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Personnal data

1. Education

- 1976-1981 -Ing. Center for Studies and Research in Informatics (CERI), Alger, Algeria. *Engineering Computer Science and Organization.*
- 1981-1982 M.Sc. University Claude Bernard, Lyon, France. *Master-Computer Science and automation.*
- 1982-1985 PhD-University Claude Bernard - Lyon, France. - Computer Science.
- 1985-1991 HDR-University Claude Bernard - Lyon, France. *Accreditation to supervise research - Computer Science.*

2. PhD thesis

- Title *Méthodes et outils pour les processus d'interrogation non arborescents.*
- Supervisors M. Terrenoire & D. Tounissoux.
- Description Generalisation of decision trees into lattice graphs / Induction graphs for machine learning.

3. Master thesis

- Title *Méthodologie pour la prédition du risque infectieux chez les grands brûlés.*
- Supervisors M. Terrenoire.
- Description Machine learning and Pattern recognition methods for prediction of infection risk for large burned patients.

4. Languages

- | | | |
|---------|---------------|------------------------------------|
| French | Native | |
| Arabic | Native | <i>Bilingual - French - Arabic</i> |
| English | Fluent | <i>Daily practice</i> |

5. Interests

- Research** Analytics in big data; Data science ; Machine learning; Artificial intelligence; Natural language processing; Infonomics; Digital humanities and social science.

Project In Education; Research & Business development.

**Manage-
ment**

Others Classic music and opera; Walking; Travelling; History and literature...

6. Currents positions

- 1987-2015 Professor at University Lumière, Lyon, France. See <http://www.univ-lyon2.fr> - Duties : Teaching and Research.
- 2011-2015 Director of the Human Science Institute - Institut des Sciences de l'Homme ISH Lyon, France. See <https://www.ish-lyon.cnrs.fr> France Duties : Management - Organisation and Research.
- 2014- 2015 Member of the administration Board University Lumière Lyon 2 Lyon, France. Elected member.
- 2000- 2015 President & Co-editor of RNTI (Revue des Nouvelles Technologies de l'Information) Collection of publications. We publish around 2500 pages per year, presently our publisher is Hermann, Paris, France. We also have an on line publication: see <http://editions-rnti.fr>.
- 2009- 2015 Coordinator of the Erasmus Mundus Master Diploma DMKM: Data Mining and Knowledge Management France, Spain, Italy & Romania. Master degree program Common to six European universities. See www.em-dmkm.eu.

7. Previous Employments & responsibilities

7.1. Employment history

- 1984-1987 Assistant lecturer at University Claude Bernard, Lyon France; Teaching and Research.
- 1987-1991 Assistant Professor at University Lumière, Lyon France; Teaching and Research.

7.2. Responsibilities and services to the scientific community

- 1995- 2015 Head of the laboratory ERIC at University Lumière Lyon 2 Lyon France. I founded the ERIC Lab in 1993. It works on developing methodologies, applications and softwares in the area of data Mining and Knowledge Engineering. I was the director from 1995 to 2002 and from 2007 to 2012. See <https://eric.ish-lyon.cnrs.fr>.
- 2002- 2015 Vice President and President (2007-2011) of the francophone association for knowledge extraction and knowledge management EGC (Extraction et Gestion des Connaissances) France. I co-founded this association in 2002 in order to promote data mining and knowledge management skill in the academic and industry areas. See <http://www.egc.asso.fr>.

1987- 2015 Responsible of Master's degree courses University Lumière Lyon 2 France. I have created and managed three master's degree courses: Main Duties:

- 1987 - 1992 : OPSIE, (*Organisation et Protection des Systèmes d'Information dans les Entreprises*). This master provides courses in legal, management and computer science related to the protection of Information systems;
- 1991 - 1994 : 2iD, (*Ingénierie Informatique pour l'évaluation et la décision économique*). This master provides courses in decision making, statistics and econometrics;
- 1999 - 2010 : ECD, (*Extraction et Gestion des Connaissances*). This master provides courses in data mining, machine learning and knowledge management. It was common to Lyon, Nantes and Orsay (Paris) Universities. The courses were also given via visio-conferencing system on the three main sites and also at University Polythenica of Bucharest (Romania) where some students are enrolled every year.

8. Teaching

I have been teaching computer science matters, mathematics and their applications since 1984 without interruption. This is on the basis of 2 to 3 courses by semester for a total of around 200 hours per year in front of students. This doesn't include meetings, juries, supervision of student's works, tutoring masters thesis and managing PhD works. It would be too fastidious to list all courses I have taught. However, my experience in teaching can be summarized in terms of topics taught and type of students.

8.1. Topics taught

We can distinguish what could be more related to mathematics and their applications and what could be more related to matters of computer science.

- **Mathematics and their applications:** This cover linear algebra, probability and statistics, estimation, discrete mathematics, data analysis, graph theory, preferences analysis, decision making, machine learning, feature selection, feature construction, clustering, classification... The applications that are privileged are human science and health care. Mainly contributions was aimed modeling, description and decision making;
- **Computer Science:** This covers different matters such as algorithmic, languages for programming, data bases, artificial intelligence, symbolic learning, data mining, text mining, neural network, complex data mining.

8.2. Type of students

My main teaching activity is towards regular students at universities. At the beginning of my carrier, I taught undergraduate students. The classes were given in two ways: to small groups for training and application and to large group for lectures. In the two last decades, my courses were mainly taught to graduate students. I have also developed specific courses proposed to professionals willing to acquire new skills and competences in different matters such as data mining.

In short, my teaching experience can be summarized as follow:

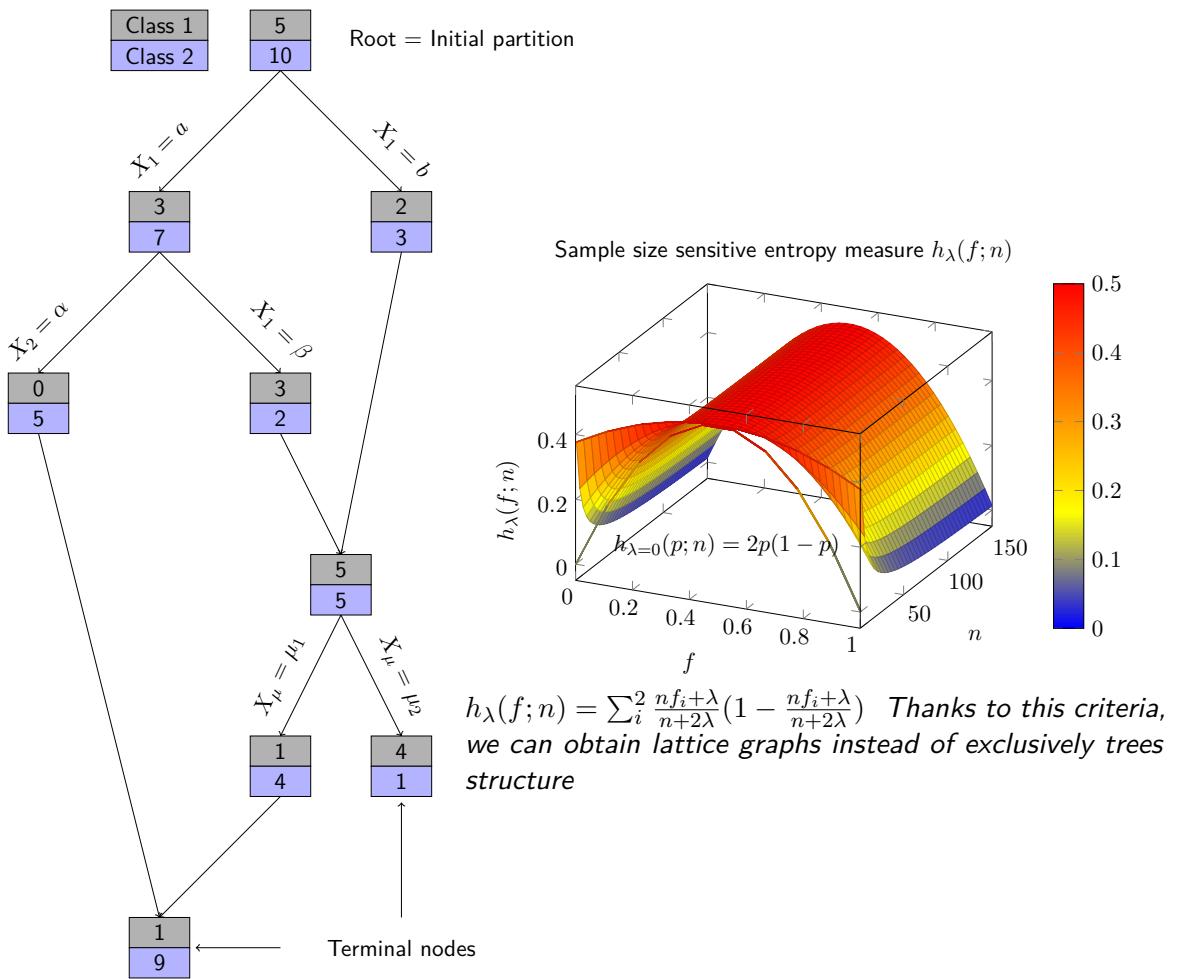
- **Undergraduate :** Mathematics, Statistics, Programming and related matters;
- **Graduate :** Databases, Machine learning, Data mining, applications and related matters.

9. Research

9.1. An overview

My research activity is continuous since the beginning of my PhD work in 1982. We can distinguish three periods:

- **1982-1993:** I worked at a research unit common to University Claude Bernard Lyon 1 and CNRS (French National Research Center). My research aimed at developing pattern recognition and statistical approaches for health care and social science needs. In this context, I have developed the induction graphs¹ methodology and a software called SIPINA². The induction graphs propose a generalization of decision trees as shown in the following picture (left part).



For that purpose, I have introduced a new entropy measure sensitive to the sample size and an algorithm that build lattice graphs for which the decision trees become particular cases. This work can be find in detail in many publications³. Different applications have been done in health

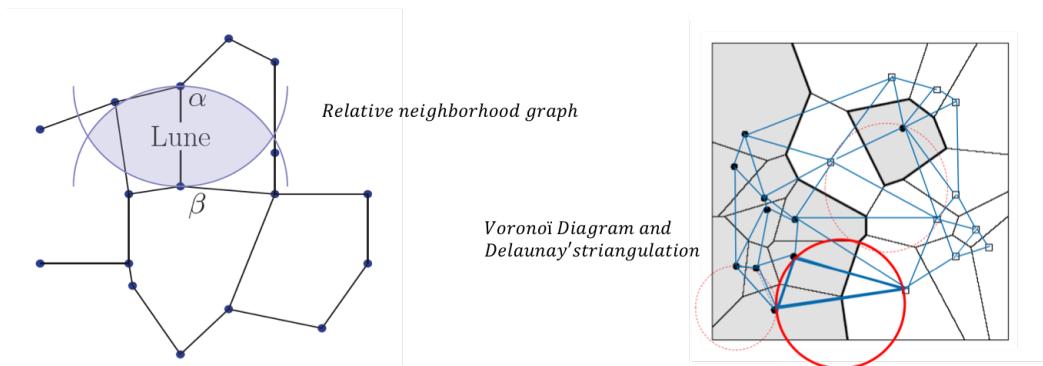
¹Zighed and Rakotomalala 2000

²Zighed, Auray, and Duru 1992; Zighed and Rakotomalala 1996

³Zighed 2007

care studies⁴, social and human science⁵ and also industry⁶.

In parallel, I started to explore a new idea in pattern recognition. Indeed, at this period, researchers from my lab were developing and promoting the concept of pretopology⁷ which is a generalization of the mathematical theory of topology. The pretopology theory is suited to model and study mathematical objects more in terms of relatedness than in terms of density in a multidimensional space. This primary idea led me to introduce and use geometrical graphs that structure the neighborhood of each object. This work has been subject of many publications⁸



- **1993-2010:** I created the ERIC'lab dedicated for developing and promoting the knowledge engineering disciplines and their application on real world data. My research were in the continuity of the previous ones : Induction graphs and pretopological approaches for pattern recognition. I have addressed many important issues and I present here bellow the most significant :
 - *Partitioning criteria and methods for supervised learning:* In induction graphs or decision trees as well, discretization⁹ of continuous attributes is essential. Thus, I have proposed new criteria such as the asymmetric entropy measure¹⁰ and algorithms such as FUSINTER¹¹ and FUSBIN that improve the state of the art.

