
Part IV Conclusion & Appendix

This section will summarize the major investigations presented in this thesis. First, the set of methods and techniques, which are presented for the first time are mentioned briefly. The achieved results (including the drawbacks) are discussed at an abstract level. Finally, a perspective is given by a short introduction of one further research line.

13.1. What was new?

The central philosophy all introduced methods are based on is the preservation of as many degrees of freedom as possible and reasonable concerning the world modelling process of a mobile robot in unknown, unreliable, or dynamic environments. Beyond the general aspect of adaptability, the question of variance in the set of behaviours of a mobile robot, dedicated to real world scenes (i.e. scenes containing unforeseeable constraints), opens up the general discussion about a reasonable relation of pre-programming and learning in mobile robots¹ interacting extensively with their environments.

SPIN

The *SPIN* system has shown up an almost model-free method of generating stable, geometric 3-d symbols out of current working environments (↗ chapter 7). In the course of development, some new and specific techniques were introduced and investigated – some of them even relevant outside the focus of geometric abstractions or visual steering.

The shown visual search methods are especially dedicated to highly focused devices. This field is prevalently unexplored, due to the fact, that visual search is mainly motivated by physiological investigations concerning visual cortexes (mainly in cats and monkeys), which are also focused, but always offer a possibility of gathering blurred information from immediate surroundings simultaneously. Therefore the steering methods from the literature are based on “parallel” vision systems, instead of serial sensor readings, as assumed in the *SPIN* system. The orders of magnitude between the realtime information bandwidth in both configurations has forced, beside other constraints, new methods, introduced in this thesis (↗ chapter 8).

Motivated by the need of a-priori knowledge during a kind of bootstrap in the abstraction pipeline of *SPIN*, a new neural fuzzy decision method (*SPIN-NFDS*) was introduced and proven applicable in the given context, even in general terms (↗ chapter 3).

The classification of 3-d surfaces through dynamic self-organising maps was not a completely new approach, but extends the methods given in the literature by some important features ensuring lifelong learning abilities (↗ chapter 4).

1. also denoted animats, critters, creatures, etc.

Finally the *SPIN* system has introduced a complete pipeline of sub-symbolic, adaptive, geometric abstraction components, not yet investigated in this complexity (see references in chapter 7).

ALICE

ALICE is currently the only mobile robot (to the knowledge of the author), able to build up a dynamic, self-organized map of sensor-situations in one exploration phase (see chapter 4). Additionally this was performed under hard realtime constraints. Qualitative modelling for mobile robots was introduced before, but the methods are limited to off-line training, or have (for good reason) never left the simulations.

In order to show the navigation abilities that can be established based on the qualitative topologic mapping, a new, adaptive path execution process was introduced, modelling a set of phenomena (the robot's kinematics, drifts and systematic sensor disturbances, local manoeuvres constraints, etc.) by one mapping step from the robot's current situation to proposed actuator settings (see chapter 5).

ALBATROSS (communication)

The introduced realtime communication scheme for asynchronous running processors, assuring blocking free access to communication ports with constant delays, was introduced due to the need of a communication system, fulfilling hard realtime constraints (see chapter 5).

13.2. What could not be shown?

The major drawback of this thesis is the lack of a proof of practical relevance concerning the sub-symbolic geometric abstraction project *SPIN*. A range finder of adequate speed and precision could not be employed during experiments with the introduced methods. Therefore a steering and control mechanism for such a range finder could be investigated on the base of simulations only.

The complexities of employed algorithms in the *SPIN*-components allow realtime configurations in principle, i.e. the actual realtime abilities have still to be proven, including real-world implementations. But the total amount of computational power (accumulating all *SPIN*-components), assuming SISD computers, is very large and handicaps implementations on moving machines at the current state of the art in computer architecture.

13.3. What has been shown?

Assuming environments containing enough descriptive edges and a range finder with adequate features, the *SPIN* system has demonstrated a possibility achieving stable, geometric symbols from previously unknown environments. The decomposition into the necessary components is complete and ensures a working overall system, although the system was never tested (due to limited computational power) with all components running in parallel.

Visual steering concerning highly focused devices was investigated for the first time and could therefore not be compared to existing systems. Nevertheless, principal improvements regarding simulated environments and compared to elementary recursive edge-following could be shown.

A neural-fuzzy method, employing fuzzy rules, pre-structuring a five layer network together with standard neural adaptation methods for refinements according to the actual context, was introduced and proven a major improvement in comparison to fuzzy logic or standard connectionist methods applied individually. The comparison to existing neural-fuzzy controllers has turned out some significant new features.

The geometric classifications in order to generate stable symbolic representations could be performed ensuring some stability, generalization as well as lifelong learning abilities, and resulting in reasonable symbols. All applied algorithms (dynamic self-organizing maps respectively Adaptive Resonance Theory) have complexities allowing realtime implementations.

The *ALBATROSS* operating system kernel includes a communication scheme, especially adapted to the demands of asynchronous realtime transfers, and applied to a couple of mobile platforms in the meanwhile.

Finally, the *ALICE* project as a first step towards the idea of simple, but adaptive robots of practical relevance, has proven stable real world abilities even under extremely worse conditions (regarding drift, sensors, systematic errors, and limited computational power). The ability of realtime world modelling with

lifelong flexibility running in parallel to the robot's self-localization is a unique feature. The generated models are of qualitative, topological character, and applicable for a wide range of tasks.

13.4. Perspectives

The number of potential new directions, continuing and completing the investigated research fields appears rather large, but in order not to become too speculative here, the author would like to limit this final section to one aspect.

The prevailing tests with the mobile platform *ALICE* have shown promising results with respect to real world applications, especially if constraints regarding weight, stability, and reliability have to be considered. A currently not satisfying aspect (comparing *ALICE* to any primitive biological creature) is the large number of performed movements. This drawback is the straight result of the applied sensor devices. On the other hand the employment of range finding sensors is not uncritical, if the elementary *ALICE* feature of being small and light weighted should remain untouched (as intended by the author). Additionally the “perspective-problem” (situations appearing significantly different from specific perspectives) introduces a new stage of sensor pre-processing and forces modifications in the qualitative, topologic world modelling as introduced in this thesis. Nevertheless, *ALICE* (respectively her younger sister) will be equipped with special range finders, where the biological plausibility as well as other *ALICE* assumptions will be still considered.

Bibliography

[Ackley85]

Ackley David H., Hinton Geoffrey E., Sejnowski Terrence J.

A learning algorithm for Boltzmann machines

Cognitive Science 9: 147-169 (1985), Reprint: Neurocomputing - Foundations of Research, Anderson James A. & Rosenfeld Edward (eds.), MIT Press, Cambridge, Massachusetts, London, England

[Ahalt90]

Ahalt Stanley C., Krishnamurthy Ashok K., Chen Prakoon, Melton Douglas E. - 27.9.1989

Competitive Learning Algorithms for Vector Quantization
Neural Networks, Vol. 3, pp. 277-290, 1990

[Ahmad94]

Ahmad Subutai

Feature Densities are Required for Computing Feature Correspondences

In Hanson SJ, Cowan JD, & Giles CL, Eds., Advances in Neural Information Processing Systems, 5. San Mateo, CA: Morgan Kaufmann Publishers, 1993, 417-424.

[Ahmad91]

Ahmad Subutai, Omohundro Stephen - 1.7.1991

Efficient Visual Search: A Connectionist Solution

Paper at the 13th Conference of the Cognitive Science Society, Chicago - FTP: cheops.cis.ohio-state.edu | pub/neuroprose | ahmad.cogsci91.ps.Z

[Ahmad90]

Ahmad Subutai, Omohundro Stephen - 25.7.1990

A Network for Extracting the Locations of Point Clusters Using Selective Attention

Paper at the 12th Conference of the Cognitive Science Society at MIT - FTP: cheops.cis.ohio-state.edu | pub/neuroprose | ahmad.tr90-11.ps.Z

[Aleksander89]

Aleksander Igor (ed.)

Neural Computing Architectures - The design of brain-like machines

North Oxford Academic Publishers Ltd, ISBN 0-262-01110-7 (Great Britain '89)

[Alpaydin89]

Alpaydin E. - 16.8.1989

Optical Character Recognition using Artificial Neural Networks

First IEEE International Conference on Artificial Neural Networks, 16-18 October 1989 - Conference Publication Number 313, ISBN 0-85296388-2

[Alpaydin91]

Alpaydin Ethem - 1.5.1991

GAL: Networks that grow when they learn and shrink when they forget

Technical Report 91-032 - FTP: 128.32.201.55 | pub/techreports | tr-91-032.ps.Z

[Amit89a]

Amit Daniel J. - 11.12.1989

Attractor Neural Networks and Biological Reality: Associative Memory and Learning

Intelligent Autonomous Systems 2, Amsterdam, T. Kanade, F.C.A. Groen, L.O. Hertzberger (eds.), The IAS Foundation, Vol. 1, pp. 35-50

[Amit89b]

Amit Daniel J.
Modeling brain functions - The world of attractor neural networks
 Press Syndicate of the University of Cambridge (1989)
 ISBN 0-521-36100-1

[Anderson87]

Anderson James A., Rosenfeld Edward (eds.)
Neurocomputing - Foundations of Research
 MIT Press, Cambridge, Massachusetts, London, England

[Anderson72]

Anderson James A.
A simple neural network generating an interactive memory
 Mathematical Biosciences 14: 197-220 - Reprint: Neurocomputing - Foundations of Research, Anderson James A. & Rosenfeld Edward (eds.), MIT Press, Cambridge, Massachusetts, London, England

[Andlinger91]

Andlinger Paul, Reichl Ernst R. - 1.10.1991
Fuzzy-Neunet: A Non Standard Neural Network
 A. Prieto (ed.), Artificial Neural Networks, International Workshop IWANN '91, Granada, Spain, September '91, Proceedings, Springer-Verlag, Berlin Heidelberg-New York

[Asteroth92]

Asteroth Alexander, Fischer Mark Sebastian, Möller Knut, Schnepf Uwe - 16.11.1992
Tracking and Grasping of Moving Objects - A Behaviour-Based Approach
 Submitted to the workshop IMYCS '92, 7th International Meeting of Young Computer Scientists, November 16-20, 1992, Smolenice Castle, CSFR

[Atkin88]

Atkin G.K., Bowcock J.E., Queen N.M. - 3.10.1988
Solution of a Distributed Deterministic Parallel Network using Simulated Annealing
 Pattern Recognition, Vol. 22, No. 4, pp. 461-466, 1989, 0031-3203/89 \$3.00+.00, Maxwell Pergamon Macmillan plc, Pattern Recognition Society

[Attneave54]

Attneave Fred - 1.3.1954
Some Information Aspects of Visual Perception
 Psychology Review, Vol. 61, No. 3, 1954

[Austin92]

Austin Alan Scott - 01.02.92
Structural Level Evolution of Neural Networks
 From the Proceedings of the First Annual Conference on Evolutionary Programming, San Diego California, February, 1992

[Austin89]

Austin James - 16.8.1989
ADAM: An Associative Neural Architecture for Invariant Pattern Classification
 First IEEE International Conference on Artificial Neural Networks, 16-18 October 1989, Conference Publication Number 313, ISBN 0-85296388-2

[Baffes92]

Baffes Paul T., Zelle John M.
Growing Layers of Perceptrons: Introducing the Extentron Algorithm
 Proc. of the IJCNN-92 - FTP: cs.utexas.edu | pub/mooney/papers | ijcn-92.ps.Z

[Baldi88]

Baldi Pierre, Hornik Kurt - 16.8.1988
Neural Networks and Principal Component Analysis: Learning from Examples Without Local Minima
 Neural Networks, Vol. 2, pp. 53-58, 1989

[Baloch90]

Baloch Aijaz, Waxman Allen M. - 27.11.1990
Visual Learning, Adaptive Expectations, and Behavioral Conditioning of the Mobile Robot MAVIN
 Neural Networks, Vol. 4, pp. 271-302, 1991

[Banquet87]

Banquet Jean-Paul, Grossberg Stephen - 1.12.1987
Probing cognitive processes through the structure of event-related potentials during learning: an experimental and theoretical analysis
 Applied Optics - Vol. 26 - No. 23 - 1. December 1987 - pp. 4931-4946

[Barbosa90]

Barbosa Valmir C., Lima Priscila M.V. - 1.10.1990
On the Distributed Parallel Simulation of Hopfield's Neural Networks
 Software - Practice & Experience, Vol. 20 (10), 967-983 (October 1990) 0038-0644/90/100967-17\$08.50

[Barthen87a]

Barthen J., Dress W.B., Jorgensen C.C. - 28.8.1987
Applications of Concurrent Neuromorphic Algorithms for Autonomous Robots
 Neural Computers, Rolf Eckmiller, Christopf v.d. Malsburg (eds.), Springer-Verlag Berlin Heidelberg New York, ISBN 3-540-50892-9

[Barthen87b]

Barthen Jacob, Toomarian N., Protopopescu V. - 1.12.1987
Optimization of the computational load of a hypercube supercomputer onboard a mobile robot
 Applied Optics - Vol. 26 - No. 23 - 1. December 1987 - pp. 5007-5014

[Barto91]

Barto Andrew G., Bradtke Steven J., Singh Satinder P. - 1.8.1991
Real-Time Learning and Control using Asynchronous Dynamic Programming
 Technical report 91-57 - FTP: archive.cis.ohio-state.edu | pub/neuroprose | barto.realtime-dp.ps.Z

[Battiti91]

Battiti Roberto - 14.9.1991
First and Second-Order Methods for Learning: between Steepest Descent and Newton's Method
 FTP: archive.cis.ohio-state.edu | pub/neuroprose | battiti.second.ps.Z

[Bayer93]

Bayer Joachim - 01.10.93
Anwendung des Verfahrens der Learning Vector Quantization (LVQ) für eine automatische Bestecksortier-Einrichtung
 Technical report - Universität Kaiserslautern, Fachbereich Informatik, AG von Puttkamer

[Bebis91]

Bebis George N., Papadourakis George M. - 1.5.1991
Object Recognition using invariant Object Boundary Representations and Neural Network Models
 Pattern Recognition, Vol. 25, No. 1, pp. 25-44, 1992, 0031-3203/92 \$3.00+.00, Pergamon Press plc, Pattern Recognition Society

[Becker]

Becker Suzanna, Hinton Geoffrey E.
Learning to Make Coherent Predictions in Domains with Discontinuities
 FTP: archive.cis.ohio-state.edu | pub/neuroprose | becker.prediction.ps.Z

[Bengio93]

Bengio Samy, Bengio Yoshua, Cloutier Jocelyn, Gecsei Jan - 01.08.93
Generalization of a parametric learning rule
 Proceedings of the ICANN '93, Amsterdam, The Netherlands; FTP: archive.cis.ohio-state.edu | pub/neuroprose | bengio.general.ps

[Bengio90]

Bengio Yoshua, Bengio Samy - 19.11.1990
Learning a synaptic learning rule
 Technical report #751; FTP: archive.cis.ohio-state.edu | pub/neuroprose | bengio.learn.ps.Z

[Bérroule87]

Bérroule Dominique - 28.8.1987
The Never-Ending Learning
 Neural Computers, Rolf Eckmiller, Christoph v.d. Malsburg (eds.), Springer-Verlag Berlin Heidelberg New York, ISBN 3-540-50892-9

[Besl88]

Besl Paul J.
Surfaces in Range Image Understanding
 Springer-Verlag - New York, Berlin, Heidelberg, ISBN 0-387-96773-7

[Besl85]

Besl Paul J., Jain Ramesh C. - 1.3.1985
Three-Dimensional Object Recognition
 Computing Surveys, Vol. 17, No. 1, March 1985, ACM 0360-0300/85/0300-0075\$00.00

[Bessière93]

Bessière Pierre, Ahuactzin Juan-Manuel, Talbi El-Ghazali, Mazer Emmanuel
The "Ariadne's Clew" Algorithm: Global Planning with Local Methods
 IEEE-IROS '93 Conference, Intelligent Robots and Systems, Yokohama, Japan, 1993 - FTP: cheops.cis.ohio-state.edu | pub/neuroprose | bessiere.iros93.ps.z

[Bessière91]

Bessière Pierre, Chams Ali, Chol Philippe - 30.1.1991
MENTAL: A Virtual Machine Approach to Artificial Neural Networks Programming
 ESPRIT B.R.A. Project N° 3049, Final report, Language and Software Tools: Research Package C, Task C1; FTP: archive.cis.ohio-state.edu | pub/neuroprose | bessiere.nerves.ps.Z

[Beyer93]

Beyer Uwe, Smieja Frank - 11.10.93
Learning from Examples using Reflective Exploration
 FTP: archive.cis.ohio-state.edu | pub/neuroprose | beyer.explore.ps.Z

[Biederman85]

Biederman Irving - 11.7.1985
Human Image Understanding: Recent Research and a Theory
 Computer Vision, Graphics, and Image Processing 32, 29-73 (1985), 0734-189X/85 \$3.00, Academic Press Inc.

[Biehl93]

Biehl Michael - 18.06.93
An exactly solvable model of unsupervised learning
 FTP: archive.cis.ohio-state.edu | pub/neuroprose

[Bilbro87]

Bilbro G.L., White Mark, Snyder Wesley - 28.8.1987
Image Segmentation with Neurocomputers
 Neural Computers, Rolf Eckmiller, Christoph v.d. Malsburg (eds.), Springer-Verlag Berlin Heidelberg New York, ISBN 3-540-50892-9

[Blayo91]

Blayo François Demartines Pierre - 1.10.1991
Data analysis: How to compare Kohonen neural networks to other techniques?
 A. Prieto (ed.), Artificial Neural Networks, International Workshop IWANN '91, Granada, Spain, September '91, Proceedings, Springer-Verlag, Berlin Heidelberg-New York

[Bock92]

Bock Peter, Klinnert Roland, Kober Rudolf, Rovner Richard M., Schmidt Hauke - 01.04.92
Gray-Scale ALIAS
 IEEE Trans. on Knowledge and Data Engineering, Vol. 4, No. 2, April 1992

[Bock90]

Bock Peter, Rovner Richard, Kocinski C. Joseph - 1.6.1990
A Performance Evaluation of ALIAS for the Detection of Geometric Anomalies on Fractal Images
 Advanced Neural Computers / R. Eckmiller (Editor), Elsevier Science Publishers B.V. (North-Holland), 1990

[Booth89]

Booth R., Allen C. R., Adams A. E. - 16.8.1989
A Neural Network Implementation for Real-Time Scene Analysis
 First IEEE International Conference on Artificial Neural Networks, 16-18 October 1989, Conference Publication Number 313, ISBN 0-85296388-2

[Bottou90]

Bottou Léon, Gallinari Patrick - 1.5.1990
A Framework for the Cooperation of Learning Algorithms
 FTP: cheops.cis.ohio-state.edu | pub/neuroprose | bottou.cooperation.ps.Z

[Bouchon-Meunier90]

Bouchon-Meunier Bernadette, Yager Ronald.R., Zadeh Lotfi.A. - 6.7.1990
Uncertainty in Knowledge Bases
 Bouchon-Meunier Bernadette, Yager Ronald.R., Zadeh Lotfi.A. (eds.) - Uncertainty in Knowledge Bases, 3rd International Conference on Information Processing and Management of Uncertainty in Knowledge-Based Systems, IPMU '90, Paris, France, July 2-6, 1990, Proceedings - Springer-Verlag, Berlin, Heidelberg, New York - ISBN 3-540-54346-5

[Braitenberg77]

Braitenberg Valentino
On the Texture of Brains
 Heidelberg Science Library, Springer Verlag, New York, Heidelberg, Berlin

[Brause91]

Brause Rüdiger
Neuronale Netze: eine Einführung in die Neuroinformatik
 Stuttgart: Teubner, 1991, ISBN 3-519-02247-8

[Brill87]

Brill Michael H., Bergeron Doreen W., Stoner William
Stoner - 1.12.1987

Retinal model with adaptive contrast sensitivity and resolution

Applied Optics - Vol. 26 - No. 23 - 1. December 1987 - pp. 4993-4998

[Brooks90]

Brooks Rodney A., Viola Paul A. - 1.6.1990

Network Based Autonomous Robot Motor Control: from Hormones to Learning

Advanced Neural Computers / R. Eckmiller (Editor), Elsevier Science Publishers B.V. (North-Holland), 1990

[Brooks87]

Brooks Rodney A. - 01.09.87

Intelligence without representation

Artificial Intelligence 47 (1991) 139-159, Elsevier Science Publishers B.V.

