

Final Program

Monday, 1 July 2002

08:00 - 09:30 Registration / Enregistrement

09:30 - 10:00 Opening Session / Cérémonie d'ouverture

10:00 - 11:00 Plenary Session I

Arthur P. DEMPSTER, Harvard University (USA)

Chair / Président : R.R. Yager (USA)

- Theory of belief functions: history and prospects

11:00 - 11:30 Coffee Break / Pause café

11:30 - 12:30 Computing with words: Models and Applications - I

Chair / Président : F. Herrera (SPAIN)

- Linguistic Modelling of Imperfect Spatial Information in a Fuzzy Database
G. Bordogna, S. Chiesa, D. Geneletti
- An Information Retrieval System with Unbalanced Linguistic Information Based on the Linguistic 2-tuple Model
F. Herrera, E. Herrera-Viedma, L. Martinez
- Towards a Higher Level of Linguistic Granulation
R. John

11:30 - 12:30 Networks

Chair / Président : A. Ramer (AUSTRALIA)

- Modified Algorithm for Fuzzy Bayesian Networks Inference
J.F. Baldwin, E. Di Tomaso
- Validation of Diagnostic Models Using Graphical Belief Networks
O. Kipersztok
- Computing Diagnoses With Higher Posterior Probability Using Bayesian Networks
V. Delcroix, S. Piechowiak, J. Rodriguez

11:30 - 12:30 Automatic Methods for Odor and Taste Recognition

Chair / Président : M. Ramdani (MOROCCO)

- A fuzzy rule base for modelling red wine color in relation with winemaking parameters
S. Guillaume, B. Charnomodic
- Man-machine interaction for odor prediction
M. Kissi, B. Bouchon-Meunier, M. Ramdani, D. Zakarya
- Les nez électroniques, entre sensoriel et mesure
P. Grenier

11:30 - 12:30 **Argumentation**

Chair / Président : J. Gutierrez-Rios (SPAIN)

- Detecting Conflict-Free Argumentative or Abductive Knowledge Bases
R. Haenni
- Gradual handling of contradiction in argumentation frameworks
C. Cayrol, M.C. Lagasquie
- Knowledge management as a support for collective decision-making and argumentation processes
J. Montmain, A. Akharraz, G. Mauris

12:30 - 14:00 **Lunch / Déjeuner**

14:00 - 16:00 **Learning and Mining**

Chair / Président : H.L. Larsen (DANEMARK)

- Mining Implication-Based Fuzzy Association Rules in Databases
E. Hullermeier
- Acquiring an expert's obvious knowledge by using fuzzy repertory tables
J.J. Castro-Sanchez, J.L. Castro, J.M. Zurita
- Learning Rules from Multiple Instance Data: Issues and Algorithms
Y. Chevalyere, N. Bredeche, J.D. Zucker
- Mining Weighted Linguistic Association Rules
S.L. Wang, T.P. Hong, M.J. Chiang
- Continuous Method for Discovering Quantitative Association Rules in Databases
A. Shragai, M. Schneider
- Using PCA paradigm to mine functional data
D. Clot, S. Bonnevey, M. Lamure

14:00 - 16:00 **Fuzzy Relations**

Chair / Président : L. Valverde (SPAIN)

- Normal forms for fuzzy relations and their contribution to universal approximation
I. Perfilieva
- Fuzzified properties of fuzzy relations
J. Jacas, J. Recasens
- Numerical representations of fuzzy relational systems
S. Ovchinnikov
- On Clustering and Fuzzy Relations Decomposition
M. Wagenknecht, V. Schneider
- Degrees of Contradiction in Fuzzy Sets Theory
E. Castineira, S. Cubillo, S. Bellido
- Inclusion relations and orthogonality relations over property systems: first-order characterization and modal analysis
P. Balbiani

14:00 - 16:00 Pattern Recognition

Chair / Président : **T. Denoeux (FRANCE)**

- Values for the fuzzy C-means classifier in change detection for remote sensing
P. Deer, P. Eklund
- A Hierarchical Linguistic Clustering Algorithm for Prototype Induction
I. Gonzalez Rodriguez, J. Lawry, J.F. Baldwin
- An Investigation into How ADABOOST Affects Classifier Diversity
C.A. Shipp, L.I. Kuncheva
- A statistic method to compare dynamic systems in the state space
P. Loonis, P. Franco
- Fuzzy Clustering Algorithm Based on the Maximum Penalized Likelihood for Latent Class Model
C.B. Chen, C.T. Lin, W.H. Wu
- A new fuzzy clustering technique based on pdf estimation
J. Cutrona, N. Bonnet, M. Herbin