⁴3. Zighed, Auray, and Duru 1990; Auray, Duru, Tounissoux, and Zighed 1989; Auray, Duru, Terrenoire, and Zighed 1990 ; Auray, Duru, Lamure, Pelc, and Zighed 1993

⁵4. Forsé, Brissaud, and Zighed 1990

⁶5. Grimm and Zighed 1996 ; Tisserand, Vernet, Pachiaudi, Signolles, and Zighed 1991 ; Royet, Paugam-Moisy, Rouby, Zighed, Nicoloyannis, Amghar, and Sicard 1996

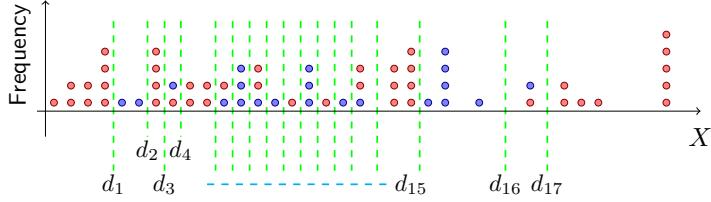
⁷6. Belmandt 1993 ; Brissaud, Lamure, Milan, Auray, Nicoloyannis, Duru, Terrenoire, Tounissoux, Zighed, Bonnevay, et al. 2011

⁸7. Amghar and Zighed 1994 ; Largeron, Terrenoire, Tounissoux, and Zighed 1992 ; Zighed, Auray, Tounissoux, and Largeron 1990 ; Zighed, Tounissoux, Auray, and Largeron 1990a ; Zighed, Auray, Tounissoux, and Largeron 1991 ; Zighed, Tounissoux, Auray, and Largeron 1990b

⁹8. Qureshi and Zighed 2009b ; Qureshi and Zighed 2008 ; Qureshi and Zighed 2009a ; Zighed, Rabaséda, Rakotomalala, and Feschet 1999

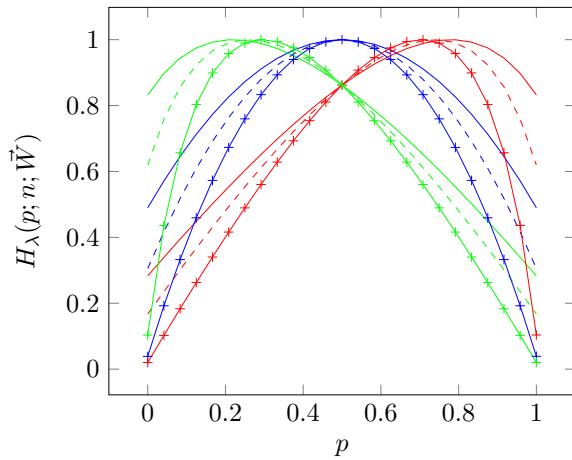
¹⁰9. Zighed, Ritschard, and Marcellin 2010 ; Zighed, Marcellin, and Ritschard 2006 ; Marcellin, Zighed, and Ritschard 2006b ; Marcellin, Zighed, and Ritschard 2006a

¹¹10. Zighed, Rabaséda, and Rakotomalala 1998

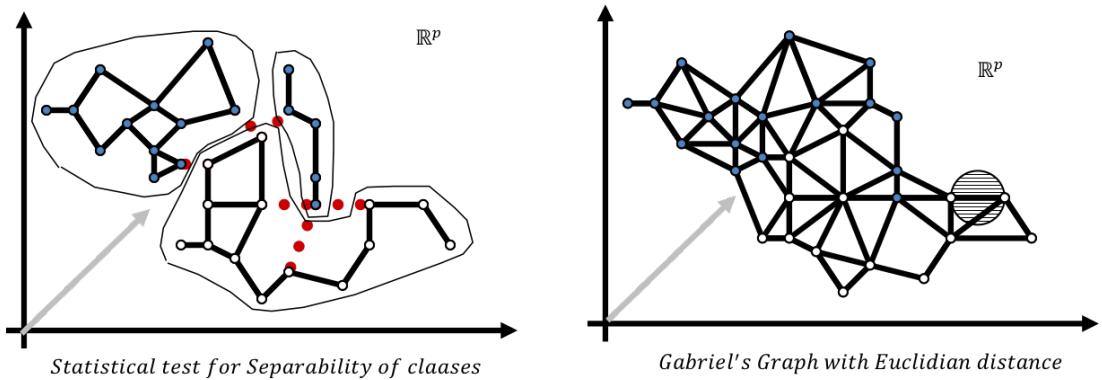


- **Asymmetric entropy measure:** In supervised learning, many applications, like in computer aided diagnosis or in marketing with the churn problem, the classes are very often unbalanced. To better deal with this problem, I have defined a new criteria. It is an asymmetric and sensitive entropy measure¹².

Asymmetric entropy measure sensitive to the sample size



- **Pretopological approach:** I have proposed a non parametric test¹³ to assess at what extent classes to be learned are separable or not in the representation space. This work has been applied for many purposes such as dealing with outlier¹⁴ or comparing similarity and dissimilarity measures¹⁵.



¹²Zighed, Ritschard, and Marcellin 2010; Zighed, Marcellin, and Ritschard 2006; Marcellin, Zighed, and Ritschard 2006b ; Marcellin, Zighed, and Ritschard 2006a

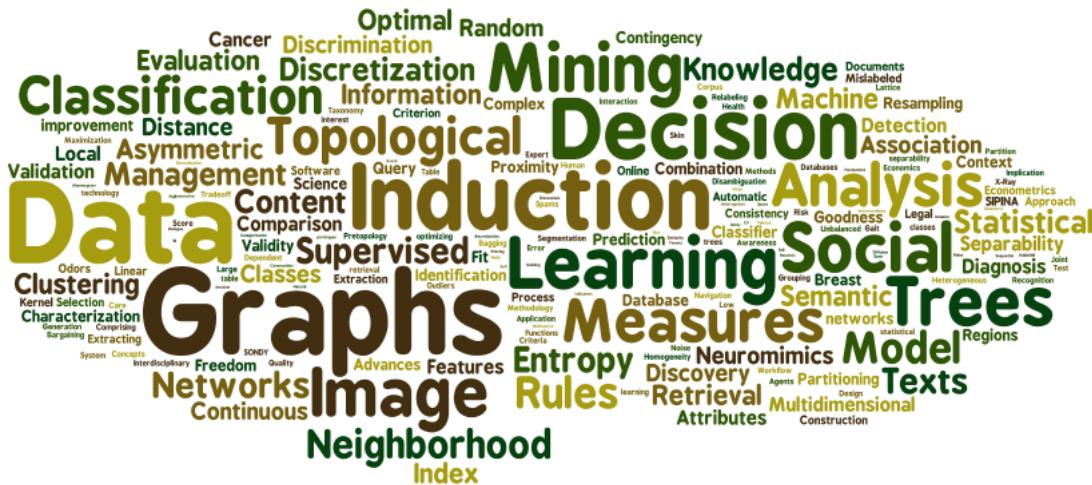
¹³11. Sebban and Zighed 1996b ; Zighed and Hadid 2006 ; Zighed, Lallich, and Muhlenbach 2005 ; Zighed, Lallich, and Muhlenbach 2002 ; Zighed, Pisetta, and Ratsimba 2007

¹⁴12. Muhlenbach, Lallich, and Zighed 2004b ; Muhlenbach, Lallich, and Zighed 2004b ; Lallich, Muhlenbach, and Zighed 2002

¹⁵13. Zighed, Abdesselam, and Hadgu 2012 ; Zighed, Ezzeddine, and Rico 2013b

- **Data Mining and complex data:** While continuing to enhance my research in theoretical issues in machine learning, I started to apply and experiment new machine learning methods and tools to complex data¹⁶, i.e. non structured data such as texts or images. I produced many papers related to how measuring similarity / dissimilarity between complex objects¹⁷, how to clean these data, how to construct and select features and/or instances, etc. One of the most important contribution of those works have allowed me to fill two patents in computer aided diagnosis for breast cancer¹⁸. Many other applications have been developed as well, specially in collaboration with public or private companies. Many purposes were targeted such, for example, building score failure of companies, predicting the quality of product in chemical production, comparing drugs in clinical trials, etc.
 - **2011-2015** As head of the human science institute (ISH) which gathers 23 research labs in humanities and social science totalizing over 3000 people. I launched a new research development program. It consists in setting up interdisciplinary researches in the fast and growing domain of web of knowledge. Indeed, Internet, new information technology and social and economical needs have generated new opportunities for researchers and for business developer as well. Big data, Digital social science and humanities are becoming the new turn of science, society and economic. I have obtained a grant from University of Lyon and the french national funding organisation (ANR) to develop research that aims to deal with big complex data and to build new approach that can help humanities and social science researchers at ISH to overcome the new technological barriers and scientific challenges they are facing. The program is called Infonomics. It has already reached a certain level since it proposes two platforms: PANELS and PAGES that are running at ISH. The first dedicated to statistical data and the second to corpora of texts.

The extraction of key words of my 196 publications listed in this document can be summarized by this cloud of tags. The size of the word represents the frequency in this list.



Thus, in short, my research activity has been shared between theoretical contributions and application issues :

¹⁶14. Ras. Tsumoto, and Zighed 2008 : Zighed, Tsumoto, Ras, and Hacid 2009

¹⁷15. Sayed, Hacid, and Zighed 2008d ; Sayed, Hacid, and Zighed 2007e ; Sayed, Hacid, and Zighed 2007e ; Sayed, Hacid, and Zighed 2008d ; Sayed, Hacid, and Zighed 2007e

¹⁸16. Clech, Jouye, Thomas, Zighed, et al. 2010b : Clech, Jouye, Thomas, Zighed, et al. 2010a

Theoretical Induction graphs, Decision trees, Topological learning, Discretisation of features, Partitioning, Similarity measures, Discrimination criteria, Feature selection, Feature construction.

Applications Decision making, Prediction, Aided diagnosis, Complex modeling, Mining complex data, Social networks, Social science, Health care, Digital Humanities...

9.2. Software used

Data Mining R, Weka, SPSS, SIPINA...

Mathematics Matlab, Maple...

9.3. Grants: most recent and most important

Erasmus 4 million euro - 2011 - 2016 : Data Mining and Knowledge Management. It is an

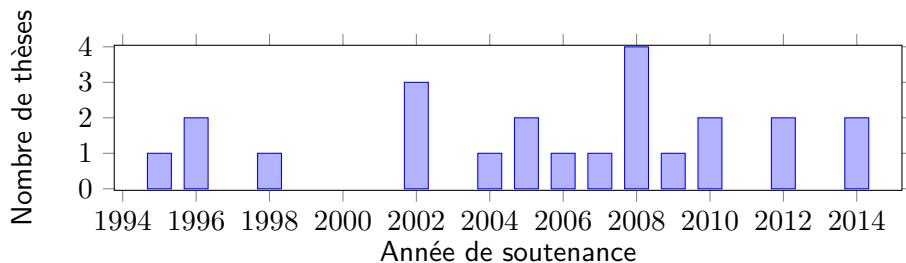
Mundus Master European Master training program funded by European Commission : Education, Audiovisual and Culture Executive Agency. This program is dedicated to attract the best students worldwide - @ www.em-dmkm.eu.

Infonomics 300.000 euro - 2013-2015 : Project funded by University of Lyon : Programme Avenir Lyon Saint-Etienne(PALSE)-ANR-IDEX. Infonomics is concerned by the way to produce, disseminate and use non-material contents: data, information, knowledge, know-how, etc @ <http://infonomics.ish-lyon.cnrs.fr>.

Fluresp 700.000 euro - 2010-2014 : Project funded by the European Commission through the Directorate-General for Health and Consumers under grant agreement no. 2010 11 01. Cost-effectiveness assessment of European influenza human pandemic alert and response strategies. The FLURESP project is currently expecting professional offers to design, develop, program and simulate advanced cost-effectiveness models. <http://fluresp.eu>.

9.4. Supervision of PhD students : complete list

I have supervised, as main adviser, more than 20 PhD thesis along my carrier. The average duration for each thesis is around 3,5 years. The thesis were mainly funded by government or private scholarships. The figure bellow gives an overview of the number of PhD validated under my supervision since 1995 each year.



In this figure I didn't mention the number nor the list of master thesis. In average, I also supervise 3 master thesis every year. The nominative complete list of PhD thesis I have conducted is as follow:

Format: Student name, (University and year of defense), French title, (English title translated).

- *Samia Amghar* (PhD, Univ. Lyon 1, 1995) : Approche géométrique de l'apprentissage numérique supervisé: une formalisation prétopologique.(Geometric approach to learning digital supervised: a formalization pretopological);
- *Marc Sebban* (PhD, Univ. Lyon 1, 1996) : Modèles théoriques en reconnaissance de formes et architecture hybride pour machine perceptive (Theoretical models in pattern recognition and hybrid machine architecture for perceptual);
- *Sabine Loudcher* (PhD, Univ. Lyon 1, 1996) : Contributions à l'extraction automatique de connaissances : application à l'analyse clinique de la marche (Contribution to knowledge discovery : application to the analysis of clinical walking);
- *Ricco Rakotomalala* (PhD, Univ. Lyon 1, 1998) : Graphes d'Induction (Induction graphs);
- *Gérald Gavin* (PhD, Univ. Lyon 2, 2001) : Etude du modèle d'apprentissage Probablement approximativement correct (PAC) : application aux méthodes d'agrégation (Study of the learning model probably approximately correct (PAC) : application to aggregation methods);
- *Stéphane Lallich*, (HDR, Univ. Lyon 2, 2002) : Mesure et validation en extraction des connaissances à partir des données (Measurement and validation in knowledge discovery);
- *Nadir Belkhir*, (HDR, Univ. Lyon 2, 2002) : Communication homme-machine et décomposition des relations binaires avec application à divers domaines en informatique. (Man-machine communication and decomposition of binary relations with application to various fields in computer);
- *Fabrice Muhlenbach*, (PhD, Univ. Lyon 2, 2002) : Évaluation de la qualité de la représentation en fouille de données. (Evaluation of representation quality in data mining);
- *Jérémy Clech*, (PhD, Univ. Lyon 2, 2004) : Contribution méthodologique à la fouille de données complexes. (Methodological contribution to complex data mining);
- *Edwige Fangseu Badjio*, (PhD, Univ. Lyon 2, 2005) : Visualisation et fouille de données. (Visualisation and data mining);
- *François Poulet*, (HDR, Univ. Lyon 2, 2005) : Visualisation et fouille de données. (Visualisation and data mining);
- *Walid Erray* (PhD, Univ. Lyon 2, 2006) : Extensions et nouvelles approches en graphes d'induction. Application aux grandes bases de données. (Extensions and new approaches to induction graphs. Application to large databases);
- *Jérôme Darmont* (HDR, ,Univ. Lyon 2, 2006) : Optimisation et évaluation de performance pour l'aide à la conception et à l'administration des entrepôts de données complexes. (Optimization and performance analysis for design assistance and administration of complex data warehouse);
- *Philippe Lenca*, (HDR, Univ. Lyon 2, 2007) : Des données à la décision : apprentissage, validation et exploitation de règles. (Data to decision: learning, validation and use of rules);
- *Hakim Hacid*, (PhD, Univ. Lyon 2, 2008) : Un environnement informatique pour l'interrogation et l'accès intelligent aux bases de données complexes. (A computing environment for querying and intelligent access to complex databases);
- *Ahmad El Sayed* (PhD, Univ. Lyon 2, 2008) : Recherche d'information par le contenu dans les bases multimédia. (Information retrieval by content in multimedia databases);
- *Julien Charbel*, (PhD, Univ. Lyon 2, 2008) : Image, Statistical Learning Using Mixture Models, co-supervision with University of Piedmont Oriental (Italy);
- *Simon Marcelin*, (PhD, Univ. Lyon 2, 2008) : Arbres de décision en situation d'asymétrie. (Decision trees in a situation of asymmetry);
- *Julien Thomas*, (PhD, Univ. Lyon 2, 2009) : Apprentissage supervisé de données déséquilibrées par forêts aléatoires. (Supervised learning from unbalanced data by random forests);
- *Mavrikas Efthimios* (PhD, Univ. Lyon 2, 2010) : Entre les mots : Méthodes d'analyse informatique

