

CURRICULUM VITAE

DREYFUS Gérard

Born 10. May 1948.

French



Professional address

E.S.P.C.I – ParisTech, SIGnal processing and Machine learning laboratory (SIGMA lab)

10, rue Vauquelin

75005 PARIS

FRANCE

Phone : +33 1 40 79 45 41 – +33 6 14 09 57 74

Fax : +33 1 47 07 13 93

Degrees

PhD in Physics, Université Pierre et Marie Curie, Paris (1976).

Professional history

Associate researcher, Centre National de la Recherche Scientifique: 1971-1974.

Assistant professor, Computer Science: 1974 - 1982.

Professor, head of the Laboratoire d'Électronique de l'ESPCI – ParisTech: 1982 – present.

Adjunct Director of UMR 7084 (CNRS research group).

Member of the steering committee of the CEMIP (Center for Microelectronics of Paris).

Teaching

Electronics, ESPCI-ParisTech.

Automatic Control, ESPCI-ParisTech.

Machine Learning, ESPCI-ParisTech.

Machine learning, École des Mines de Nantes.

Machine Learning, Master degree of signal and data processing, Université de Versailles.

Awards

Coupe de l'Innovation du Président de la République (1978).

Companies

Co-founder of “L'Electret Français” (1973).

Co-founder and scientific advisor of NETRAL S.A. (1994).

Professional society memberships, committee memberships

IEEE Fellow.

Member of the European Neural Network Society.

Member of the Société des Neurosciences.

Member of the Association Française pour l'Intelligence Artificielle.

Founder of the French Chapter of the IEEE Computational Intelligence Society (2003).
President of the French Chapter of the IEEE Computational Intelligence Society (2003 – 2007).

Advisory Member of the Machine Learning for Signal Processing Technical Committee of the IEEE Signal Processing Society.

Member of the Neural Networks Technical Committee of the IEEE Computational Intelligence Society.

Member of the Multimedia Tutorials Committee of the IEEE Computational Intelligence Society.

Member of the Machine Learning for Signal Processing Technical Committee of the IEEE Signal Processing Society (2004 – 2005).

Scientific communication (journals, conferences)

Journals:

Action Editor of Neural Computation (MIT Press).

Member of the Editorial Board of Theoretical Computer Science – Theory of Natural Computing (Elsevier).

Member of the Editorial Board of Applied Intelligence (Springer).

Member of the Editorial Board of Neurocomputing (Elsevier): 1990 – 2008.

Member of the Editorial Board of Connection Science (Taylor & Francis): 1990 – 2000.

Associate Editor, IEEE Transactions on Neural Networks (1991 – 1992).

Scientific conferences :

Chairman of the first European Conference on Neural Networks *nEuro*'88.

Scientific Program Chair of ICANN'95.

Member of the organizing committee of the “Learning” Workshop, formerly “Neural Networks for Computing” Workshop (1988 – 2008).

Member of the Program Committee of the 1997 IEEE International Symposium on Computational Intelligence In Robotics And Automation.

Member of the Program Committee of ICANN'2002.

Member of the Program Committee of the 2003 IEEE NNWP workshop.

Member of the Program Committee of the 2005 IEEE MLSP workshop.

Member of the Program Committee of the 2006 IEEE MLSP workshop.

Member of the Scientific Committee of IWINAC'2007.

Member of the Program Committee of the 2008 IEEE MLSP (Machine Learning for Signal Processing) workshop.

Member of the Program Committee of the International Conference on Industrial and Engineering Applications of Artificial Intelligence and Expert Systems (2006 – 2011).

Member of the Program Committee of IJCNN (International Joint Conference on Neural Networks) (2004 – 2009).

Member of the Program Committee of the Unconventional Computation Conference (2006 – 2008).

Member of the Program Committee of ICANN'2009.

Member of the Program Committee of ICANN'2010 (International Conference on Artificial Neural Networks).