14:00 - 16:00 Rough Sets Methods and Applications - I

Chair / Président : **L. Polkowski (POLAND)**

- Learning Rules from Very Large Databases: A Rough Multiset Approach
C.C. Chan
- MLEM2: A New Algorithm for Rule Induction from Imperfect Data
J.W. Grzymala-Busse
- Approximation of Functions by Means of Fuzzy Rough Sets
M. Inuiguchi, T. Tanino
- Neighborhood Systems and Qualitative Fuzzy Sets
T.Y. Lin, S. Tsumoto
- On A-exact and A-rough sets in potentially infinite information systems
L. Polkowski, M. Polkowska
- Extraction of Hierarchical Decision Rules from Medical Databases using Rough Set Model
S. Tsumoto

16:00 - 16:30 Coffee Break / Pause café

16:30 - 18:10 Intelligent Information Systems - I

Chair / Président : **O. Pons (SPAIN) - M.J. Martin-Bautista (SPAIN)**

- A big-stepped probability approach for discovering default rules
S. Benferhat, D. Dubois, S. Lagrue, H. Prade
- A mechanism for deduction in a fuzzy relational database
I.J. Blanco, M.J. Martin-Bautista, O. Pons, M.A. Vila
- Closed Set Based Discovery of Maximal Covering Rules
M. Kryszkiewicz

- Using Object Relational Features to Build a Fuzzy DataBase Server
J.M. Medina, J. Galindo, F. Berzal, J.M. Serrano
- Flexible Unary Multidimensional Queries and their Combinations
A. Laurent, B. Bouchon-Meunier, A. Doucet

16:30 - 18:10 Modeling and Fuzziness

Chair / Président : H. Thiele (GERMANY)

- Uncertainty, Type-2 Fuzzy Sets, and Footprints of Uncertainty
J.M. Mendel
- Combining Fuzzy Models Using Prototype Based Reasoning
R.R. Yager
- Interval Approximation of a Fuzzy Number and the Principle of Information Invariance
P. Grzegorzewski
- On Approximate Reasoning with Type-2 Fuzzy Sets
H. Thiele

16:30 - 17:50 Fuzzy Arithmetics and the Brain

Chair / Président : A.F. Rocha (BRAZIL)

- Fuzzy Arithmetic: An Overview
F. Gomide
- Mental processes of arithmetic calculation
A.F. Rocha, F.T. Rocha
- Implementing arithmetical knowledge in a distributed intelligent processing system
E. Massad, A.F. Rocha
- Difference of area of the brain for fuzzy and crisp calculations
T. Yamanoi, M. Saito, M. Sugeno, E. Sanchez

16:30 - 18:10 Non Classical Logic

Chair / Président : H. Prade (FRANCE)

- Models and submodels of fuzzy theories
V. Novak
- A new approach to completeness for multi-adjoint logic programming
J. Medina, M. Ojeda-Aciego
- Consistency degrees in fuzzy logics
R. Horcik, M. Navara
- Which fuzzy logics satisfy the compactness property
P. Cintula, M. Navara
- Multi-agent Based Method for Reactive Systems Formal Specification and Validation
A. Hasbani

19:00 - 22:00 Welcome Party / Réception de bienvenue

Tuesday, 2 July 2002

09:00 - 10:00 Plenary Session II

Lotfi A. Zadeh, University of California, Berkeley (USA)

Chair / Président : B. Bouchon-Meunier (FRANCE)

- It is a Fundamental Limitation to Base Probability Theory on Bivalent Logic

10:00 - 10:30 Coffee Break / Pause café

10:30 - 12:30 Decision Making

Chair / Président : L. Koczy (HUNGARY)

- Markov Decision Process for the Task Selection Problem in Uncertain Environments
H. Hanna, A.I. Mouaddib
- A Hybrid Fuzzy-Fractal Approach for Time Series Analysis and Its Applications to Plant Monitoring and Diagnosis
O. Castillo, P. Melin
- Managing Heterogeneous Information in Group Decision Making
F. Herrera, L. Martinez, P. Sanchez, E. Herrera-Viedma
- Batch Process and Market Entry/Exit Decision Making by Real Options under Exchange Rate Uncertainty
C.T. Lin, C.R. Wu
- Predicting Run Times of Applications Using Rough Sets
S. Krishnaswamy, A. Zaslavsky, S.W. Loke
- Decision Making for Discrete-Time American Options with Uncertainty of Stock Prices in Financial Engineering
Y. Yoshida, M. Yasuda, J. Nakagami, M. Kurano

10:30 - 12:30 Intelligent Systems for Video Processing

Chair / Président : J. Benois-Pineau (FRANCE)

- Extraction of regions of interest based on motion activity for video retrieval with partial query
R. Fablet, P. Bouthemy
- Real time commercial detection using MPEG features
N. Dimitrova, S. Jeannin, J. Nesvadba, T. Mcgee, L. Agnihotri, G. Mekenkamp
- General Purpose Real-Time Object Tracking Using Hausdorff Transforms
D. Vignon, B.C. Lovell, R.J. Andrews
- Uncertainty of Motion Estimation and its Application to Video Processing
D. Wang, A. Vincent
- Adding the concept of video editing levels in shot segmentation
R. Ruiloba, P. Joly