- du discours idéologique. (Between words: Methods of computer analysis of ideological discourse);
- *Quoreshi Taimur* (PhD, Univ. Lyon 2, 2010) : Contribution to decision tree based learning;
 - *Vincent Pisetta* (PhD, Univ. Lyon 2, 2012) : Apprentissage à partir d'arbres aléatoires : nouveaux apports. (Learning by Random Forests : new insights);
 - *Mathilde Forestier*, (PhD, Univ. Lyon 2, 2012) : Extraction automatique de réseaux sociaux enrichis pour l'analyse des rôles sociaux dans les discussions en ligne. (Enriched social network extraction for social roles analysis on online forum debates);
 - *Dialla Azzedine*, (PhD, Univ. Lyon 2, 2014) : Une contribution à l'apprentissage topologique et son application dans les réseaux sociaux. (A contribution to topological learning and its application in social networks analysis);
 - *Adrien Guille* (PhD, Univ. Lyon 2, 2014) : Analyse automatique des tweets. (tweets's automatic analysis);
 - *Fatima Zohra Aazi*, (Co-supervision Univ. Lyon 2 - Univ. Hassan 1, Settat Maroc, 2015) : Apprentissage supervisé - apprentissage topologique. (Supervised learning - topological learning);
 - *Hussein Al-Natsheh*, (Co-supervision Univ. Lyon 2 - Univ. Saint-Etienne, 2018) : Mesures de similarités sémantiques entre phrases. (Sentences similarity measures).

9.5. Program committees membership

I have been involved in the major national and international conferences of the domain. Here after the list with the period covered:

- 2007 *ADMA*: Int. Conf. on Advanced Data.
- 2007 *ASI*: Rencontres sur la statistique implicative et ses applications.
- 2005-2009 *ASMDA*: Int. Conf. advancement of the theory and practice of stochastic model.
- 2014 *BDMV*: Rencontres Big Data Mining and Visualisation.
- 2013 *BRACIS*: Int. Conf. Brazilian Conference on Intelligent Systems.
- 2009 *CAP*: Conf. Apprentissage.
- 2006 *COMPSTAT*: Int. Conf. on Computational Statistics.
- 2006-2010 *DaWaK*: Int. Conf. on Data Warehousing and Knowledge Discovery.
- 2010 *DMA*: Rencontres Data Mining et Apprentissage.
- 2012 *DMLD*: Workshop on Data Mining on Linked Data @ ISMIS Conference.
- 2013 *DMoLD*: Workshop Data Mining on Linked Data (DMoLD'13) Data Mining Challenge.
- 2004 *DS*: Int. Conf. on Discovery Science.
- 2009-2011 *DTA*: Int. Conf. Databases Theory and Application.
- 2012-2012 *ECAI-AIL*: Workshop ECAI - AIL : Active and Incremental Learning.
- 2000-2015 *ECML-PKDD*: European Conference on Machine Learning and Principles and Practice of Knowledge Discovery in Databases.
- 2007-2008 *EDA*: Rencontres francophones sur les Entrepôts de Données et l'Analyse en ligne.
- 2000-2016 *EGC*: Conf. Int. francophone sur l'Extraction et la Gestion des Connaissances.
- 2014-2016 *ESAN*: European Symposium on Artificial Neural Networks, Computational Intelligence and Machine Learning.
- 2008-2010 *ESWC*: Int. Conf. Extended Semantic Web Conference.

- 2015 *FAB*:International Symposium on Foundations and Applications of Big Data Analytics.
- 2010 *FDC*: Atelier Fouille de Donnees Complexes.
- 2011-2015 *FedCSIS*: Int. Conf. Federated Conf. On Comp. Science and Info. Sys.
- 2004 *FQAS*: Int. Conf. on Flexible Query Answering Systems.
- 2008 *ADMA*: Int. Conf. on Fuzzy Systems and Knowledge Discovery.
- 2015 *GCAI*: Int. Conf. Global Conference on Artificial Intelligence.
- 2013-2014 *GrC*: Int. Conf.(IEEE) on Granular Computing.
- 2015 *H2PTM*: Rencontres Hypertextes et Hypermedias. Produits, Outils et Methodes.
- 2012 *ICDSD*: Int. Conf. Distributed Systems and Decision.
- 2008 *ICNC*: Int. Conf. on Natural Computation.
- 2011 *ICTAI*: Int. Conf. IEEE on Tools with Artificial Intelligence.
- 2011 *IEA-AIE*: Int. Conf. on Industrial, Engineering and Other Applications of Applied Intelligent.
- 2008-2009 *IIS*: Int. Conf. Intelligent Information Systems.
- 2009-2010 *IKM*: International Workshop on Interesting Knowledge Mining.
- 2011 *INCoS*: Int. Conf. on Intelligent Networking and Collaborative Systems.
- 2002 *ISMIS*: International Symposium on Methodologies for Intelligent Systems.
- 2008 *JFRB*: Rencontres Françaises sur les Reseaux Bayesiens.
- 2014 *KDIR*: Int. Conf. on Knowledge Discovery and Information Retrieval.
- 2004 *MDM-KDD*: Int. Conf. Multimedia Data Mining @ ACM SIGKDD.
- 2009 *MIK*: Int. Conf. on Industrial, Engineering & Other Applications of Applied Intelligent Systems IEA-AIE : Mining Interesting Knowledge.
- 2015 *MOD*: Int.Workshop on Machine learning, Optimization and big Data.
- 2009 *MSDM*: Workshop on Multi-agent Sequential Decision-Making in Uncertain Domains.
- 2012 *NFMC*: New Frontiers in Mining Complex Patterns.
- 2004-2010 *NFMC*: Pacific-Asia Conference on Knowledge Discovery and Data Mining.
- 2010-2012 *NFMC*: Brazilian Symposium on Artificial Neural Networks.
- 1998 *SFC*: Rencontres de la Société Francophone de Classification.
- 2008 *SFC-CLADAG*: Meeting of SFC And The Classification And Data Analysis Group Of The Italian Statistical Society.
- 2014 *WCCS*: Int. Conf. World Conference on Complex Systems.
- 2008 *WMSCI*: Int. Conf. Multi-conference on Systemics, Cybernetics and Informatics.

9.6. Journals Referee

Here after the list of journals in which I act as referee.

- Computer Methods and Programs in Bio medicine Journal (Associated Editor);
- IEEE Transactions on Systems, Man and Cybernetics Systems (Associate Editor);

- Complex Data Mining Using Granular Computing Methods (Editorial Board);
- International Journal of Social Network Mining (IJSNM) (Editorial Board);
- Computational Statistics (CS) (Guest editor);
- Machine Learning (ML) (Guest editor);
- Computational Intelligence (CI) (Guest editor);
- Journal of Intelligent Information Systems (JIIS) (Guest editor);
- Arabian Journal for Science and Engineering (AJSE) (Guest editor);
- International Journal of Machine Learning, Pattern Recognition and Data Mining (MLPRDM) : (Associate Editor);
- Ecological Informatics Elsevier Editorial System (EES) (Associate Editor);
- Pattern Recognition Letters (PRL) (Guest Editor).

9.7. Invited speaker at conferences, workshops and tutorials

Here after, just the most significant invitations as guest speaker are listed:

- 2015 CS-DM (Computational Statistic and Data Mining for Knowledge Discovery) *Rio de Janeiro, Brazil.*
- 2015 SUBA15 (Data Mining based approach for authors disambiguation in large citation networks : Seminar of Data Mining Maestria en Explotacion de Datos y descubrimiento del Conocimiento) *Buenos Aires, Argentina.*
- 2015 ECI15 (Courses : Semantic similarity measures overview and applications. Facultad de Ciencias Exactas y Naturales Universidad de Buenos Aires) *Buenos Aires, Argentina.*
- 2014 ISKO-M (International Society for Knowledge Organization) *Algers, Algeria.*
- 2014 ICSA-K (ICSA and KISS Applied Statistics Symposium) *Portland, USA.*
- 2014 JOBD (Jornadas Open Big Data) *Buenos Aires, Argentina.*
- 2014 UFII (Seminar doctoral school of University Frederico 2 Naples) *Naples Italy.*
- 2013 JDM201 (Jornadas Data Mining Univ. Bueno Aires, Argentina) *Bueno Aires, Argentina.*
- 2013 SIA7 (Analyse Statistique Implicative) *Sao Paulo, Brasil.*
- 2011 JOINT (Joint Meeting of the 2011 Taipei International Statistical Symposium and 7th Conference of the Asian Regional Section of the International Association for Statistical Computing) *Taipei, Taiwan .*
- 2010 CIRO (Cinquieme Conference Internationale en Recherche Operationnelle) *Marrakech, Maroc.*
- 2009 Data Mining (Workshop Franco-Brasileiro sobre Mineracao de Bados) *Recife, Brazil.*
- 2007 SFC (Rencontres de la Société Francophone de Classification) *Caserta, Italy.*
- 2006 GfKL (Conference of the German Classification Society on Data Analysis, Machine Learning, and Applications (GfKL)) *Berlin, Germany.*
- 2006 KNMO (Knowledge Extraction and Modeling) *Capri, Italy.*

- 2002 SFC (Rencontres de la Société Francophone de Classification Neufchatel, Switzerland).
- 2000 SFC (Rencontres de la Société Francophone de Classification) *Pointe-a-Pitre, France.*

9.8. Events chaired / Organised

I chaired the program committee and organisation committee of the following events :

- 2012 DS-ALT: The 23rd International Conference on Algorithmic Learning Theory and 15th International Conference on Discovery Science, Lyon, France.
- 2011 GT-FDC: working group research of EGC, Fouille de Données Complexes, Lyon, France.
- 2010 TopLearn: Topological learning - Sepcial session at Computational Statistics - COMPSTAT Conference, Paris, France.
- 2009 TopLearn: International Workshop on Topological Learning at ISMIS Conference, Prague, Czech Republic.
- 2009 TopLearn: Atelier apprentissage topologique at EGC , Strasbourg, France.
- 2008 MCD: International Workshop on Mining Complex Data at ICDM Conference, Pise, Italy.
- 2007 MCD: International Workshop on Mining Complex Data at PKDD-ECML, Warsaw, Poland.
- 2006 MCD: International Workshop on Mining Complex Data at IEEE ICDM, Hong Kong China.
- 2006 RIAS: Journées inter-associations sur la classification, Lyon, France.
- 2005 MCD: International Workshop on Mining Complex Data; IEEE ICDM, Houston Texas, USA.
- 2003 SFdS: Congrès annuel de la Société Française de Statistique, Lyon, France.
- 2002 EGC: Conférence Internationale Francophone Extraction et Gestion des Connaisances, Montpellier, France.
- 2002 ISMIS: Symposium on Methodology for Intelligent Systems ISMIS, Lyon, France.
- 2000 PKDD: International Conference PKDD, Lyon, France.
- 1997 SFC: Rencontres Société Française de classification, Lyon, France.

9.9. Professor visitor for teaching and supervising master-PhD thesis

Main and most relevant ones :

- 1998 College Glendon, York University, Toronto, Canada - 6 months.
- 1998 Dep. Comp. Sce. University Laval, Quebec Canada - 6 months.
- 2005-2007 Dep. Social Science, University of Geneva, Switzerland - Vacation 3h/week.
- 2000-2005 Faculty of Science, University of Tunis, Tunisia - 1w/year.
- 2013-2015 Faculty of Science, University of Buenos Aires, Argentina - 2w/year.

10. Miscellaneous

10.1. Scientific Expertise - Consultancy

- Since 2012 Ministero dell'Istruzione, dell'Università e della Ricerca, Italy.
- Since 2011 Fonds de la Recherche Scientifique ? FNRS, Belgium.
- Since 2010 Zech Science Foundation, the main public funding agency in the Czech Republic.
- 2009 AERES -French Agency for Evaluation of universities and research institutions.
- 2006 ANR The French National Research Agency.
- 2005 ANVAR-OSEO (BpFrance) Bank supporting the investment in innovation and business development.

10.2. Adviser/Consultant for private companies

For confidentiality reasons, I can't give more details about my collaborations with companies listed here bellow. Lundbeck Paris (F); L'Oréal Paris (F); Altares Paris(F); Novartis Basel (S); Sanofi Pasteur Lyon (F) and many others, too numerous to list.