[Brooks83]

Brooks R.A.

Solving the Find-Path Problem by Good Representation of Free Space?

IEEE Transactions on Systems, Man and Cybernetics, Vol. SMC-13, No. 3, 1983, pp. 190-197

[Bruske93a]

Bruske Jörg, Pauli Josef, Sommer Gerald - 26.11.93

Dynamic Cell Structure learns Perfectly Topology Preserving Map

submitted to Neural Computation

[Bruske93b]

Bruske Jörg - 01.04.93

Neural Fuzzy Decision Systems

Diploma thesis - Universität Kaiserslautern, Fachbereich Informatik, AG von Puttkamer

[Buckley92]

Buckley James J.

Theory of the fuzzy controller: An introduction

Fuzzy Sets and Systems 51 (1992) pp. 249-258, Elsevier Science Publishers, North-Holland

[Buntine91a]

Buntine Wray L., Weigend Andreas S. - 3.7.1991

Bayesian Back-Propagation

FTP: cheops.cis.ohio-state.edu | pub/neuroprose | buntine.bayes1.ps.Z & buntine.bayes2.ps.Z

[Buntine91b]

Buntine Wray L., Weigend Andreas S. - 3.7.1991

Calculating Second Derivatives on Feed-Forward Networks

FTP: cheops.cis.ohio-state.edu | pub/neuroprose | buntine.second.ps.Z

[Camargo90]

Camargo Francisco A. - 12.12.1990

Learning Algorithms in Neural Networks

FTP: funic.funet.fi | pub/sci/neural/papers | learning.ps.Z CUCS-062-90

[Cañete91]

Cañete Fernández de, Ollero J., Díaz-Fondón M. - 1.10.1991

Autonomous Controller Tuning by using a Neural Network

A. Prieto (ed.), Artificial Neural Networks, International Workshop IWANN '91, Granada, Spain, September '91, Proceedings, Springer-Verlag, Berlin-Heidelberg-New York

[Cano91]

Cano José E., Delgado Miquel, Requena Ignacio - 1.10.1991

Using Artificial Neural Networks to Aid Decision Making Processes

A. Prieto (ed.), Artificial Neural Networks, International Workshop IWANN '91, Granada, Spain, September '91, Proceedings, Springer-Verlag, Berlin-Heidelberg-New York

[Carpenter92]

Carpenter Gail A., Grossberg Stephen

Self-Organizing Cortical Networks for Distributed Hypothesis Testing and Recognition Learning

Theory and Applications of Neural Networks, Proceedings of the First British Neural Network Society Meeting, London - Taylor J.G., Mannion C.L.T. (eds.)

[Carpenter91a]

Carpenter Gail A., Grossberg Stephen, Reynolds John H. - 13.2.1991

ARTMAP: Supervised Real-Time Learning and Classification of Nonstationary Data by a Self-Organizing Neural Network

Neural Networks, Vol. 4, pp. 565-588, 1991

[Carpenter91b]

Carpenter Gail A., Grossberg Stephen, Rosen David B. - 17.1.1991

ART 2-A: An Adaptive Resonance Algorithm for Rapid Category Learning and Recognition

Neural Networks, Vol. 4, pp. 493-504, 1991

[Carpenter88]

Carpenter Gail A., Grossberg Stephen - 1.3.1988

The ART of Adaptive Pattern Recognition by a Self-Organizing Neural Network

Computer, March '88, pp. 77-88, 0018-9162/88/0300-0077\$01.00 (IEEE)

[Carpenter87a]

Carpenter Gail A., Grossberg Stephen - 1.12.1987

ART 2: self-organization of stable category recognition codes for analog input patterns

Applied Optics - Vol. 26 - No. 23 - 1. December 1987 - pp. 4919-4930

[Carpenter87b]

Carpenter Gail A., Grossberg Stephen

A Massively Parallel Architecture for a Self-Organizing Neural Pattern Recognition Machine

Computer Vision, Graphics, and Image Processing 37, 54-115 (1987), 0734-189X/87 \$3.00 - Academic Press

[Caudill87]

Caudill Maureen (ed.), Butler Charles (ed.) - 24.6.1987
IEEE First International Conference on Neural Networks (ICONN '87)

IEEE, San Diego Section, Systems, Man, and Cybernetics Society, Control Systems Society, Engineering in Medicine and Biology Society, IEEE Catalog Number 87TH0191-7 Sheraton Harbor Island East, San Diego, California, June 21-24, 1987

[Chalmers91a]

Chalmers David J., French Robert M., Hofstadter Douglas R. - 1.3.1991
High-Level Perception, Representation, and Analogy: A Critique of Artificial Intelligence Methodology
 CRCC Technical Report 49 - FTP: cogsci.indiana.edu | pub |

[Chalmers91b]

Chalmers David J.
Consciousness and Cognition
 FTP: cogsci.indiana.edu | pub |

[Chalmers91c]

Chalmers David J.
Subsymbolic Computation and the Chinese Room
 Closing the Gap: The Symbolic and Connectionist Paradigms in Cognitive Science (J Dinsmore, ed.);
 FTP: cogsci.indiana.edu | pub |

[Chalmers90a]

Chalmers David J. - 25.7.1990
Why Fodor and Pylyshyn Were Wrong: The Simplest Refutation
 Proceedings of the Twelfth Annual Conference of the Cognitive Science Society, pp. 340-347; FTP: cogsci.indiana.edu | pub |

[Chalmers90b]

Chalmers David J.
Syntactic Transformations on Distributed Representations
 Connection Science, Vol 2, Nos 1 & 2, 1990, pp. 53-62;
 FTP: cogsci.indiana.edu | pub |

[Chalmers90c]

Chalmers David J.
The Evolution of Learning: An Experiment in Genetic Connectionism
 D.S. Touretzky, J.L. Elman, T.J. Sejnowski & G.E. Hinton (eds.), Proceedings of the 1990 Connectionist Models Summer School, San Mateo, CA: Morgan Kaufmann; FTP: cogsci.indiana.edu | pub |

[Chang91]

Chang Chen-Huei, Chang Chao-Chih, Hwang Shu-Yuen - 11.11.1991
Connectionist Learning Procedure for Edge Detector
 SPIE Vol. 1607 Intelligent Robots and Computer Vision X: Algorithms and Techniques (1991), 0-8194-0744-5/92/\$4.00, David P. Casasent (ed.), 11.-13. November 1991, Boston, Massachusetts

[Chen93]

Chen D., Giles C.L., Sun G.Z., Chen H.H., Lee Y.C., Goudreau M.W.
Constructive Learning of Recurrent Neural Networks
 Proc. of the ICNN '93, San Francisco, CA; FTP: external.nj.nec.com | pub/giles/papers

[Cho91]

Cho Sung-Bae, Kim Jin H. - 1.3.1991
A fast back-propagation learning method using Aitken's Δ^2 process
 International Journal of Neural Networks, Vol. 2, No. 1, March 1991

[Clark90]

Clark Andy
Microcognition - Philosophy, Cognitive Science, and Parallel Distributed Processing
 A Bradford Book, The MIT Press, Cambridge Massachusetts London, England, ISBN 0-262-03148-5

[Cliff93]

Cliff Dave, Harvey Inman, Husbands Philip
Incremental Evolution of Neural Networks Architectures for Adaptive Behaviour
 Technical report - CSRP256, University of Sussex FTP: ftp.cogs.susx.ac.uk | pub/reports/csrp | csrp256.ps.Z

[Cliff92]

Cliff D., Husbands P., Harvey I. - 01.07.92
Evolving Visually Guided Robots
 Cognitive Science Research Paper: CSRP 220, The University of Sussex, School of Cognitive and Computing Sciences, Falmer, Brighton BN1 9QH, England, U.K.; A version of this paper appears in Proceedings of SAB92, the Second International Conference on Simulation of Adaptive Behaviour, eds.: Mayer J.-A., Riutblat H., Wilson S.; MIT Press Bradford books, Cambridge, MA, 1993

[Cliff90]

Cliff D.T. - 1.5.1990
Computational Neuroethology: A Provisorial Manifesto
 FTP: cheops.cis.ohio-state.edu | pub/neuroprose | cliff.manifesto.ps.Z

[Connell90]

Connell Jonathan H.
Minimalist Mobile Robots - A Colony-Style Architecture for an Artificial Creature
 Academic Press Inc., Harcourt Brace Jovanovich, ISBN 0-12-185230-X

[Coolen89]

Coolen A.C.C., Kuijk F.W. - 26.5.1989
A Learning Mechanism for Invariant Pattern Recognition in Neural Networks
 Neural Networks, Vol. 2, pp. 495-506, 1989

[Cowan89]

Cowan C. F. N. (ed.) - 16.8.1989
Artificial Neural Networks
 First IEEE International Conference on Artificial Neural Networks, 16-18 October 1989, Conference Publication Number 313, ISBN 0-85296388-2

[Crick91]

Crick Francis, Koch Christof - 28.1.1991
Towards a Neurobiological Theory of Consciousness
 Seminars in the Neurosciences 2: 263-275 (1990) CNS Memo 9; FTP: cheops.cis.ohio-state.edu | pub/neuroprose | koch.awareness.ps.Z

[Daugman89]

Daugman John - 19.4.1989
Non-orthogonal wavelet representations in relaxation networks: image encoding and analysis with biological visual primitives
 New Developments in neural Computing - J.G. Taylor, C.L.T. Mannion (eds.) Adam Hilger, Bristol New York, ISBN 0-85274-193-6

[Davis88a]

Davis Joel (ed.), Ravindra A. (ed.) - 13.1.1988
Neural Network Models for Optical Computing
 Proceedings of SPIE - The International Society for Optical Engineering, Volume 882, 13-14 January 1988, Los Angeles, California, ISBN 0-88252-917-2

[Davis88b]

Davis Joel L., Newburgh Robert W., Wegman Edward J.
Brain Structure, Learning, and Memory
 AAAS Selected Symposium 105, Published by Westview Press, Inc., 5500 Central Avenue, Boulder, Colorado

[Day91]

Day Shawn P., Davenport Michael R. - 1.8.1991
Continuous-Time Temporal Back-Propagation with Adaptable Time Delays
 Submitted to: IEEE Transactions on Neural Networks;
 FTP: archive.cis.ohio-state.edu | pub/neuroprose | day.temporal.ps.Z

[Deussen91]

Deussen Peter - 1.4.1991
Sonderforschungsbereich 314 - Künstliche Intelligenz - Wissensbasiert Systeme
 KI, 2/1991, Projekte, pp.87-92

[Dietterich]

Dietterich Thomas G., Bakiri Ghulum
Error-Correcting Output Codes: A General Method for Improving Multiclass Inductive Learning Programs
 FTP: archive.cis.ohio-state.edu | pub/neuroprose | dietterich.comparison.ps.Z

[Dong91a]

Dong Dawei - 15.4.1991
Dynamic properties of neural network
 FTP: hope.caltech.edu | pub/dawei | Ch*.ps, App*.ps

[Dong91b]

Dong Dawei
Dynamic properties of neural network with adapting synapses
 IJCNN '91 - IJCNN, International Joint Conference on Neural Networks - Seattle; FTP: hope.caltech.edu | pub/dawei | IJCNN91.ps

[Doya89]

Doya Kenji, Yoshizawa Shuji - 18.1.1989
Adaptive Neural Oscillator using continuous-time Back-Propagation Learning
 Neural Networks, Vol. 2, pp 375-385, 1989, 0893-6080/89, Pergamon Press plc

[Dron91]

Dron Lisa - 11.11.1991
An analog model of early visual processing: contour and boundary detection in the retina
 SPIE Vol. 1608 Intelligent Robots and Computer Vision X (1991), 0-8194-0745-3/92/\$4.00, David P. Casasent (ed.), 11.-13. November 1991, Boston, Massachusetts

[Dror94a]

Dror Itiel E., Zagaeski Mark, Moss Cynthia F.
Three-dimensional Target Recognition via Sonar: A Neural Network Model
 Running Title: Sonar Target Recognition - In Press, Neural Network

[Dror94b]

Dror Itiel E., Florer Faith L., Moss Cynthia F., Zagaeski Mark, Rios Damien
Using Sonar Neural Networks for Complex Pattern Recognition: Recognizing Faces and the Speed of a Moving Target
 Sonar Neural Networks / 1, Draft Version

[Eckmiller89]

Eckmiller Rolf - 19.4.1989
Neural control of intelligent robots
 New Developments in neural Computing - J.G. Taylor, C.L.T. Mannion (eds.) Adam Hilger, Bristol New York, ISBN 0-85274-193-6

[Eckmiller90]

Eckmiller Rolf (ed.) - 1.6.1990
Advanced Neural Computers
 Elsevier Science Publishing Company Inc., 655 Avenue of the Americas, New York, N.Y. 10010, U.S.A.

[Eckmiller87]

Eckmiller Rolf (ed.), Malsburg Christoph v.d. (ed.) - 28.8.1987
Neural Computers
 Springer-Verlag Berlin Heidelberg New York, ISBN 3-540-50892-9 NATO Advanced Research Workshop (ARW), Neuss

[Edelman92]

Edelman Shimon, Bülthoff Heinrich H.
Modeling human visual object recognition
 Proc. Intl. Joint Conf. on Neural Networks, 1992.; FTP: eris.wisdom.weizmann.ac.il | /pub

[Edelman91a]

Edelman S.
A Network model of Object Recognition in Human Vision
 Neural networks for perception, H. Wechsler, ed., Academic Press, 1991; FTP: eris.wisdom.weizmann.ac.il | /pub

[Edelman91b]

Edelman Shimon - 22.08.91
On learning to recognize 3D objects from examples
 IEEE Trans., PAMI, 1993; FTP: eris.wisdom.weizmann.ac.il | /pub

[Edelman91c]

Edelman Shimon
Visual Perception
 Encyclopedia of Artificial Intelligence, S. Shapiro, ed., Wiley, 1991; FTP: eris.wisdom.weizmann.ac.il | /pub

[Edelman91d]

Edelman Shimon, Poggio Tomaso
Artificial Intelligence - An update
 Neuroscience Year 1990 (supplement to the Encyclopedia of Neuroscience), B. Smith and G. Adelman, eds., Birkhauser Boston, 1991; FTP: eris.wisdom.weizmann.ac.il | /pub

[Edelman91e]

Edelman Shimon, Reisfeld Daniel, Yeshurun Yechezkel - 01.08.91
Learning to recognize faces from examples
 Proc. 2nd European Conf. on Computer Vision, 1992; FTP: eris.wisdom.weizmann.ac.il | /pub

[Edlinger91]

Edlinger Thomas, von Puttkamer Ewald, Strauch Thomas - 25.06.91
An Efficient Navigation Strategy for an Autonomous Mobile Robot
 14th IASTED International Symposium MANUFACTURING AND ROBOTICS, Lugano, Switzerland, June 25 - 27, 1991, pp. 60 - 63

[Elkan90]

Elkan Charles - 1.6.1990
Probability versus Fuzziness
 FTP: nic.funet.fi | pub/sci/neural/papers | fuzzy.p-s.Z

[Fagg94]

Fagg Andrew H., Lotspeich David, Hoff Joel, Bekey George A. - 25.04.94
Rapid Reinforcement Learning for Reactive Control Policy Design in Autonomous Robots
 Submitted to WCNN 1994

[Fahlman91a]

Fahlman Scott E. - 17.05.91
The Recurrent Cascade-Correlation Architecture
 CMU-CS-91-100, FTP: ftp.cs.cmu.edu | /afs/cs/project/connect/tr | rcc-tr.ps

[Fahlman91b]

Fahlman Scott E., Lebiere Christian - 29.10.91
The Cascade-Correlation Learning Architecture
 CMU-CS-90-100; FTP: ftp.cs.cmu.edu | /afs/cs/project/connect/tr | cascor-tr.ps

[Feldman90]

Feldman Jerome A., Lakoff George, Stolcke Andreas, Hollbach-Weber Susan - 1.4.1990
Miniature Language Acquisition: A touchstone for cognitive science
 TR-90-009; FTP: archive.cis.ohio-state.edu | pub/neuroprose | shultz.stages.ps.Z

[Fiesler90]

Fiesler Emile, Caulfield H. John
Neural Network Formalization
 FTP: archive.cis.ohio-state.edu | pub/neuroprose | fiesler.formalization.ps.Z

[Fischer94]

Fischer Cornelia - 01.06.94
Navigation mittels Reinforcement-Techniken auf topologischen Umgebungskarten
 Diploma-thesis; Computer Science Department; University of Kaiserslautern; Germany; 6/94

[Fisher89]

Fisher Robert B.
From Surfaces to Objects
 John Wiley & Sons, Chichester New York Brisbane Toronto Singapore, ISBN 0-471-92344-3

[Flynn88]

Flynn Anita M., Brooks Rodney A.
MIT Mobile Robots - What's next?
 Proceedings of the IEEE Conf. on Robotics and Automation, 1988 CH2555-1/88/0000/0611\$01.00

[Fogelman-Soulié89]

Fogelman-Soulié Françoise Hérault Jeanny - 1.2.1989
Neurocomputing - Algorithms, Architectures and Applications
 Springer-Verlag Berlin Heidelberg New York, Series F: Computer and Sciences Vol. 68, ISBN 3-540-53278-1

[Fomin94a]

Fomin T, Lörincz András - 27.06.94
Robustness of Hebbian and anti-Hebbian Learning
 The 1994 IEEE International Conference on Neural Networks, IEEE World Congress on Computational Intelligence, 27.-29 June, 1994, Walt Disney World Dolphin Hotel Orlando, Florida, pp. 731-735

[Fomin94b]

Fomin T., Szepesvári Csaba, Lörincz András - 27.06.94
Self-Organizing Neurocontrol
 The 1994 IEEE International Conference on Neural Networks, IEEE World Congress on Computational Intelligence, 27.-29 June, 1994, Walt Disney World Dolphin Hotel Orlando, Florida, pp. 2777-2780

[Frangeschini92]

Frangeschini N., Pichon J.M., Blanes C.
From insect vision to robot vision
 Phil. Trans. Royal Society Lond. B. 1992, pp. 283-294

[Frasconi92]

Frasconi Paolo, Gori Marco, Soda Giovanni - 1.8.1992
Injecting Nondeterministic Finite State Automata into Recurrent Neural Networks
 FTP: archive.cis.ohio-state.edu | pub/neuroprose | frasconi.nfa.ps.Z

[Frean90]

Frean Marcus
The Upstart Algorithm: a method for constructing and training feed-forward neural networks
 Edinburgh Physics Department Preprint #89/469; FTP: cheops.cis.ohio-state.edu | pub/neuroprose | frean.upstart.ps.Z

[French91]