- Comparing descriptions of multimedia data for simplification and integration
N. Adami, M. Corvaglia, R. Leonardi

10:30 - 12:30 Fuzzy Measures and Integrals - I

Chair / Président : M. Grabisch (FRANCE)

- Ordinal Integration
G.A. Koshevoy
- Almost-Measurability Induced by Fuzzy and Possibilistic Measures
I. Kramosil
- Interaction indices for games with forbidden coalitions
C. Labreuche
- Mobius transform and k-order additivity
R. Mesiar
- The n-step Choquet integral on finite spaces.
Y. Narukawa, T. Murofushi
- p-symmetric fuzzy measures
P. Miranda, M. Grabisch

10:30 - 12:30 Belief Functions

Chair / Président : P. Smets (BELGIUM)

- Towards another logical interpretation of Theory of Evidence and a new combination rule
L. Cholvy
- Showing why measures of quantified beliefs are belief functions
P. Smets
- Clustering belief functions based on attracting and conflicting metalevel evidence
J. Schubert
- A Pre-Pruning Method in Belief Decision Trees
Z. Elouedi, K. Mellouli, P. Smets
- Combination of Belief Functions and Coarsening / Refinement
M. Daniel
- Dempster-Turksen Multi-Valued Mapping
I.B. Turksen

10:30 - 12:10 Fuzzy Sets and Possibility Theory in Machine Learning and Data Mining

Chair / Président : E. Hullermeier (GERMANY)

- Learning Graphical Models by Extending Optimal Spanning Trees
C. Borgelt, R. Kruse
- Clustering of proximity data using belief functions
T. Denoeux, M. Masson
- Stratified induction in possibilistic logic
D. Dubois, H. Prade, G. Richard, M. Serrurier

- Discovering and Incrementally maintaining fuzzy association rules
S. Ben Yahia
- Data Mining and Computational Intelligence
M. Last

12:30 - 14:00 Lunch / Déjeuner

14:00 - 16:00 Defuzzification and Averaging of Fuzzy Sets

Chair / Président : D. Ralescu (USA)

- Quantitative Revision of Quantitative Beliefs
A. Ramer
- Linear Non-additive Set-functions
B. Bouchon-Meunier, R. Mesiar, D. Ralescu
- Averaging procedures in defuzzification processes
E. Roventa, T. Spircu
- Ordering and bounds in specific classes of aggregation operators
T. Calvo, R. Mesiar
- Vague Verbal Quantities in Transport Timetable
M. Mares
- Postmodernism, Cybernetics and Fuzzy Set Theory
C.V. Negoita

14:00 - 16:00 Applications of Soft Computing

Chair / Président : J.M. Mendel (USA)

- A probabilistic approach to analyse the evolutionary process in circuit design
T. Kalganova, I. Baradavka
- Managing Uncertainty in New Product Development
G. Buyukozkan, O. Feyzioglu
- Evolutionary techniques for mobile-robot office delivery service
S. Badaloni, P. Bison
- Some Attempts in Improving Cochlear Implanted Patients Performances: Modeling and Automatic Methods
M. Costin, M. Zbancioc, A. Ciobanu, C. Berger Vachon
- Global Optimization of Neural Networks
G. Beliakov
- Computer Assisted Diagnosis of Cardiac Heart Disease
S. Zahan, R. Bogdan, M. Cremene

14:00 - 15:40 Fuzzy Measures and Integrals - II

Chair / Président : E. Pap (YUGOSLAVIA)

- Extension of coherent lower previsions to unbounded random variables
M.C.M. Troffaes, G. De Cooman

- Investigation of the class of non-additive measures by their subclasses
E. Pap
- Choquet integral representation and preference
Y. Narukawa, T. Murofushi
- The Möbius function on ordered structures and its application to capacities and integrals
M. Grabisch
- An axiomatic approach to the definition of the entropy of a discrete Choquet capacity
I. Kojadinovic, J.L. Marichal, M. Roubens

14:00 - 16:00 Fuzziness and Conditional Probability

Chair / Président : G. Coletti (ITALY)

- Reading the membership function in different ways
S. Termini
- A reflection on rationality, guessing and measuring
E. Trillas, A. Pradera
- Fuzzy sets and coherent conditional probability
R. Scozzafava
- Coherent conditional probability and possibility measures
G. Coletti
- Measures of fuzziness: a reinterpretation
G. Nicotra, B. Vantaggi
- How measure of uncertainty changes due to unreliability
C. Bertoluzza, V. Doldi, G. Naval

14:00 - 16:00 Evolutionary Techniques

Chair / Président : L. Magdalena (SPAIN)