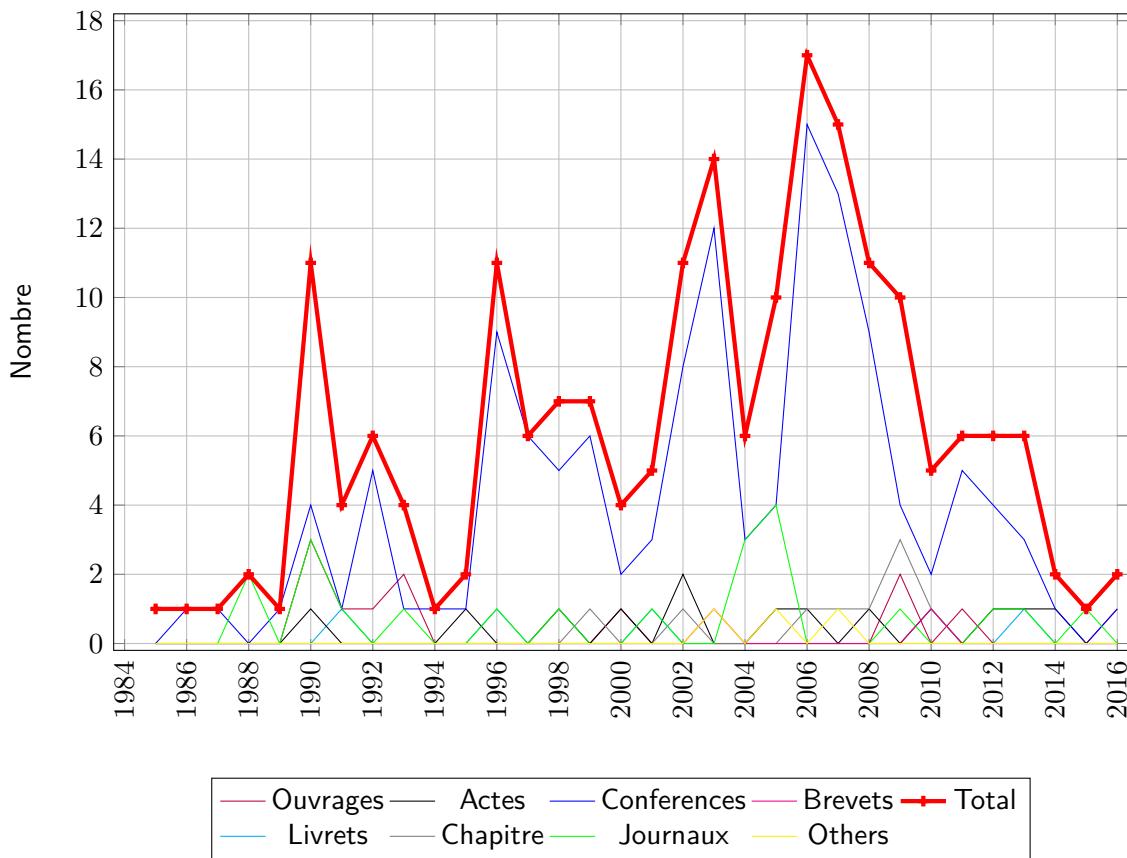
10.3. Responsibilities in academic associations

- EGC Association Extraction et Gestion des Connaissances : <http://www.egc.asso.fr>
- 2003: Co-Founder;
 - 2003-2006 & since 2011: Vice President;
 - 2007-2011: President.
- RNTI Association RNTI <http://editions-rnti.fr>
- 2010: Co-Founder;
 - Since 2010: President.
- SFC Société Française de Classification)
- 2003-2007: Vice President.
- IASC International Association for Statistical Computing <http://www.iasc-isi.org>
- 2005-2009: In charge of the relationship with Machine learning community;
 - 2005-2015: Member of the board of European Regional Section of IASC.

11. Publications

Statistic by source and year; the list follows.

Publications par année et par type de support. La liste complète suivra



Journal Publications

- **2015** Rico, Fabien, Fabrice Muhlenbach, Djamel A. Zighed, and Stéphane Lallich. "Comparison of two topological approaches for dealing with noisy labeling". In: *Neurocomputing* 160, pp. 3–17.
- **2014** Zighed, Djamel Abdelkader. "Is it justified to use entropy measures in machine learning applications?" In: *Educação Matemática Pesquisa. Revista do Programa de Estudos Pós-Graduados em Educação Matemática. ISSN 1983-3156* 16.3.
- **2013** Guille, Adrien, Hakim Hacid, Cécile Favre, and Djamel A. Zighed. "Information diffusion in online social networks: a survey". In: *SIGMOD Record* 42.2, pp. 17–28.
- **2012** Forestier, Mathilde, Anna Stavrianou, Julien Velcin, and Djamel A. Zighed. "Roles in social networks: Methodologies and research issues". In: *Web Intelligence and Agent Systems* 10.1, pp. 117–133.

- 2009 Qureshi, Taimur and Djamel A Zighed. "A decision boundary based discretization technique using resampling". In: *World Acad Sci Eng Technol* 49, pp. 820–825.
- 2005 Scuturici, Mihaela, Jérémie Clech, Vasile-Marian Scuturici, and Djamel A. Zighed. "Topological representation model for image database query". In: *J. Exp. Theor. Artif. Intell.* 17.1-2, pp. 145–160.
- 2005 Zighed, Djamel A., Stéphane Lallich, and Fabrice Muhlenbac. "A statistical approach of class separability". In: *Applied Stochastic Models in Business and Industry* 21.2, pp. 187–197.
- 2005 Zighed, Djamel A., Gilbert Ritschard, Walid Erray, and Vasile-Marian Scuturici. "Decision trees with optimal joint partitioning". In: *Int. J. Intell. Syst.* 20.7, pp. 693–718.
- 2004 Clech, Jérémie and Djamel A. Zighed. "Une technique de réétiquetage dans un contexte de catégorisation de textes". In: *Document Numérique* 8.3, pp. 55–69.
- 2004 Muhlenbach, Fabrice, Stéphane Lallich, and Djamel A. Zighed. "Identifying and Handling Mislabelled Instances". In: *J. Intell. Inf. Syst.* 22.1, pp. 89–109.
- 2004 Ritschard, Gilbert and Djamel A. Zighed. "Qualité d'ajustement d'arbres d'induction". In: *Revue des nouvelles technologies de l'information RNTI* E-1, pp. 45–67.
- 2001 Ritschard, Gilbert, Djamel A. Zighed, and Nicolas Nicoloyannis. "Maximisation de l'association par regroupement de lignes ou colonnes d'un tableau croisé". In: *Revue Mathématiques Sciences Humaines* 39.154/155, pp. 81–97.
- 1998 Zighed, Djamel Abdelkader, Sabine Rabaséda, and Ricco Rakotomalala. "FUSINTER: A Method for Discretization of Continuous Attributes". In: *International Journal of Uncertainty, Fuzziness and Knowledge-Based Systems* 6.3, pp. 307–326.
- 1996 Royet, Jean-Pierre, Hélène Paugam-Moisy, Cathérine Rouby, Djamel A. Zighed, Nicolas Nicoloyannis, Samia Amghar, and Gilles Sicard. "Is short-term odor recognition predictable from odor profile ?" In: *Chemical senses (Chem. senses)* 21.5, pp. 553–556.
- 1993 Zighed, Djamel A. "Apprentissage automatique". In: *Economie et Société* 1.5, pp. 63–78.

- 1991** Tisserand, Daniel Le, Daniel Vernet, André Pachiaudi, Cathérine Signolles, and Djamel A. Zighed. "Impact du bruit des trains sur les riverains. Recherche d'indicateurs spécifiques Impact of train noise on residents. Research for specific indicators". In: *Recherche, transports, sécurité (Rech. transp. sécur.)* 7.32, pp. 45–52.
- 1990** Ritschard, Gilbert and Djamel A. Zighed. "Réseaux neuronaux: applications potentielles à l'économétrie". In: *Problèmes économiques* 2.268, pp. 21–27.
- 1990** Ritschard, Gilbert and Djamel A. Zighed. "Réseaux neuronaux: applications potentielles à l'économétrie". In: *Mondes en développement: systèmes experts et économie* 72.Tome 18, pp. 71–79.
- 1990** Zighed, Djamel A., Daniel Tounissoux, Jean Paul Auray, and Christine Laggeron. "Discrimination basée sur un critère d'homogénéité locale". In: *Traitemet du Signal (TS)* 7.3, pp. 213–220.
- 1988** Terrenoire, Michel, Tounissoux Daniel, and Djamel A. Zighed. "Système interactif pour la construction de questionnaires non arborescents". In: *Revue Traitement du signal* 4.6, pp. 485–491.
- 1988** Zighed, Djamel A. "Mesure d'incertitude sur une partition". In: *Revue Analyse de Systèmes*, pp. 9–22.

Books

- 2011** Brissaud, M., M. Lamure, J.J. Milan, J.P. Auray, N. Nicolojannis, G. Duru, M. Terrenoire, D. Tounissoux, D.A. Zighed, S. Bonnevay, et al. *Basics of pretopology*. Hermann-Éditions.
- 2009** Berka, Peter, Jan Rauch, and Djamel Abdelkader Zighed, eds. 2009. *Data Mining and Medical Knowledge Management : Cases and Applications*. Medical Information Science : Idea Group Reference.
- 2009** Zighed, Djamel A., Shusaku Tsumoto, Zbigniew W. Ras, and Hakim Hacid, eds. 2009. *Mining Complex Data*. Vol. 165. Studies in Computational Intelligence. Springer.
- 2000** Zighed, Djamel A. and Ricco Rakotomalala. *Graphes d'induction: apprentissage et data mining*. Paris: Hermes Science Publications.
- 1993** Auray, Jean Paul, Gérard Duru, Michel Lamure, Alain Pelc, and Djamel A. Zighed. *Guidelines for evaluation in health care economics*. GYD Institute - Lyon.

- 1993 Belmandt, Z. *Manuel de Prétopologie et ses applications*. Hermès Science Publications.
- 1992 Zighed, Djamel A., Jean Paul Auray, and Gérard Duru. *SIPINA : Méthode et logiciel*. A. Lacassagne.
- 1991 Auray, Jean Paul, Gérard Duru, and Djamel A. Zighed. *Analyse des données multidimensionnelles : les méthodes d'explication*. Editions A. Lacassagne, Lyon.
- 1990 Auray, Jean Paul, Gérard Duru, and Djamel A. Zighed. *Analyse des données multidimensionnelles : les méthodes de structuration*. mathématiques appliquées. Editions Lacassagne A. Lyon.
- 1990 Auray, Jean Paul, Gérard Duru, and Djamel A. Zighed. *Analyse des données multidimensionnelles: aspects méthodologiques*. Lyon: Editions A. Lacassagne.
- 1990 Auray, Jean Paul, Gérard Duru, and Djamel A. Zighed. *Analyse des données multidimensionnelles: méthodes de description*. Lyon: Editions A. Lacassagne.

Proceedings

- 2016 Guillet, Fabrice, Bruno Pinaud, Gilles Venturini, and Djamel Abdelkader Zighed, eds. 2016. *Advances in Knowledge Discovery and Management - Volume 5*. Vol. 615. Studies in Computational Intelligence. Springer.
- 2014 Guillet, Fabrice, Bruno Pinaud, Gilles Venturini, and Djamel Abdelkader Zighed, eds. 2014. *Advances in Knowledge Discovery and Management - Volume 4 [Best of EGC 2012, Bordeaux, France]*. Vol. 527. Studies in Computational Intelligence. Springer.
- 2013 Guillet, Fabrice, Bruno Pinaud, Gilles Venturini, and Djamel Abdelkader Zighed, eds. 2013. *Advances in Knowledge Discovery and Management - Volume 3 [Best of EGC 2011, Brest, France]*. Vol. 471. Studies in Computational Intelligence. Springer.
- 2012 Guillet, Fabrice, Gilbert Ritschard, and Djamel Abdelkader Zighed, eds. 2012. *Advances in Knowledge Discovery and Management - Volume 2 [Best of EGC 2010, Hammamet, Tunisie]*. Vol. 398. Studies in Computational Intelligence. Springer.
- 2010 Guillet, Fabrice, Gilbert Ritschard, Djamel Abdelkader Zighed, and Henri Briand, eds. 2010. *Advances in Knowledge Discovery and Management [Best of EGC 2009, Strasbourg, France]*. Vol. 292. Studies in Computational Intelligence. Springer.

- 2008 Ras, Zbigniew W., Shusaku Tsumoto, and Djamel A. Zighed, eds. 2008. *Mining Complex Data, ECML/PKDD 2007 Third International Workshop, MCD 2007, Warsaw, Poland, September 17-21, 2007, Revised Selected Papers*. Vol. 4944. Lecture Notes in Computer Science.
- 2006 Ras, Zbigniew W., Djamel A. Zighed, and Shusaku Tsumoto, eds. 2006. *The Second International Workshop on Mining Complex Data - MCD'06 - In Conjunction with IEEE ICDM'06*. Hong Kong, China: ICDM-IEEE.
- 2005 Ras, Zbigniew W., Shusaku Tsumoto, and Djamel A. Zighed, eds. 2005. *Mining Complex Data; Proceedings of a Workshop held in Conjonction with 2005 IEEE International Conference on Data Mining*. IEEE. IEEE Computer Society.
- 2002 Hacid, Mohand-Said, Zbigniew W. Ras, Djamel A. Zighed, and Yves Kodratoff, eds. 2002. *Foundations of Intelligent Systems, 13th International Symposium, ISMIS 2002, Lyon, France, June 27-29, 2002, Proceedings*. Vol. 2366. Lecture Notes in Computer Science. Springer.
- 2002 Hérin, Danièle and Djamel A. Zighed, eds. 2002. *Extraction et gestion des connaissances (EGC'2002), Actes des deuxièmes journées Extraction et Gestion des Connaissances, Montpellier, France, 21-23 janvier 2002*. Vol. 1 / 4. Extraction des Connaissances et Apprentissage. Hermes Science Publications.
- 2000 Zighed, Djamel A., Henryk Jan Komorowski, and Jan M. Zytkow, eds. 2000. *Principles of Data Mining and Knowledge Discovery, 4th European Conference, PKDD 2000, Lyon, France, September 13-16, 2000, Proceedings*. Vol. 1910. Lecture Notes in Computer Science. Springer.
- 1998 Berchtold, Gilbert Ritschard André, François Duc, and Djamel A. Zighed, eds. 1998. *Apprentissage: des principes naturels aux méthodes artificielles*. Paris: Hermes Science Publications.
- 1995 Paugam-Moisy, Hélène, Jean Pierre Royet, and Djamel A. Zighed, eds. 1995. *Le Neuromimétisme: épistémologie, neurobiologie, informatique*. Lavoisier.
- 1990 Forsé, Michel, Marcel Brissaud, and Djamel A. Zighed, eds. 1990. *Modélisation : confluent des sciences*. Editions CNRS.