French Robert M.
Using Semi-Distributed Representations to Overcome Catastrophic Forgetting in Connectionist Networks
 CRCC Technical Report 51-1991, Submitted to Cog. Sci. Conf. 1991; FTP: cogsci.indiana.edu | pub

[French88]

French Robert M.
Subcognition and the Limit of the Turing Test
 FTP: cogsci.indiana.edu | pub |

[Friedrich92]

Friedrich Sabine - 01.07.92
Neuronale Netze in der Objekterkennung (Eine Literatur-recherche)
 Diploma thesis - Universität Kaiserslautern, Fachbereich Informatik, AG von Puttkamer

[Fritzke93a]

Fritzke Bernd - 13.09.93
Vector Quantization with a Growing and Splitting Elastic Net
 ICANN '93, Proceedings of the International Conference on Artificial Neural Networks, Amsterdam, The Netherlands, September 13-16, 1993; FTP: archive.cis.ohio-state.edu | pub/neuroprose | fritzke.icann93.ps.Z

[Fritzke93b]

Fritzke Bernd - 1.5.1993
Kohonen Feature Maps and Growing Cell Structures - a performance comparison
 Technical report 93-25, International Computer Science Institute, FTP: ftp.icsi.Berkeley.edu | pub/techreports | tr-93-025

[Fritzke93c]

Fritzke Bernd - 1.5.1993
Growing cell structures - a self-organizing network for unsupervised and supervised learning
 Technical report 93-26, International Computer Science Institute, FTP: ftp.icsi.Berkeley.edu | pub/techreports | tr-93-026

[Fritzke92]

Fritzke Bernd - 11.05.92
Wachsende Zellstrukturen - ein selbstorganisierendes neuronales Netzwerkmodell
 Phd Thesis, University of Erlangen-Nürnberg

[Fritzke91a]

Fritzke Bernd - 2.7.1991
Unsupervised clustering with Growing Cell Structures
 To appear in: Proc. of the IJCNN-91 Seattle (IEEE);
 FTP: cheops.cis.ohio-state.edu | pub/neuroprose | fritzke.clustering.ps.Z

[Fritzke91b]

Fritzke Bernd, Wilke Peter - 1.5.1991
FLEXMAP - A Neural Network for the Traveling Salesman Problem with Linear Time and Space Complexity
 FTP: cheops.cis.ohio-state.edu | pub/neuroprose | fritzke.linear_tsp.ps.Z

[Fritzke91c]

Fritzke Bernd
Let It Grow - Self-Organizing Feature Maps with Problem Dependent Cell Structure
 Proc. of the ICANN-91 Helsinki; FTP: cheops.cis.ohio-state.edu | pub/neuroprose | fritzke.cell_structure.ps.Z

[FuHC94]

Fu H.C., Shann J.J. - 01.04.94
A Fuzzy Neural Network for Knowledge Learning
 International Journal of Neural Systems, Vol. 5, No. 1 (March 1994) pp. 13-22

[FuHC93]

Fu H.C., Shann J.J.
Fuzzy Expert Networks
 Proc. of the ICANN '93; FTP: ftp.csie.nctu.edu.tw | / Upload

[FuLM90]

Fu Li-Min - 2.1.1990
Analysis of the Dimensionality of Neural Networks for Pattern Recognition
 Pattern Recognition, Vol. 23, No. 10, pp. 1131-1140, 1990, 0031-3203/90 \$3.00+.00, Pergamon Press plc, Pattern Recognition Society

[Fukushima89]

Fukushima Kunihiko - 5.3.1989
Analysis of the Process of Visual Pattern Recognition by the Neocognitron
 Neural Networks, Vol. 2, pp. 413-420, 1989

[Fukushima88]

Fukushima Kunihiko - 1.3.1988
A Neural Network for Visual Pattern Recognition
 Computer, March '88, pp. 65-75, 0018-9162/88/0300-0065\$01.00 (IEEE)

[Fukushima87a]

Fukushima Kunihiko - 1.12.1987
Neural network model for selective attention in visual pattern recognition and associative recall
 Applied Optics - Vol. 26 - No. 23 - 1. December 1987 - pp. 4985-4992

[Fukushima87b]

Fukushima Kunihiko - 15.10.1987
Neocognitron: A Hierarchical Neural Network Capable of Visual Pattern Recognition
 Neural Networks, Vol. 1, pp. 119-130, 1988

[Fukushima87c]

Fukushima Kunihiko - 28.8.1987
A Hierarchical Neural Network Model for Selective Attention
 Neural Computers, Rolf Eckmiller, Christoph v.d. Malsburg (eds.), Springer-Verlag Berlin Heidelberg New York, ISBN 3-540-50892-9

[Fukushima87d]

Fukushima Kunihiko - 24.6.1987
A Neural Network Model for Selective Attention
 Caudill Maureen, Butler Charles (eds.) - IEEE First International Conference on Neural Networks (ICONN '87) - IEEE Catalog Number 87TH0191-7

[Fukushima83]

Fukushima Kunihiko, Miyake Sei, Ito Takayuki
Neocognitron: a neural network model for a mechanism of visual pattern recognition
 IEEE Transactions on Systems, Man, and Cybernetics SMC-13: 826-834 Reprint: Neurocomputing - Foundations of Research, Anderson James A. & Rosenfeld Edward (eds.), MIT Press, Cambridge, Massachusetts, London, England

[Gachet93]

Gachet D., Pimentel J.R., Moreno L., Salichs M.A., Fernandez V. - 18.4.1993
Neural Network Approaches for behavioural Control of Autonomous Systems
 Intelligent Autonomous Vehicles (IAV) '93, International workshop, University of Southampton, Hampshire, United Kingdom, 18-21 April '93, pp. 330-334

[Gallant89]

Gallant Stephen I. - 22.9.1989
A Connectionist Learning Algorithm with Provable Generalization and Scaling Bounds
 Neural Networks, Vol. 3, pp. 191-201, 1990

[García-Padilla91]

García-Padilla Felix, Morant-Anglada Francisco - 1.10.1991
A Supervisory Technique to Apply Neural Networks in Control
 A. Prieto (ed.), Artificial Neural Networks, International Workshop IWANN '91, Granada, Spain, September '91, Proceedings, Springer-Verlag, Berlin Heidelberg-New York

[Garis89]

Garis H. de - 16.8.1989
"COMPO" Conceptual Clustering with Connectionist Competitive Learning
 First IEEE International Conference on Artificial Neural Networks, 16-18 October 1989, Conference Publication Number 313, ISBN 0-85296388-2

[Gasser]

Gasser Michael, Smith Linda B.
Comparison, Categorization, and Perceptual Dimensions: A Connectionist Model of the Development of the Notion of Sameness
 FTP: cheops.cis.ohio-state.edu | pub/neuroprose | gasser.same.ps.Z

[Gat93]

Gat Erann, Desai Rajiv, Ivlev Robert, Loch John, Miller David P.
Behavior Control for Robotic Exploration of Planetary Surfaces
 Accepted for Publication in the IEEE Journal of Robotics and Automation

[Gat92a]

Gat Erann
Integrating Planning and Reacting in a Heterogeneous Asynchronous Architecture for Real-World Mobile Robots
 Proceedings of the AAAI '92

[Gee92b]

Gee A. H., Aiyer S.V. B., Prager R. W. - 1.5.1992
A Subspace Approach to Invariant Pattern Recognition Using Hopfield Networks
 Technical report Cambridge University: CUED/F-INGENG/TR 62; FTP: svr-ftp.eng.cam.ac.uk | reports | gee_tr62.ps.Z

[Gee91]

Gee A. H., Aiyer S.V. B., Prager R. W. - 1.7.1991
Neural Networks and Combinatorial Optimization Problems - The Key to a Successful Mapping
 Technical report Cambridge University: CUED/F-INGENG/TR 77; FTP: svr-ftp.eng.cam.ac.uk | reports | gee_tr77.ps.Z

[Gerrissen90]

Gerrissen Jack F. - 20.2.1990
On the Network-Based Emulation of Human Visual Search
 Neural Networks, Vol. 4, pp. 543-564, 1991

[Ghahramani92]

Ghahramani Edwin, Patterson L. Roger B. - 10.08.92
Scale, translation, and rotation invariant orthonormalized optical/optoelectronic neural networks
 APPLIED OPTICS, 10. December 1993, Vol. 32, No. 35

[Ghosh88]

Ghosh Joydeep, Hwang Kai - 13.1.1988
Optically Connected Multiprocessors for Simulating Artificial Neural Networks
 Neural Network Models for Optical Computing, Proceedings of SPIE - The International Society for Optical Engineering, Volume 882, 13-14 January 1988, Los Angeles, California, ISBN 0-88252-917-2

[Giles93]

Giles C. Lee, Omlin Christian W. - 1.3.1993
Rule Refinement with Recurrent Neural Networks
 IEEE International Conference on Neural Networks, San Francisco, Ca. March 1993 - FTP: external.nj.nec.com | pub/giles/papers | rule_refinement.ps.Z

[Giles87]

Giles C. Lee, Maxwell Tom - 1.12.1987
Learning, invariance, and generalization in high-order neural networks
 Applied Optics - Vol. 26 - No. 23 - 1. December 1987 - pp. 4972-4978

[Glasius94]

Glasius R., Komoda A., Gielen S. - 01.04.94
Neural network dynamics for path planning and obstacle avoidance
 Neural Networks, March 1994 - FTP: archive.cis.ohio-state.edu | /pub/neuroprose | glasius.labyrinth.ps.Z

[Goh91]

Goh T.H., Wang P.Z., Lui H.C. - 1.12.1991
Learning Algorithm for the Enhanced Fuzzy Perceptron
 FTP: saqqara.cis.ohio-state.edu | neuroprose | thgo-h.fuzzy.ps.Z

[Goto87]

Goto Yoshimasa, Stentz Anthony
The CMU System for Mobile Robot Navigation
 Proceedings of the IEEE Conf. on Robotics and Automation, 1987 CH2413-3/87/0000/0099\$01.00

[Green93]

Green David G.
Emergent Behaviour in Biological Systems
 Complex Systems: From Biology to Computation, pp. 24-35, Editors: David G. Green and Terry J. Bosso-maier, Publisher IOS Press, Amsterdam, 1993; FTP: life.anu.edu.au | pub/complex_systems/anu92/papers | green.ps

[Groß92]

Groß H.-M., Böhme H.-J., Heinke D., Pomierski T. - 19.10.92
Steuerung parallel-sequentieller Verarbeitungsprozesse und Strukturierung dynamischer Repräsentationen
 to appear in: "BMFT-Neuroinformatik-Statusseminar", Schloß Maurach (Bodensee), 19.-21.10.1992, Springer-Verlag

[Grossberg91]

Grossberg Stephen, Somers David - 23.1.1991
Synchronized Oscillations During Cooperative Feature Linking in a Cortical Model of Visual Perception
 Neural Networks, Vol. 4, pp. 453-466, 1991

[Grossberg87a]

Grossberg Stephen, Levine Daniel S. - 1.12.1987
Neural dynamics of attentionally modulated Pavlovian conditioning: blocking, interstimulus interval, and secondary reinforcement
 Applied Optics - Vol. 26 - No. 23 - 1. December 1987 - pp. 5015-5030

[Grossberg87b]

Grossberg Stephen - 1.10.1987
Nonlinear Neural Networks: Principles, Mechanisms, and Architectures
 Neural Networks, Vol. 1, pp. 17-61, 1988

[Grossberg87c]

Grossberg Stephen
Competitive Learning: From Interactive Activation to Adaptive Resonance
 Cognitive Science 11, pp. 23-63 (1987)

[Grossberg80]

Grossberg S.
How does a brain build a cognitive code?
 Psychological Review 87: 1-51 Reprint: Neurocomputing - Foundations of Research, Anderson James A. & Rosenfeld Edward (eds.), MIT Press, Cambridge, Massachusetts, London, England

[Grossberg76]

Grossberg S.
Adaptive pattern classification und universal recording: I. Parallel development and coding of neural feature detectors
 Biological Cybernetics 23: 121-134 Reprint: Neurocomputing - Foundations of Research, Anderson James A. & Rosenfeld Edward (eds.), MIT Press, Cambridge, Massachusetts, London, England

[Grund93]

Grund Wolfgang - 01.03.93
Flächenvervollständigung mit einem Backpropagation-Netz
 Technical report - Universität Kaiserslautern, Fachbereich Informatik, AG von Puttkamer

[GuptaL89]

Gupta Lalit, Sayeh Mohammad R., Tammana Ravi - 21.6.1989
A Neural Network Approach to Robust Shape Classification
 Pattern Recognition, Vol. 23, No. 6, pp. 563-568, 1990, 0031-3203/90 \$3.00+.00, Pergamon Press plc, Pattern Recognition Society

[GuptaMM91]

Gupta M.M., Knopf G.K. - 11.11.1991
A neuro-vision processor for designing intelligent sensors
 SPIE Vol. 1608 Intelligent Robots and Computer Vision X (1991), 0-8194-0745-3/92/\$4.00, David P. Casasent (ed.), 11.-13. November 1991, Boston, Massachusetts

[GuptaP91]

Gupta Prahlad, Touretzky David S. - 22.12.1991
Connectionist Models and Linguistic Theory: Investigations of Stress Systems in Language
 FTP: archive.cis.ohio-state.edu | pub/neuroprose | gupta.stress.ps.Z

[Hammond89]

Hammond Kristian - 2.6.1989
Case-Based Reasoning
 Proceedings of a Workshop on Case-Based Reasoning, Holiday Inn, Pensacola Beach, Florida, May 31 - June 2, 1989 Morgan Kaufmann Publishers Inc., ISBN 1-55860-068-X

[Hart68]

Hart Peter E., Nilsson Nils J., Raphael Bertram - 01.07.68
A Formal Basis for the Heuristic Determination of Minimum Cost Paths
 IEEE Transactions of Systems Science and Cybernetics, Vol. SSC-4, No. 2, July, 1968

[Harvey93]

Harvey I., Husbands P., Cliff D. - 15.01.93
Genetic Convergence in a Species of Evolved Robot Control Architectures
 Cognitive Science Research Paper: CSRP 267, The University of Sussex, School of Cognitive and Computing Sciences, Falmer, Brighton BN1 9QH, England, U.K.; A version of this paper will be presented at the Fifth International Conference on Genetic Algorithms, University of Illinois at Urbana-Champaign, 17-22 July 1993

[Harvey92]

Harvey I., Husbands P., Cliff D. - 01.07.92
Issues in Evolutionary Robotics
 Cognitive Science Research Paper: CSRP 219, The University of Sussex, School of Cognitive and Computing Sciences, Falmer, Brighton BN1 9QH, England, U.K.; A version of this paper appears in Proceedings of SAB92, the Second International Conference on Simulation of Adaptive Behaviour, eds.: Mayer J.-A., Riutblat H., Wilson S.; MIT Press Bradford books, Cambridge, MA, 1993

[Hassibi92]

Hassibi Babak, Stork David G. - 1.8.1992
Second Order Derivatives for Network Pruning: Optimal Brain Surgeon
 To appear in: Neural Information Processing Systems-92; FTP: archive.cis.ohio-state.edu | pub/neuroprose | stork.obs.ps.Z

[Hebb49]

Hebb Donald O.
The Organization of Behaviour
 New York, Wiley Reprint of Introduction and Chapter 4: Neurocomputing - Foundations of Research, Anderson James A. & Rosenfeld Edward (eds.), MIT Press, Cambridge, Massachusetts, London, England

[Hecht-Nielson87]

Hecht-Nielsen Robert - 1.12.1987
Counterpropagation networks
 Applied Optics - Vol. 26 - No. 23 - 1. December 1987 - pp. 4979-4984

[Heemskerk93a]

Heemskerk Jan N.H., Keijzer Fred A. - 1.8.1993
A Real-Time Neural Implementation of a Schema Driven Toy-Car
 Proc. of the ICANN '93, Amsterdam, August 1993

[Heemskerk93b]

Heemskerk Jan N.H., Hoekstra Jaap, Murre Jacob M.J., Kemna Leona H.J.G., Hudson Patrick T.W.
The BSP400: A Modular Neurocomputer
 to appear in Microprocessors & Microsystems

[Heger94]

Heger Matthias
Consideration of Risk in Reinforcement Learning
 Revised submission to the 11th International Conference on Machine Learning (ML94) - FTP: ftp.gmd.de | /Learning/rl/papers | heger.consider-risk.ps.Z

[Heikkonen93]

Heikkonen J., Koikkalainen P., Oja E - 1.8.1993
From Situations to Actions: Motion Behavior Learning by Self-Organization
 Proc. of the ICANN '93, Amsterdam, August 1993, p. 262-267

[Hemmerling93]

Hemmerling Armin - 1.3.1993
Navigation without Perception of Coordinates and Distances
 Technical report 93-18, International Computer Science Institute; FTP: ftp.icsi.Berkeley.edu | pub/techreports | tr-93-018

[Hertz94]

Hertz J., Krogh A., Lautrup B., Lehmann T. - 04.03.94
Non-Linear Back-propagation: Doing Back-Propagation without Derivatives of the Activation Function
 FTP: archive.cis.ohio-state.edu | pub/neuroprose | hertz.nonlin.ps.Z

[Hertz91]

Hertz John, Krogh Anders, Palmer Richard
Introduction to the Theory of Neural Computation
 Addison-Wesley, The Advanced Book Program, ISBN 0-201-51560-1 (paperbound) or ISBN0-201-50395-6 (hardbound); FTP: funic.funet.fi | pub/sci/neural/neuroprose | hertz.refs.ps.Z

[Hirose90]

Hirose Yoshio, Yamashita Koichi, Hijiya Shimpei - 12.6.1990
Back-Propagation Algorithm Which Varies the Number of Hidden Units
 Neural Networks, Vol. 4, pp. 61-66, 1991

[Hoff60]

Hoff Marcian E., Widrow Bernard
Adaptive switching circuits
 1960 IRE WESCON Convention Record, New York: IRE, pp. 96-104 Reprint: Neurocomputing - Foundations of Research, Anderson James A. & Rosenfeld Edward (eds.), MIT Press, Cambridge, Massachusetts, London, England

[Hogeweg93]

Hogeweg Paulien
As large as life and twice as natural: Bioinformatics and the Artificial Life Paradigm
 Complex Systems: From Biology to Computation, pp. 2-11, Editors: David G. Green and Terry J. Bossomaier, Publisher IOS Press, Amsterdam, 1993; FTP: life.anu.edu.au | pub/complex_systems/anu92/papers | hogeweg.ps

[Hogg91]

Hogg David W., Martin Fred, Resnick Mitchel - 5.6.1991
Braitenberg Creatures
 FTP: kame.media.mit.edu | pub/el-memos | mem-o13.PS.Z

[Honavar90]

Honavar Vasant, Uhr Leonard
Generative Learning Structures and Processes for Generalized Connectionist Networks
 FTP: cheops.cis.ohio-state.edu | pub/neuroprose | honavar.generate.ps.Z

[Honavar89]

Honavar Vasant, Uhr Leonard
A Network of Neuron-like Units that learns to perceive by Generalization as well as Reweighting of its Links
 Proceedings of the 1988 Connectionist Models Summer School, pp. 472-484, Morgan Kaufmann Publishers, ISBN 0-55860-015-9

[Hopfield84]

Hopfield J.J.
Neurons with graded response have collective computational properties like those of two-state neurons
 Proceedings of the National Academy of Sciences 81: 3088-3092 Reprint: Neurocomputing - Foundations of Research, Anderson James A. & Rosenfeld Edward (eds.), MIT Press, Cambridge, Massachusetts, London, England

[Hopfield82]