PhD theses advised

- Étude de dispositifs piézoélectriques à électrets, N. MOANDA (1976).
- Étude de la pyroélectricité induite par injection de charges dans les polymères, J.J. CROSNIER (1977).
- Étude des phénomènes de polarisation électrique dans le polyéthylène, G. JOURNEAU (1977).
- Étude par résonance paramagnétique électronique de polymères charges, M. LEGRAND (1978).
- Mise au point d'une méthode de détermination des potentiels dans un isolant, D. DARMON (1980).
- Étude des processus de dépolarisation d'un électret de polymère par action d'un solvant, M. FALCK (1980).
- Conception et réalisation d'un dispositif de test et d'émulation de systèmes numériques à microprocesseurs, P. ROUSSEL-RAGOT (1985).
- Étude de réseaux de neurones formels : conception, propriétés et applications, L. PERSONNAZ (1986)
- La méthode du recuit simulé : application à la conception de circuits électroniques, P. SIARRY (1986).
- Étude et réalisation d'un prototype de capteur d'accélération intégré sur silicium, X. PIROT (1987),
- Étude et réalisation d'un dispositif de reconnaissance de chiffres manuscrits, J.C. RONNET (1987).
- Réseaux de neurones pour la reconnaissance de formes : architectures et apprentissage, I. GUYON (1988).
- Recuit simulé et implantation de circuits électroniques : application à la microélectronique hybride, B. OULDALI (1989).
- La méthode du recuit simulé : accélération et parallélisation, P. ROUSSEL-RAGOT (1990).
- Réseaux de neurones formels : étude d'un simulateur à architecture parallèle et conception d'un circuit integer, A. JOHANNET (1990).
- Une méthode nouvelle de création automatique de réseaux de neurones pour la classification de données : application à la reconnaissance de chiffres manuscrits, S. KNERR (1991).
- Architectures et apprentissage de réseaux de neurones pour la classification et pour la prédiction de séries chronologiques I. POUJAUD (1991).
- Réseaux de neurones pour le filtrage adaptatif, l'identification et la commande de processus, O. NERRAND (1992).
- Étude de la parallélisation de l'apprentissage des réseaux de neurones, A. PETROWSKI (1992).
- Parallélisation de l'algorithme de recuit simulé : implantation et analyse de plusieurs algorithmes, N. KOUCHEM (1992).
- Estimation d'une régression linéaire par réseaux de neurones ; application à un problème de robotique mobile, G. EUVRARD (1993).
- Formal Neural Networks and Olfaction : Modeling Pheromone Discrimination in Insects, C. LINSTER (1993).
- Conception et réalisation d'un réseau de neurones intégré en technologie CMOS pour la reconnaissance automatique de chiffres manuscrits, P.Y. ALLA (1994).
- Modélisation et commande de processus par réseaux de neurones : application au pilotage d'un véhicule autonome, I. RIVALS (1995).
- Méthodes statistiques de sélection d'architectures neuronales, D. URBANI (1995).
- Classification probabiliste par réseaux de neurones ; application à la reconnaissance de l'écriture manuscrite, D. PRICE (1996).
- Méthodes statistiques de sélection de modèles neuronaux ; applications financières et bancaires, H. STOPPIGLIA (1997).
- Réseaux d'ondelettes et réseaux de neurones pour la modélisation statique et dynamique de processus, Y. OUSSAR (1998).
- Sélection de modèles non-linéaires par leave-one-out ; étude théorique et application des réseaux de neurones au procédé de soudage par points, G. MONARI (1999).
- Réseaux de neurones pour le traitement automatique du langage : conception et réalisation de filtres d'information, M. STRICKER (2000).

- Nouvelles méthodes d'apprentissage pour la détection précoce d'anomalies cardiaques en électrocardiographie, R. DUBOIS (2004).
- Modélisation en bosses pour l'analyse des motifs oscillatoires reproductibles dans l'activité de populations neuronales : applications à l'apprentissage olfactif chez l'animal et à la détection précoce de la maladie d'Alzheimer, F. VIALATTE (2005).
- Modélisation dynamique par réseaux de neurones et machines à vecteurs supports : contribution à la maîtrise des émissions polluantes de véhicules automobiles, M. LUCÉA (2006).
- Conception et mise en œuvre de nouvelles méthodes d'élaboration de plans d'expériences pour l'apprentissage de modèles non linéaires, S. GAZUT (2007).
- Une nouvelle méthode d'apprentissage de données structurées : applications à l'aide à la découverte de médicaments, A. GOULON-SIGWALT (2008).
- Application de l'apprentissage artificiel à la prévision des crues éclair, M. TOUKOUROU (2009).

