luis Magdalena. Genetic fuzzy systems. *Tatra Mt. Math. Publ. (Slovakia)*, 13:93–121, 1997. †CCA85846/97 ga97aHerrera.

[221] J. I. Hidalgo and J. Lanchares. Functional partitioning for hardware-software codesign using genetic algorithms. In *Proceedings of the 23rd Euromicro Conference – New Frontiers of Information Technology*, pages 631–638, Budapest (Hungary), 1.-4. September 1997. IEEE Computer Society Press, Los Alamitos, CA. †P77002/97 ga97aHidalgo.

[222] I. Rojas, J. J. Merelo, J. L. Bernier, and A. Prieto. A new approach to fuzzy controller designing and coding via genetic algorithms. In *Proceedings of the Sixth IEEE International Conference on Fuzzy Systems*, volume 3, pages 1505–1510, Barcelona (Spain), 1.-5. July 1997. IEEE, New York, NY. †CCA80476/97 ga97aIRojas.

[223] J. J. Merelo, A. Prieto, F. Moran, R. Marabini, and J. M. Carazo. A GA-optimized neural network for classification of biological particles from electron-microscopy images. In *Proceedings of the International Work-Conference on Artificial and Natural Neural Networks*, volume ?, pages 1174–1182, Lanzarote, Spain, 4.-6. June 1997. Springer-Verlag, Berlin (Germany). †CCA83479/97 `ga97aJJMerelo`.

[224] F. Jimenez and Jose Luis Verdegay. Obtaining fuzzy solutions to the fuzzy solid transportation problem with genetic algorithms. In *Proceedings of the Sixth IEEE International Conference on Fuzzy Systems*, volume 3, pages 1657–1663, Barcelona, Spain, 1.-5. July 1997. IEEE, New York, NY. †CCA80177/97 `ga97aJimenez`.

[225] J. Lanchares, J. I. Hidalgo, and J. M. Sanchez. Boolean networks decomposition using genetic algorithms. *Microelectron. J. (UK)*, 28(5):551–560, 1997. †CCA65001/97 `ga97aLanchares`.

[226] Pedro Larrañaga, Cindy M. H Kuijpers, M. Poza, and R. H. Murga. Decomposing Bayesian networks: triangulation of the moral graph with genetic algorithms. *Statistics and Computing (UK)*, 7(1):19–34, 1997. †CCA33834/97 `ga97aLarranaga`.

[227] Luis Magdalena and Juan R. Velasco. Fuzzy evolutionary computation. In Pedrycz [278], chapter 2.8 Evolutionary based learning of fuzzy controllers, pages 249–268. `ga97aMagdalena`.

[228] M. J. Martin-Bautista, H. L. Larsen, J. Nicolaisen, and T. Svendsen. An approach to an adaptive information retrieval agent using genetic algorithms with fuzzy set genes. In *Proceedings of the Sixth IEEE International Conference on Fuzzy Systems*, volume 3, pages 1227–1232, Barcelona (Spain), 1.-5. July 1997. IEEE, New York, NY. †CCA86834/97 `ga97aMartin-Bautista`.

[229] Oscar Cordón and Francisco Herrera. A three-stage evolutionary process for learning descriptive and approximate fuzzy-logic-controller knowledge bases from examples. *Int. J. Approx. Reason. (USA)*, 17(4):369–407, 1997. †CCA1864/98 `ga97aOCordon`.

[230] J. Riquelme, M. A. Ridao, E. F. Camacho, and M. Toro. Using genetic algorithms with variable-length individuals for planning two-manipulators motion. In George D. Smith and Nigel C. Steele, editors, *Proceedings of the International Conference on Artificial Neural Networks and Genetic Algorithms*, pages 26–30, Norwich, UK, 2.-4. April 1997. Springer-Verlag, Berlin. `ga97aRiquelme`.

[231] Juan R. Velasco, S. Lopez, and Luis Magdalena. Genetic fuzzy clustering for the definition of fuzzy sets. In *Proceedings of the Sixth IEEE International Conference on Fuzzy Systems*, volume 3, pages 1665–1670, Barcelona (Spain), 1.-5. July 1997. IEEE, New York, NY. †CCA78567/97 `ga97aVelasco`.