- GPEG: Graph Partitioning using Evolutionary Games
A. Cincotti, V. Cutello, F. Pappalardo, M. Pavone
- A Multiobjective Genetic Algorithm for Feature Selection and Data Base Learning in Fuzzy-Rule Based Classification Systems
O. Cordon, F. Herrera, M.J. Del Jesus, L. Magdalena, A.M. Sanchez, P. Villar Castro
- What are the main parameters involved in the design of a Genetic Algorithm?
I. Rojas, H. Pomares, J. Gonzalez, P.A. Castillo, O. Valenzuela
- Evolutionary Algorithms As Function Optimizers
A. Barkat
- Evolutionary Algorithms for Multiperiod Arc Routing Problems
P. Lacomme, C. Prins, W. Ramdane-Cherif
- Evolutionary strategies to achieve knowledge in faded temporal fuzzy logic controllers in systems with noisy sensors
M.A. Gadeo Martos, J.R. Velasco Perez

16:00 - 16:30 Coffee Break / Pause café

16:30 - 17:50 Symbolic Data Analysis

Chair / Président : **E. Diday (FRANCE)**

- From Schweizer to Dempster: mixture decomposition of distributions by copulas in the symbolic data analysis framework

E. Diday

- Mixture decomposition of copulas and application to climatology

M. Vrac, E. Diday, A. Chedin

- A Top-Down Binary Tree Method for Symbolic Class Descriptions

L.M. Mehdi, M. Vrac, S. Winsberg, E. Diday

- Segmentation avec seuil aléatoire

J.P. Aboa Yapo, R. Emilion

16:30 - 18:10 Information Processing in Food Engineering Processes

Chair / Président : **N. Perrot (FRANCE)**

- Probabilistic Determination of an Upper Bound for the Final Diacetyl Concentration at Early Stages of Beer Fermentation

I.C. Trelea, E. Latrille, S. Landaud, G. Corrieu

- Handling uncertainty in diagnosis using a combined interval based and a fuzzy logic based approach - Application to wastewater treatment

J.P. Steyer, J. Harmand, J.P. Delgenes

- Processing operator reasoning and its uncertainty to control cheese ripening: a fuzzy symbolic approach

I. Ioannou, L. Agioux, N. Perrot, G. Mauris, G. Trystram

- Fuzzy Methods for Ginseng Drying Control

V.J. Davidson, X. Li, R.B. Brown

- Symbolic Estimation of Food Odors using Fuzzy Techniques

A. Loutfi, P. Wide

16:30 - 18:10 Aggregation

Chair / Président : **S. Ovchinnikov (USA)**

- The Induced and the Limited Fuzzy Integral Operators

R.R. Yager

- Weighted Fuzzy R-Norm and its Mean Codeword Lengths

O. Parkash, P.K. Sharma

- Three new techniques of approximating aggregation operators from empirical data

G. Beliakov

- Usage of Fuzzy Aggregation for Perceptual Relevance Evaluation

A. Soria-Frisch, M. Koppen, T. Sy

- Propagation of Pertinence Indicator using Distance Models

J. Revault

16:30 - 18:10 Data Mining and Multimedia Systems

Chair / Président : C. Marsala (FRANCE)

- Image segmentation in compressed domain by clustering methods with euclidean and p-adic metrics

J. Benois-Pineau, A. Khrennikov

- Histogram-Based Color Signatures for Image Indexing

S. Boughorbel, N. Boujemaa, C. Vertan

- A Fuzzy Theoretic Approach for Camera Motion Detection

R.S. Jadon, S. Chaudhury, K.K. Biswas

- Improving Clustering and Visualization of Multimedia Data Using Interactive User Feedback

A. Nurnberger, A. Klose

- Fuzzy Multimedia Mining Applied to Video News

M. Detyniecki, C. Marsala

16:30 - 17:50 Uncertainty and Fuzziness Management in Evolutionary Processes

Chair / Président : U. Sandler (ISRAEL)

- Software Uncertainty in General and in KBS Applications in Particular

M.M. Lehman, J.F. Ramil

- Bacterial algorithm applied for fuzzy rule extraction

J. Botzheim, B. Hamori, L. Koczy, A.E. Ruano

- Neuro-Fuzzy System for On-line Prediction of Diseases Evolution

A. Rotshtein, M. Posner, H. Rakytyanska

- Fuzzy theory of evolutionary processes: Two types of dynamics

U. Sandler

Wednesday, 3 July 2002

09:00 - 10:00 Plenary Session III

Berthold SCHWEIZER, University of Massachusetts (USA)

Chair / Président : E. Trillas (SPAIN)

- Probabilistic measurement

10:00 - 10:30 Coffee Break / Pause café

10:30 - 12:10 Possibility and Imprecise Probability

Chair / Président : D. Dubois (FRANCE)

- Reasoning with Partially Ordered Information in a Possibilistic Logic Framework

S. Benferhat, S. Lagrue, O. Papini

- On Interpretation of T-product Possibility Distributions

J. Vejnarova

- Imprecise probabilities induced by multi-valued mappings
E. Miranda, G. De Cooman, I. Couso
- Transforming Imprecise Probabilities into Partial Possibilities
P. Baroni, P. Vicig
- Probability-possibility transformations, triangular fuzzy sets and probabilistic inequalities
D. Dubois, L. Foulloy, H. Prade, G. Mauris