Hopfield J.J.
Neural networks and physical systems with emergent collective computational abilities
 Proceedings of the National Academy of Sciences 79: 2554-2558 Reprint: Neurocomputing - Foundations of Research, Anderson James A. & Rosenfeld Edward (eds.), MIT Press, Cambridge, Massachusetts, London, England

[Hoppen91]

Hoppen Peter
Echtzeitnavigation bei autonomen mobilen Robotern in bekannter und unbekannter Umgebung
 PhD thesis; Computer Science Department; University of Kaiserslautern; Germany; 3/91

[Hoppen90]

Hoppen Peter, Knieriemen Thomas, von Puttkamer Ewald - 13.05.90
Laser-Radar based Mapping and Navigation for an Autonomous Mobile Robot
 IEEE International Conference on Robotics and Automation 1990, Cincinnati, Ohio, 13-18 May 1990, pp. 948-953

[Horiuchi]

Horiuchi Tim, Lazzaro John, Moore Andrew, Koch Christoph
A Delay-Line Based Motion Detection Chip
 FTP: archive.cis.ohio-state.edu | pub/neuroprose | horiuchi.motion.ps.Z

[Howard94]

Howard Cheryl G., Bock Peter
Multi-Class Classification and Symbolic Cognitive Processing with ALISA
 Internal report, FAW Ulm, Helmholtzstraße 16, 89081 Ulm

[Hrycej91]

Hrycej David - 1.6.1991
Invariant features by self-organization
 Neurocomputing 3 (1991) 287-292, Elsevier, 0925-2312/91/\$05.00

[Hubel89]

Hubel David H.
Augen und Gehirn - Neurobiologie des Sehens
 Spektrum der Wissenschaft, Heidelberg, ISBN 3-922508-92-8

[Hubel68]

Hubel D. H., Wiesel T. N.
Receptive Fields and Functional Architecture of Monkey Striate Cortex
 J. Physiol. 195 (1968) pp. 215-243

[Hubel65]

Hubel D. H., Wiesel T. N.
Receptive Fields and Functional Architecture in Two Non-Striate Visual Areas (18 and 19) of the Cat
 J. Neurophysiol. 28 (1965) pp. 229-289

[Hubel62]

Hubel D. H., Wiesel T. N.
Receptive Fields, Binocular Interaction and Functional Architecture in the Cat's Visual Cortex
 J. Physiol. 160 (1962) pp. 106-154

[Hubel59]

Hubel D. H., Wiesel T. N.
Receptive Fields of Single Neurones in the Cat's Striate Cortex
 J. Physiol. 148 (1959) pp. 574-591

[Hummel89]

Hummel John E., Biederman Irving, Gerhardstein Peter C., Hilton H. John
From Image Edges to Geons: A Connectionist Approach
 Proceedings of the 1988 Connectionist Models Summer School, pp. 462-471, Morgan Kaufmann Publishers, ISBN 0-55860-015-9

[Husbands93]

Husbands Philip, Harvey Inman, Cliff Dave
Analysing Recurrent Dynamical Networks Evolved for Robot Control
 Technical report - CSRP265, University of Sussex FTP: ftp.cogs.susx.ac.uk | pub/reports/csrp | csrp265.ps.Z

[Hutchison87]

Hutchison William R., Stephens Kenneth R. - 24.6.1987
Integration of Distributed and Symbolic Knowledge Representations
 Caudill Maureen, Butler Charles (eds.) - IEEE First International Conference on Neural Networks (ICONN '87) - IEEE Catalog Number 87TH0191-7

[Hwang93]

Hwang Jenq-Neng, You Shih-Shien, Lay Shyh-Rong, Jou I-Chang
What's Wrong with A Cascaded Correlation Learning Network: A Projection Pursuit Learning Perspective
 FTP: cheops.cis.ohio-state.edu | pub/neuroprose | hwang.cclpl.ps.z

[Intrator91]

Intrator Nathan, Gold Josh I., Bülthoff Heinrich H., Edelman Shimon
3D Object Recognition using Unsupervised Feature Extraction
 Proc. 1991 Conf. on Neural Information Processing Systems (NIPS), D. Tourezky, ed., Morgan Kauffman, 1992; FTP: eris.wisdom.weizmann.ac.il | /pub

[Jagota90]

Jagota Arun - 1.3.1990
A new Hopfield-style network for content-addressable memories
 Technical report 90-02, March 1990; FTP: cheops.cis.ohio-state.edu | pub/neuroprose | jagota.hsn.ps.Z

[James92]

James Mark R. - 15.1.1992
Design of Low-cost, Real-time Simulation Systems for Large Neural Networks
 FTP: archive.cis.ohio-state.edu | pub/neuroprose | james.nnsim.ps.Z

[James1890]

James William
Association
 Psychology (Briefer Course); New York: Holt, Chapter XVI, "Associaion", pp. 253-279 Reprint: Neurocomputing - Foundations of Research, Anderson James A. & Rosenfeld Edward (eds.), MIT Press, Cambridge, Massachusetts, London, England

[Jang92a]

Jang Jyh-Shing R.
ANFIS: Adaptive-Network-Based Fuzzy Inference System
 submitted to IEEE Transactions on Systems, Man and Cybernetics, 1991

[Jang92b]

Jang Jyh-Shing R.
Self-Learning Fuzzy Controllers Based on Temporal Back Propagation
 submitted to IEEE Transactions on Systems, Man and Cybernetics, 1992

[Jervis92]

Jervis T.T., Fallside F. - 16.12.1992
Pole Balancing on a Real Rig using a Reinforcement Learning Controller
 Technical report, Cambridge University Engineering Department, CUED/F-INFENG/TR 115 December 16, 1992, FTP: svr-ftp.eng.cam.ac.uk | pub/reports | jervis_tr115.ps

[Johnson90]

Johnson Kenneth - 1.6.1990
Adaptive Resonance Structures in Hierarchical Receptive Field Pattern Recognition Machines
 Advanced Neural Computers / R. Eckmiller (Editor), Elsevier Science Publishers B.V. (North-Holland), 1990

[Judd90]

Judd Stephen J.
Neural Network Design and the Complexity of Learning
 A Bradford Book, The MIT Press, Cambridge Massachusetts London, England, ISBN 0-262-10045-2

[Kadirkamanathan92]

Kadirkamanathan Visakan, Niranjan Mahesan - 13.10.1992
A Function Estimation Approach to Sequential Learning With Neural Networks
 Technical report Cambridge University: CUED/F-INFENG/TR 111; FTP: svr-ftp.eng.cam.ac.uk | reports | kadirkamanathan_tr111.ps.Z

[Kanada89]

Kanada T. (ed.), Groen F.C.A., Hertzberger L.O. (eds.) - 11.12.1989
Intelligent Autonomous Systems
 Intelligent Autonomous Systems, Amsterdam, The Netherlands, 11-14 December 1989, Kanada T., Groen F.C.A., Hertzberger L.O. (eds.), ISBN 90-800410-1-7

[Kanerva88]

Kanerva Pentti
Sparse Distributed Memory
 A Bradford Book, The MIT Press, Cambridge Massachusetts London, England, ISBN 0-262-11132-1

[Kasabov93]

Kasabov N.K.
Learning Fuzzy Rules through Neural Networks
 N. Kasabov (ed) Artificial Neural Networks and Expert Systems (ANNES '93, Proceedings of ANNES '93 Conference, New Zealand 93), IEEE Comp. Soc. Press, Los Alamitos, 1993

[Kehagias91a]

Kehagias Athanasios - 4.3.1991
Stochastic Recurrent Networks Training by the Local Backward-Forward Algorithm
 FTP: archive.cis.ohio-state.edu | pub/neuroprose | kehagias.srn2.ps.Z

[Kehagias91b]

Kehagias Athanasios - 4.3.1991
Stochastic Recurrent Networks: Prediction and Classification of Time Series
 FTP: archive.cis.ohio-state.edu | pub/neuroprose | kehagias.srn1.ps.Z

[Keller92]

Keller James M., Yager Ronald R., Tahani Hossein
Neural Network Implementation of Fuzzy Logic
 Fuzzy Sets and Systems 45 (1992) 1-12, North Holland 0165-0114/92/\$05.00, Elsevier Science Publishers B.V

[Kemke91]

Kemke Christel - 1.6.1991
Die Darstellung von ungenauem Wissen in taxonomischen Wissensbasen
 KI: Forschung, Entwicklung, Erfahrungen - Organ des Fachbereichs 1 "Künstliche Intelligenz" der Gesellschaft für Informatik e.V. (GI), Juni 1991, Heft 2, 5. Jahrgang

[Kemke88]

Kemke Christel - 1.11.1988
Der neurere Konnektionismus
 Informatik Spektrum (1988) 11: 143-162 (Springer Verlag)

[Kender98]

Kender John R., Allen Peter K., Boulton Terrance E., Ibrahim Hussein A.H.
Image Understanding and Robotic Research at Columbia University
 Technical report: CUCS-332-88, Department of Computer Science, Columbia University, New York, NY 10027, USA - to appear in DARPA Image Understanding Workshop, 1988

[Kennedy94]

Kennedy Geoffrey J.
Elementary Structures in Entity-Relationship Diagrams
 Computer and Information Science, University of Otago, Dunedin, New Zealand

[Kersten87]

Kersten Daniel, O'Toole Alice J., Sereno Margaret E., Knill David C., Anderson James A. - 1.12.1987
Associative learning of scene parameters from images
 Applied Optics - Vol. 26 - No. 23 - 1. December 1987 - pp. 4999-5006

[Keuchel94]

Keuchel Herman - 01.12.94
Klassifikation von 3-d Objekten auf der Basis der Adaptive Resonance Theory (Modelle 2 und 2-A)
 Diploma-thesis; Computer Science Department; University of Kaiserslautern; Germany; 12/94

[Keuchel92]

Keuchel Herman - 01.07.92
Klassifikation von Flächen durch Neuronale Netzwerke mit problemadaptiver Zellstruktur
 Technical report - Universität Kaiserslautern, Fachbereich Informatik, AG von Puttkamer

[Kinder93]

Kinder Margit, Brauer Wilfried - 01.06.93
Classification of Trajectories - Extracting Invariants with a Neural Network
 Neural Networks 6/93 - FTP: archive.cis.ohio-state.edu | /pub/neuroprose | kinder.extracting_invariants.ps.Z

[Klapper93]

Klapper Edmund - 25.02.93
Der Generalisierungsbaum zur stabilen Klassifikation von Oberflächen mit einem Unsupervised Competitive Neural Network
 Diploma thesis - Universität Kaiserslautern, Fachbereich Informatik, AG von Puttkamer

[Klopf90]

Klopf A. Harry, Morgan James S. - 1.6.1990
The Role of Time in Natural Intelligence: Implications for Natural Networks and Artificial Intelligence Research
 Advanced Neural Computers, pp.201-207 / R. Eckmiller (Editor), Elsevier Science Publishers B.V. (North-Holland), 1990

[Knieriemen91a]

Knieriemen Thomas
Sensordateninterpretation und Weltmodellierung für die Navigation eines autonomen mobilen Roboters in unbekannter Umgebung - Realisiert durch das Verfahren 3rd-WM
 PhD thesis; Computer Science Department; University of Kaiserslautern; Germany; 1/91

[Knieriemen91b]

Knieriemen Thomas
Autonome Mobile Roboter - Sensordateninterpretation und Weltmodellierung zur Navigation in unbekannter Umgebung
 Reihe Informatik, Band 80, Böhlting K.H., Kulisch U., Maurer H. (eds), BI Wissenschaftsverlag Mannheim/Wien/Zürich

[Koch]

Koch Christof, Schuster Heinz
A Simple Network Showing Burst Synchronization without Frequency-Locking
 FTP: archive.cis.ohio-state.edu | pub/neuroprose | koch.syncron.ps.Z

[Koch87]

Koch Christoph - 28.8.1987
Computing Motion in the Presence of Discontinuities: Algorithm and Analog Networks
 Neural Computers, Rolf Eckmiller, Christoph v.d. Malsburg (eds.), Springer-Verlag Berlin Heidelberg New York, ISBN 3-540-50892-9

[Kohlhepp92]

Kohlhepp Peter, Haffner Horst - 1.11.1992
Rekonstruktion und Wiedererkennung dreidimensionaler Gegenstandsmodelle mit Entfernungssensoren
 Autonome mobile Systeme, 8. Fachgespräch, Karlsruhe, November 1992

[Kohonen91]

Kohonen Teuvo, Kangas Jari, Laaksonen Jorma, Torkola Kari - 1.12.1991
LVQ_PAK - The Learning Vector Quantisation Program Package (Version 1.0)
 FTP: cochlea.hut.fi | pub/lvq_pak | document.ps.Z

[Kohonen90]

Kohonen Teuvo - 1.6.1990
Statistical Pattern Recognition Revisited
 Advanced Neural Computers / R. Eckmiller (Editor), Elsevier Science Publishers B.V. (North-Holland), 1990

[Kohonen89]

Kohonen Teuvo - 16.8.1989
On the significance of internal representations in neural networks
 First IEEE International Conference on Artificial Neural Networks, 16-18 October 1989, Conference Publication Number 313, ISBN 0-85296388-2

[Kohonen88]

Kohonen Teuvo - 1.3.1988
The "Neural" Phonetic Typewriter
 Computer, March '88, pp. 11-22, 0018-9162/88/0300-0011\$01.00 (IEEE)

[Kohonen87a]

Kohonen Teuvo - 1.12.1987
Adaptive, associative, and self-organizing functions in neural computing
 Applied Optics - Vol. 26 - No. 23 - 1. December 1987 - pp. 4910-4918

[Kohonen87b]

Kohonen Teuvo - 28.8.1987
The Role of Adaptive and Associative Circuits in Future Computer Design
 Neural Computers, Rolf Eckmiller, Christoph v.d. Malsburg (eds.), Springer-Verlag Berlin Heidelberg New York, ISBN 3-540-50892-9

[Kohonen84]

Kohonen Teuvo
Self-Organization and Associative Memory
 Springer-Verlag, Berlin Heidelberg New York Tokyo,
 ISBN 3-540-12165-X

[Kohonen82]

Kohonen Teuvo
Self-Organized Formation of Topologically Correct Feature Maps
 Biological Cybernetics, Volume 43, pp. 59-69 (1982),
 Springer-Verlag 0340-1200/82/0043/0059/\$02.20

[Kohonen72]

Kohonen Teuvo
Correlation matrix memories
 IEEE Transactions on Computers C-21: 353-359 Re-
 print: Neurocomputing - Foundations of Research,
 Anderson James A. & Rosenfeld Edward (eds.), MIT
 Press, Cambridge, Massachusetts, London, England

[Koikkalainen90]

Koikkalainen Pasi, Oja Erkki - 17.6.1990
Self-Organizing Hierarchical Feature Maps
 IJCNN, International Joint Conference on Neural Net-
 works, San Diego, California, June 17-21, 1990, pp. II-
 279-II284; FTP: lut.fi | reports/neural-nets | selfhi-
 er.ps.Z

[Koivunen91]

Koivunen Visa, Pietikäinen Matti - 11.11.1991
*Improving the robustness of edge and region-based range
 image segmentation*
 SPIE Vol. 1608 Intelligent Robots and Computer Vi-
 sion X (1991), 0-8194-0745-3/92/\$4.00, David P. Casas-
 ent (ed.), 11.-13. November 1991, Boston,
 Massachusetts

[Konishi93]

Konishi Masakazu - 01.04.93
Listening with two ears
 Scientific American April 1993

[Kopetz87]

Kopetz H., Ochsenreiter W. - 01.10.87
Interval Measurements in Distributed Real Time Systems
 Proceedings of the 7th International Conference on
 Distributed Computer Systems, Berlin, Sept. 1987,
 IEEE Press, pp. 292-298

[Kosko92]

Kosko Bart
*Neural Networks and Fuzzy Systems - A Dynamical Sys-
 tems Approach to Machine Intelligence*
 Prentice-Hall International Inc., 1992

[Kosko87a]

Kosko Bart - 1.12.1987
Adaptive bidirectional associative memories
 Applied Optics - Vol. 26 - No. 23 - 1. December 1987 -
 pp. 4947-4960

[Kosko87b]

Kosko Bart - 24.6.1987
Adaptive Inference in Fuzzy Knowledge Networks
 Caudill Maureen, Butler Charles (eds.) - IEEE First In-
 ternational Conference on Neural Networks (ICONN
 '87) - IEEE Catalog Number 87TH0191-7

[Krishnapuram91]

Krishnapuram Raghu, Frigui Hichem, Nasraoui Olfa
 - 11.11.1991
*New fuzzy shell clustering algorithms for boundary detec-
 tion and pattern recognition*
 SPIE Vol. 1607 Intelligent Robots and Computer Vi-
 sion X: Algorithms and Techniques (1991), 0-8194-
 0744-5/92/\$4.00, David P. Casasent (ed.), 11.-13. No-
 vember 1991, Boston, Massachusetts

[Kröse94]

Kröse Ben J. A., Eecen Marc
*A self-organizing representation of sensor space for mobile
 robot navigation*
 Faculty of Mathematics and Computer Science, Uni-
 versity of Amsterdam, Kruislaan 403, 1098 SJ Amster-
 dam, The Netherlands

[Kruse91]

Kruse Rudolf, Nauck Detlef, Klawonn Frank
Reasoning with Mass Distributions
 FTP: ftp.tu-bs.de | pub/local/papers | kru-
 se.uai91.ps

[Kuan85]

Kuan D., J.C. Zamiska, Brooks R.A.
Natural Decomposition of Free Space for Path Planning
 IEEE International Conference on Robotics and Auto-
 mation, St. Louis, Missouri, 1985, pp. 168-173

[Kuipers88]

Kuipers Benjamin J., Byun Yung-Tai
A Robust, Qualitative Method for Robot Spatial Learning
 Proceedings of the AAAI 1988

[Kuipers87]

Kuipers Benjamin J., Byun Yung-Tai - 01.08.87
*A Qualitative Approach to Robot Exploration and Map-
 Learning*
 AAAI - Workshop on spational reasoning and multi-
 sensor fusion, Oct. 1987

[Kuipers85]

Kuipers Benjamin - 01.12.85
The Map-Learning Critter
 Technical report TR-85-33 December 1985, AI-85-17,
 Department of Computer Science, University of Texas
 at austin, Austin, Texas 78712

[Kurz93]

Kurz A. - 18.4.1993
*Building Maps based on the Learned Classification of Ul-
 trasonic Range Data*
 Intelligent Autonomous Vehicles (IAV) '93, Interna-
 tional workshop, University of Southampton,
 Hampshire, United Kingdom, 18-21 April '93, pp. 193-
 198

[Kurz91]

Kurz Andreas, Wiedemann Bernhard, Steinmann Bär-
 bel - 11.11.1991
*Lernende Klassifikation von Ultraschalldistanzmessungen
 durch selbstorganisierende Merkmalskarten und Aufbau ei-
 ner Umweltrepräsentation zu Navigationszwecken*
 Autonome Mobile Systeme, 7. Fachgespräch, Karl-
 sruhe, Dez. 1991, Herausgeber: Ulrich Rembold, Rüd-
 iger Dillmann und Paul Levi

[Kutulakos92a]

Kutulakos Kiriakos N., Dyer Charles R., Lumelsky Vladimir J. - 01.10.92
Vision-Guided Exploration: A Step Toward General Motion Planning in Three Dimensions
 Technical report #1111, University of Wisconsin, FTP: ftp.cs.wisc.edu

[Kutulakos92b]

Kutulakos Kiriakos N., Dyer Charles R., Lumelsky Vladimir J. - 01.11.92
Object Exploration by Purposive, Dynamic Viewpoint Adjustment
 Technical report #1124, University of Wisconsin, FTP: ftp.cs.wisc.edu

[Kutulakos91]

Kutulakos Kiriakos N., Dyer Charles R. - 01.08.91
Recovering Shape by Purposive Viewpoint Adjustment
 Technical report #1035, University of Wisconsin, FTP: ftp.cs.wisc.edu

[Laird91]

Laird Philip, Gamble Evan - 1.3.1991
A "PAC" Algorithm for Making Feature Maps
 Machine Learning, Vol 6, 145-160 (1991)

[Lampinen91]

Lampinen Jouko - 2.4.1991
Feature extractor giving distortion invariant hierarchical feature space
 SPIE Conference on Applications of Artificial Neural networks, Orlando, April 2-5, 1991; FTP: lut.fi | reports/neural-networks | SPIE-91_feat_ext.ps.Z

[Lampinen89]

Lampinen Jouko, Oja E. - 1.2.1989
Fast Computation of Kohonen Self-Organization
 Neurocomputing: Springer-Verlag Berlin Heidelberg New York, Series F: Computer and Sciences Vol. 68, ISBN 3-540-53278-1

[Laumond93]

Laumond J.-P.
Model Structuring and Concept Recognition: Two Aspects of Learning for a Mobile Robot
 International Joint Conference on Artificial Intelligence, Karlsruhe, 1993, pp. 839-841

[LeeCC91]

Lee Chuen-Chien
A self-learning rule-based controller employing approximate reasoning and neural net concepts
 International Journal of Intelligent Systems, Vol. 6, pp. 71-93 (1991), John Wiley & Sons, Inc.