[232] J. de Gracia, M. L. M. F. S. Saravia, A. N. Araújo, J. L. F. C. Lima, M. del Valle, and M. Poch. Evaluation of natural computation techniques in the modeling and optimization of a sequential injection flow system for colorimetric iron(III) determination. *Analytica Chimica Acta*, 348(1-3):143–150, 20. August 1997. (Proceedings of the International Conference on Chemometrics in Analytical Chemistry, Tarragona (Spain), June 25.-29. 1996) `ga97adeGracia`.

[233] Antonio Gonzalez and Raul Perez. Using information measures for determining the relevence of the predictive variables in learning problems. In *Proceedings of the 1997 6th IEEE International Conference on Fuzzy Systems*, volume 3, pages 1423–1428, Barcelona, Spain, 1.-5. July 1997. IEEE, Piscataway, NJ. †EI M011310/98 `ga97bGonzalez`.

[234] Luis Magdalena and F. Monasterio-Huelin. A fuzzy logic controller with learning through the evolution of its knowledge base. *Int. J. Approx. Reason. (USA)*, 16(3-4):335–358, 1997. †CCA46325/97 `ga97bMagdalena`.

[235] Oscar Cordón and Francisco Herrera. Evolutionary design of TSK fuzzy rule-based systems using. In *Proceedings of the Sixth IEEE International Conference on Fuzzy Systems*, volume 1, pages 509–514, Barcelona, Spain, 1.-5. July 1997. IEEE, New York, NY. †CCA78850/97 `ga97bOCordon`.

[236] J. Castellanos, S. Leiva, J. Rodrigo, and A. Rodriguez-Paton. Molecular computation for genetic algorithms. In ?, editor, *Proceedings of the First International Conference on Rough Sets and Current Trends in Computing*, volume ?, pages 91–98, Warsaw, Poland, 22.-26. June 1998. Springer-Verlag, Berlin (Germany). †CCA87203/98 `ga98aCastella`.

[237] Luis Castillo and Antonio González. Distribution network optimization: Finding the most economic solution by using genetic algorithm. *European Journal of Operational Research*, 108(3):527–537, 1. August 1998. `ga98aCastillo`.

[238] P. Chacon, F. Moran, J. F. Diaz, E. Pantos, and J. M. Andreu. Low-resolution structures of proteins in solution retrieved from X-ray scattering with a genetic algorithm. *Biophysical Journal*, 74(6):2760–2775, June 1998. †BA 210396/98 `ga98aChacon`.

[239] Francisco Herrera, Manuel Lozano, and Jose-Luis Verdegay. Tackling real-coded genetic algorithms: Operators and tools for behavioural analysis. *Artificial Intelligence Review*, 12(4):265–319, August 1998. `ga98aFHerrera`.

[240] Ignacio J. Ramírez-Rosaro and José L. Bernal-Agustín. Genetic algorithms applied to the design of large power distribution systems. *IEEE Transaction on Power Systems*, 13(2):696–703, May 1998. ga98aRamirez-Rosaro.

[241] Enrique A. Alba Torres and José Francisco Aldana Montes. Los algorithmos genéticos como heurístico en problemas de optimización. Teaching Technical Report (Monographic) LCC-ID-92/3, Universidad de Málaga, Departemento de Lenguajes y Ciencias de la Computación, 1992. (in Spanish) †Alba Torres ga:Alba92a.

[242] Enrique A. Alba Torres. Aplicación de los algorithmos genéticos para el diseño de redes neuronales [Application of genetic algorithms for the design of neural networks]. *Informática y Automática (Spain)*, 26(2):22–35, June 1993. (in Spanish) †CCA 63954/93 ga:Alba93b.

[243] Enrique A. Alba Torres, José Francisco Aldana Montes, and José M. Troya. Full automatic ANN design: a genetic approach. In J. Mira, J. Cabestany, and A. Prieto, editors, *Proceedings of the International Workshop on Artificial Neural Networks (IWANN'93)*, pages 399–404, Sitges (Spain), 9.-11. June 1993. Springer-Verlag, Berlin. †CCA 20428/93 ga:Alba93c.