10:30 - 12:30 Mathematics

Chair / Président : S. Gottwald (GERMANY)

- Fuzzy Control and t-Norm-Based Fuzzy Logic - Some Recent Results
S. Gottwald, V. Novak, I. Perfilieva
- A Framework for Unification using Powersets of Terms
P. Eklund, M.A. Galan, J. Medina, M. Ojeda-Aciego, A. Valverde
- A note on ergodic transformations on MV-algebras
B. Riecan
- BZW algebras for an abstract approach to roughness and fuzziness
G. Cattaneo, D. Ciucci
- A characterization of the lattice of fuzzy weak subalgebras of a partial algebra
W. Bartol, J. Casasnovas, F. Rossello
- Fuzzy extension of interval-based temporal sub-algebras
S. Badaloni, M. Giacomini

10:30 - 12:30 Computing with words: Models and Applications - II

Chair / Président : E. Herrera-Viedma (SPAIN)

- Implementation of Linguistic Labels Based Group Decision-Making on the Web/Intranet
A. Marimin, D. Risnawati Kumala
- Towards the construction of regression models for categorical variables
V. Torra, M. Ng
- A linguistic decision-making method using fuzzy integral
C.T. Chen
- Fusion of Multigranular Linguistic Information based on the 2-tuple Fuzzy Linguistic Representation Model
F. Herrera, L. Martinez, E. Herrera-Viedma, F. Chilclana
- NPN Logic Based Reasoning With Linguistic Preferences
G. Devedzic
- A step towards conceptually improving Takagi-Sugeno's Approximation
S. Guadarrama, E. Trillas, J. Gutierrez-Rios, F. Fernandez

10:30 - 12:30 Intelligent Information Systems - II

Chair / Président : M.J. Martin-Bautista (SPAIN) - O. Pons (SPAIN)

- Multi-Objective Resource Selection in Distributed Information Retrieval
S. Wu, F. Crestani

- Image Database Summarization with the SaintEtiQ System
R. Saint-Paul, G. Raschia, N. Mouaddib
- Methods for Intelligent Information Access. A real experience
J. Cardenosa, L. Iraola, E. Tovar
- Reducing term to term relationships in an extended Bayesian Network Retrieval model
L.M. De Campos, J.F. Huete Guadix, J.M. Fernandez-Luna
- Efficient importance weighted aggregation between min and max
H.L. Larsen
- Mining data about web usage: a Markov based modeling technique
S. Massa, P.P. Puliafito

19:00 - 20:00 City Hall Reception / Réception à la mairie

20:00 - 22:30 Dinner Cruise on the Libellule / Repas croisière sur le Libellule

Thursday, 4 July 2002

09:30 - 10:30 Plenary Session IV

Walter KINTSCH, University of Colorado at Boulder (USA)

Chair / Président : G. Denhiere (FRANCE)

- Predication

10:30 - 11:00 Coffee Break / Pause café

11:00 - 12:40 Computing with words: Models and Applications - III

Chair / Président : L. Martinez (SPAIN)

- Intelligent linguistic characterization and retrieval of textual documents: an Internet-based application
S. Zadrozny, K.A. Lawcewicz, J. Kacprzyk
- A Linguistic Aggregation Operator Based on the Weak Majority Process
J.I. Pelaez, J.M. Dona
- Using Likelog for Computing with Words
F. Arcelli, F. Formato
- Linguistic Modelling Using a Semi-Naïve Bayes Framework
N.J. Randon, J. Lawry
- Modeling majority opinion in multi-agent decision making
G. Pasi, R.R. Yager

11:00 - 12:20 Probability

Chair / Président : R. Scozzafava (ITALY)

- Detection of Independence Relations from Persegrams
R. Jirousek

- Estimation of Probabilistic Dependencies of Processes in Nonlinear Systems
K. Chernyshov
- Probabilistic Approach using MCMC for Indirect Measurement by Knowledge-Based Models - Applications to Thermophysics and Biology
H. Baili, G. Fleury
- Estimating tetragram probabilities by using multiple data samples from a natural text. Case study: printed Romanian
A. Vlad, A. Mitrea, M. Mitrea
- Weighted entropy : an optimal measure
R.P. Singh, R. Kumar, R. Gorshi

11:00 - 13:00 Metaphor and Analogy - I

Chair / Président : C. Tijus (FRANCE)

- What is Metaphor? From Aristotle to Cognitive Science
E. Hamilton
- Spontaneous Analogies: Analogies or Categorizations?
E. Sander
- Reasoning: The Psychological Relevance of the Hofstadter's Copycat Model
B. Vivicorsi
- Analogical Reasoning: Unity or Diversity?
E. Marmeche, N. Bonnardel, A. Didierjean
- Analogy and Cognitive Ergonomics: Experimentation and Simulation
J. Barcenilla, C. Leproux, S. Poitrenaud
- The role of context on the comprehension of referential metonymies
T. Baccino, S. Grossin