[LeeCC90a]

Lee Chuen-Chien - 01.04.90
Fuzzy Logic in Control Systems: Fuzzy Logic Controller - Part I
 IEEE Transactions on Systems, Man and Cybernetics, Vol. 20, no. 2, March/April 1990, pp. 404-418

[LeeCC90b]

Lee Chuen-Chien - 01.04.90
Fuzzy Logic in Control Systems: Fuzzy Logic Controller - Part II
 IEEE Transactions on Systems, Man and Cybernetics, Vol. 20, no. 2, March/April 1990, pp. 419-435

[LeeM89]

Lee Matthew K.O. - 19.4.1989
PYGMALION: an European neural computing research project
 New Developments in neural Computing - J.G. Taylor, C.L.T. Mannion (eds.) Adam Hilger, Bristol New York, ISBN 0-85274-193-6

[Leen90a]

Leen Todd - 22.3.1990
Deature Discovery and Hebbian Learning
 FTP: cse.ogi.edu | pub/tech-reports/1990 | 005.ps.Z

[Leen90b]

Leen Todd, Cole Roland, Hammerstrom Dan, Inouye Jon - 6.6.1990
Speech Recognition with a Cortex Model: Preliminary Results and Outlook
 FTP: cse.ogi.edu | pub/tech-reports/1990 | 022.ps.Z

[Leighton91]

Leighton Russell R., Conrath Bartley C.
The Autoregressive Backpropagation Algorithm
 International Joint Conference on Neural Networks 1991; FTP: cheops.cis.ohio-state.edu | pub/neuroprose | leighton.ar-backprop.ps.Z

[Lefèvre94]

Lefèvre Pascal - 01.12.94
Konnektionistische Ansätze zur topologischen Umweltmodellierung
 Diploma-thesis; Computer Science Department; University of Kaiserslautern; Germany; 12/94

[Levi90]

Levi Shem-Tov, Agrawala Ashok K.
Real-Time System Design
 McGraw-Hill, Inc., 1990, ed. David M. Shapiro

[Li93]

Li Xinzhi - 09.06.93
Potential Analysis for Massively Parallel Computing and its Application to Neural Networks
 PHD Thesis, University of Kaiserslautern, Department of Computer Science

[Li89]

Li Stan Z. - 1.12.1989
3D Object Recognition from Range Images: Computational Framework and Neural Networks
 Intelligent Autonomous Systems 2, Amsterdam, T. Kanade, F.C.A. Groen, L.O. Hertzberger (eds.), The IAS Foundation, Vol. 1, pp. 35-50

[LinC91]

Lin Chin-Teng, Lee C.S. George - 1.12.1991
Neural-Network-Based Fuzzy Logic Control and Decision Systems
 IEEE Transactions on computers, Vol. 40, No. 12, December 1991, pp. 1320-1336, 0018-9340/91\$01.00

[LinW91]

Lin Wei-Ming, Prasanna Viktor K., Przytula K. Wojtek - 1.12.1991
Algorithmic Mapping of Neural Networks models onto Parallel SIMD Machines
 IEEE Transactions on computers, Vol. 40, No. 12, December 1991, pp. 1390-1401, 0018-9340/91\$01.00

[Linggard92]

Linggard R., Myers D.J., Nightingale C. (eds.)
Neural Networks for Vision, Speech and Natural Language
 Chapman & Hall, 2-6 Boundary Row, London SE1 8HN

[Lovell92]

Lovell David R., Tsoi Ah Chung - 14.4.1992
The Performance of the Neocognitron with Various S-Cell and C-Cell Transfer Functions
 FTP: archive.cis.ohio-state.edu | pub/neuroprose |

[Lozano-Pérez83]

Lozano-Pérez T.
Spatial Planning: A Configuration Space Approach
 IEEE Transactions on Computers, Vol. C-32, No. 2, 1983, pp.108-120

[Lu91]

Lu Si Wei, Wong Andrew K.C. - 1.6.1991
Recognition and Locating Partially Occluded Objects by Hypergraph Representation
 Proceedings of the 14th IASTED Interantional Symposium, Manufacturing and Robotics, Lugano, Switzerland, June 25.-27. 1991, ISBN 0-88986-157-9

[Lua90]

Lua K.T., Gan K.W. - 26.4.1990
Recognizing Chinese Characters through Interactive Activation and Competition
 Pattern Recognition, Vol. 23, No. 12, pp. 1311-1321, 1990, 0031-3203/90 \$3.00+.00, Pergamon Press plc, Pattern Recognition Society

[Luttrell89]

Luttrell S. P. - 16.8.1989
Hierarchical Self-Organising Networks
 First IEEE International Conference on Artificial Neural Networks, 16-18 October 1989, Conference Publication Number 313, ISBN 0-85296388-2

[Maass94]

Maass Wolfgang
Perspectives of Current Research about the Complexity of Learning on Neural Nets
 To appear in: Theoretical Advances in Neural Computation and Learning, V. P. Roychowdhury, K. Y. Siu, A. Orlitsky, editors, Kluwer Academic Publishers

[MacKay91]

MacKay David J. C. - 10.12.1991
Bayesian Methods for Adaptive Models
 PhD Thesis at the California Institute of Technology, Pasadena, California; FTP: funic.funet.fi | pub/sci/neural/mackay

[MacLennan91a]

MacLennan Bruce - 26.11.1991
Characteristics of Connectionist Knowledge Representations
 Technical report CS-91-147; FTP: archive.cis.ohio-state.edu | pub/neuroprose | mclennan.cckr.ps.Z

[MacLennan91b]

MacLennan Bruce - 13.10.1991
Gabor Representations of Spatiotemporal Visual Images
 Technical report CS-91-144; FTP: archive.cis.ohio-state.edu | pub/neuroprose | macLennan.gabor.ps.Z

[Maes92]

Maes Pattie
Behaviour-based Artificial Intelligence
 Proceedings of the second international conf. on the simulation of adaptive behaviour "From animals to animats", Honolulu, Cambridge MA, MIT Press, 1992

[Maes90]

Maes Pattie, Brooks Rodney A.
Learning to Coordinate Behaviors
 American Association for Artificial Intelligence AAAI 1990, Morgan Kauffman Publishers, Inc.

[Mahoney92]

Mahoney J. Jeffrey, Mooney Raymond J.
Combining Symbolic and Neural Learning to Revise Probabilistic Theories
 MLW-92; FTP: cs.utexas.edu | pub/mooney/papers | mlw92-integrated.ps.Z

[Mahowald91]

Mahowald Misha A., Mead Carver - 1.6.1991
Die Silicium-Netzhaut
 Spektrum der Wissenschaft, Juni 1991

[Mahowald88]

Mahowald M. A., Mead Carver
Silicon Retina
 Neural Networks, Vol. 1 Mead, C. and Mahowald, M.A. A Silicon Model of Early Visual Processing, 1988, Pergamon Press

[Malsburg87a]

Malsburg Christoph v.d. - 28.8.1987
Goal and Architecture of Neural Computers
 Neural Computers, Rolf Eckmiller, Christoph v.d. Malsburg (eds.), Springer-Verlag Berlin Heidelberg New York, ISBN 3-540-50892-9

[Malsburg87b]

Malsburg Christoph von der - 1.12.1987
Pattern Recognition by Labeled Graph Matching
 Neural Networks, Vol. 1, pp. 141-148, 1988

[Malsburg73]

Malsburg Christoph von der
Self-organization of orientation sensitive cells in the striate cortex
 Kybernetik 14: 85-100 Reprint: Neurocomputing - Foundations of Research, Anderson James A. & Rosenfeld Edward (eds.), MIT Press, Cambridge, Massachusetts, London, England

[Mannion89]

Mannion C.L.T. (ed.), Taylor J.G. (ed.) - 19.4.1989
New Developments in Neural Computing
 Proceedings of a meeting on neural computing sponsored by the Institute of Physics and the London Mathematical Society held in London, 19-21 April 1989 Adam Hilger, Bristol NewYork, ISBN 0-85274-193-6

[Manolache93]

Manolache Florin, Edelman Shimon
Generation of Natural-Looking 3D Shapes by Simulated Evolution
 Weizmann Institute CS-TR 93-13, 1993; FTP: eris.wisdom.weizmann.ac.il | /pub

[Marshall93a]

Marshall Jonathan A. - 01.02.93
Adaptive Perceptual Pattern Recognition By Self-organizing Neural Networks: Context, Uncertainty, Multiplicity, And Scale
 FTP : archive.cis.ohio-state.edu | pub/neuroprose | marshall.context.ps.Z

[Marshall93b]

Marshall Jonathan A., Alley Richard K. - 01.10.93
A Self-organizing Neural Network That Learns To Detect And Represent Visual Depth From Occlusion Events
 In Bowyer KW & Hall L (Eds.), Proceedings of the AAAI Fall Symposium on Machine Learning and Computer Vision, Research Triangle Park, NC, October 1993, 70-74. - FTP : archive.cis.ohio-state.edu | pub/neuroprose | marshall.occlusion.ps.Z

[Marshall91a]

Marshall Jonathan A. - 01.07.91
Challenges Of Vision Theory: Self-organization Of Neural Mechanisms For Stable Steering Of Object-grouping Data In Visual Motion Perception
 Invited paper, in Chen S-S (Ed.), Stochastic and Neural Methods in Signal Processing, Image Processing, and Computer Vision, Proceedings of the SPIE 1569, San Diego, July 1991, 200-215. - FTP : archive.cis.ohio-state.edu | pub/neuroprose | marshall.steering.ps.Z

[Marshall91b]

Marshall Jonathan A. - 1.6.1991
Challenges of vision theory: Self-organization of neural mechanisms for stable steering of object-grouping data in visual motion perception
 Stochastic and Neural Methods in Signal Processing, Image Processing, and Computer Vision, Su-Shing Chen, Ed., Proceedings of the SPIE 1569, San Diego, July 1991, pp.200-215; FTP: archive.cis.ohio-state.edu | pub/neuroprose | marshall(...).ps.Z

[Martin93]

Martin Kevin E., Marshall Jonathan A.
Unsmearing Visual Motion: Development Of Long-range Horizontal Intrinsic Connections
 To appear in: Cowan, J.D., Tesauero, G., and Alspector, J. (Eds.), Advances in Neural Information Processing Systems 6. San Francisco CA: Morgan Kaufmann, 1994 - FTP : archive.cis.ohio-state.edu | pub/neuroprose | ahmad.correspondence.ps.Z

[Mason92]

Mason J.S., Andrews E.C.J.
Dissection of Perceptron Structures in Speech and Speaker Recognition
 Neural Networks for Vision, Speech and Natural Language - Lingard R., Myers D.J., Nightingale C. (eds.), Chapman & Hall, 2-6 Boundary Row, London SE1 8HN

[Mataric92]

Mataric Maja J. - 01.06.92
Integration of Representation Into Goal-Driven Behavior-Based Robots
 IEEE Transactions on Robotics and Automation, Vol 8, No. 3, June 1992

[Mataric90]

Mataric Maja J.
Environment Learning using a Distributed Representation
 IEEE Robotics and Automation 1990

[Mauduit92]

Mauduit Nicolas, Duranton Marc, Gobert Jean, Sirat Jacques-Ariel - 1.3.1992
Lneuro 1.0: a piece of hardware LEGO for building neural network systems
 To appear in IEEE Neural Network special issue on hardware; FTP: archive.cis.ohio-state.edu | pub/neuroprose | mauduit.lneuro.ps.Z

[McCord-Nelson91]

McCord-Nelson Marilyn, Illingworth W.T.
A Practical Guide to Neural Nets
 Addison-Wesley Publishing Company Inc., ISBN 0-201-56309-6

[McClelland87]

McClelland James L., Rumelhart David E. - 1.10.1987
Explorations in Parallel Distributed Processing - A Handbook of Models, Programs and Exercises
 A Bradford Book, The MIT Press, Cambridge, Massachusetts, London, England

[McCulloch47]

McCulloch Warren S., Pitts Walter
How we know universals: the perception of auditory and visual forms
 Bulletin of Mathematical Biophysics 9: 127-147 Reprint: Neurocomputing - Foundations of Research, Anderson James A. & Rosenfeld Edward (eds.), MIT Press, Cambridge, Massachusetts, London, England

[McCulloch43]

McCulloch Warren S., Pitts Walter
A logical calculus of the ideas immanent in nervous activity
 Bulletin of Mathematical Biophysics 5: 115-113 Reprint: Neurocomputing - Foundations of Research, Anderson James A. & Rosenfeld Edward (eds.), MIT Press, Cambridge, Massachusetts, London, England

[McMillan91]

McMillan Clayton, Mozer Michael C., Smolensky Paul
The Connectionist Game: Rule Extraction and Refinement in a Neural Network
 FTP: archive.cis.ohio-state.edu | pub/neuroprose | mcmillan.csg.ps.z

[Mellink85]

Mellink Hans, Buffart Hans - 14.11.1985
Abstract Code Network as a Model of Perceptual Memory
 Pattern Recognition, Vol. 20, No. 1, pp. 143-151, 1987, 0031-3203/87 \$3.00+.00, Pergamon Journals Ltd., Pattern Recognition Society

[Mézard89]

Mézard Merc - 1.2.1989
Learning algorithms in neural networks: recent results
 Neurocomputing: Springer-Verlag Berlin Heidelberg New York, Series F: Computer and Sciences Vol. 68, ISBN 3-540-53278-1

[Miikkulainen90]

Miikkulainen Risto - 1.3.1990
A Distributed Feature Map Model of the Lexicon
 Technical report UCLA-AI-90-40; FTP: cheops.cis.ohio-state.edu | pub/neuroprose | miikkulainen.lexicon.ps.Z

[Millán]

Millán José del R., Torras Carme
Efficient Reinforcement Learning of Navigation Strategies in an Autonomous Robot
 Institute for systems Engineering and Informatics, European Commission, Joint Research Centre, TP 361. 21020 Ispra (VA). ITALY

[Minsky86]

Minsky Marvin - 1.1.1986
The Society of Mind
 Simon & Schuster, Inc., ISBN 0-671-60740-5

[Minsky69]

Minsky Marvin, Papert Seymour
Perceptrons
 Cambridge, MA: MIT Press Reprint of Introduction,
 pp. 1-20 and p.73: Neurocomputing - Foundations of
 Research, Anderson James A. & Rosenfeld Edward
 (eds.), MIT Press, Cambridge, Massachusetts, Lon-
 don, England

[Mitchell93a]

Mitchell Melanie, Forrest Stephanie - 01.11.93
Genetic Algorithms and Artificial Life
 Santa Fe Institute Working Paper 93-11-072, to appear
 in Artificial Life

[Mitchell93b]

Mitchell Melanie, Crutchfield James P., Hrabar Peter T.
 - 01.06.93
*Dynamics, Computation, and the "Edge of Chaos": A Re-
 Examination*
 Santa Fe Institute Working Paper 93-06-040; to appear
 in G. Cowan, D. Pines, and D. Malzner (eds.), Integra-
 tive Themes, Santa Fe Institute Studies in the Sciences
 of Complexity, Proceedings Volume 19, MA: Addison-
 Wesley; FTP: santafe.edu | pub/Users/mm | sfi-93-
 06-040.ps.Z

[Möller94]

Möller Ralf, Groß Horst-Michael
Perception through Anticipation
 Proc. of the International Conference "From Percep-
 tion to Action", 1994, Lausanne, Switzerland

[Möller93]

Möller Ralf, Groß Horst-Michael
*Detection of Coincidences and Generation of Hypotheses - a
 Proposal for an Elementary Cortical Function*
 Proc. of the International Conference on Artificial
 Neural Networks (ICANN '93), pp. 67-70, Springer
 1993

[Möller90]

Möller Martin F. - 13.11.1990
*A Scaled Conjugate Gradient Algorithm for Fast Super-
 vised Learning*
 PB-339 (Preprint); FTP: archive.cis.ohio-state.edu |
 pub/neuroprose | moller.conjugate-gradient.ps.Z

[Möller87]

Möller P., Nylén M., Hertz J.A. - 28.8.1987
A Cortical Network Model for Early Vision Processing
 Neural Computers, Rolf Eckmiller, Christopf v.d.
 Malsburg (eds.), Springer-Verlag Berlin Heidelberg
 New York, ISBN 3-540-50892-9

[Moneta91]

Moneta Carlo, Zunino Rodolfo, Vernazza Gianni -
 1.6.1991
Learning of Visual Prototypes for Autonomous Systems
 Proceedings of the 14th IASTED Interantional Sympo-
 sium, Manufacturing and Robotics, Lugano, Switzer-
 land, June 25.-27. 1991, ISBN 0-88986-157-9

[Moore88]

Moore Barbara
ART 1 and Pattern Clustering
 Connectionist Models (Summer School) - Pittsburg '88
 - Eds. Touretzky, Hinton, Sejnowski - pp. 174-185

[Murray89]

Murray Alan F. - 16.8.1989
Silicon Implementations of Neural Networks
 First IEEE International Conference on Artificial Neu-
 ral Networks, 16-18 October 1989, Conference Publi-
 cation Number 313, ISBN 0-85296388-2

[Murtagh93]

Murtagh Fionn, Hernández-Pajares Manuel
*The Kohonen Self-Organizing Map Method: An Assess-
 ment*
 European Space Agency, Sapce Telescope - European
 Coordinationg Facility, European Southern Observa-
 tory, Karl-Schwarzschild-Str. 2, D-85748 Garching,
 Germany

[Myers92]

Myers D.J., Vincent J.M., Orrey D.A.
*A VLSI Architecture for Implementing Neural Networks
 with on-chip Backpropagation Learning*
 Neural Networks for Vision, Speech and Natural Lan-
 guage Linggard R., Myers D.J., Nightingale C. (eds.),
 Chapman & Hall, 2-6 Boundary Row, London SE1
 8HN

[Neal91]

Neal Radford M. - 1.6.1991
Bayesian Mixtre Modeling by Monto Carlo Simulation
 Technical report CRG-TR-91-2; FTP: cheops.cis.ohio-
 state.edu | pub/neuroprose | neal.bayes.ps.Z