Chapters

2010

Zighed, Djamel A., Gilbert Ritschard, and Simon Marcellin. "Asymmetric and Sample Size Sensitive Entropy Measures for Supervised Learning". In: *Advances in Intelligent Information Systems*. Ed. by Zbigniew W. Ras and Li-Shiang Tsay. Vol. 265. Studies in Computational Intelligence. Springer, pp. 27–42.

2009

Hacid, Hakim and Abdelkader Djamel Zighed. "A Machine learning-Based Model for Content-Based Image Retrieval". In: *Artificial Intelligence for Maximizing Content Based Image Retrieval*. Ed. by Zongmin Ma. Idea Group Inc. (IGI). Chap. VIII, pp. 171–191.

2009

Ritschard, Gilbert, Simon Marcellin, and Djamel Abdelkader Zighed. "Arbre de décision pour données déséquilibrées : sur la complémentarité de l'intentisé d'implication et de l'entropie décentrée". In: *Analyse Statistique Implicative - Une méthode d'analyse de données pour la recherche de causalités*. Ed. by Fabrice Guillet, Régis Gras, and Jean-Claude Régnier. Vol. E-16. RNTI. Cépaduès-éditions, pp. 207–222.

2009

Sayed, Ahmad El, Hakim Hadid, and Djamel A. Zighed. "Exploring Validity Indices for Clustering Textual Data". In: *Mining Complex Data*. Ed. by Djamel A. Zighed, Shusaku Tsumoto, Zbigniew W. Ras, and Hakim Hadid. Vol. 165. Studies in Computational Intelligence. Springer, pp. 281–300.

2008

Ritschard, Gilbert, Vincent Pisetta, and Djamel A. Zighed. "Inducing and Evaluating Classification Trees with Statistical Implicative Criteria". In: *Statistical Implicative Analysis, Theory and Applications*. Ed. by Régis Gras, Einoshin Suzuki, Fabrice Guillet, and Filippo Spagnolo. Vol. 127. Studies in Computational Intelligence. Springer, pp. 397–419.

2007

Zighed, Djamel Abdelkader. "Induction Graphs for Data Mining". In: *Selected Contributions in Data Analysis and Classification*. Ed. by Paula Brito, Patrice Bertrand, and Guy Cucumel. Springer, pp. 419–430.

2006

Hacid, Hakim and Djamel A. Zighed. "A Machine Learning Based Model For Content Based Image Retrieval". In: *Semantic-Based Visual Information Retrieval*. Ed. by Yu-Jin Zhang. IRM Press, pp. 229–250.

2002

Zighed, Djamel A. and Ricco Rakotomalala. "Graphes d'Induction". In: *Bases de Données et Statistiques*. Ed. by Annie Morin, Patrick Bosc, Georges Hebrail, and Ludovic Lebart. 2ème cycle - Ecoles d'ingénieurs. Dunod, pp. 98–124.

1999

- Zighed, Djamel A., Sabine Rabaséda, Ricco Rakotomalala, and Fabien Feschet. "Discretization Methods in Supervised Learning". In: *Encyclopedia of Computer Science and Technology: Supplement 25*. Ed. by Allen Kent and James G. Williams. Vol. 40. New York: Marcel Dekker, pp. 35–50.

In proceedings

- 2016 Amir, Samir, Adrian Tanasescu, and Djamel Abdelkader Zighed. "Une mesure de similarité entre phrases basée sur des noyaux sémantiques". In: *16ème Journées Francophones Extraction et Gestion des Connaissances, EGC 2016, 18-22 Janvier 2016, Reims, France*, pp. 141–146.
- 2015 Campar, Aleksandra, Burcu Kolbay, Hector Aguilera, Iva Stankovic, Kaiser Co, Fabien Rico, and Djamel Abdelkader Zighed. "Author Disambiguation". In: *22nd International Symposium on Methodologies for Intelligent Systems*. Ed. by Floriana Esposito, Mohand-Sad Hacid, Olivier Pivert, and Zbigniew Ras. Springer Verlag, (To appear).
- 2015 Zighed, Djamel Abdelkader, Adrian Tanasescu, Francisco Rodriguez Drumond, and Fabien Rico. "Data Mining based approach for authors disambiguation in large citation networks". In: (*To appear*). Ed. by ISI.
- 2014 Diala Ezzeddine, Fabien Rico and Djamel Abdelkader Zighed. "New Approach to Detect the Political Opinion in Tweets". In: *Joint Conference on Robotics and Intelligent Systems, Brazil*. ufmg.br, pp. 1–6.
- 2013 Guille, Adrien, Cécile Favre, Hakim Hacid, and Djamel A. Zighed. "SONDY: an open source platform for social dynamics mining and analysis". In: *Proceedings of the ACM SIGMOD International Conference on Management of Data, SIGMOD 2013, New York, NY, USA, June 22-27, 2013*. Ed. by Kenneth A. Ross, Divesh Srivastava, and Dimitris Papadias. ACM, pp. 1005–1008.
- 2013 Zighed, Djamel A., Diala Ezzeddine, and Fabien Rico. "Neighborhood Random Classification". In: *Geometric Science of Information - First International Conference, GSI 2013, Paris, France, August 28-30, 2013. Proceedings*. Ed. by Frank Nielsen and Frédéric Barbaresco. Vol. 8085. Lecture Notes in Computer Science. Springer, pp. 767–774.
- 2013 Zighed, Djamel Abdelkader, Diala Ezzeddine, and Fabien Rico. "Topological learning with geometric graphs". In: *Joint Meeting of the IASC Conference and the 8th conference of the Asian Regional Section of the IASC*. Yonsei University, Seoul, Korea, pp. 21–23.

- 2012** Forestier, M., J. Velcin, and D. A. Zighed. "Analyzing Social Roles using Enriched Social Network on On-Line Sub-Communities". In: *The Sixth International Conference on Digital Society (ICDS'12) (Valencia, ES, 2012-01-30)*. ICDS'12, pp. 17–22.
- 2012** Forestier, Mathilde, Julien Velcin, Anna Stavrianou, and Djamel A. Zighed. "Extracting Celebrities from Online Discussions". In: *International Conference on Advances in Social Networks Analysis and Mining, ASONAM 2012, Istanbul, Turkey, 26-29 August 2012*. IEEE Computer Society, pp. 322–326.
- 2012** Zighed, Djamel Abdelkader, Rafik Abdesselam, and Asmelash Hadgu. "Topological Comparisons of Proximity Measures". In: *Advances in Knowledge Discovery and Data Mining - 16th Pacific-Asia Conference, PAKDD 2012, Kuala Lumpur, Malaysia, May 29-June 1, 2012, Proceedings, Part I*. Ed. by Pang-Ning Tan, Sanjay Chawla, Chin Kuan Ho, and James Bailey. Vol. 7301. Lecture Notes in Computer Science. Springer, pp. 379–391.
- 2012** Zighed, Djamel Abdelkader, Diala Ezzeddine, and Fabien Rico. "Neighborhood Random Classification". In: *Advances in Knowledge Discovery and Data Mining - 16th Pacific-Asia Conference, PAKDD 2012, Kuala Lumpur, Malaysia, May 29-June 1, 2012, Proceedings, Part I*. Ed. by Pang-Ning Tan, Sanjay Chawla, Chin Kuan Ho, and James Bailey. Vol. 7301. Lecture Notes in Computer Science. Springer, pp. 98–108.
- 2011** Forestier, Mathilde, Julien Velcin, and Djamel A. Zighed. "Extracting Social Networks Enriched by Using Text". In: *Foundations of Intelligent Systems - 19th International Symposium, ISMIS 2011, Warsaw, Poland, June 28-30, 2011. Proceedings*. Ed. by Marzena Kryszkiewicz, Henryk Rybinski, Andrzej Skowron, and Zbigniew W. Ras. Vol. 6804. Lecture Notes in Computer Science. Springer, pp. 140–145.
- 2011** Forestier, Mathilde, Julien Velcin, and Djamel A. Zighed. "Extracting Social Networks to Understand Interaction". In: *International Conference on Advances in Social Networks Analysis and Mining, ASONAM 2011, Kaohsiung, Taiwan, 25-27 July 2011*. IEEE Computer Society, pp. 213–219.
- 2011** Rico, Fabien and Djamel Abdelkader Zighed. "Classificateurs aléatoires topologiques à base de graphes de voisinages". In: *Extraction et gestion des connaissances (EGC'2011), Actes, 25 au 29 janvier 2011, Brest, France*. Ed. by Ali Khenchaf and Pascal Poncelet. Vol. RNTI-E-20. Revue des Nouvelles Technologies de l'Information. Hermann-éditions, pp. 83–88.

- 2011** Zighed, Djamel Abdelkader, Rafik Abdesselam, and Ahmed Bounekkar. "Comparison of Proximity Measures: A Topological Approach". In: *Advances in Knowledge Discovery and Management - Volume 3 [Best of EGC 2011, Brest, France]*. Ed. by Fabrice Guillet, Bruno Pinaud, Gilles Venturini, and Djamel Abdelkader Zighed. Vol. 471. Studies in Computational Intelligence. Springer, pp. 43–58.
- 2011** Zighed, Djamel Abdelkader, Rafik Abdesselam, and Ahmed Bounekkar. "Equivalence topologique entre mesures de proximité". In: *Extraction et gestion des connaissances (EGC'2011), Actes, 25 au 29 janvier 2011, Brest, France*. Ed. by Ali Khenchaf and Pascal Poncelet. Vol. RNTI-E-20. Revue des Nouvelles Technologies de l'Information. Hermann-éditions, pp. 53–64.
- 2010** Pisetta, Vincent, Pierre-Emmanuel Jouve, and Djamel A. Zighed. "Construction de noyaux pour l'apprentissage supervisé à partir d'arbres aléatoires". In: *Extraction et gestion des connaissances (EGC'2010), Actes, 26 au 29 janvier 2010, Hammamet, Tunisie*. Ed. by Sadok Ben Yahia and Jean-Marc Petit. Vol. RNTI-E-19. Revue des Nouvelles Technologies de l'Information. Cépaduès-éditions, pp. 525–536.
- 2010** Pisetta, Vincent, Pierre-Emmanuel Jouve, and Djamel A. Zighed. "Learning with Ensembles of Randomized Trees : New Insights". In: *Machine Learning and Knowledge Discovery in Databases, European Conference, ECML PKDD 2010, Barcelona, Spain, September 20-24, 2010, Proceedings, Part III*. Ed. by José L. Balcazar, Francesco Bonchi, Aristides Gionis, and Michèle Sebag. Vol. 6323. Lecture Notes in Computer Science. Springer, pp. 67–82.
- 2009** Pisetta, Vincent and Djamel A. Zighed. "Similarity and Kernel Matrix Evaluation Based on Spatial Autocorrelation Analysis". In: *Foundations of Intelligent Systems, 18th International Symposium, ISMIS 2009, Prague, Czech Republic, September 14-17, 2009. Proceedings*. Ed. by Jan Rauch, Zbigniew W. Ras, Petr Berka, and Tapio Elomaa. Vol. 5722. Lecture Notes in Computer Science. Springer, pp. 422–430.
- 2009** Qureshi, Taimur and Djamel A. Zighed. "A Soft Discretization Technique for Fuzzy Decision Trees Using Resampling". In: *Intelligent Data Engineering and Automated Learning - IDEAL 2009, 10th International Conference, Burgos, Spain, September 23-26, 2009. Proceedings*. Ed. by Emilio Corchado and Hujun Yin. Vol. 5788. Lecture Notes in Computer Science. Springer, pp. 586–593.
- 2009** Qureshi, Taimur and Djamel A. Zighed. "On Improving Discretization Quality by a Bagging Technique". In: *Fifth International Conference on Natural Computation, ICNC 2009, Tianjin, China, 14-16 August 2009, 6 Volumes*. Ed. by Haiying Wang, Kay Soon Low, Kexin Wei, and Junqing Sun. IEEE Computer Society, pp. 226–231.

2009

Qureshi, Taimur and Djamel A. Zighed. "Using Resampling Techniques for Better Quality Discretization". In: *Machine Learning and Data Mining in Pattern Recognition, 6th International Conference, MLDM 2009, Leipzig, Germany, July 23-25, 2009. Proceedings*. Ed. by Petra Perner. Vol. 5632. Lecture Notes in Computer Science. Springer, pp. 68–81.

2008

Marcellin, Simon, Djamel A. Zighed, and Gilbert Ritschard. "Evaluating Decision Trees Grown with Asymmetric Entropies". In: *Foundations of Intelligent Systems, 17th International Symposium, ISMIS 2008, Toronto, Canada, May 20-23, 2008, Proceedings*. Ed. by Aijun An, Stan Matwin, Zbigniew W. Ras, and Dominik Slezak. Vol. 4994. Lecture Notes in Computer Science. Springer, pp. 58–67.

2008

Marcellin, Simon, Djamel A. Zighed, and Gilbert Ritschard. "Évaluation des critères asymétriques pour les arbres de décision". In: *Extraction et gestion des connaissances (EGC'2008), Actes des 8èmes journées Extraction et Gestion des Connaissances, Sophia-Antipolis, France, 29 janvier au 1er février 2008, 2 Volumes*. Ed. by Fabrice Guillet and Brigitte Trouse. Vol. RNTI-E-11. Revue des Nouvelles Technologies de l'Information. Cépaduès-éditions, pp. 209–210.