PUBLICATIONS

BOOKS

Apprentissage statistique

G. Dreyfus, J.M. Martinez, M. Samuelides, M. B. Gordon, F. Badran, S. Thiria, L. Hérault (Eyrolles, 2008).

Neural Networks

G. Dreyfus (Springer, 2005)

Les réseaux de neurones: méthodologie et applications.

G. Dreyfus, J.M. Martinez, M. Samuelides, M. B. Gordon, F. Badran, S. Thiria, L. Hérault (Eyrolles, 2002, reprinted 2004).

Les Réseaux de Neurones.

G. Dreyfus, coordonnateur (Masson, 1991).

La Méthode du Recuit Simulé.

P. Siarry, G. Dreyfus (IDSET, Paris, 1989).

Neural Networks from Models to Applications.

L. Personnaz, G. Dreyfus, eds. (IDSET, Paris, 1989).

ARTICLES IN INTERNATIONAL PEER-REVIEWED JOURNALS

Electric fields and currents due to excess charges and dipoles in insulators,

G. Dreyfus, J. Lewiner,
Physical Review B 8, 3032 – 3036 (1973).

Piezoelectricity induced by charge injection in thin polymer films,

G. Dreyfus, J. Lewiner,
Journal of the Electrochemical Society 120, 1083 – 1086 (1973).

A zero-current electrometer method and its application to charge-decay measurements,

G. Dreyfus, J. Lewiner,
Journal of Applied Physics 45, 721 – 726 (1974).

Electric fields and currents due to excess charges and dipoles in insulators - a comment,

B. Gross, G. Leal Ferreira, L. Nunes de Oliveira, G. Dreyfus, J. Lewiner,
Physical Review B 9, 5318 – 5319 (1974).

Evidence of mechanical instabilities of electrets in electric fields,

G. Dreyfus, J. Lewiner,
Journal of Applied Physics 10, 4357 – 4360 (1975).

Energie libre d'un diélectrique : contribution des charges électriques piégées,

G. Dreyfus, J. Lewiner,
C. R. de l'Académie des Sciences de Paris 280, 341 – 344 (1975).

Dispositif de mesure des potentiels de surface,
S. Sakalauskas, G. Dreyfus, J. Lewiner,
Journal of Physics E 8, 837 – 839 (1975).

Free energy of electrets,
G. Dreyfus, J. Lewiner,
Physical Review B 14, 5451 – 5457 (1976).

Pyroelectricity induced by charge injection in polymer electrets,
J.J. Crosnier, F. Micheron, G. Dreyfus, J. Lewiner,
Journal of Applied Physics 47, 4798 – 4799 (1976).

Une méthode nouvelle de détermination de la distribution spatiale des potentiels dans les diélectriques,
P. Laurenceau, J. Ball, G. Dreyfus, J. Lewiner,
C. R. Académie des Sciences de Paris 283, 135 - 138 (1976).

First E.S.R. observation of injected electrons trapped in electrets,
M. Legrand, G. Dreyfus, J. Lewiner,
Journal de Physique Lettres 38, L439 – L440 (1977).

Les dispositifs de commutation à électrets,
D. Périno, J. Lewiner, G. Dreyfus,
L'Onde Electrique 57, 688 – 693 (1977).

New principle for the determination of potential distributions in dielectrics,
P. Laurenceau, G. Dreyfus, J. Lewiner,
Physical Review Letters 38, 46 – 49 (1977).

Localisation directe de la charge d'espace dans un diélectrique : méthode de l'onde de choc de pression,
J. Lewiner, D. Darmon, G. Dreyfus, P. Laurenceau,
Revue Générale de l'Electricité 87, 975 - 980 (1978).

Méthode des courants thermostimulés,
G. Dreyfus, C. Lacabanne, A. Rahal,
Revue Générale de l'Electricité 87, 870 - 878 (1978).

A new principle for radiation dosimetry and control,
D. Périno, J. Lewiner, G. Dreyfus,
IEEE Transactions on Nuclear Science 25, 1117 – 1720 (1978).