11:00 - 12:20 Aggregation Operators

Chair / Président : R. Mesiar (SLOVAKIA)

- On Order Invariant Synthesizing Functions
J.L. Marichal
- On Symmetric Pseudo-Additions and Pseudo-Multiplications: Is it Possible to Build Rings on $[-1,+1]$?
M. Grabisch, B. De Baets, J. Fodor
- An overview of the definition of uninorm
M. Mas, M. Monserrat, J. Torrens
- Symmetric aggregation functions on a finite chain
J. Martin Pelayo, G. Mayor, J. Suner

11:00 - 12:40 Information Retrieval and Querying

Chair / Président : E. Roventa (CANADA)

- Disambiguation translation in multilingual queries
S. Benferhat, M. Boughanem, C. Chrisment, N. Nassr, H. Prade

- Improving meta-search by using query-weighting and numerical aggregation operators
M. Gomez, J.M. Abasolo
- Fuzzy Degrees of Knowledge Integrity
J. Debenham
- Information retrieval in heterogeneous XML knowledge bases
G. Menier, P.F. Marteau
- Connexion de Galois floue : extension et application au textmining
C. Latiri Cherif, S. Elloumi, S. Ben Yahia

12:40 - 14:00 Lunch / Déjeuner

14:00 - 16:00 Industrial Track - I

Chair / Président : A. Montaud (FRANCE)

- Case Based Intelligent Indicator for Paper Web Breaks
E.K. Juuso, T. Ahola, H. Kumpula
- Image Retrieval for Multimedia Applications
P. Lambert, H. Grecu, L. Giraud
- Information Survey & Analysis
O. Massiot
- Caterpillar's VORTEX: Quality Control in the Knowledge Based Enterprise
A.J. Grichnik
- Travail collaboratif et intelligence collective : les référentiels de connaissances
J.M. Penalva, J. Montmain
- La mesure du risque sur les marchés financiers au moyen de lois d'échelles : état de l'art et perspectives
C. Walter

14:00 - 16:00 Statistical Processing

Chair / Président : A. Appriou (FRANCE)

- A fuzzy method for handling measurement data gathered from channel electron multipliers: estimation of statistic noise and pile up phenomena
A. Bakhti, F. Khaber
- An optimal rule for many outliers detection
A. Mahfoudi, J. Aguilar-Martin
- Random Sampling and Uncertain Inference
H.E. Kyburg, C.M. Teng
- A new adaptive kernel density estimation
M. Herbin, N. Bonnet, P. Vautrot
- Towards an Efficient Density-Based Clustering of Spatial Data
A. Badee Salem, A. Ella Hassanien, T. El Areef, M.F. Khater
- Boosting up Support Vector Machines in Density Estimation Problems
M. Gonzalez Mendoza, A. Titli, N. Hernandez-Gress

14:00 - 16:00 Metaphor and Analogy - II

Chair / Président : **C. Tijus (FRANCE)**

- A computational theory of metaphor comprehension
W. Kintsch
- The Metaphor between Categorization and Similarity
B. Pudelko, D. Legros
- Metaphor and N400 ERPs
P. Cristini, C. Tijus
- A Critical Analysis of Current Models of Analogy
T. Ripoll, J. Eynard
- Le traitement des expressions idiomatiques - Intérêt d'un corpus et de l'Analyse Sémantique Latente
F. Pariollaud, G. Denhiere, J.C. Verstiggel
- La Compréhension des Métaphores par les Enfants : Questions Développementales, Différentielles, Méthodologiques
C. Guerini

14:00 - 16:00 Fuzzy Systems

Chair / Président : **J.F. Baldwin (UK)**

- Adjustment of parallel queuing processes by multi-agent control
R. Palm, T.A. Runkler
- Fuzzy Graphs and Error-proof Keyboards
F.L. Luccio, A. Sgarro
- Schedulability Analysis of Real-Time Systems under Uncertainty: Fuzzy Approach
A.P. Cucala, J. Villar
- Perception-based Data Processing by Introducing n -dimensional Metric Space of Linguistic Variables
S. Ribaric, J. Drozdek
- Effectiveness as Function of Information Uncertainties and Timeliness
P. Labbe
- Calcul d'itinéraires flous dans les réseaux de transport de surface
A. Boulmakoul, R. Laurini, M. Janati

14:00 - 15:40 Advances in Database Technology - I (Operators)

Chair / Président : **R. De Caluwe (BELGIUM)**

- About difference operations on fuzzy bags
P. Bosc, D. Rocacher
- On the comparison of aggregates over fuzzy sets
P. Bosc, O. Pivert, L. Lietard
- Fuzzy Summarization of Data Using Fuzzy Cardinalities
P. Bosc, D. Dubois, O. Pivert, H. Prade, M. De Calmes