2008

Qureshi, Taimur and Djamel A. Zighed. "Discretization of Continuous Features by Resampling". In: *Extraction et gestion des connaissances (EGC'2008), Actes des 8èmes journées Extraction et Gestion des Connaissances, Sophia-Antipolis, France, 29 janvier au 1er février 2008, 2 Volumes*. Ed. by Fabrice Guillet and Brigitte Trouse. Vol. RNTI-E-11. Revue des Nouvelles Technologies de l'Information. Cépaduès-éditions, pp. 343–348.

2008

Sayed, Ahmad El, Hakim Hacid, and Djamel A. Zighed. "A New Framework for Taxonomy Discovery from Text". In: *Advances in Knowledge Discovery and Data Mining, 12th Pacific-Asia Conference, PAKDD 2008, Osaka, Japan, May 20-23, 2008 Proceedings*. Ed. by Takashi Washio, Einoshin Suzuki, Kai Ming Ting, and Akihiro Inokuchi. Vol. 5012. Lecture Notes in Computer Science. Springer, pp. 985–991.

2008

Sayed, Ahmad El, Hakim Hacid, and Djamel A. Zighed. "Enhancing Semantic Distance with Context Awareness". In: *Atelier EGC SemSim*. Ed. by Sophia Antipolis INRIA, pp. 12–17.

2008

Sayed, Ahmad El, Hakim Hacid, and Djamel A. Zighed. "Involving Validity Indices in Document Clustering". In: *Conférence en Recherche d'Infomations et Applications - CORIA 2008, 5th French Information Retrieval Conference, Trégastel, France, March 12-14, 2008. Proceedings*. Université de Renne 1, pp. 103–118.

2008

Sayed, Ahmad El, Hakim Hacid, and Djamel A. Zighed. "On Determining the Optimal Partition in Agglomerative Clustering of Documents". In: *Foundations of Intelligent Systems, 17th International Symposium, ISMIS 2008, Toronto, Canada, May 20-23, 2008, Proceedings*. Ed. by Aijun An, Stan Matwin, Zbigniew W. Ras, and Dominik Slezak. Vol. 4994. Lecture Notes in Computer Science. Springer, pp. 487–496.

2008

Sayed, Ahmad El, Julien Velcin, and Djamel A. Zighed. "Word Clustering with Validity Indices". In: *Advances in Artificial Intelligence , 21st Conference of the Canadian Society for Computational Studies of Intelligence, Canadian AI 2008, Windsor, Canada, May 28-30, 2008, Proceedings*. Ed. by Sabine Bergler. Vol. 5032. Lecture Notes in Computer Science. Springer, pp. 259–270.

2008

Sayed, Ahmed El, Hakim Hacid, and Djamel Abdelkader Zighed. "On Involving Validity Indices in Document Clustering". In: *5eme Conf. en Recherche d'Information et Application*. Ed. by Tregastel CORIA.

2007

Pisetta, Vincent, Gilbert Ritschard, and Djamel A. Zighed. "Choix des conclusions et validation des règles issues d'arbres de classification". In: *Extraction et gestion des connaissances (EGC'2007), Actes des cinquièmes journées Extraction et Gestion des Connaissances, Namur, Belgique, 23-26 janvier 2007, 2 Volumes*. Ed. by Monique Noirhomme-Fraiture and Gilles Venturini. Vol. RNTI-E-9. Revue des Nouvelles Technologies de l'Information. Cépaduès-éditions, pp. 485–496.

2007

Ritschard, Gilbert, Djamel A. Zighed, and Simon Marcellin. "Données déséquilibrées, entropie décentrée et indice dimplication". In: *Nouveaux apports théoriques à l'analyse statistique implicative et applications*. Ed. by Régis Gras, Pilar Orús, Bruno Pinaud, and Pablo Gregori. ASI 4. Departament de Matemàtiques, Universitat Jaume I, pp. 315–327.

2007

Sayed, Ahmad El, Hakim Hacid, and Djamel A. Zighed. "A Context-Dependent Semantic Distance Measure". In: *Proceedings of the Nineteenth International Conference on Software Engineering & Knowledge Engineering (SEKE'2007), Boston, Massachusetts, USA, July 9-11, 2007*. Knowledge Systems Institute Graduate School, pp. 432–437.

2007

Sayed, Ahmad El, Hakim Hacid, and Djamel A. Zighed. "A Multisource Context-Dependent Semantic Distance Between Concepts". In: *Database and Expert Systems Applications, 18th International Conference, DEXA 2007, Regensburg, Germany, September 3-7, 2007, Proceedings*. Ed. by Roland Wagner, Norman Revell, and Günther Pernul. Vol. 4653. Lecture Notes in Computer Science. Springer, pp. 54–63.

- 2007** Sayed, Ahmad El, Hakim Hacid, and Djamel A. Zighed. "A New Approach Towards Content-based Heterogeneous Information Retrieval". In: *ECML/PKDD Workshop on Mining Complex Data*. Ed. by Z. W. Ras, S. Tsumoto, and D. A. Zighed. Warsaw, Poland.
- 2007** Sayed, Ahmad El, Hakim Hacid, and Djamel A. Zighed. "A New Context-Aware Measure for Semantic Distance Using a Taxonomy and a Text Corpus". In: *Proceedings of the IEEE International Conference on Information Reuse and Integration, IRI 2007, 13-15 August 2007, Las Vegas, Nevada, USA*. IEEE Systems, Man, and Cybernetics Society, pp. 279–284.
- 2007** Sayed, Ahmad El, Hakim Hacid, and Djamel A. Zighed. "Combining Text and Image for Content-based Information Retrieval". In: *Proceedings of the 2007 International Conference on Information & Knowledge Engineering, IKE 2007, June 25-28, 2007, Las Vegas, Nevada, USA*. Ed. by Hamid R. Arabnia and Ray R. Hashemi. CSREA Press, pp. 47–53.
- 2007** Sayed, Ahmad El, Hakim Hacid, and Djamel A. Zighed. "Mining semantic distance between corpus terms". In: *Proceedings of the First Ph.D. Workshop in CIKM, PIKM 2007, Sixteenth ACM Conference on Information and Knowledge Management, CIKM 2007, Lisbon, Portugal, November 9, 2007*. Ed. by Aparna S. Varde and Jian Pei. ACM, pp. 49–54.
- 2007** Sayed, Ahmad El, Hakim Hacid, and Djamel A. Zighed. "Recherche d'Information par le Contenu des Données Hétérogènes". In: *RIAS*. Ed. by Moh Boghanem. Université de Toulouse, IRIT.
- 2007** Sayed, Ahmad El, Hakim Hacid, and Djamel A. Zighed. "Using Semantic Distance in a Content-Based Heterogeneous Information Retrieval System". In: *Mining Complex Data, ECML/PKDD 2007 Third International Workshop, MCD 2007, Warsaw, Poland, September 17-21, 2007, Revised Selected Papers*. Ed. by Zbigniew W. Ras, Shusaku Tsumoto, and Djamel A. Zighed. Vol. 4944. Lecture Notes in Computer Science, pp. 224–237.
- 2007** Studer, Mathias, Gilbert Ritschard, Luis Baccaro, Irina Georgiou, Nicolas Muller, and Djamel A. Zighed. "Relations entre types de violation des libertés syndicales garanties par les conventions de l'OIT : Une analyse statistique implicative des résultats d'une fouille de texte". In: *Nouveaux apports théoriques à l'analyse statistique implicative et applications*. Ed. by Régis Gras, Pilar Orús, Bruno Pinaud, and Pablo Gregori. ASI 4. Departament de Matemàtiques, Universitat Jaume I, pp. 111–122.

- 2007** Zighed, Djamel A., Simon Marcellin, and Gilbert Ritschard. "Mesure d'entropie asymétrique et consistante". In: *Extraction et gestion des connaissances (EGC'2007), Actes des cinquièmes journées Extraction et Gestion des Connaissances, Namur, Belgique, 23-26 janvier 2007, 2 Volumes*, pp. 81–86.
- 2007** Zighed, Djamel A., Vincent Pisetta, and David Ratsimba. "Separability of Classes in a multidimensional Space". In: *Classification and Data Analysis*. Ed. by F. Palumbo. Meeting of the classification and Data Analysis Group of the Italian Statistical Society. eum edizioni università di macerata, pp. 147–150.
- 2006** Brémond, Alain, Alain Isnard, Nicolas Nicoloyannis, and Djamel A. Zighed. "Numérisation secondaire et Lecture sur Ecran : Evaluation des Performances". In: *Innovations Technologiques et Bonnes Pratiques en Sénologie : Dépistage - Diagnostic - Traitement*. Ed. by Alain Isnard and Armelle Travade. Sofmis 2006. Fusium, pp. 22–28.
- 2006** Brémond, Alain, Pierre-Emmanuel Jouve, Julien Thomas, Jeremy Clech, and Djamel A. Zighed. "Résultats Préliminaires d'une étude comparative de deux CAD". In: *Innovations Technologiques et Bonnes Pratiques en Sénologie : Dépistage - Diagnostic - Traitement*. Ed. by Alain Isnard and Armelle Travade. Sofmis. Clermont Férrand (France): fusium, pp. 92–94.
- 2006** Coman, Irina Diana and Djamel Abdelkader Zighed. "Comparaison des mammographies par des méthodes d'apprentissage". In: *Extraction et gestion des connaissances (EGC'2006), Actes des sixièmes journées Extraction et Gestion des Connaissances, Lille, France, 17-20 janvier 2006, 2 Volumes*. Ed. by Gilbert Ritschard and Chabane Djeraba. Vol. RNTI-E-6. Revue des Nouvelles Technologies de l'Information. Cépaduès-éditions, pp. 711–712.
- 2006** Hacid, Hakim and Djamel A. Zighed. "Content based image retrieval using topological models". In: *12th International Conference on Multi Media Modeling (MMM 2006), 4-6 January 2006, Beijing, China*. IEEE.
- 2006** Hacid, Hakim and Djamel A. Zighed. "Content-based retrieval in large image databases". In: *Proc. of International Conference on Granular Computing*, pp. 498–501.
- 2006** Hacid, Hakim and Djamel Abdelkader Zighed. "Graphes de voisinage pour l'indexation et l'interrogation d'images par le contenu". In: *Extraction et gestion des connaissances (EGC'2006), Actes des sixièmes journées Extraction et Gestion des Connaissances, Lille, France, 17-20 janvier 2006, 2 Volumes*. Ed. by Gilbert Ritschard and Chabane Djeraba. Vol. RNTI-E-6. Revue des Nouvelles Technologies de l'Information. Cépaduès-éditions, pp. 11–22.

- 2006 Marcellin, Simon, Djamel A. Zighed, and Gilbert Ritschard. "An asymmetric entropy measure for decision tree". In: *Proceedings of the 11th International Conference on Information Processing and Management of Uncertainty in Knowledge-Based Systems, IPMU 2006, Paris*. Ed. by Bernadette Bouchon-Meunier. Laforia Paris, pp. 1292–1299.
- 2006 Marcellin, Simon, Djamel A. Zighed, and Gilbert Ritschard. "Detection of breast cancer using an asymmetric entropy measure". In: *COMPSTAT 2006 - Proceedings in Computational Statistics*. Ed. by Alfredo Rizzi and Maurizio Vichi. Vol. XXV. Computational Statistics. Compstat. Springer, pp. 975–982.
- 2006 Pisetta, Vincent, Hakim Hacid, Fazia Bellal, Gilbert Ritschard, and Djamel A. Zighed. "Traitement automatique de textes juridiques". In: *Actes de SdC 2006, Semaine de la Connaissance, 26-30 juin 2006*. Ed. by Rémi Lehn, Mounira Harzallah, Nathalie Aussenac-Gilles, and Jean Charlet. Nantes, France, On line CD.
- 2006 Pisetta, Vincent, Hakim Hacid, and Djamel A. Zighed. "Multi-catégorisation de textes juridiques et retour de pertinence". In: *Extraction et gestion des connaissances (EGC'2006), Actes des sixièmes journées Extraction et Gestion des Connaissances, Lille, France, 17-20 janvier 2006, 2 Volumes*. Ed. by Gilbert Ritschard and Chabane Djeraba. Vol. RNTI-E-6. Revue des Nouvelles Technologies de l'Information. Cépaduès-éditions, pp. 235–246.
- 2006 Ritschard, Gilbert and Djamel A. Zighed. "Implication Strength of Classification Rules". In: *Foundations of Intelligent Systems, 16th International Symposium, ISMIS 2006, Bari, Italy, September 27-29, 2006, Proceedings*. Ed. by Floriana Esposito, Zbigniew W. Ras, Donato Malerba, and Giovanni Semeraro. Vol. 4203. Lecture Notes in Computer Science. Springer, pp. 463–472.
- 2006 Zighed, Djamel A. "Aspects conceptuels : Différentes Méthodologies des Systèmes Experts pour la Détection ou la Caractérisation". In: *Innovations Technologiques et Bonnes pratiques en Sénologie : Dépistage - Diagnostic - Traitement*. Ed. by Alain Isnard and Armelle Travade. Sofmis 2006. fusium, pp. 76–81.
- 2006 Zighed, Djamel A. and Hakim Hacid. "Proximity graphs and separability of classes". In: *Proceedings of the 11th International Conference on Information Processing and Management of Uncertainty in Knowledge-Based Systems, IPMU 2006, Paris*. Ed. by Bernadette Bouchon-Meunier. IPMU. Paris, France, pp. 1488–1495.
- 2006 Zighed, Djamel A. and Alain Isnard. "Projet NORDOM (Numérisation, Optimisation, Rationalisation du Dépistage Organisé en Mammographie)". In: *Innovations Technologiques et Bonnes Pratiques en Sénologie : Dépistage - Diagnostic - Traitement*. Ed. by Alain Isnard and Armelle Travade. Sofmis 2006. fusium, pp. 29–34.