[Nehmzow93]

Nehmzow Ulrich, McGonigle Brendan - 1.4.1993
Robot Navigation by Light
 Research paper - Robotics Laboratory at the Labora-
 tory for Cognitive Neuroscience, Department of Psy-
 chology, University of Edinburgh - to presented at the
 European Conf. on Artificial Life (ECAL) '93

[Nehmzow92a]

Nehmzow Ulrich, Tim Smithers, McGonigle Brendan
 - 1.8.1992
Increasing Behavioural Repertoire in a Mobile Robot
 J. A. Meyer, H. Roitblat and S. Wilson (eds.), From An-
 imals to Animats 2, pp. 291-297, MIT Press 1993

[Nehmzow92b]

Nehmzow Ulrich
*Experiments in Competence Acquisition for Autonomous
 Mobile Robots*
 Ph.D. Thesis - University of Edinburgh 1992

[Nehmzow91]

Nehmzow Ulrich, Smithers Tim - 11.12.1991
Using motor actions for location recognition
 European Conference on Artificial Life, Paris 11.-
 13.12.1991 (ECAL '91), MIT Press, Cambridge Mass,
 London, England

[Nehmzow90]

Nehmzow Ulrich, Hallam J., Smithers T. - 18.6.1990
Steps towards intelligent robots
 International Workshop on Cognition, Biology and
 Robotics, German National Research Center for Com-
 puter Science (GMD), Sankt Augustin, 18-20. June
 1990 DAI Research Paper no. 502

[Nehmzow89]

Nehmzow Ulrich, Hallam J., Smithers T. - 11.12.1989
Really useful Robots
 Intelligent Autonomous Systems, Amsterdam, The
 Netherlands, 11-14 December 1989, Kanada T., Groen
 F.C.A., Hertzberger L.O. (eds.), ISBN 90-800410-1-7

[Neumann58]

Neumann John von
The Computer and the Brain
 New Haven, Yale University Press Reprint of pp. 66-82: Neurocomputing - Foundations of Research, Anderson James A. & Rosenfeld Edward (eds.), MIT Press, Cambridge, Massachusetts, London, England

[Newton91]

Newton Scott C., Mitra S. - 11.11.1991
Application of an Adaptive Fuzzy System to Clustering and Pattern Recognition
 SPIE Vol. 1607 Intelligent Robots and Computer Vision X: Algorithms and Techniques (1991), 0-8194-0744-5/92/\$4.00, David P. Casasent (ed.), 11.-13. November 1991, Boston, Massachusetts

[Nguyen88]

Nguyen Dziem D., James S.J.Lee - 6.12.1988
A New LMS-Based Algorithm for Rapid Adaptive Classification in Dynamic Environments
 Neural Networks, Vol. 2, pp. 215-228, 1989

[Niemann90]

Niemann Heinrich
Pattern Analysis and Understanding
 Springer-Verlag Berlin Heidelberg 1990

[Nieters]

Nieters Hans
Neural Networks as Predicate Transition Systems
 FTP: gmdzi.gmd.de | pub/gmd | nieters.petri.neural.ps.Z

[Nölke94]

Nölke Franz-Josef - 01.04.94
Selective Attention Strategien zur Vervollständigung teilweise vorgegebener Oberflächen im Umweltmodell eines AMR
 Diploma-thesis; Computer Science Department; University of Kaiserslautern; Germany; 4/94

[Nölke92]

Nölke Franz-Josef - 01.10.92
Das Blackboard Kommunikationsschema unter Albatross
 Technical report - Universität Kaiserslautern, Fachbereich Informatik, AG von Puttkamer

[Palm90]

Palm Günther - 1.6.1990
Local Learning Rules and Sparse Coding in Neural Networks
 Advanced Neural Computers / R. Eckmiller (Editor), Elsevier Science Publishers B.V. (North-Holland), 1990

[Palm87]

Palm Günther - 28.8.1987
On the Asymptotic Information Storage Capacity of Neural Networks
 Neural Computers, Rolf Eckmiller, Christoph v.d. Malsburg (eds.), Springer-Verlag Berlin Heidelberg New York, ISBN 3-540-50892-9

[Palm82]

Palm Günther
Neural Assemblies
 Springer-Verlag, Berlin Heidelberg New York Tokyo, ISBN 3-540-11366-5

[Parkkinen91]

Parkkinen Jussi, Gupta M., Knopf George, Hallikainen Jarmo, Jääskeläinen Timo - 11.11.1991
A model for Spatial and Chromatic Vision
 SPIE Vol. 1608 Intelligent Robots and Computer Vision X (1991), 0-8194-0745-3/92/\$4.00, David P. Casasent (ed.), 11.-13. November 1991, Boston, Massachusetts

[Patrick89]

Patrick Edward A. - 20.12.1989
The Outcome Advisor®
 Pattern Recognition, Vol. 23, No. 12, pp. 1427-1439, 1990, 0031-3203/90 \$3.00+.00, Pergamon Press plc, Pattern Recognition Society

[Pawlicki89]

Pawlicki Ted
NORA: Neural-network Object Recognition Architecture
 Proceedings of the 1988 Connectionist Models Summer School, pp. 444-451, Morgan Kaufmann Publishers, ISBN 0-55860-015-9

[Pearlmutter93]

Pearlmutter Barak A. - 04.06.93
Fast Exact Multiplication by the Hessian
 To appear in Neural Computation 1993

[Pearlmutter91]

Pearlmutter Barak
Gradient Descent: Second-Order Momentum and Saturating Error
 FTP: JAMES.PSYCH.YALE.EDU | pub/bap/asympt | nips91.PS.Z

[Pearlmutter90]

Pearlmutter Barak A. - 1.12.1990
Dynamic Recurrent Neural Networks
 CMU-CS-90-196; FTP: cheops.cis.ohio-state.edu | pub/neuroprose | pearlmutter.dynets.ps.Z

[Pendrith94]

Pendrith Mark - 30.08.94
On Reinforcement Learning of Control Actions in Noisy and Non-Markovian Domains
 UNSW-CSE-TR-9410, 30 August 1994; School of Computer Science and Engineering, The University of New South Wales, Sydney 2052 Australia

[Perlovsky90]

Perlovsky Leonid I., McManus Margaret M. - 4.6.1990
Maximum Likelihood Neural Networks for Sensor Fusion and Adaptive Classification
 Neural Networks, Vol. 4, pp. 89-102, 1991

[Peukert94]

Peukert Rolf - 01.10.94
Echtzeitfähige Kommunikation in einem Multiprozessorsystem
 Diploma-thesis 10/94, Computer Science Department, University of Kaiserslautern, Germany

[Peukert91]

Peukert Rolf - 01.08.91
Peripherietreiber für das Betriebssystem ALBATROSS
 Technical report; Computer Science Department; University of Kaiserslautern; Germany; 8/91

[Phillips87]

Phillips W.A., Hancock P.J.B., Willson N.J., Smith L.S. - 28.8.1987

On the Acquisition of Object Concepts from Sensory Data
Neural Computers, Rolf Eckmiller, Christoph v.d. Malsburg (eds.), Springer-Verlag Berlin Heidelberg New York, ISBN 3-540-50892-9

[Plaut91]

Plaut David C. - 1.9.1991

Connectionist Neuropsychology: The Breakdown and Recovery of Behaviour in Lesioned Attractor Networks
TR CMU-CS-91-185; FTP: archive.cis.ohio-state.edu | pub/neuroprose | plaut.thesis-abstract.ps.Z

[Plumbley91]

Plumbley Mark D. - 13.8.1991

On Information Theory and Unsuperised Neural Networks
Technical report Cambridge University: CUED/F-INGENG/TR 78; FTP: svr-ftp.eng.cam.ac.uk | reports | plumbley_tr78.ps.Z

[Plutowski91]

Plutowski Mark, White Halbert - 1.2.1991

Active selection of training examples for network learning in noiseless environments
Technical report N° CS91-180; FTP: archive.cis.ohio-state.edu | pub/neuroprose | plutowski.active.ps.Z

[Poggio90]

Poggio Tomaso, Edelman Shimon

A Network that Learns to Recognize 3D Objects
Nature, 343, 263-266, Jan. 1990; FTP: eris.wisdom-weizmann.ac.il | /pub

[Pollack89]

Pollack Jordan B.

Recursive Distributed Representations
FTP: cheops.cis.ohio-state.edu | pub/neuroprose | pollack.newraam.ps.Z

[Pollack88a]

Pollack Jordan B.

No Harm Intended: Minsky & Papert: Perceptrons: An Introduction to Computational Geometry, Expanded Edition.
Cambridge, MA: MIT Press, 1988 292pp. (A book review)
FTP: archive.cis.ohio-state.edu | pub/neuroprose | pollack.perceptrons.ps.Z

[Pollack88b]

Pollack Jordan B.

Implications of Recursive Distributed Representations
Proceeding NIPS '88; FTP: cheops.cis.ohio-state.edu | pub/neuroprose | pollack.nips88.ps.Z

[Praßler90]

Praßler Erwin, Milios Evangelos - 01.11.90

Parallel path planning in unknown terrains
Proc. of the SPIE's Int. Symp. on Adv. in Intelligent Systems, Vol. 138 Mobile Robots V, Boston, MA, Nov. 1990, USA

[Prescott94a]

Prescott Tony J. - 04.10.94

Explorations in Reinforcement and Model-based Learning
PhD thesis, Artificial Intelligence and Vision Research Unit, Sheffield University, Sheffield S10 2TN, United Kingdom

[Prescott94b]

Prescott Tony J. - 01.08.94

Spatial Learning and Representation in Animals
The Proceedings of the Third International Conference on Simulation of Adaptive Behaviour, Brighton UK, August 1994, pp. 164-173

[Prescott94c]

Prescott Tony J., Mayhew John E. W.

Adaptive local navigation
Technical report, Artificial Intelligence and Vision Research Unit, Sheffield University, Sheffield S10 2TN, United Kingdom

[Prescott94d]

Prescott Tony J., Mayhew John E. W.

Obstacle Avoidance through Reinforcement Learning
Moody J. E., Hanson S. J., and Lippman R. P. (eds.), Advances in Neural Information Processing systems 4, San Mateo, CA; Morgan Kaufmann. pp. 523-530

[Prescott92]

Prescott Tony J., Mayhew John E. W. - 01.12.92

Building Long-range Cognitive Maps using Local Landmarks
Proceedings of the Second International Conference on Simulation of Adaptive Behaviour, Honolulu, December 1992, pp. 233-242

[Prüß95]

Prüß Andreas

Explorations-Strategien zur qualitativen, topologischen Umweltmodellierung
Diploma-thesis; Computer Science Department; University of Kaiserslautern; Germany; 1/95

[Prüß94]

Prüß Andreas - 01.08.94

ALICE
Technical report; Computer Science Department; University of Kaiserslautern; Germany; 8/94

[Renals89]

Renals S., Rohwer R. - 16.8.1989

Neural Networks for Speech Pattern Classification
First IEEE International Conference on Artificial Neural Networks, 16-18 October 1989, Conference Publication Number 313, ISBN 0-85296388-2

[Richter91]

Richter Michael M.

Konnektionismus (Eine Einführung)
Script for a lecture at the University Kaiserslautern (1991)

[Riedmiller94]

Riedmiller Martin - 01.05.94

Advanced Supervised Learning in Multi-layer Perceptrons - From Backpropagation to Adaptive Learning Algorithms
Special issue on Neural Network Standards of "Computer Standards & Interfaces", Volume 16, edited by J. Fulcher. Elsevier Science Publishers, Amsterdam, 1994 - FTP: i11s16.ira.uka.de | pub/neuro/papers | riedm-lcsi94.ps.Z

[Ring91]

Ring Mark - 1.6.1991

Incremental Development of Complex Behaviours through Automatic Construction of Sensory-motor Hierarchies
Proceedings of the Eighth International Workshop on Machine Learning; FTP: cheops.cis.ohio-state.edu | pub/neuroprose | ring.ml91.ps.Z

[Ripley92]

Ripley B.D. - 25.4.1992
Statistical Aspects of Neural Networks
 Invited lecture for SemStat (Séminaire Européen de Statistique), Sandbjerg, Denmark, 25-30. April 1992,
 To be published by Chapman & Hall Jan 1993

[RitterN94]

Ritter Nicola
Neural Networks Simulators
 Technical Report 94/1, n.ritter@cowan.edu.au

[RitterH90]

Ritter Helge, Martinetz Thomas, Schulten Klaus
Neuronale Netze - Eine Einführung in die Neuroinformatik selbstorganisierender Netzwerke
 Addison-Wesley, ISBN 3-89319-172-0

[Roberts89]

Roberts Kenneth S. - 01.06.89
Robot Active Touch Exploration: Constraints and Strategies
 Technical report: CUCS-480-89, Department of Computer Science, Columbia University, New York, NY 10027, USA

[Robinson92a]

Robinson Tony
The State Space and "Ideal Input" Representations of Recurrent Networks
 ESCA-92 FTP: svr-ftp.eng.cam.ac.uk | reports | robinson_esca92.ps.Z

[Robinson92b]

Robinson Tony
A Real-Time Recurrent Error Propagation Network Word Recognition System
 To appear in Proc. ICASSP-92; FTP: svr-ftp.eng.cam.ac.uk | reports | robinson_icassp92.ps.Z

[Robinson89a]

Robinson Tony - 1.2.1989
Dynamic Error Propagation Networks
 PhD-Thesis Cambridge University, Submitted: Feb. 1989, Examined June 1989; FTP: svr-ftp.eng.cam.ac.uk | reports | robinson_phd.ps.Z

[Robinson89b]

Robinson Anthony - 1.2.1989
Dynamic Error Propagation Networks
 PhD Thesis, Cambridge University, Engineering Department; FTP: svr-ftp.eng.cam.ac.uk | reports | robinson_phd.ps.Z

[Rock91]

Rock Irwin, Palmer Stephen - 1.2.1991
Das Vermächtnis der Gestaltpsychologie
 Spektrum der Wissenschaft 2/1991

[Rock84]

Rock Irwin
Wahrnehmung - Vom visuellen Reiz zum Sehen und Erkennen
 Spektrum der Wissenschaft, Heidelberg, ISBN 3-922508-71-5

[Roginski91]

Roginski Krist - 1.11.1991
A Neural Network Phonetic Classifier for Telephone Speech
 Master of Science-Thesis at the Oregon Graduate Institute - FTP: cse.ogi.edu | pub/techreports

[Roitblad92]

Roitblad H. L.
Comparative Approaches to Cognitive Science
 Technical report - University of Honolulu - 1992

[Rolls90]

Rolls Edmund T. - 1.6.1990
The Representation of Information in the Temporal Lobe Visual Cortical Areas of Macaques
 Advanced Neural Computers / R. Eckmiller (Editor), Elsevier Science Publishers B.V. (North-Holland), 1990

[Rosen89]

Rosen Bruce E., Goodwin James M., Vidal Jacques J.
Adaptive Range Coding
 FTP: cheops.cis.ohio-state.edu | pub/neuroprose | rosen.adaptrange.ps.Z

[Rosenblatt58]

Rosenblatt F.
The perceptron: a probabilistic model for information storage and organization in the brain
 Psychological Review 65: 386-408 Reprint: Neurocomputing - Foundations of Research, Anderson James A. & Rosenfeld Edward (eds.), MIT Press, Cambridge, Massachusetts, London, England

[Rozgonyi94]

Rozgonyi, T., Fomin T., Lörincz András - 27.06.94
Self-Organizing Scaling Filters for Image Segmentation
 The 1994 IEEE International Conference on Neural Networks, IEEE World Congress on Computational Intelligence, 27.-29 June, 1994, Walt Disney World Dolphin Hotel Orlando, Florida, pp. 4380-4383

[Rudnick92]

Rudnick W. Michael - 1.4.1992
Genetic Algorithms and Fitness Variance with an Application to the Automated Design of Artificial Neural Networks
 PhD-Thesis at the Oregon Graduate Institute - FTP: cse.ogi.edu | pub/techreports

[Rudnick90]

Rudnick W. Michael - 15.1.1990
A Bibliography of the Intersection of Genetic Search and Artificial Neural Networks
 Oregon Graduate Institute of Science & Technology - Technical report No. CS/E 90-001; FTP: cse.ogi.edu | pub/techreports

[Rumelhart85]

Rumelhart David E., McClelland James L. - 1.12.1985
Parallel Distributed Processing - Explorations in the Microstructure of Cognition
 Volume 1: Foundations Volume 2: Psychological and Biological Models A Bradford Book, The MIT Press, Cambridge Massachusetts London, England, ISBN 0-262-18123-1

[Rumelhart81]

Rumelhart David E., McClelland James L.
An interactive activation model of context effects in letter perception: part 1. An account of basic findings
 Psychological Review 88: 375-407 Reprint: Neurocomputing - Foundations of Research, Anderson James A. & Rosenfeld Edward (eds.), MIT Press, Cambridge, Massachusetts, London, England

[Rummery94]

Rummery G. A., Niranjana M. - 01.09.94
On-Line Q-Learning using Connectionist Systems
 CUED/F-INFENG/TR 166, September 1994; FTP: svr-ftp.eng.cam.ac.uk | reports | rummery_tr166.ps.Z

[Ryan87]

Ryan Thomas W., Winter C.L., Turner Charles J. - 1.12.1987
Dynamic control of an artificial neural system: the property inheritance network
 Applied Optics - Vol. 26 - No. 23 - 1. December 1987 - pp. 4961-4971

[Rybak91]

Rybak Ilya A., Shevtsova Natalia A., Sandler Vladislav M. - 1.6.1991
The model of a neural network visual preprocessor
 Neurocomputing 4 (1992) 93-102, Elsevier, 0925-2312/92/\$05.00

[Sa91]

Sa Virginia de, Ballard Dana - 1.11.1991
Top-down Teaching Enables Non-trivial Clustering via Competitive Learning
 Technical report 402; FTP: archive.cis.ohio-state.edu | pub/neuroprose | dena.top_down.ps.Z

[Sabiwalsky92]

Sabiwalsky Dirk - 01.08.92
Monitor
 Technical report; Computer Science Department; University of Kaiserslautern; Germany; 8/92

[Schäfer93]

Schäfer Matthias - 01.05.93
Dynamische Generierung eines dreidimensionalen Umweltmodells unter Verwendung eines Laser-Entfernungsmessers
 Diploma thesis - Universität Kaiserslautern, Fachbereich Informatik, AG von Puttkamer

[Scheler94]

Scheler Gabriele - 15.02.94
Pattern Classification with Adaptive Distance Measures
 Report FKI-188-94 from Institut für Informatik TU München D 80290 München - FTP: archive.cis.ohio-state.edu | pub/neuroprose | scheler.adaptive.ps.Z

[Schiffers94]

Schiffers J., Kober R. - 01.03.94
Ein auf Repräsentantenbildung basierendes Klassifikationsverfahren für akustische Sensordaten
 Internal report FAW-B-94002, FAW Ulm, Helmholtzstraße 16, 89081 Ulm

[Schiffmann92a]

Schiffmann W., Joost M., Werner R.
Synthesis and Performance Analysis of Multilayer Neural Network Architectures
 Technical report 16/1992, University of Koblenz, Institute of Physics; FTP: archive.cis.ohio.state.edu | pub/neuroprose | schiff.gann.ps

[Schiffmann92b]

Schiffmann W., Joost M., Werner R.
Optimization of the Backpropagation Algorithm for Training Multilayer Perceptrons
 Technical report 16/1992, University of Koblenz, Institute of Physics; FTP: archive.cis.ohio.state.edu | pub/neuroprose | schiff.bp_speedup.ps