[244] Dolores del Castillo Sobrino, Jorge Gasos Casao, and Carmen Garcia-Alegre Sanchez. Genetic processing of the sensorial information. *Sens. Actuators A. Phys. (Switzerland)*, A37-A38(2):255–259, 1993. (Proceedings of EUROSENSORS VI, San Sebastian (Spain), 5.-7. Oct. 1992) †CCA 2526/94 EI Jan 94 ga:CGASanchez93a.

[245] F. Comellas and R. Roca. Using genetic algorithms to design constant weight codes. In J. Alspector, R. Goodman, and T. X. Brown, editors, *Proceedings of the International Workshop on Applications of Neural Networks to Telecommunications*, pages 119–124, Princeton, NJ, 18.-20. October 1993. Lawrence Erlbaum Associate Publishers, Hillsdale. †P62660/94 ga:Comellas93a.

[246] J. F. Falcon. Simulated evolution of modular networks. In *Proceedings of the International Workshop on Artificial Neural Networks (IWANN'91)*, pages 204–211, Granada (Spain), 17.-19. September 1991. Springer-Verlag, Berlin. †EEA 69782/92 ga:Falcon91a.

[247] Francisco Herrera, Manuel Lozano, and Jose Luis Verdegay. Tuning fuzzy logic controllers by genetic algorithm. Technical Report DECSAI 93102, Universidad de Granada, ETS de Ingeniería Informaática, 1993. (available via anonymous ftp site decsai.ugr.es directory pub/arai/tech_rep/ga-fl file IJAR.ps.Z) ga:Herrera93a.

[248] J. L. Castro, M. Delgado, and Francisco Herrera. A learning method of fuzzy reasoning by genetic algorithms. In ?, editor, *Proceedings of the First European Congress on Fuzzy and Intelligent Technologies (EUFIT'93)*, volume 2, pages 804–809, Aachen (Germany), ? 1993. ? (available via anonymous ftp site decsai.ugr.es directory pub/arai/tech_rep/ga-fl file eufit93.ps.Z) ga:Herrera93b.

[249] Francisco Herrera, Manuel Lozano, and Jose Luis Verdegay. Genetic algorithm applications to fuzzy logic based systems. In R. Kulikowski, K. Szkatula, and J. Kacprzyk, editors, *Proceedings of the 9th Polish-Italian and 5th Polish-Finnish Symposium on Systems Analysis and Decision Support in Economics and Technology*, pages 125–134, Warsaw (Poland), 25.-29. October 1993. Omnitech Press. (available via anonymous ftp site decsai.ugr.es directory pub/arai/tech_rep/ga-fl file GAFS.ps.Z) ga:Herrera93c.

[250] J. J. Merelo, A. Paton, A. Canas, A. Prieto, and F. Moran. Optimization of a competitive learning neural network by genetic algorithms. In *Proceedings of the International Workshop on Artificial Neural Networks (IWANN'93)*, pages 185–192, Sitges (Spain), 9.-11. June 1993. Springer-Verlag, Berlin. †CCA 17308/93 ga:Paton93b.

[251] Francisco Javier Marin, F. Garcia, and F. Sandoval. Genetic algorithms: a strategy for search and optimization. *Informática y Automática (Spain)*, 25(3-4):5–15, November 1992. (in Spanish) †CCA 19306/93 EEA 21254/93 ga:Sandoval92.

[252] Francisco Javier Marin and F. Sandoval. Genetic synthesis of discrete-time recurrent neural network. In *Proceedings of the International Workshop on Artificial Neural Networks (IWANN'93)*, pages 179–184, Sitges (Spain), 9.-11. June 1993. Springer-Verlag, Berlin. ga:Sandoval93a.

[253] Juan R. Velasco, G. Fernández, and Luis Magdalena. Inductive learning applied to fossil power plants control optimization. In *Proceedings of the IFAC Symposium on Control of Power Plants and Power Systems*, pages 205–210, Munich (Germany), 9.-11. March 1992. Pergamon Press Inc, Tarrytown, NY. †EI M088417/93 EEA 33053/93 ga:Velasco92a.