- On knowledge-guided fuzzy aggregation
T. Andreassen
- Compressing sets of objects by means of fuzzy object oriented structures
F. Berzal, N. Marin-Ruiz, O. Pons, M.A. Vila

16:00 - 16:30 Coffee Break / Pause café

16:30 - 18:10 Industrial Track - II

Chair / Président : R. Kruse (GERMANY)

- Revision and Updating of Probabilistic Networks for Item Planning and Capacity Management in the Automotive Industry
J. Gebhardt, H. Detmer
- Weights Representation of Fuzzy Decision Making by use of Sensitivity Analysis
S.I. Ohnishi, H. Imai, T. Yamanoi
- Prediction of changepoints in electric power consumption time series using particle filters and mixture experts approaches
E. Jouseau, Y. Rebiere, P. Gonzalez
- Intelligent Control of the Electrical Tuning Process in Televisions using Soft Computing Techniques
O. Castillo, P. Melin, F. Duenas
- Advocate: ADVanced On-board diagnosis and Control of Autonomous systems
L. Magdalena, M.H. Doussin, W. Hornfeld, M. Perrier, A.L. Madsen, A. Furlani
- Surveillance temps réel d'estimateurs neuronaux de qualité de produits pétroliers en cours de fabrication
M. Chebre

16:30 - 18:10 Dealing with Uncertainty in Spatial Representation and Reasoning

Chair / Président : I. Bloch (FRANCE)

- A model for lines with a broad boundary
E. Clementini
- On the Representation of Fuzzy Spatial Relations in Robot Maps
I. Bloch, A. Saffiotti
- Quantification of neurotransmission defects in functional imaging using information fusion: a prospective study
E. Frenoux, V. Barra, J.Y. Boire
- Fuzzy Fusion of Different Space Representations in Mobile Robotics
G. Trainito, P. Bison
- World Modelling with Local Uncertainty for Robot Navigation
H. Martinez Barbera, M.A. Zamora Izquierdo, A. Gomez Skarmeta

16:30 - 18:10 Rough Sets Methods and Applications - II

Chair / Président : L. Polkowski (POLAND)

- Rough Sets, Bayes' Theorem and Flow Graphs
Z. Pawlak

- An Application of Approximated Entropy Measures in Decision Tree Induction
S.H. Nguyen, H.S. Nguyen
- Rough Set Based Feature Extraction for Medical Data
D. Slezak, P. Synak, J. Wroblewski
- Generating approximate concepts for the UAV
M.S. Szczuka
- Order-based genetic algorithms for extraction of approximate bayesian networks from data
D. Slezak, J. Wroblewski

16:30 - 18:10 Reasoning

Chair / Président : L. Godo (SPAIN)

- A similarity-based approach to deal with inconsistency in systems of fuzzy gradual rules
L. Godo, S. Sandri
- Coherent Conditional Probability as a Tool for Default Reasoning
G. Coletti, R. Scozzafava, B. Vantaggi
- Subjective Evidential Reasoning
A. Josang
- Qualitative Reasoning with Statistical Knowledge Expressed in Natural Language
L. Garcia, M.Y. Khayata, D. Pacholczyk
- A Distributed Self-stabilizing Approach to Defeat Status Computation in Argumentation
P. Baroni, M. Giacomin

16:30 - 17:50 Advances in Database Technology - II (Applications and Perspectives)

Chair / Président : G. De Tre (BELGIUM)

- Uncertainty in an OODB Modeled by Rough Sets
T. Beaubouef, F.E. Petry
- Fuzzy Querying in Crisp and Fuzzy Relational Databases: An Overview
A. Rosado, J. Kacprzyk, R.A. Ribeiro, S. Zadrozny
- Fuzzy and Uncertain Spatio-Temporal Database Models: A Constraint-Based Approach
G. De Tre, R. De Caluwe, A. Hallez, J. Verstraete
- Contourline Based Modeling of Vague Regions
A. Hallez, J. Verstraete, G. De Tre, R. De Caluwe

Friday, 5 July 2002

09:00 - 10:00 Plenary Session V

Paul M. FRANK, University of Duisburg (Germany)

Chair / Président : L. Foulloy (FRANCE)

- Handling Modelling Uncertainty in Fault Detection and Isolation Systems

10:00 - 10:30 Coffee Break / Pause café

10:30 - 12:10 Intelligent Information Processing

Chair / Président : A. Ralescu (USA)

- Characterization of approximate plane symmetries for 3D fuzzy objects
O. Colliot, I. Bloch, A.V. Tuzikov
- Recognition of dynamic situations in the classroom using multi-modal sensor information
M. Minoh, S. Nishiguchi, H. Higashi
- Intelligent Information Processing for User Modeling
A. Tzanavari, P. Paulson
- Modeling the Perception of the Physical Effort in Manual Lifting Tasks
W. Tembe, A. Ralescu, S.S. Yeung, A. Genaidy
- Linguistic Modeling of Physical Task Characteristics
S. Visa, A. Ralescu, S.S. Yeung, A. Genaidy
- Fuzzy Prototypical Knowledge Discovery to Predict Information Systems Maintainability
J.A. Olivás, M. Genero, M. Piattini, F.P. Romero