Electron-spin resonance study of electron-bombarded polymer electrets I - Radical formation, piezoelectric and pyroelectric effects,
G. Dreyfus, J. Lewiner, M. Legrand,
Physical Review B 20, 1720 – 1724 (1979).

Electron-spin resonance study of electron-bombarded polymer electrets II - Investigation of the trapped charges,
M. Legrand, G. Dreyfus, J. Lewiner,
Physical Review B 20, 1725 – 1732 (1979).

Une méthode non destructive de mesure des distributions de charges dans les isolants,
D. Darmon, P. Laurenceau, G. Dreyfus, J. Lewiner,
Journal of Electrostatics 8, 75 – 79 (1979).

Vapor-induced depolarization currents in electrets,
B. Cantaloube, G. Dreyfus, J. Lewiner,
Journal of Polymer Science 17, 95 – 101 (1979).

Stress-wave probing of electric field distributions in dielectrics,
C. Alquié, G. Dreyfus, J. Lewiner,
Physical Review Letters 47, 1483 – 1487 (1981).

Vapor-induced depolarization currents. I - Models,
M. Falck, G. Dreyfus, J. Lewiner,
Physical Review B 25, 5499 – 5508 (1982).

Vapor-induced depolarization currents. II - Application,
M. Falck, G. Dreyfus, J. Lewiner,
Physical Review B 25, 5509 – 5514 (1982).

Analysis of laser-induced acoustic pulse probing of charge distribution in dielectrics,
C. Alquié, J. Lewiner, G. Dreyfus,
Journal de Physique Lettres 44, L171 – L178 (1984).

An Application of Physical Methods to the Computer-Aided Design of Electronic Circuits,
P. Siarry, G. Dreyfus,
Journal de Physique Lettres 45, L 39 – L 48 (1984).

EPR studies on fluorocarbon microspheres. Dynamic polarization of fluorine nuclei and adsorbed He3
M. Chapellier, L. Sniadower, G. Dreyfus, H. Alloul, J. Cowen,
Journal de Physique, 45, 1033 – 1038 (1984)

Information Storage and Retrieval in Spin Glass Like Neural Networks,
L. Personnaz, I. Guyon, G. Dreyfus,
Journal de Physique Lettres 46, L 359 – L 365 (1985).

New non-destructive method for the investigation of insulator-semiconductor structures,
G. Bouillier, C. Alquié, G. Dreyfus,
Applied Physics Letters 47, 506 – 507 (1986).

A Biologically Constrained Learning Mechanism in Networks of Formal Neurons,
L. Personnaz, I. Guyon, G. Dreyfus et G. Toulouse,
Journal of Statistical Physics 43, 411 – 422 (1986).

Collective Computational Properties of Neural Networks: New Learning Mechanisms,
L. Personnaz, I. Guyon et G. Dreyfus,
Physical Review A 34, 4217 – 4228 (1986).

Thermodynamic Optimization of Block Placement,
P. Siarry, L. Bergonzi, G. Dreyfus,
IEEE Transactions on Computer-Aided Design 6, 211 – 221 (1987).

High-Order Neural Networks: Information Storage Without Errors,
L. Personnaz, I. Guyon, G. Dreyfus,
Europhysics Letters 4, 863 – 867 (1987).

Storage and Retrieval of Complex Sequences in Neural Networks,
I. Guyon, L. Personnaz, J.P. Nadal, G. Dreyfus,
Physical Review A. 38, 6365 – 6372 (1988).

Placement and Channel Routing by Simulated Annealing: Some Recent Developments,
P. Chaisemartin, G. Dreyfus, M. Fontet, E. Kouka, P. Loubières, P. Siarry,
Computer Systems, Science and Engineering, 4, 35 – 48 (1989).

A cursory Introduction to the Physicists' Neural Networks,
L. Personnaz, E. Bienenstock, G. Dreyfus,
Journal de Physique Colloque C3, 207 – 208 (1989).

A Problem-Independent Parallel Implementation of Simulated Annealing: Models and Experiments,
P. Roussel-Ragot, G. Dreyfus,
IEEE Transactions on Computer-Aided Design 9, 827 – 835 (1990).