[254] Belzyt Gonzalez, Michel Torres, and Jose A. Moreno. A hybrid genetic algorithm approach for the 'no-wait' flowshop scheduling problem. In *Proceedings of the First IEE/IEEE International Conference on Genetic Algorithms in Engineering Systems: Innovations and Applications*, pages 59–64, Sheffield (UK), 12.-14. September 1995. IEEE. †conf.prog ga95aGonzalez.

[255] D. Marcano, F. Duran, and O. Chang. Synthesis of multiple beam linear antenna arrays using genetic algorithms. In *Proceedings of the 1995 IEEE Antennas and Propagation Society International Symposium*, volume 2, pages 938–941, Newport Beach, CA, 18.-23. June 1995. IEEE, New York. ga95aMarcano.

[256] D. Marcano, M. Jimenez, F. Duran, and O. Chang. Synthesis of antenna arrays using genetic algorithms. In *Proceedings of the 1995 1st IEEE International Caracas Conference on Devices, Circuits and Systems*, pages 328–332, Caracas, Venezuela, 12.-14. December 1995. IEEE, Piscataway, NJ. †EI M089020/96 ga95bMarcano.

[257] Jesus Silva Castro. Electrocardiographic signal analysis using genetic algorithms (GAs). In *Proceedings of the 1996 23rd Annual Meeting on Computers in Cardiology*, pages 445–448, Indianapolis, IN, 8.-11. September 1996. IEEE Computer Society Press, Los Alamitos, CA. †EEA 49615/97 EI M034806/97 ga96aCastro.

[258] M. Cerrolaza and W. Annicchiarico. Structural optimization algorithms based on genetic simulation. Report Ed. CDCH-UCV, Central University of Venezuela, 1996. (in Spanish) †[264] ga96aCerrolaza.

[259] M. Galante. Genetic algorithms as an approach to optimize real-world trusses. *Int. Numer. Meth. Eng.*, 39(?):361–382, ? 1996. †[264] ga96aGalante.

[260] D. Marcano, M. Jimenez, O. Chang, and F. Duran. Aplication of genetic algorithms for the synthesis of linear antenna arrays. In ?, editor, *Proceedings of the 1996 3rd International Congress on Numerical Methods in Engineering and Applied Sciences, CIMENICS96*, volume ?, pages 257–263, Merida, Venezuela, 25.-29. March 1996. Computational Mechanics Publ. †EI M093966/96 ga96aMarcano.

[261] Maruja F. Ortega, E. Arraiz, and A. Suarez. A genetic algorithm for drawing graphs in an interactive environment. In *Proceedings of the XVI International Conference of the Chilean Computer Science Society*, pages 112–119, Valdivia, Chile, 13.-15. November 1996. Soc. Chilena de Ciencia de la Computacion, Santiago, Chile. †CCA 40178/97 ga96aOrtega.

[262] D. Marcano, M. Jimenez, O. Chang, and U. S. Bolivar. Synthesis of linear-array using Schelkunoffs method and genetic algorithms. In *Proceedings of the IEEE Antennas and Propagation Society International Symposium - 1996 Digest*, volume 1-3, page ?, Baltimore, MD, 21.-26. July 1996. IEEE, New York, NY. †P72518 ga96bMarcano.

[263] J. Aguilar and A. Colmenares. Recognition algorithm using evolutionary learning on the random neural networks. In *Proceedings of the 1997 IEEE International Conference on Neural Networks*, volume 2, pages 1023–1028, Houston, TX, 9.-12. June 1997. IEEE, New York, NY. †CCA79366/97 ga97aAguilar.

[264] W. Annicchiarico and M. Cerrolaza. Optimization of finite element bidimensional models: an approach based on genetic algorithms. *Finite Elements in Analysis and Design*, 29(3-4):231–257, 15. June 1998. ga98aAnnicchiarico.