- 2006 Zighed, Djamel A., Simon Marcellin, and Gilbert Ritschard. "An asymmetric entropy measure for decision trees". In: *KNEMO, Knowledge Extraction and Modeling Workshop*. Capri, Italy.
- 2005 Hacid, Hakim and Djamel A. Zighed. "An Incremental Algorithm for neighborhood graphs construction". In: *IASC*. Ed. by Stanley Azen, Erricos John Kontogiorgues, and Jae Chang Lee. ISI-IASC. Cyprus: Dep. of Public and Bus. Adm. Univ. of Cyprus, p. 32.
- 2005 Hacid, Hakim and Djamel A. Zighed. "Neighborhood Graphs for Image Databases Indexing and Content-Based Retrieval". In: *First IEEE International Workshop on Mining Complex Data (IEE MCD05)*. Ed. by Zbigniew W. Ras, Shusaku Tsumoto, and Djamel A. Zighed. Texas, USA: IEEE Computer Society, pp. 45–51.
- 2005 Hacid, Hakim and Djamel Abdelkader Zighed. "An Effective Method for Locally Neighborhood Graphs Updating". In: *Database and Expert Systems Applications, 16th International Conference, DEXA 2005, Copenhagen, Denmark, August 22-26, 2005, Proceedings*. Ed. by Kim Viborg Andersen, John K. Debenham, and Roland Wagner. Vol. 3588. Lecture Notes in Computer Science. Springer, pp. 930–939.
- 2005 Pisetta, Vincent, Hakim Hacid, and Djamel A. Zighed. "Automatic Juridical Texts Classification and Relevance Feedback". In: *First IEEE International Workshop on Mining Complex Data (IEE MCD05), Houston Texas, USA*. Ed. by Zbigniew W. Ras, Shusaku Tsumoto, and Djamel A. Zighed. IEEE Computer Society, pp. 81–84.
- 2004 Muhlenbach, Fabrice, Stéphane Lallich, and Djamel A. Zighed. "Outlier Handling in the Neighbourhood-Based Learning of a Continuous Class". In: *Discovery Science, 7th International Conference, DS 2004, Padova, Italy, October 2-5, 2004, Proceedings*. Ed. by Einoshin Suzuki and Setsuo Arikawa. Vol. 3245. Lecture Notes in Computer Science. Springer, pp. 314–321.
- 2004 Scuturici, Mihaela, Jérémie Clech, Vasile-Marian Scuturici, and Djamel A. Zighed. "Modèle topologique pour l'interrogation des bases d'images". In: *Extraction et gestion des connaissances (EGC'2004), Actes des quatrièmes journées Extraction et Gestion des Connaissances, Clermont Ferrand, France, 20-23 janvier 2004, 2 Volumes*. Ed. by Georges Hébrail, Ludovic Lebart, and Jean-Marc Petit. Vol. RNTI-E-2. Revue des Nouvelles Technologies de l'Information. Cépaduès-éditions, pp. 409–414.
- 2004 Scuturici, Mihaela, Vasile-Marian Scuturici, Jérémie Clech, and Djamel A. Zighed. "Navigation dans une base d'images à l'aide de graphes topologiques". In: *Actes du XXIIème Congrès INFORSID, Biarritz, France, 25-28 mai, 2004*, pp. 335–349.

2003

Clech, Jérémie and Djamel A. Zighed. "Data Mining et analyse des CV : une expérience et des perspectives". In: *Extraction et gestion des connaissances (EGC'2003), Actes des troisièmes journées Extraction et Gestion des Connaissances, Lyon, France, 22-24 janvier 2003*. Ed. by Mohand-Said Hacid, Yves Kodratoff, and Danielle Boulanger. Vol. 17 / 1-3. Revue des Sciences et Technologies de l'Information - série RIA ECA. Hermes Science Publications, pp. 189–200.

2003

Hammami, Mohamed, Youssef Chahir, Liming Chen, and Djamel A. Zighed. "Détection des régions de couleur de peau dans l'image". In: *Extraction et gestion des connaissances (EGC'2003), Actes des troisièmes journées Extraction et Gestion des Connaissances, Lyon, France, 22-24 janvier 2003*. Ed. by Mohand-Said Hacid, Yves Kodratoff, and Danielle Boulanger. Vol. 17 / 1-3. Revue des Sciences et Technologies de l'Information - série RIA ECA. Hermes Science Publications, pp. 219–231.

2003

Lallich, Stéphane, Fabrice Muhlenbach, and Djamel A. Zighed. "Traitement des exemples atypiques en apprentissage par la régression". In: *Extraction et gestion des connaissances (EGC'2003), Actes des troisièmes journées Extraction et Gestion des Connaissances, Lyon, France, 22-24 janvier 2003*. Ed. by Mohand-Said Hacid, Yves Kodratoff, and Danielle Boulanger. Vol. 17 / 1-3. Revue des Sciences et Technologies de l'Information - série RIA ECA. Hermes Science Publications, pp. 399–410.

2003

Léger, Bertrand, Nadir Belkhiter, and Djamel A. Zighed. "Conception d'un outil d'exploration graphique et visuelle des données". In: *Extraction et gestion des connaissances (EGC'2003), Actes des troisièmes journées Extraction et Gestion des Connaissances, Lyon, France, 22-24 janvier 2003*. Ed. by Mohand-Said Hacid, Yves Kodratoff, and Danielle Boulanger. Vol. 17 / 1-3. Revue des Sciences et Technologies de l'Information - série RIA ECA. Hermes Science Publications, pp. 83–92.

2003

Ritschard, Gilbert and Djamel A. Zighed. "Goodness-of-Fit Measures for Induction Trees". In: *Foundations of Intelligent Systems, 14th International Symposium, ISMIS 2003, Maebashi City, Japan, October 28-31, 2003, Proceedings*. Ed. by Ning Zhong, Zbigniew W. Ras, Shusaku Tsumoto, and Einoshin Suzuki. Vol. 2871. Lecture Notes in Computer Science. Springer, pp. 57–64.

2003

Ritschard, Gilbert and Djamel A. Zighed. "Modélisation de tables de contingence par arbres d'induction". In: *Extraction et gestion des connaissances (EGC'2003), Actes des troisièmes journées Extraction et Gestion des Connaissances, Lyon, France, 22-24 janvier 2003*. Ed. by Mohand-Said Hacid, Yves Kodratoff, and Danielle Boulanger. Vol. 17 / 1-3. Revue des Sciences et Technologies de l'Information - série RIA ECA. Hermes Science Publications, pp. 381–392.

- 2003 Ritschard, Gilbert and Djamel A. Zighed. "Simultaneous Row and Column Partitioning: Evaluation of a Heuristic". In: *Foundations of Intelligent Systems, 14th International Symposium, ISMIS 2003, Maebashi City, Japan, October 28-31, 2003, Proceedings*. Ed. by Ning Zhong, Zbigniew W. Ras, Shusaku Tsumoto, and Einoshin Suzuki. Vol. 2871. Lecture Notes in Computer Science. Springer, pp. 468–472.
- 2003 Scuturici, Mihaela, Jérémie Clech, and Djamel A. Zighed. "Topological Query in Image Databases". In: *Progress in Pattern Recognition, Speech and Image Analysis, 8th Iberoamerican Congress on Pattern Recognition, CIARP 2003, Havana, Cuba, November 26-29, 2003, Proceedings*. Ed. by Alberto Sanfeliu and José Ruiz-Shulcloper. Vol. 2905. Lecture Notes in Computer Science. Springer, pp. 145–152.
- 2003 Zighed, Djamel A., Walid Erray, Marian V. Scuturici, and Gilbert Ritschard. "Arbogodaï: Segmentation généralisée". In: *Science of Electronics, Technology of Information and Telecommunications, SETIT 2003*. Susa, Tunisia.
- 2003 Zighed, Djamel A., Gilbert Ritschard, Walid Erray, and Vasile-Marian Scuturici. "Arbogodaï, a New Approach for Decision Trees". In: *Knowledge Discovery in Databases: PKDD 2003, 7th European Conference on Principles and Practice of Knowledge Discovery in Databases, Cavtat-Dubrovnik, Croatia, September 22-26, 2003, Proceedings*. Ed. by Nada Lavrac, Dragan Gamberger, Hendrik Blockeel, and Ljupco Todorovski. Vol. 2838. Lecture Notes in Computer Science. Springer, pp. 495–506.
- 2002 Hammi, Mohamed, Liming Chen, Djamel A. Zighed, and Q. Song. "Définition d'un modèle de peau et son utilisation pour la classification des images". In: *MediaNet2002*. Ed. by Liming Chen. Hermes Science Publications, pp. 186–197.
- 2002 Lallich, Stéphane, Fabrice Muhlenbach, and Djamel A. Zighed. "Improving Classification by Removing or Relabeling Mislabeled Instances". In: *Foundations of Intelligent Systems, 13th International Symposium, ISMIS 2002, Lyon, France, June 27-29, 2002, Proceedings*. Ed. by Mohand-Said Hadid, Zbigniew W. Ras, Djamel A. Zighed, and Yves Kodratoff. Vol. 2366. Lecture Notes in Computer Science. Springer, pp. 5–15.
- 2002 Lallich, Stéphane, Fabrice Muhlenbach, and Djamel A. Zighed. "Test de structure pour la prédiction de variable numérique". In: *Actes du IXème Congrès de la Société Francophone de Classification (SFC'02); Toulouse, France (2002)*, pp. 235–238.

- 2002 Muhlenbach, Fabrice, Stéphane Lallich, and Djamel A. Zighed. "Amélioration d'une classification par filtrage des exemples mal étiquetés". In: *Extraction et gestion des connaissances (EGC'2002), Actes des deuxièmes journées Extraction et Gestion des Connaissances, Montpellier, France, 21-23 janvier 2002*. Ed. by Danièle Hérin and Djamel A. Zighed. Vol. 1 / 4. Extraction des Connaissances et Apprentissage. Hermes Science Publications, pp. 155–166.
- 2002 Ritschard, Gilbert and Djamel A. Zighed. "Qualité d'ajustement d'arbres d'induction". In: *Actes rencontres Gafo Données*. Ed. by Fabrice Guillet, Régis Gras, and Henri Briand. Paris: Universite de Nantes.
- 2002 Zighed, Djamel A., Stéphane Lallich, and Fabrice Muhlenbach. "Separability Index in Supervised Learning". In: *Principles of Data Mining and Knowledge Discovery, 6th European Conference, PKDD 2002, Helsinki, Finland, August 19-23, 2002, Proceedings*. Ed. by Tapio Elomaa, Heikki Mannila, and Hannu Toivonen. Vol. 2431. Lecture Notes in Computer Science. Springer, pp. 475–487.
- 2002 Zighed, Djamel A., Stéphane Lallich, and Fabrice Mulhenbach. "A statistical approach for separability of classes". In: *Conference : Statistical Learning, Theory and Applications*. Ed. by Gilbert Saporta. CNAM Paris, pp. 58–65.
- 2002 Zighed, Djamel A., Gilbert Ritschard, and Walid Erray. "Bi dimensional partitioning with limited loss of information". In: *Proceedings Societa Italiana di Statistica, Milan*. Ed. by Milan Societa Italiana di Statistica, pp. 319–328.
- 2001 Muhlenbach, Fabrice, Djamel A. Zighed, and Sophie d'Hondt. "Génération de règles par compression". In: *Extraction et gestion des connaissances (EGC'2001), Actes des premières journées Extraction et Gestion des Connaissances, Nantes, France, 17-19 janvier 2001*. Ed. by Henri Briand and Fabrice Guillet. Vol. 1 / 1-2. Extraction des Connaissances et Apprentissage. Hermes Science Publications, pp. 93–104.
- 2001 Ritschard, Gilbert, Djamel A. Zighed, and Nicolas Nicoloyannis. "Maximiser l'association par agrégation dans un tableau croisé". In: *La fouille dans les données par la méthode d'analyse statistique implicative*. Ed. by Régis andt Marc Bailleul Gras. Vol. 154/155. Ecole polytechnique de l'Université de Nantes, IRIN et IUFCM Caen, pp. 219–233.
- 2001 Zighed, Djamel A., Stéphane Lallich, and Fabrice Mulhenbach. "Séparabilité des classes dans Rp". In: *Actes du VIIIeme rencontres de la Société Francophone de Classification (SFC'01)*. Ed. by SFC, pp. 356–363.

- 2000 Ciampi, Antonio, Djamel A. Zighed, and Jérémie Clech. "Trees and Induction Graphs for Multivariate Response". In: *Principles of Data Mining and Knowledge Discovery, 4th European Conference, PKDD 2000, Lyon, France, September 13-16, 2000, Proceedings*. Ed. by Djamel A. Zighed, Henryk Jan Komorowski, and Jan M. Zytkow. Vol. 1910. Lecture Notes in Computer Science. Springer, pp. 359–366.
- 2000 Ritschard, Gilbert, Djamel A. Zighed, and Nicolas Nicoloyannis. "Regroupement optimal dans un tableau croisé". In: *Actes des XXXIIèmes Journées de statistiques*. Ed. by SFDS. Fès: SFDS, pp. 664–669.
- 1999 Gavin, Gérald, Didier Puzenat, and Djamel A. Zighed. "Classifiers with Low Decision-Making Error using Linear Combination of Functions". In: *Proceedings of the International Conference on Artificial Intelligence, IC-AI '99, June 28 - July 1, 1999, Las Vegas, Nevada, USA, Volume 1*. Ed. by Hamid R. Arabnia. CSREA Press, pp. 226–232.
- 1999 Gavin, Gérald, Didier Puzenat, and Djamel A. Zighed. "How to use linear combinations of functions to get classifiers with low decision making error". In: *Proceedings of « International Conference on Artificial Intelligence (ICAI99)*. ECAI, pp. 226–232.
- 1999 Rakotomalala, Ricco, Djamel A. Zighed, and Fabien Feschet. "Caractérisation des règles de production dans un processus d'induction". In: *Apprentissage Automatique*. Ed. by Marc Sebban and Gilles Venturini. Hermes Science Publications, pp. 159–174.
- 1999 Sebban, Marc, Djamel A. Zighed, and S. Di Palma. "Selection and Statistical Validation of Features and Prototypes". In: *Principles of Data Mining and Knowledge Discovery, Third European Conference, PKDD '99, Prague, Czech Republic, September 15-18, 1999, Proceedings*. Ed. by Jan M. Zytkow and Jan Rauch. Vol. 1704. Lecture Notes in Computer Science. Springer, pp. 184–192.
- 1999 Zighed, Djamel A., Myriam Côté, and Nader Troudi. "The Data-Mining and the Technology af Agents to Fight the Illicit Electronic Messages". In: *Methodologies for Knowledge Discovery and Data Mining, Third Pacific-Asia Conference, PAKDD-99, Beijing, China, April 26-28, 1999, Proceedings*. Ed. by Ning Zhong and Lizhu Zhou. Vol. 1574. Lecture Notes in Computer Science. Springer, pp. 464–468.
- 1999 Zighed, Djamel A. and Marc Sebban. "Sélection et validation statistique de variables et de prototypes". In: *Apprentissage Automatique*. Ed. by Marc Sebban and Gilles Venturini. Hermes Science Publications, pp. 85–108.
- 1998 Côté, Marc, Djamel A. Zighed, and Nadir Troudi. "the data-mining and the agents technology to fight the illicit messages". In: *Proceedings Fourth International Conference on Computer Science and Informatics*.