10:30 - 12:30 Fuzzy Modeling and Control

Chair / Président : R. Palm (GERMANY)

- Mamdani and Takagi-Sugeno Inference: a Unified View
P.Y. Glorennec
- Multi-Architecture Application Framework for Efficient Fuzzy Processing Using Interpolators
J.C. Crespo, J.J. Iglesias
- Some conditions for non quadratic stability of a class of non linear systems
T.M. Guerra, L. Vermeiren, H. Tirmant
- Estimation of the Validity of a Partial Model: Fuzzy and Multi-Models Approaches
F. Delmotte, T.M. Guerra
- On-line Adaptive Fuzzy Controller in Real Time: Application to Water Supply System of a City
H. Pomares, I. Rojas, J. Gonzalez, M. Damas

10:30 - 12:30 Intuitionistic Fuzzy Sets - Theory and Applications

Chair / Président : J. Kacprzyk (POLAND) - E. Szmidt (POLAND)

- On the Temporal Intuitionistic Fuzzy Sets
K.T. Atanassov
- Intuitionistic Fuzzy Connectives Revisited
G. Deschrijver, C. Cornelis, E.E. Kerre
- Soft Querying via Intuitionistic Fuzzy Sets
P. Grzegorzewski, E. Mrowka
- Independence, Conditional Probability and the Bayes Formula for Intuitionistic Fuzzy Events
P. Grzegorzewski, E. Mrowka

- Analysis of Agreement in Group of Experts via Distances Between Intuitionistic Fuzzy Preferences
E. Szmidt, J. Kacprzyk
- Intuitionistic Fuzzy S-Implications
H. Bustince, E. Barrenechea, V. Mohedano

10:30 - 12:30 Textile Applications

Chair / Président : X. Zeng (FRANCE)

- Using Internet Distributed Communication in Management of a Textile Research Project
P. Bastos, L. Amaral, M. Santos, T. Amorim, R. Vasconcelos
- Using Clementine Data Mining System in the Process of Analysis of Cotton Fiber Properties
S. Dias, R. Vasconcelos, M. Santos, T. Amorim, L. Amaral
- A short term forecasting system adapted to textile distribution
S. Thomassey, M. Happiette, J.M. Castelain
- Reduction of the estimation uncertainty of the textile sales profiles by using a data-mining technique
J.J. Denimal, F. Boussu, O.W. Diallo
- Modeling the relationship between subjective and objective fabric hand evaluations using fuzzy techniques
M. Sahnoun, X. Zeng, L. Koehl, M.A. Bueno, M. Renner
- Measurement and Processing of Sewing Variables towards Real-Time Control and Off-Line Process Planning
H.M.T. Carvalho, A.M. Rocha, J. Monteiro

12:30 - 14:00 Lunch / Déjeuner

14:00 - 15:20 Learning from Partially Labeled Samples

Chair / Président : F. Alche-Buc (FRANCE)

- Handling uncertain labels in multiclass problems using belief decision trees
P. Vannoorenberghe, T. Denoeux
- Text Classification from Positive and Unlabeled Examples
F. Denis, R. Gilleron, M. Tommasi
- Logistic regression for partial labels
Y. Grandvalet
- Contextual Learning and Retrieval in a stochastic Network
M. Spies

14:00 - 15:20 Linguistic Methods

Chair / Président : I.B. Turksen (CANADA)

- Binary Ordering-Based Modifiers
U. Bodenhofer

- A Fuzzy Set Theoretical Approach to the Automatic Generation of Absenteism Analyses in Natural Language
N. Du Bois, M. De Cock, E.E. Kerre, R. Babuska
- Hybridization of Components to Improve the Accuracy in Linguistic Fuzzy Modeling
R. Alcalá, J. Casillas, O. Cordon, F. Herrera
- A Fuzzy Fusion Sensor of the Speed of a Railway Car During the Sliding of the Wheels, Including a Model of the ABS Braking Equipment
V. Balas

14:00 - 15:20 Image Processing

Chair / Président : D. Van De Ville (BELGIUM)

- Motion adaptive de-interlacing using fuzzy logic
D. Van De Ville, R. Van De Walle, W. Philips, I. Lemahieu
- Une nouvelle approche connexionniste pour la segmentation d'images couleur
P. Biela Enberg, J.G. Postaire
- Segmentation des images de cellules biologiques par une approche multifractale
N. Lassouaoui, L. Hamami
- Approche exploratoire multirésolution basée sur le contenu d'une base d'images paléontologique
J. Landre, F. Truchetet

16:00 - 19:00 Farewell Party / Réception de fin de congrès