[265] Guillermo Montilla, Christian Roux, Victor Barrios, V. Torrealba, Naykiavick Rangel, Vytautas Subacius, L. Miliani, and C. Vasquez. Model-based, knowledge-based epicardial boundary detector. In *Proceedings of the 15th Annual International Conference of the IEEE Engineering in Medicine and Biology Society*, volume 1, pages 205–208, San Diego, CA, 28.-31. October 1993. IEEE. †EI M077812/94 ga:Barrios93a.

[266] Guillermo Montilla, Victor Barrios, Vytautas Subacius, and Naykiavick Rangel. Model-based epicardial boundary detection using genetic algorithms. In *Proceedings of the 15th Annual International Conference of the IEEE Engineering in Medicine and Biology Society*, volume 1, pages 226–227, San Diego, CA, 28.-31. October 1993. IEEE. †EI M074142/94 ga:Barrios93b.

[267] M. Galante, M. Cerrolaza, and W. Annicchiarico. Optimization of structural and finite element models via genetic algorithms. In J. Herskovits, editor, *Structural Optimization 93, Proceedings of the World Gongress on Optimal Design of Structural Systems*, volume II, pages 127–136, Rio de Janeiro (Brazil), 2.-6. August 1993. Federal University of Rio de Janeiro. ga:Galante93a.

[268] Aaron L. Ranson, Aurali B. Franco, and Margarita G. Chavez. Genetic algorithm like learning rule for neural networks. In *1993, International Conference on Systems, Man and Cybernetics*, volume 4, pages 137–142, Le Touquet (France), 17.-20. October 1993. IEEE, New York. ga:Ranson93a.

[269] Spyros A. Kazarlis, A. G. Bakirtzis, and V. Petridis. A genetic algorithm solution to the unit commitment problem. *IEEE Transactions on Power Systems*, 11(1):83–90, February 1996. ga96aKazarlis.

[270] *Proceedings of the First IEEE Conference on Evolutionary Computation*, Orlando, FL, 27.-29. June 1994. IEEE, New York, NY. ga94ICCIEC.

[271] *Proceedings of the Second European Congress on Intelligent Techniques and Soft Computing (EUFIT'94)*, Aachen (Germany), 20.-23. September 1994. ELITE-Foundation. ga94EUFIT.

[272] Yuval Davidor, Hans-Paul Schwefel, and Reinhard Manner, editors. *Parallel Problem Solving from Nature – PPSN III*, volume 866 of *Lecture Notes in Computer Science*, Jerusalem (Israel), 9.-14. October 1994. Springer-Verlag, Berlin. † `ga94PPSN3`.

[273] D. W. Pearson, N. C. Steele, and R. F. Albrecht, editors. *Artificial Neural Nets and Genetic Algorithms*, Alès (France), 19.-21. April 1995. Springer-Verlag, Wien New York. `ga95ICANNGA`.

[274] Michael Blumenstein, editor. *Proceedings of the International Conference on Computational Intelligence and Multimedia Applications*, Gold Coast, QUE, Australia, February 1997. Watson Ferguson & Company (Griffith University). †toc /Blumenstein `ga97ICCIMA`.

[275] *Proceedings of the Second IEEE Conference on Evolutionary Computation*, Perth (Australia), November 1995. IEEE, New York, NY. `ga95ICEC`.

[276] G. Winter, J. Périaux, M. Galán, and P. Cuesta, editors. *Genetic Algorithms in Engineering and Computer Science (EUROGEN95)*, Las Palmas (Spain), December 1995. John Wiley & Sons, New York. `ga95LasPalmas`.

[277] Hans-Michael Voigt, Werner Ebeling, Ingo Rechenberg, and Hans-Paul Schwefel, editors. *Parallel Problem Solving from Nature – PPSN IV*, volume 1141 of *Lecture Notes in Computer Science*, Berlin (Germany), 22.-26. September 1996. Springer-Verlag, Berlin. `ga96PPSN4`.

[278] Witold Pedrycz, editor. *Fuzzy Evolutionary Computation*. Kluwer Academic Publishers, New York, 1997. `ga97aPedrycz`.

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. †.

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.