Specification and Implementation of a Digital Hopfield-type Neural Network with On-chip Training,
A. Johannet, L. Personnaz, G. Dreyfus, J.D. Gascuel, M. Weinfeld,
IEEE Transactions on Neural Networks, 3, 529 – 539 (1992).

A Unified Framework for Gradient Algorithms Used for Filter Adaptation and Neural Network Training,
S. Marcos, O. Macchi, C. Vignat, G. Dreyfus, L. Personnaz, P. Roussel-Ragot,
International Journal of Circuit Theory and Applications 20, 159 – 200 (1992).

Handwritten Digit Recognition by Neural Networks with Single-layer Training,
S. Knerr, L. Personnaz, G. Dreyfus,
IEEE Transactions on Neural Networks 3, 962 – 968 (1992).

Réseaux de Neurones pour le Filtrage Non-linéaire Adaptatif,
S. Marcos, P. Roussel-Ragot, L. Personnaz, O. Nerrand, G. Dreyfus, C. Vignat,
Traitement du Signal, 8, 409-422 (1993).

Computational Diversity in a Formal Model of the Insect Olfactory Macrogglomerulus,
C. Linster, C. Masson, M. Kerszberg, L. Personnaz, G. Dreyfus,
Neural Computation 5, 239-252 (1993).

Performance Analysis of a Pipelined Backpropagation Parallel Algorithm,
A. Petrowski, G. Dreyfus, C. Girault,
IEEE Transactions on Neural Networks 4, 972-977 (1993).

Neural Networks and Non-linear Adaptive Filtering: Unifying Concepts and New Algorithms,
O. Nerrand, P. Roussel-Ragot, L. Personnaz, G. Dreyfus, S. Marcos,
Neural Computation 5, 165-197 (1993).

Training Recurrent Neural Networks: Why and How? An Illustration in Process Modeling,
O. Nerrand, D. Urbani, P. Roussel-Ragot, L. Personnaz, G. Dreyfus,
IEEE Transactions on Neural Networks 5, 178-184 (1994).

A Model for Pheromone Discrimination in the Insect Antennal Lobe: Investigation of the Role of Neuronal Response Pattern Complexity,
C. Linster, G. Dreyfus,
Chemical Senses, 21, 19-27 (1996).

The Canonical Form of Discrete-Time Nonlinear Models,
G. Dreyfus, Y. Idan,
Neural Computation, 10, 133-164 (1998).

Towards a Principled Methodology for Neural Network Design and Performance Evaluation in QSAR; Application to the Prediction of LogP
A. Duprat, T. Huynh, G. Dreyfus,
J. Chem. Inf. Comp. Sci., 38, 586-594 (1998).

Training Wavelet Networks for Nonlinear Dynamic Input-Output Modeling,
Y. Oussar, I. Rivals, L. Personnaz, G. Dreyfus,
Neurocomputing, 20, 325-331 (1998).

Initialization by Selection for Wavelet Network Training,
Y. Oussar, G. Dreyfus,
Neurocomputing, 34, 141-143 (1998).

Comment on "Discrete-time Recurrent Neural Network Architectures: a Unifying Review",
L. Personnaz, G. Dreyfus,
Neurocomputing, 20, 325-331 (1998).

Training Wavelet Networks for Nonlinear Dynamic Input-Output Modeling,
Y. Oussar, I. Rivals, L. Personnaz, G. Dreyfus,
Neurocomputing, 20, 173-188 (1998).

Comment on "Recurrent Neural Networks: a Constructive Algorithm, and its Properties",
L. Personnaz, G. Dreyfus,
Neurocomputing, 20, 321-324 (1998).

Withdrawing an Example from the Training Set: an Analytic Estimation of its Effect on a Non-linear Parameterised Model,
G. Monari, G. Dreyfus,
Neurocomputing, 35, 195-201 (2000).

Initialization by Selection for Wavelet Network Training,
Y. Oussar, G. Dreyfus,
Neurocomputing, 34, 131-143 (2000).

How to be a Gray Box: Dynamic Semi-physical Modeling,
Y. Oussar, G. Dreyfus,
Neural Networks, 14, 1161-1172 (2001).