[Schmidhuber91]

Schmidhuber Jürgen - 18.12.1991
Learning Factorial Codes by Predictability Minimization
 compact version of TR CU-CS-565-91; FTP: archive.cis.ohio-state.edu | pub/neuroprose | schmidhuber-factorial.ps.Z

[Schmitt93]

Schmitt Oliver - 01.10.93
Entwurf und Implementierung der Benutzeroberfläche eines Systems zur automatisierten Klassifikation von Tafelbesteck
 Technical report - Universität Kaiserslautern, Fachbereich Informatik, AG von Puttkamer

[Schnorrenberg92]

Schnorrenberg Frank - 2.5.1992
Fukushima's Neocognitron: An Implementation
 FTP: tamsun.tamu.edu | pub | neocognitron.Z.tar (report.ps)

[Schölkopf94]

Schölkopf Bernhard, Mallot Hanspeter A. - 01.11.94
View-based cognitive mapping and path planning
 Max-Planck-Institut für biologische Kybernetik, Arbeitsgruppe Bülthoff, Technical Report No. 7, November 1994 /pup/mpi-memos/TR-7.ps.Z via anonymous ftp from ftp.mpik-tueb.de

[Schwarze92]

Schwarze H., Hertz J. - 6.3.1992
Generalization in a Large Committee Machine
 Technical report - The Niels Bohr Institute and Nordita

[Scott91]

Scott Gary M., Shavlik Jude W., Ray W. Harmon - 3.10.1991
Refining PID Controllers using Neural Networks
 Submitted (Sep. 1991) to Neural Computation

[Seelen90]

Seelen W. von, Mallot H.A. - 1.6.1990
Exploration of a natural environment
 Advanced Neural Computers / R. Eckmiller (Editor), Elsevier Science Publishers B.V. (North-Holland), 1990

[Seelen87]

Seelen Werner von, Mallot Hanspeter A. - 28.8.1987
Parallelism and Redundancy in Neural Networks
 Neural Computers, Rolf Eckmiller, Christoph v.d. Malsburg (eds.), Springer-Verlag Berlin Heidelberg New York, ISBN 3-540-50892-9

[Sejnowski86]

Sejnowski Terrence J., Rosenberg Charles R.
NETalk: a parallel network that learns to read aloud
 Technical report JHU/EECS-86/01, 32 pp. Reprint: Neurocomputing - Foundations of Research, Anderson James A. & Rosenfeld Edward (eds.), MIT Press, Cambridge, Massachusetts, London, England

[Seres94]

Seres I., Marczell Zs., Fomin T., Kovács I., Lörincz András - 27.06.94
Modeling Spatial Filters of Primary Visual Cortex
 The 1994 IEEE International Conference on Neural Networks, IEEE World Congress on Computational Intelligence, 27.-29 June, 1994, Walt Disney World Dolphin Hotel Orlando, Florida, pp. 2282-2284

[Serra90]

Serra R., Zanarini G.
Complex Systems and Cognitive Processes
 ISBN 3-540-51393-0 Springer-Verlag Berlin Heidelberg New York

[Shadafan93]

Shadafan R.S., Niranjana M. - 1.5.1993
A Dynamic Neural Network Architecture by Sequential Partitioning of the Input Data
 Technical report 127, Cambridge University Engineering Department, CUED/F-INFENG/TR-127; FTP: svr-ft-p.eng.cam.ac.uk | reports | shadafan_tr127.ps.Z

[Shann93]

Shann J.J., Fu H.C.
Backpropagation Learning for Acquiring fine Knowledge of Fuzzy Neural Networks
 Proc. of the WCNN '93; FTP: ftp.csie.nctu.edu.tw | Upload

[Shavlik92]

Shavlik Jude W. (shavlik@cs.wisc.edu) - 01.11.92
A Framework for Combining Symbolic and Neural Learning
 Technical report 1123, Computer Science Department, University of Wisconsin - Madison, Nov. 1992; FTP: ftp.cs.wisc.edu | .../shavlik/...

[Shavlik91]

Shavlik Jude W., Mooney Raymond J., Towell Geoffrey G. - 1.3.1991
Symbolic and Neural Learning Algorithms: An Experimental Comparison
 Machine Learning, Vol 6, 111-143 (1991)

[Shavlik90]

Shavlik Jude W., Mooney Raymond J., Towell Geoffrey G. - 01.08.90
Symbolic and Neural Learning Algorithms: An Experimental Comparison (Revised)
 Technical report #955, University of Wisconsin; FTP: ftp.cs.wisc.edu

[Shavlik89]

Shavlik Jude W., Towell Geoffrey G. - 01.06.89
Combining Explanation-Based and Neural Learning: An Algorithm and Empirical Results
 Technical report #859, University of Wisconsin; FTP: ftp.cs.wisc.edu

[Sherrington89]

Sherrington David - 19.4.1989
Spin glasses and neural networks
 New Developments in neural Computing - J.G. Taylor, C.L.T. Mannion (eds.) Adam Hilger, Bristol New York, ISBN 0-85274-193-6

[Shih91]

Shih Frank Y., Moh Jenlong - 7.6.1991
Implementing Morphological Operations using Programmable Neural Networks
 Pattern Recognition, Vol. 25, No. 1, pp. 89-99, 1992, 0031-3203/92 \$3.00+.00, Pergamon Press plc, Pattern Recognition Society

[Shin92]

Shin Yong Ho, Lu Cheng-Chang
Neural Networks for Classified Vector Quantization of Images
 SPIE Vol.1657 Image Processing Algorithms and Techniques III (1992), 0-8194-0811-5/92/\$4.00, pp. 100-105

[Shultz91]

Shultz Thomas R.
Simulating Stages of Human Cognitive Development with Connectionist Models
 Birnbaum L., Collins G. (eds.) (1991), Machine Learning: Proceedings of the Eighth International Workshop, pp. 105-109, San Mateo, CA: Morgan Kaufmann; FTP: archive.cis.ohio-state.edu | pub/neuroprose | shultz.stages.ps.Z

[Siegelmann91]

Siegelmann Hava T., Sontag Eduardo D. - 1.11.1991
On the Computational Power of Neural Nets
 Report SYCON-91-11 (Rutgers Center for Systems and Control); FTP: archive.cis.ohio-state.edu | pub/neuroprose | siegelman.turing.ps.Z

[Sietsma90]

Sietsma Jocelyn, Dow Robert J.F. - 25.6.1990
Creating Artificial Neural Networks that Generalize
 Neural Networks, Vol. 4, pp. 67-79, 1991

[Sigmann93]

Sigmann Manfred - 01.06.93
Lernende und vergessende Neuronale Netze am Beispiel einer Oberflächenklassifikation
 Diploma thesis - Universität Kaiserslautern, Fachbereich Informatik, AG von Puttkamer

[Simon93]

Simon Natalio, Corporaal Henk, Kerckhoffs Eugene - 1.2.1993
Variations on the Cascade-Correlation Learning Architecture for Fast Convergence in Robot Control
 FTP: maya.idiap.ch | pub/papers/neural | simon.variations.ps.z

[Simpson89]

Simpson Patrick K. - 30. 4. 1989
Artificial Neural Systems - Foundations, Paradigms, Applications and Implementations
 Pergamon Press, Member of Maxwell Macmillan Pergamon Publishing Corporation, ISBN 0-08-037895-1

[Skewis91]

Skewis T., Evans J., Lumelsky V., Krishnamurthy B., Barrows B. - 1.4.1991
Motion Planning for a Hospital Transport Robot
 Proceedings of the 1991 IEEE, International Conference on Robotics and Automation, Sacramento, California, April 1991

[Sloman91]

Sloman Steven - 1.8.1991
Feature-Based Induction
 FTP: cheops.cis.ohio-state.edu | pub/neuroprose | sloman.fbi.ps.Z

[Smagt91]

Smagt P. Patrick van der, Kröse Ben J.A. - 24.6.1991
A real-time learning neural robot controller
 Proceedings of the 1991 International Conference on Artificial Neural Networks, ICANN-91, Espoo, Finland, June 24-28, 1991, pp.351-356; FTP: archive.cis.ohio-state.edu | pub/neuroprose | smagt.rtcontrol.ps.Z

[Smieja91a]

Smieja Frank - 16.04.91

Multiple Network Systems (Minos) Modules: Task Deviation and Module Discrimination

Proceedings of the 8th AISB conference on Artificial Intelligence, Leeds, 16-19. April 1991; FTP: gmdzi.gmd.de | gmd/misc | smieja.minos.ps.Z

[Smieja91b]

Smieja Frank - 01.10.91

Hyperplane "Spin" Dynamics, Network Plasticity and Back-Propagation Learning

FTP: gmdzi.gmd.de | gmd/misc | smieja.plastic.ps.Z

[Smidt94]

Smidt Rainer - 02.02.94

Klassifikation topologischer Sensorkarten mittels Neuronaler Netze

Diploma thesis - Universität Kaiserslautern, Fachbereich Informatik, AG von Puttkamer

[Sontag91]

Sontag Eduardo D.

Feedforward Nets for Interpolation and Classification

FTP: cheops.cis.ohio-state.edu | pub/neuroprose | sontag.nips90.ps.Z

[Sontag90]

Sontag Eduardo D. - 1.4.1990

On the Recognition Capabilities of Feedforward Nets

Report SYCON 90-03, April 1990; FTP: cheops.cis.ohio-state.edu | pub/neuroprose | sontag.capabilities.ps.Z

[Soucy91]

Soucy Marc, Laurendeau Denis - 11.11.1991

Building a surface model of an object using multiple range views

SPIE Vol. 1608 Intelligent Robots and Computer Vision X (1991), 0-8194-0745-3/92/\$4.00, David P. Casasent (ed.), 11.-13. November 1991, Boston, Massachusetts

[Stecher94]

Stecher Martin - 01.03.94

Strategien zur Effizienzsteigerung bei der Erstellung eines geometrischen Weltmodells für AMR

Diploma thesis; Computer Science Department; University of Kaiserslautern; Germany; 3/94

[Stecher92]

Stecher Martin - 01.10.92

Der Surface Extractor

Technical report - Universität Kaiserslautern, Fachbereich Informatik, AG von Puttkamer

[Stolcke90]

Stolcke Andreas - 1.4.1990

Learning Feature-based Semantics with Simple Recurrent Networks

FTP: cheops.cis.ohio-state.edu | pub/neuroprose | stolcke.tr90-15.ps.Z

[Stranz95]

Stranz Stefan

Mehrschichtige selbstorganisierende Karten zur qualitativen, topologischen Umweltmodellierung

Diploma thesis; Computer Science Department; University of Kaiserslautern; Germany; 1/95

[Sun93]

Sun G.Z., Giles C.L., Chen H.H., Lee Y.C.

The Neural Network Pushdown Automaton: Model, Stack and Learning Simulations

University of Maryland TR NOs: UMIACS-TR-93-77 & CS-TR-3118; FTP: external.nj.nec.com | pub/giles/papers

[Sutton92]

Sutton Richard S. - 1.5.1992

The Challenge of Reinforced Learning

Machine Learning, Vol 8, 225-227 (1992)

[Szepesvári94a]

Szepesvári Csaba, Lörincz András - 27.06.94

Self-Organized Learning of 3 Dimensions

The 1994 IEEE International Conference on Neural Networks, IEEE World Congress on Computational Intelligence, 27.-29 June, 1994, Walt Disney World Dolphin Hotel Orlando, Florida, pp. 671-674

[Szepesvári94b]

Szepesvári Csaba, Lörincz András

Behaviour of an Adaptive Self-organizing Autonomous Agent Working with Cues and Competing Concepts

Adaptive Behaviour, Vol. 2, 131-160, © The Massachusetts Institute of Technology

[Szepesvári93]

Szepesvári Csaba, Balázs László, Lörincz András - 1.8.1993

Topology learning solved by extended objects: a neural network model

Neural Computation, in press

[Takagi92a]

Takagi Hideyuki - 1.6.1992

Design of Fuzzy Systems by NNs and Realization of Adaptability

submitted to 3rd International J. Technology Workshop on Neural Networks and Fuzzy Logic (June, 1992)

[Takagi92b]

Takagi Hideyuki, Suzuki Noriyuki, Kouda Toshiyuki, Kojima Yoshihiro - 1.5.1992

Neural-networks designed on Approximate Reasoning Architecture and its Applications

IEEE trans. Neural Networks, Vol. 3, No. 5 (1992)

[Takagi92c]

Takagi Hideyuki

Introduction to Japanese Consumer Products that Apply Neural Networks and Fuzzy Logic

[Takagi91]

Takagi Hideyuki, Hayashi Isao - 1.5.1991

NN-Driven Fuzzy Reasoning

International Journal of Approximate Reasoning 1991; 5: 191-212 - Elsevier Science Publishing Co., Inc. 0888-613X/91/\$3.50

[Takagi90]

Takagi Hideyuki - 1.6.1990

Fusion Technology of Fuzzy Theory and Neural Networks - Survey and Future Directions

First International Conference on Fuzzy Logic & Neural Networks (IIZUKA '90), pp. 13-26 (July, 1990)

[Takagi85]

Takagi Tomohiro, Sugeno Michio - 01.02.85
Fuzzy Identification of Systems and Its Applications to Modeling and Control
 IEEE Transactions on Systems, Man and Cybernetics,
 vol. smc-15, no. 1, January / February 1985, pp. 116-132

[Takeuchi88]

Takeuchi Tomoyoshi, Nagai Yutaka, Enomoto Nobuyoshi
Fuzzy Control of a Mobile Robot for Obstacle Avoidance
 Information Sciences 45, 231-248 (1988), Elsevier Science Publishing Co., Inc., 1988, 0020-0255/88/\$03.50

[Tani94a]

Tani Jun - 10.06.94
Model-Based Learning for Mobile Robot Navigation from a Dynamical System's Perspective
 Submitted to IEEE SCM special issue on robot learning (SCSL-TR-94-019)

[Tani94b]

Tani Jun, Fukumura Naohiro
Embedding Task-Based Behavior into Internal Sensory-Based Attractor Dynamics in Navigation of a Mobile Robot
 Presented to IROS '94. Munich, Germany, September 12-16, 1994

[Tani93]

Tani Jun, Fukumura Naohiro - 01.10.93
Learning Goal-Directed Sensory-Based Navigation of a Mobile Robot
 Neural Networks, Vol. 7, No. 3, pp. 553-563, 1994

[Tarassenko89]

Tarassenko L., Seifert B.G., Tombs J.N., Murray A.F. - 16.8.1989
Neural Network Architectures for Associative Memory
 First IEEE International Conference on Artificial Neural Networks, 16-18 October 1989, Conference Publication Number 313, ISBN 0-85296388-2

[Taylor92]

Taylor J.G. (ed.), Mannion C.L.T. (ed.)
Theory and Applications of Neural Networks
 Proceedings of the First British Neural Network Society Meeting, London

[Taylor89]

Taylor J.G. (ed.), Mannion C.L.T. (ed.) - 19.4.1989
New Developments in Neural Computing
 Proceedings of a meeting on neural computing sponsored by the Institute of Physics and the London Mathematical Society held in London, 19-21 April 1989 Adam Hilger, Bristol New York, ISBN 0-85274-193-6

[Tebuckhorst92]

Tebuckhorst Richard - 02.07.92
Der CommunicationController unter Albatross
 Technical report - Universität Kaiserslautern, Fachbereich Informatik, AG von Puttkamer

[Thompson80]

Thompson Richard F., Hicks Leslie H., Shvyrkov V.B. (eds.)
Neural Mechanisms of Goal-Directed Behaviour and Learning
 Academic Press, New York 1980

[Thrun94a]

Thrun Sebastian B.
A Lifelong Perspective for Mobile Robot Control
 Universität Bonn, Institut für Informatik III, Römerstraße 164, 53117 Bonn, Germany

[Thrun94b]

Thrun Sebastian B., Mitchell Tom M. - 23.10.94
Learning one more Thing
 FTP: reports.adm.cs.cmu.edu | 1994 | CMU-CS-94-184.ps

[Thrun94c]

Thrun Sebastian B. - 01.10.94
An Approach to Learning Robot Navigation
 to appear in: Proceedings of the IEEE Conference on Intelligent Robots and Systems, 12-16, 1994, Munich, Germany - Invited paper - FTP: archive.cis.ohio-state.edu | pub/neuroprose

[Thrun93a]

Thrun Sebastian B., Mitchell Tom M. - 01.07.93
Lifelong robot learning
 Technical report IAI-TR-93-7 July 1993 Universität Bonn, Institut für Informatik III, Römerstraße 164, 53117 Bonn, Germany - FTP: archive.cis.ohio-state.edu | pub/neuroprose

[Thrun93b]

Thrun Sebastian B. - 28.04.93
Exploration and model Building in Mobile Robot Domains
 To appear in: Proceedings of the IEEE International Conference on Neural Networks, San Francisco, CA, March 28-April 1, 1993; FTP: archive.cis.ohio-state.edu | pub/neuroprose | thrun.robots-icnn93.ps

[Thrun92a]

Thrun Sebastian B. - 15.01.92
Efficient Exploration In Reinforcement Learning
 Technical report CMU-CS-92-102, School of Computer Science, Carnegie-Mellon University, Pittsburgh, Pennsylvania 15213-3890; FTP: archive.cis.ohio-state.edu | pub/neuroprose | thrun.explor-reinforcement.ps

[Thrun92b]

Thrun Sebastian B. - 15.01.92
The Role of Exploration in Learning Control
 To appear in Handbook of Intelligent Control: Neural, Fuzzy and Adaptive Approaches, David A. White and Donald A. Sofge (eds.), van Nostrand Reinhold, Florence, Kentucky 41022; FTP: archive.cis.ohio-state.edu | pub/neuroprose | thrun.exploration-overview.ps

[Thrun91a]

Thrun Sebastian B. et al - 01.12.91
The MONK's Problems: A Performance Comparison of Different Learning Algorithms
 Carnegie-Mellon University, CMU-CS-91-197, December 1991; FTP: archive.cis.ohio-state.edu | pub/neuroprose | thrun.comparison.ps

[Thrun91b]

Thrun Sebastian, Smieja Frank
A General Feed-Forward Algorithm for Gradient Descent in Connectionist Networks
 FTP: gmdzi.gmd.de | pub/gmd | thrun.grad-desc.ps.Z

[Thrun90]

Thrun Sebastian, Möller Knut, Linden Alexander
Planning with an Adaptive World Model
 To appear in: Advances in Neural Information
 Processing Systems 3, Touretzky, Lippmann (eds.),
 San Mateo, CA: Morgan Kaufmann; FTP: gmdzi.gm-
 d.de | pub/gmd | thrun.nips90.ps.Z

[Tóth94]

Tóth Gábor J., Kovács Szabolcs, Lörincz András -
 18.08.94
Genetic Algorithm with Adaptive Alphabet
 Department of Photophysics, Institute of Isotopes,
 The Hungarian Academie of Sciences, Budapest,
 P.O.Box 77, Hungary H-1525

[Touretzky94]

Touretzky, David S, Wan Hank S., Redish A. David
Neural Representation of Space in Rats and Robots
 J. M. Zurada and R. J. Marks, eds., Computational In-
 telligence: Imitating Life. Proceedings of the symposi-
 um held at the 1994 IEEE World Congress on
 Computational Intelligence. IEEE Press

[Touretzky89]

Touretzky David, Hinton Geoffrey, Sejnowski Ter-
 rence
Connectionist Models (Summer School)
 Proceedings of the 1988 Connectionist Models Sum-
 mer School, Morgan Kaufmann Publishers, ISBN 0-
 55860-015-9

[Towell93]

Towell Geoffrey G., Shavlik Jude W. - 1.5.1993
Knowledge-Based Artificial Neural Networks
 Artificial Intelligence 5/93; FTP: ftp.cs.wisc.edu | .../
 shavlik/...