- 1998
- Gavin, Gérald, Serge Di Palma, and Djamel A. Zighed. "Generalisation properties of convex linear combinations of classifiers belonging to a finite VC-dimension family". In: *Proceedings Fourth International Conference on Computer Science and Informatics*.
- 1998
- Rakotomalala, Ricco and Djamel A. Zighed. "Mesures PRE dans les graphes d'induction: une approche statistique de l'arbitrage généralité-précision". In: *Apprentissage : des principes naturels aux méthodes artificielles*. Ed. by Gilber Ritschard, Andre Berchtold, François Duc, and Djame A. Zighed. Hermès, pp. 257–270.
- 1998
- Rakotomalala, Ricco, Djamel A. Zighed, and Fabien Feschet. "Empirical evaluation of rule characterization in rule induction process". In: *Proceedings of the 15th European Meetings on Cybernetics and System Research*. Ed. by Robert Trappl. Cybernetics and Systems Research, pp. 799–804.
- 1998
- Sebban, Marc, Sabine Rabaséda, and Djamel A. Zighed. "Features selection for a gait identification model". In: *Apprentissage : des principes naturels aux méthodes artificielles*. Ed. by Gilbert Ritschard, André Berchtold, François Duc, and Djamel A. Zighed. Hermes Science Publications, pp. 139–150.
- 1997
- DiPalma, Serge, Jérôme DaRugna, and Djamel A. Zighed. "Apprentissage supervisé polythétique : une évaluation". In: *Actes Des Cinquièmes Rencontres de La Société Francophone de Classification*. Ed. by Djamel A. Zighed. ERIC Lyon 2, pp. 191–194.
- 1997
- Gavin, Gérald, Ricco Rakotomalala, and Djamel A. Zighed. "Heuristique de pondération de classificateurs en vue de l'amélioration des performances du bagging". In: *Actes Des Cinquièmes Rencontres de La Société Francophone de Classification*, pp. 217–221.
- 1997
- Rakotomalala, Ricco and Djamel A. Zighed. "Mesures d'association dans les graphes d'induction : une appoche statistique de l'arbitrage généralité-précision". In: *Proceedings of the 7th Conference of International Association for the Development of Interdisciplinary Research*. Ed. by Gilbert Ritschard. Univ. Geneva, pp. 131–134.
- 1997
- Rakotomalala, Ricco, Djamel A. Zighed, and Fabien Feschet. "Rule characterization in induction process". In: *Indo-French Workshop on Symbolic Data Analysis and its Applications*, pp. 190–199.
- 1997
- Sebban, Marc, Sabine Rabaséda, and Djamel A. Zighed. "Construction of a Gait Identification Model by a Statistical Learning". In: *7th Conference of the International Association for the Developpement of Interdisciplinary Research*. Ed. by Gilbert Ritschard. Univ. Geneva, pp. 49–53.

- 1997 Zighed, Djamel A., Ricco Rakotomalala, and Fabien Feschet. "Optimal Multiple Intervals Discretization of Continuous Attributes for Supervised Learning". In: *Proceedings of the Third International Conference on Knowledge Discovery and Data Mining (KDD-97), Newport Beach, California, USA, August 14-17, 1997*. Ed. by David Heckerman, Heikki Mannila, and Daryl Pregibon. AAAI Press, pp. 295–298.
- 1996 Grimm, G. and Djamel A. Zighed. "Eau-de-vie de fruits - une nouvelle méthode d'analyse des données". In: *Journées Internationales de Chimie Alimentaire Fribourg-en-Brisgau (Allemagne)*.
- 1996 Rabaséda, Sabine and Djamel A. Zighed. "Génération et simplification de règles dans les graphes d'induction". In: *Actes du XXVeme Colloque International l'Association Rhodanienne pour l'Avancement de l'Econométrie - ARAE'96*.
- 1996 Rakotomalala, Ricco and Djamel A. Zighed. "Evaluation et validation des sommets dans les graphes d'induction : une alternative à l'elagage". In: *Actes du XXVeme Colloque International l'Association Rhodanienne pour l'Avancement de l'Econométrie - ARAE'96*.
- 1996 Rakotomalala, Ricco, Djamel A. Zighed, and Sabine Rabaséda. "Rules extracted automatically by induction". In: *Proceedings of the 6th Conference on Information Processing and Management of Uncertainty*, pp. 551–556.
- 1996 Rakotomalala, Ricco, Djamel A. Zighed, and Sabine Rabaséda. "Validation of rules issued from induction graphs". In: *Proceedings of the 6th Conference on Information Processing and Management of Uncertainty*, pp. 1259–1264.
- 1996 Sebban, Marc and Djamel A. Zighed. "Discrimination of odors by semantic attributes and priming effects". In: *Proceedings of the 6th Conference on Information Processing and Management of Uncertainty*, pp. 693–697.
- 1996 Sebban, Marc and Djamel A. Zighed. "Test de séparabilité des classes dans R^p ". In: *Actes XXVème colloque des Structures Economiques, Econométrie et Informatique. Lyon*. AEA.
- 1996 Zighed, Djamel A., Ricco Rakotomalala, and Sabine Rabaséda. "A discretization method of continuous attributes in induction graphs". In: *Proceedings of the 13th European Meetings on Cybernetics and System Research, April 9-12*. Ed. by R. Trappl. Vienna, Austria: Univ. Vienna, pp. 997–1002.
- 1996 Zighed, Djamel A. and Marc Sebban. "Cognitive model for the identification of odors". In: *International Conference on Ordinal and Symbolic Data Analysis*, pp. 699–703.

- 1995 Grange, Marc, Djamel A. Zighed, and Blas Payri. "Knowldege Improvement through Genetic Algorithms". In: *Proceedings of the Second Annual Joint Conference on Information Science*, pp. 265–266.
- 1994 Amghar, Samia and Djamel A. Zighed. "The Universal Vote : a new criterion of classification". In: *Proceedings 10th International Conference on Systems Engineering Coventry, UK, September 6-8, 1994*.
- 1993 Hoskins, J., S. Chakravarthy, B. Ferreol, V.C. Kelessidis, L. Prouvost, and D. Djamel A. Zighed. "A Predictive Model of Mud Removal Efficiency Using Historical Well Data". In: *8th Petroleum Computer Conference, New Orleans, LA, July (1993)*.
- 1992 Lamure, Michel, Jean-Jacques Milan, Nicolas Nicolojannis, and Djamel A. Zighed. "Contour Detection, Statistical and Neural Network". In: *IPMU'92. Internat. Conf. on Information Processing and Management of Uncertainty in Knowledge 6-10, 1992*. Ed. by Bernadette Bouchon-Meunier, Llorenç Valverde, and Ronald R. Yager. Univ. Mallorca, pp. 143–146.
- 1992 Largeron, Christine, Michel Terrenoire, Daniel Tounissoux, and Djamel A. Zighed. "Reconnaissance de formes par relaxation. Application à l'aide au pronostic médical". In: *Fifth Int. Conf. on Syst. Science in Health Care, Prague 1992*. SSHC Society.
- 1992 Nicolojannis, Nicolas, Samia Amghar, and Djamel A. Zighed. "Modélisation de processus de diagnostic". In: *Fifth Int. Conf. on Syst. Science in Health Care, Prague 1992*. SSHC Society.
- 1992 Ritschard, Gilbert and Djamel A. Zighed. "Modélisation neuromimétique en sciences sociales". In: *IPMU'92. Internat. Conf. on Information Processing and Management of Uncertainty in Knowledge 6-10, 1992*. Ed. by B. Bouchon-Meunier.
- 1992 Ritschard, Gilbert and Djamel A. Zighed. "Réseaux sociaux et modèles neuromimétiques". In: *Intelligence artificielle et sciences et sciences humaines*. Ed. by Marcel Brissaud, Marc Grange, and Nicolas Nicolojannis. Hermes Science Publications, pp. 125–151.
- 1991 Zighed, Djamel A., Jean Paul Auray, Daniel Tounissoux, and Christine Largeron. "Discrimination by optimizing a local consistency criterion". In: *Proceedings Int. Conf. Symbolic-Numeric Data Analysis and Learning*. Ed. by Edwin Diday. NOVA SCIENCE.

1990

Auray, Jean Paul, Gérard Duru, Michel Terrenoire, and Djamel A. Zighed. "Caracterisation of various levels of risk in a population". In: *Advanced Studies in Applied and Theoretical Econometrics*. Ed. by Gérard Duru and Jean H. Paelinck. Kluwer Academic Publisher, pp. 227–235.

1990

Zighed, Djamel A., Jean Paul Auray, and Gérard Duru. "SIPINA: Une méthode d'évaluation". In: *Actes XXXth Int. Conf. of the Applied Econometrics Association Ankara-Turkey*. Ed. by AEA-GS.SANTE. Univ BILKENT (Turquie), pp. 289–298.

1990

Zighed, Djamel A., Jean Paul Auray, Daniel Tounissoux, and Christine Largeron. "A Discrimination method based upon local homogenety". In: *IPMU*. Ed. by Bernadette Bouchon. ENST Paris, pp. 301–306.

1990

Zighed, Djamel A., Daniel Tounissoux, Jean Paul Auray, and Christine Largeron. "Discrimination by Optimizing a Local Consistency Criterion". In: *IPMU '90: Proceedings of the 3rd International Conference on Information Processing and Management of Uncertainty in Knowledge-Based Systems*. London, UK: Springer-Verlag, pp. 337–348.

1989

Auray, Jean Paul, Gérard Duru, Daniel Tounissoux, and Djamel A. Zighed. "Segmentation and classification to patients' risk estimation". In: *Health-Econometrics*. Ed. by Jean Paelinck. Nijhoff.

1987

Fages, Robert, Michel Terrenoire, Daniel Tounissoux, and Djamel A. Zighed. "Non supervised classification tools adapted to supervised classification". In: *Proc. of the NATO Advanced Study Institute on Pattern recognition theory and applications*. Ed. by Pierre A. Devijver and Josef Kittler. Spa-Balmoral, Belgium: Springer-Verlag, pp. 57–62.

1986

Terrenoire, Michel, Daniel Tounissoux, and Djamel A. Zighed. "Interactive system for building a sequential intérrogation process". In: *IPMU*. Ed. by Bernadette Bouchon-Meunier. ENST Paris.

Patents

2010

Clech, Jérémie, Pierre Jouve, Julien Thomas, Abdelkader Zighed, et al. "Image processing method comprising the display of regions of interest in an X-Ray image according to scores associated with said regions". Pat. WO Patent 2,010,046,499.

2010

Clech, Jérémie, Pierre Jouve, Julien Thomas, Abdelkader Zighed, et al. "Image processing method comprising the display of regions of interest in an X-Ray image using markers". Pat.

Others

- 2013 Adrien Guille, Cécile Favre and Djamel A. Zighed. *SONDY : une plateforme open-source d'analyse et de fouille pour les réseaux sociaux en ligne*. Ed. by EGC, pp. 45–48.
- 2013 Zighed, Djamel Abdelkader, Céline Faure, Sofiane Bouzid, et al. *Les Sciences Humaines et Sociales dans le PRES LSE*.
- 2013 Zighed, Djamel Abdelkader, Adrian Tanasescu, and Pablo Jensen. *Essai d'analyse de l'interdisciplinarité dans la recherche scientifique*.
- 2007 Ritschard, Gilbert, Djamel A. Zighed, Luis Baccaro, Irina Georgiou, Vincent Pisetta, and Mthias Studer. *Mining Expert Comments on the Application of ILO Conventions on Freedom of Association and Collective Bargaining*. Cahiers du Département d'Econométrie.
- 2005 Corbet, Gilles, Gilbert Ritschard, Djamel A. Zighed, Matthieu Charpe, and Hakim Hacid. *Etudes de l'interdépendance des marchés immobiliers résidentiels sur le bassin franco-valdo-genevois, Rapport final*. Projet Interreg IIIA France-Suisse. Genève et Lyon.
- 2001 Ritschard, Gilbert and Djamel A. Zighed. *Data Mining et analyse des données*. Ed. by SFC. Point-à-Pitre.
- 1996 Zighed, Djamel A. and R. Rakotomalala. *SIPINA_W(c) for Windows: User's Guide*. University of Lyon 2.
- 1991 Ritschard, Gilbert and Djamel A. Zighed. *Réseau Sociaux et Modèles Neuromimétiques*. Cahiers du Département d'Econométrie, University of Geneva.

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