Temporal Coding in an Olfactory Oscillatory Model,
B. Quenet, D. Horn, G. Dreyfus, R. Dubois,
Neurocomputing, 38-40, 831-836 (2001).

Local Overfitting Control via Leverages,
G. Monari, G. Dreyfus,
Neural Computation, 14, 1481-1506 (2002).

- Modeling spatiotemporal olfactory data in two steps: from binary to Hodgkin-Huxley neurons,
B. Quenet, S. Sirapian, R. Dubois, G. Dreyfus, D. Horn,
Biosystems, 67, 203-211 (2002).
- A Machine-learning Approach to the Estimation of the Liquidus Temperature of Glass-forming Oxide Blends,
C. Dreyfus, G. Dreyfus,
Journal of Non-Crystalline Solids, 318, 63-78 (2003).
- Ranking a Random Feature for Variable and Feature Selection,
H. Stoppiglia, G. Dreyfus, R. Dubois, Y. Oussar,
Journal of Machine Learning Research, 1399-1414 (2003).
- Reply to the comments on « Local Overfitting Control via Leverages »
Y. Oussar, G. Monari, G. Dreyfus
Neural Computation, 16, 419-443 (2004).
- B. Quenet, G. Horcholle-Bossavit, A. Wohrer, G. Dreyfus
Formal modeling with multistate neurons and multidimensional synapses
Biosystems, 79, 21-32 (2005).
- A. Goulon-Sigwalt-Abram, A. Duprat, G. Dreyfus
From Hopfield nets to recursive networks to graph machines: numerical machine learning for structured data
Theoretical Computer Science, 344, 298-334 (2005).
- R. Dubois, B. Quenet, Y. Faisandier, G. Dreyfus
Building meaningful representations for nonlinear modeling of 1D- and 2D-signals: applications to biomedical signals
Neurocomputing, 69, 2180 – 2192 (2006)
- F. Vialatte, C. Martin, R. Dubois, B. Quenet, R. Gervais, and G. Dreyfus
A machine learning approach to the analysis of time-frequency maps, and its application to neural dynamics
Neural Networks, 20, 194 - 209 (2007).
- A. Goulon, T. Picot, A. Duprat, and G. Dreyfus
Predicting activities without computing descriptors: graph machines for QSAR
SAR and QSAR in Environmental Research, 18, 141 - 153 (2007)
- R. Dubois, P. Maison-Blanche, B. Quenet, G. Dreyfus
Automatic ECG wave extraction in long-term recordings using Gaussian mesa function models and nonlinear probability estimators
Computer Methods and Programs in Biomedicine, 88, 217-233 (2007)
- C. Faur, A. Cougnaud, G. Dreyfus and P. Le Cloirec
Modelling the breakthrough of activated carbon filters by pesticides in surface waters with static and recurrent neural networks
Chemical Engineering Journal, 145, 7–15 (2008).
- S. Gazut, J. M. Martinez, G. Dreyfus, Y. Oussar
Towards The Optimal Design of Numerical Experiments
IEEE Trans. on Neural Networks, 19, 874 - 882 (2008).

A. Magon de la Villehuchet, M. Brack, G. Dreyfus, Y. Oussar, D. Bonnefont-Rousselot, M.J. Chapman, A. Kontush
A machine learning approach to the prediction of oxidative stress in chronic inflammatory disease
Redox Reports, 14, 23-33 (2009).

F. Extramiana, R. Dubois, M. Vaglio, P. Roussel, G. Dreyfus, F. Badilini, A. Leenhardt, P. Maison-Blanche
The time course of new T-wave ECG descriptors following single and double dose administration of Sotalol in healthy subjects
Annals of Noninvasive Electrophysiology, vol. 15, pp. 26 - 35 (2010).

T. Hueber, E. Benaroya, G. Chollet, B. Denby, G. Dreyfus, M. Stone
Development of a silent speech interface driven by ultrasound and optical images of the tongue and lips
Speech Communication, vol. 52, pp. 288 - 300 (2010).