[Towell92]

Towell Geoffrey G., Shavlik Jude W. - 01.11.92
*Extracting Refined Rules from Knowledge-Based Neural
 Networks*
 Machine Learning 11/92; FTP: ftp.cs.wisc.edu | .../
 shavlik/...

[Trundt94]

Trundt Jörg - 01.06.94
*Generalisierung und Vervollständigung von Flächen mit
 Hilfe von Backpropagation-trainierten Neuronalen Netzen*
 Diploma thesis; Computer Science Department; Uni-
 versity of Kaiserslautern; Germany; 6/94

[Verdenik91]

Verdenik Ivan - 1.6.1991
Machine learning in uncertainty
 Proceedings of the 14th IASTED International Sympo-
 sium, Manufacturing and Robotics, Lugano, Switzer-
 land, June 25.-27. 1991, ISBN 0-88986-157-9

[Vogelgesang92]

Vogelgesang Volker G., Jakob Wilfried, Stratmanns Er-
 win - 1.10.1992
*Teilsysteme für autonome Operationen in halbstrukturiert-
 er Umgebung*
 Internal report, Kernforschungszentrum Karlsruhe

[WagnerK93]

Wagner Kelvin, Slagle Timothy M. - 10.3.1993
*Optical competitive learning with VLSI/liquid-crystal win-
 ner-take-all modulators*
 Applied optics, vol. 32, no. 8, 10 March 1993, pp. 1408-
 1435

[WagnerM93]

Wagner Martin - 01.11.93
*Klassifikation von Clustern durch neuronale Netzwerke
 mit problemadaptiver Zellstruktur*
 Technical report - Universität Kaiserslautern, Fachbe-
 reich Informatik, AG von Puttkamer

[Wassermann89]

Wassermann Philip D.
Neural Computing - Theory and Practice
 Van Nostrand Reinhold, New York, ISBN 0-442-20743-
 3

[Webb93]

Webb Brandyn Jerad
Fusion-Reflection (Self-Supervised Learning)
 FTP: archive.cis.ohio-state.edu | pub/neuroprose |
 webb.furf.ps

[Weiß94]

Weiß Gerhard, Wetzler Christopher, von Puttkamer
 Ewald
*Keeping Track of Position and Orientation of Moving In-
 door Systems by Correlation of Range-Finder Scans*
 IEEE International Conference on Intelligent Robots
 and Systems '94 (IROS '94), September 12-16, 1994,
 Munich, Germany

[WeissY93]

Weiss Yair, Edelman Shimon
*Representation with receptive fields: gearing up for recogni-
 tion*
 Weizmann Institute CS-TR 93-09, 1993; FTP: eris.wis-
 dom.weizmann.ac.il | /pub

[Wetzler91]

Wetzler Christopher - 01.11.91
*Entwicklung und Implementierung des multitaskingfähigen
 Echtzeit-Netzwerk-Betriebssystemkernes Albatross*
 Diploma thesis - Universität Kaiserslautern, Fachbere-
 ich Informatik, AG von Puttkamer

[White91]

White Ray H. - 21.1.1991
Competitive Hebbian Learning
 FTP: cheops.cis.ohio-state.edu | pub/neuroprose |
 white.comp-hebb.ps.Z Proc. of the IJCNN-91 Seattle

[Williams92]

Williams Ronald J. - 1.5.1992
*Simple Statistical Gradient-Following Algorithms for Con-
 nectionist Reinforcement Learning*
 Machine Learning, Vol 8, 229-256 (1992)

[Willshaw76]

Willshaw D.J., Malsburg Christoph v.d. - 12.9.1976
*How patterned neural connections can be set up by self-or-
 ganization*
 Proceedings of the Royal Society London, Biological
 Sciences Volume 194, pp. 431-445

[WilsonF90]

Wilson F. W.
The Animat Path to AI
 Proceedings of the first international conf. on the sim-
 ulation of adaptive behaviour "From animals to ani-
 mats", Paris, Cambridge MA, MIT Press, 1990

[WilsonM]

Wilson Matthew A., Bhallo Upinder S., Uhley John D.,
 Bower James M.
GENESIS: A System for simulating neural networks
 FTP: imag.imag.fr | archive/neural/genesis/genesis
 | nips.ps.Z

[Wong90]

Wong K.Y.M., Sherrington David - 1.6.1990
The maximum storage capacity in Boolean associative memories
 Advanced Neural Computers / R. Eckmiller (Editor),
 Elsevier Science Publishers B.V. (North-Holland),
 1990

[Wörgötter90]

Wörgötter Florentin, Niebur Ernst, Koch Christof - 1.6.1990
Modeling Visual Cortex: Hidden Anisothopis in an Isometric Inhibitory Connection Scheme
 Advanced Neural Computers / R. Eckmiller (Editor),
 Elsevier Science Publishers B.V. (North-Holland),
 1990

[Würtz92]

Würtz Rolf P. - 1.4.1992
Gesichtserkennung mit dynamischen neuronalen Netzen
 Spektrum der Wissenschaft, April 1992, pp. 18-22

[Xie91]

Xie Yun, Jabri Marvan A.
Training Algorithms for Limited Precision Feedforward Neural Networks
 SEDAL Technical report N° 1991-8-3; FTP: archive.cis.ohio-state.edu | pub/neuroprose | yun.cs.ps.Z

[Xie90]

Xie Yun, Jabri Marwan A.
Analysis of the Effects of Quantization in Multi-Layer Neural Networks Using Statistical Model
 FTP: archive.cis.ohio-state.edu | pub/neuroprose | yun.quant.ps.Z

[Yamauchi94]

Yamauchi Brian, Beer Randall
Integrating Reactive Behaviour, Sequential Behaviour, and Learning Using Dynamical Neural Networks
 submitted to the Third International Conference on Simulation of Adaptive Behaviour - FTP: yugoth.ces.cwru.edu | /pub/agents/yamauchi | integ-part*

[Yamauchi93]

Yamauchi Brian, Beer Randall
Sequential Behaviour and Learning in Evolved Dynamical Neural Networks
 to appear in Adaptive Behaviour - Case Western Reserve University Technical Report CES-93-25 - FTP: yugoth.ces.cwru.edu | /pub/agents/yamauchi | seqlearn*

[Yang91]

Yang Jihoon, Honovar Vasant - 1.7.1991
Experiments with the Cascade-Correlation Algorithm
 Technical report #91-16; FTP: cheops.cis.ohio-state.edu | pub/neuroprose | yang.cascor.ps.Z

[Yeung88]

Yeung Dit-Yan - 17.6.1988
Supervised Learning of Action Probabilities in Associative Reinforcement Learning
 Proceedings of the 1988 Connectionist Models - eds. S. Touretzky, G. Hinton, T. Sejnowski - Summer School, June 17-26, 1988, Carnegie Mellon University

[Yu90a]

Yu Yeong-Ho, Simmons Robert F. - 1.3.1990
Extra Output Biased Learning
 AI 90-128, to appear in the Proceedings of the International Joint Conference on Neural Networks 1990; FTP: archive.cis.ohio-state.edu | pub/neuroprose | yu.output-biased.ps.Z

[Yu90b]

Yu Yeong-Ho, Simmons Robert F. - 1.3.1990
Descending Epsilon in Back-Propagation: A Technique for Better Generalization
 AI 90-130, to appear in the Proceedings of the International Joint Conference on Neural Networks 1990; FTP: archive.cis.ohio-state.edu | pub/neuroprose | yu.output-biased.ps.Z

[Zadeh77]

Zadeh L.A. - 1.6.1977
Fuzzy Sets as a Basis for a Theory of Possibility
 Fuzzy Sets and Systems 1 (1978) pp. 3-28, North Holland Publishing Company

[Zadeh75]

Zadeh L.A.
The concept of a linguistic variable and its application to approximate reasoning I, II, III
 Informat. Science, vol. 8, pp.199-251, pp. 301-357; vol. 9, pp. 43-80, 1975

[Zadeh73]

Zadeh L.A.
Outline of a new approach to the analysis of complex systems and decision processes
 IEEE Transactions on Systems, Man and Cybernetics, vol. smc-3, pp. 28-44, 1973

[Zadeh72]

Zadeh L.A.
A rationale for fuzzy control
 Trans. ASME, J. Dynam. Syst. Measur. Control, vol. 94, pp. 3-4, 1972

[Zadeh71a]

Zadeh L.A.
Toward a theory of fuzzy systems
 Aspects of Network and System Theory, Kalman R.E. and DeClaris N. (eds.), New York: Holt, Rinehart and Wilson, 1971, pp.469-490

[Zadeh71b]

Zadeh L.A.
Similarity relations and fuzzy orderings
 Informat. Control, vol. 3, pp.177-200, 1971

[Zadeh68]

Zadeh L.A.
Fuzzy Algorithm
 Informat. Control, vol. 12, pp.94-102, 1968

[Zadeh65]

Zadeh L.A.
Fuzzy Sets
 Informat. Control, vol. 8, pp.338-353, 1965

[Zeidenberg91]

Zeidenberg Matthew - 1.10.1991
Implementing Spatial Relations in Neural Nets: Figure/Ground and Containment
 Technical report 402; FTP: archive.cis.ohio-state.edu | pub/neuroprose | zeidenberg.containment.ps.Z

[Zeidenberg89]

Zeidenberg Matthew
Neural Network Models in Artificial Intelligence
 Ellis Horwood, ISBN0-13-612185-3

[Zemel89]

Zemel Richard S., Mozer Mihael C., Hinton Geoffrey E.

TRAFFIC: A Model of Object Recognition based on Transformations of Feature Instances

Proceedings of the 1988 Connectionist Models Summer School, pp. 452-461, Morgan Kaufmann Publishers, ISBN 0-55860-015-9

[Zemel]

Zemel Richard S., Hinton Geoffrey E.

Discovering Viewpoint-Invariant Relationships that Characterize Objects

FTP: cheops.cis.ohio-state.edu | pub/neuroprose | zemel.unsup-recog.ps.Z

[Zhou91]

Zhou Lei - 1.2.1991

Speaker-Independent Neural Network Pitch Tracker with Telephone Bandwidth Speech for Computer Speech Recognition

Master of Science-Thesis at the Oregon Graduate Institute - FTP: cse.ogi.edu | pub/techreports

[Zimmer95a]

Zimmer Uwe R.

Self-Localization in Dynamic Environments

submitted for publication

[Zimmer95b]

Zimmer Uwe R.

Robust World-Modelling and Navigation in a Real World

submitted for publication

[Zimmer94a]

Zimmer Uwe R. - 01.04.94

Connectionist Decision Systems for a Visual Search Problem

Proc. of the IIZUKA '94, Fukuoka, Japan, August 1-7, 1994, Invited paper

[Zimmer94b]

Zimmer Uwe R., Fischer Cornelia, Puttkamer Ewald von - 01.04.94

Navigation on Topologic Feature-Maps

Proc. of the IIZUKA '94, Fukuoka, Japan, August 1-7, 1994

[Zimmer94c]

Zimmer Uwe R., Puttkamer Ewald von - 01.03.94

Realtime-learning on an Autonomous Mobile Robot with Neural Networks

Proc. of the Euromicro '94 Realtime Workshop, Vaesterås (Västerås), Sweden, June 15-17, 1994

[Zimmer94d]

Zimmer Uwe R., Puttkamer Ewald von - 01.03.94

Comparing Environment-Learning Strategies on an Autonomous Mobile Robot

Proc. of the IWK '94, Ilmenau, Germany, 27. - 30. September 1994

[Zimmer93a]

Bruske Jörg, Puttkamer Ewald von, Zimmer Uwe R. - 01.12.93

SPIN-NFDS Learning and Preset Knowledge for Surface Fusion - A Neural Fuzzy Decision System

Proc. of the ANZIS '93, Perth, Western Australia, December 1-3, 1993

[Zimmer93b]

Keuchel Herman, Puttkamer Ewald von, Zimmer Uwe R. - 01.08.93

SPIN - Learning and Forgetting Surface Classifications with Dynamic Neural Networks

Proc. of the ICANN '93, Amsterdam, The Netherlands, August 1993

[Zimmer92]

Puttkamer Ewald von, Wetzler Christopher, Zimmer Uwe R. - 01.06.92

ALBATROSS - The Communication Scheme as a Key to Fulfil Hard Real-Time Constraints

Proc. of the Euromicro '92 Realtime Workshop, Athens, Greece, June 3-5, 1992

[Zimmer91]

Puttkamer Ewald von, Zimmer Uwe R. - 01.03.91

ALBATROSS - An Operating-System under hard Real-time-Constraints

Real-Time Magazine, Diepenbeemd 5, 1650 Beersel, Belgium, Vol 5, Nr. 3, 91/3, ISSN 1018-0303

[Zuse]

Zuse Konrad

Faust, Mephistopheles and Computer

Neural Computers, Rolf Eckmiller, Christoph v.d. Malsburg (eds.), Springer-Verlag Berlin Heidelberg New York, ISBN 3-540-50892-9

Index

Numerics

3-d reality 60

A

A*-algorithm 32, 45
Abstraction pipeline 60
Actuators 28
Adaptability 58
Adaptation phase 28
Adaptive Resonance Theory 64, 97
Adaptive surface completion 69
ALBATROSS 30, 107
Algebraic product 75
Algebraic sum 76
ALICE 27
Alternating learning sets 103
Animats 17
Application phase 28
Approximate reasoning 77
Area-of-interest generator 66
Arithmetic rule 77
ART 2 63, 97
ART 2-A 97
ARTMAP 97

B

Backpropagation 88
Batch backpropagation 88

Behaviour-based 31
Behaviour-based robots 17
Biomimetic cognitive science 17
Blackboard communication 114
Bounded product 75
Bounded sum 76
Broadcast 114

C

Cautious removal 93
Centre of area 81, 86
Centre of gravity 86
Classification 60
Classification accuracy 94
Classification error 35
Client-server model 114
CoA 81
Collision-free 108
Communication controller 111
Communication system 111
Comparative cognitive science .. 17
Competitive clustering 97
Completion 60
Computational effort 38
Computational neuroethology ... 17
Connectionist methods 18
Consistency 39
Consistency checker 60
Convergence 99
Convex cluster model 60
Correlation 36, 41

Cyclic transfer 112

D

Dead-reckoning 27
Defuzzification 81, 86
Distribution preserving 92
Disturbance module 66
Drastic product 75
Drastic sum 76
Drift error 28
Dual-ported RAM 108
Dynamic environment 41
Dynamic self-organizing map ... 66

E

Edge scanner 66
Edge-surface detector 59
Efficient visual search 65
Epoch backpropagation 88
Error feedback 58
Error tolerance 28
Evolutionary robotics 17
Execution control 114
Expansion function 45
Exploration 32, 51
Extended propositional calculus 77

F

FDS 78
 Flooding 46
 Flow control 114
 Focus of attention 60
 Focus of attention manager 66
 Freeform surface 97
 Frequency coding 64
 Fuzzy conjunction 76, 77
 Fuzzy Decision System 78
 Fuzzy disjunction 76, 77
 Fuzzy implication 77
 Fuzzy Logic 74, 75
 Fuzzy number 76
 Fuzzy set 76
 Fuzzy singleton 76
 Fuzzyfication 79, 85

G

GAL 63
 Gaussian function 85
 Generalization 39, 60, 99
 Generalization trees 64
 Generalized modus ponens 77
 Generalized modus tollens 77
 Global drift 37
 Global exploration 51
 Global navigator 31
 Global time 113
 Goal-driven behaviour-based robots 17
 GPS 27
 Grow-and-learn 63
 Growing 36
 Growing cell structures 34

H

Hard realtime 108
 Hill climbing 46
 Hyper-sphere 94

I

Increasing learning sets 103
 Incremental learning 99
 Inference engine 79, 86
 Input term 87
 Instincts 52
 Intersection 75

K

Kinematics 28

L

Laser range finder 64
 Learning performance 99
 Learning phase 28
 Light sensor 29
 Limited adaptation 93
 Limited growing 93
 Linguistic input 87
 Linguistic output 88
 Linguistic rules 79
 Linguistic values 77
 Linguistic variable 77
 Local correlation 39
 Local exploration 51
 Local navigator 31
 Locking-free 108

M

Material implication 77
 Maxmin rule 77
 Mean of maximum 81
 Membership function 76, 78, 85
 Memory domain 108
 Metric world modelling 33
 Minimalist mobile robots 17
 Mini-operation rule 77
 MISO 79
 MLBP 74
 MOBOT 38
 MoM 81
 Momentum 89
 Multi-layer-backpropagation 74
 Multi-layer-backpropagation network 18
 Mutual exclusion 114

N

NARA 81
 Navigation 31
 Navigation layers 45
 Network-growing 54
 Network-stabilizing 53
 Neural Fuzzy Decision System 85
 NFDS 74
 NNFCDS 82
 Non-blocking access 108

O

Off-line backpropagation 88
 On-line backpropagation 88
 Output term 88

P

Parallel search 46

Parallelism 59
 Passive synchronization 108
 Path control 31
 Path execution 46
 Path graph 45
 Path planning 45
 Photo resistor 29
 Pilot 31
 Planner 31
 Platform 28
 Point-of-interest feedback 58
 Point-of-interest flow 60
 Point-of-interest map 60
 Point-of-interest system 60
 Position 27
 Position synchronized transfer 113
 Position-stabilizing 53
 Pre-scheduling 112
 Product-operation rule 77
 Proposition 77
 Propositional calculus 77
 Pruning 82, 84

Q

QT-models 34
 Qualitative modelling 33
 Qualitative topological model 34

R

Radial basis function 85
 Radial basis function network 18
 rbf 85
 Really useful robots 17
 Realtime 29, 107
 Realtime communication 108
 Reflective behaviour 31
 Reflexes 31
 Reinforcement learning 32, 68
 Reliability 38
 Remote procedure call 114
 Restlessness generator 66, 68
 Retracing 30
 Rule base 79, 85
 Rule extraction 84

S

Self organizing maps 34
 Self-localization 28
 Self-organizing map 18
 Semaphore 114
 Semi-hard realtime 108
 Sensor requirements 39
 Sensor weights 40
 Sensors 28
 Sentence connectives 79
 Shrinking 36
 Sigmoid function 85
 Simulated animals 17

Simulation	30
Situation	34
Soft realtime	108
SPIN	57
SPIN-NFDS	85
Spontaneous insertion	36
Stability	38
Static environment	41
Statistical insertion	36
Steepest gradient	46
Stochastic backpropagation	88
Stochastic movements	53
Subsumption architecture	54
Sup-bounded-product operator	78
Sup-drastic-product operator	78
Sup-min operator	78
Sup-product operator	78
Sup-star composition	76
Surface classification	63, 91
Surface fragment	73

Surface fusion	63, 73
Surface model	60
Surface-cluster	97
Surface-cluster classification	63, 97

T

Task-based behaviour	17
Timeliness	57
Time-rigid transfer	113
Topological neighbour	35
Topological world modelling	34
Topology	39
Topology preserving	92
Transfer synchronization	112
Transient transfer	112
Triangular co-norms	76
Triangular norms	75

U

Union	76
Unsupervised clustering	91
Unsupervised learning	58

V

Visual search	60, 63, 65
VME-bus	107
Voronoi space	67

W

Wall-following	53
Whiskers	28
World modelling	31