M. Toukourou, A. Johannet, G. Dreyfus, P. A. Ayrat
Rainfall-runoff modeling of flash floods in the absence of rainfall forecasts: the case of "Cévenol flash floods"
Applied Intelligence, published electronically 20. February 2010, doi 10.1007/s10489-010-0210-y.

B. Denby, Y. Oussar, I. Ahriz, G. Dreyfus,
High-Performance Indoor Localization with Full-Band GSM Fingerprints
International Journal of Navigation and Observation, vol. 2010, doi: 10.1155/2010/497829.

INTERNATIONAL CONFERENCES, BOOK CHAPTERS

Evidence of Piezoelectricity in Thin Film Electrets,
G. Dreyfus, J. Lewiner,
2nd International Conference on Electrets, Charge Storage and Transport Phenomena in Dielectrics (Miami, 1972).

Charge and Current Measurements in High Resistivity Materials,
G. Dreyfus, J. Lewiner,
International Conference on High-Resistivity Semiconductors, Electrophotography and Photoelectrets (Varna, 1973).

Une nouvelle famille de matériaux utilisables pour les dispositifs électromécaniques,
G. Dreyfus, J. Lewiner,
Colloque International sur les matériaux pour les composants électroniques (Paris, 1975).

Thermodynamical Parameters of Electrets Derived from Free Energy Considerations,
G. Dreyfus, J. Lewiner,
IEEE Conference on Electrical Insulation and Dielectric Phenomena (Gaithersburg, 1975).

Une méthode non destructive de détermination de la distribution spatiale des potentiels dans les diélectriques,
D. Darmon, P. Laurenceau, G. Dreyfus, J. Lewiner,
International Conference on Space Charge in Dielectrics (Wroclaw, 1977).

Les relais à électrets,
J. Lewiner, D. Périno, G. Dreyfus,
Journée d'étude sur les contacts à bas niveau (Paris, 1977).

Dispositif nouveau de détection des rayonnements ionisants,
D. Périno, J. Lewiner, G. Dreyfus,
Colloque International sur la Radioprotection (Stockholm, 1978).

Electret Driven Electrical Relays,
D. Périno, G. Dreyfus, J. Lewiner,
IEEE International Conference on Electrical Contact Phenomena (Chicago, 1978).

New Approaches to Charge Storage Analysis,
J. Lewiner, G. Dreyfus,
IEEE Conference on Electrical Insulation and Dielectric Phenomena (Pocono, 1978).

Character Recognition, Neural Networks and Statistical Physics,
L. Personnaz, I. Guyon, J.C. Ronnet et G. Dreyfus,
COGNITIVA 85 (Paris 1985).

Optimisation du Placement de Blocs par la Méthode Thermodynamique : Application à la conception du Plan de Masse d'un Circuit,
P. Siarry, L. Bergonzi, G. Dreyfus,
Colloque National sur la Conception de Circuits à la Demande (Grenoble, 1985).

Neural Network Design for Efficient Information Retrieval,
L. Personnaz, I. Guyon, G. Dreyfus,
in "Disordered Systems and Biological Organization", NATO ASI Series vol. 20 (Springer, 1986).

A Simple Selectionist Learning Rule for Neural Networks,
L. Personnaz, I. Guyon, G. Dreyfus, G. Toulouse,
Neural Networks for Computing (AIP Conference Proceedings, 1986).

Designing a Neural Network Satisfying a Given Set of Constraints,
L. Personnaz, I. Guyon et G. Dreyfus,
Neural Networks for Computing (AIP Conference Proceedings, 1986).

La Méthode du Recuit Simulé en Electronique : Principe et Parallélisation,
P. Roussel-Ragot, P. Siarry, G. Dreyfus,
Colloque National sur la Conception de Circuits à la Demande (Grenoble, 1986).

Réseaux de Neurones Formels et Apprentissage Biologique : Sélectionnisme et Instructivisme,
L. Personnaz, I. Guyon, G. Dreyfus, G. Toulouse,
3èmes Journées "Neurosciences et Sciences de l'Ingénieur" (Marseille, 1986).

Application d'une Nouvelle Méthode d'Optimisation à l'Implantation Automatisée de Circuits Hybrides,
B. Ouldali, P. Siarry, G. Dreyfus, I. Fauvin, M. Darnal,
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