# World Congress DSA 2011 The Frontiers in Intelligent Data and Signal Analysis

#### 11<sup>th</sup> Industrial Conference on Data Mining ICDM'2011

6<sup>th</sup> International Conference on Mass Data Analysis of Images and Signals in Medicine, Biotechnology, Chemistry and Food Industry, MDA 2011

# 7<sup>th</sup> International Conference on Machine Learning and Data Mining, MLDM 2011

#### **Program**

Saturday August 27, 2011	
09.00 am	Tutorial
	Intelligent Image Interpreation and Computer Vision in Mediceine, Biotechnology,
	Chemistry & Food Industry
10.30 am	Coffee Break
11.00 am	Tutorial
	Intelligent Image Interpreation and Computer Vision in Mediceine, Biotechnology,
	Chemistry & Food Industry
00.30 pm	Lunch
01.30 pm	Tutorial
	Intelligent Image Interpreation and Computer Vision in Mediceine, Biotechnology,
	Chemistry & Food Industry
03.00 pm	Coffee Break
03.30 pm	Tutorial
	Intelligent Image Interpreation and Computer Vision in Mediceine, Biotechnology,
	Chemistry & Food Industry
05.00 pm	End of Tutorial

	Saturday August 27, 2011	
00.00		
09.00 am	Tutorial	
	Standardization in Immunofluorescence	
10.30 am	Coffee Break	
11.00 am	Tutorial	
	Standardization in Immunofluorescence	
00.30 pm	Lunch	
01.30 pm	Tutorial	
	Standardization in Immunofluorescence	
03.00 pm	Coffee Break	
03.30 pm	Tutorial	
	Standardization in Immunofluorescence	
05.00 pm	End of Tutorial	

	Sunday August 28, 2011	
09.00 am –	Tutorial	
	Case-Based Reasoning Tutorial	
10.30 am	Coffee Break	
11.00 am	Tutorial	
	Case-Based Reasoning Tutorial	
00.30 pm	Lunch	
01.30 pm	Tutorial	
	Case-Based Reasoning Tutorial	
03.00 pm	Coffee Break	
03.30 pm	Tutorial	
	Case-Based Reasoning Tutorial	
05.00 pm	End of Tutorial	

	Monday August 29, 2011	
09.00 am	Tutorial	
	Data Mining Tutorial	
10.30 am	Coffee Break	
11.00 am	Tutorial	
	Data Mining Tutorial	
00.30 pm	Lunch	
01.30 pm	Tutorial	
	Data Mining Tutorial	
03.00 pm	Coffee Break	
03.30 pm	Tutorial	
	Data Mining Tutorial	
05.00 pm	End of Tutorial	

Monday August 29, 2011	
06.00 pm –	Registration & Reception
08.00 pm	

#### **Nominated for Best Paper Award MLDM**

Estimating Image Segmentation Difficulty

Dingding Liu, Yingen Xiong, Kari Pulli and Linda Shapiro

Hubness-Based Fuzzy Measures for High-Dimensional k-Nearest Neighbor Classification

Nenad Tomašev, Miloš Radovanović, Dunja Mladenić, and Mirjana Ivanović

Spherical Nearest Neighbor Classification: Application to Hyperspectral Data

Dalton Lunga and Okan Ersoy

#### **Nominated for Best Paper Award ICDM**

Fast Data Acquisition in Cost-Sensitive Learning Victor S. Sheng

Towards a Spatial Instance Learning Method for Deep Web Pages

Ermelinda Oro and Massimo Ruffolo

Characterizing Cell Types through Differentially Expressed Gene Clusters Using a Model-based Approach

Juliane Perner and Elena Zotenko

#### Nominated for Best Paper Award MDA

A Web Infrastructure for Emphysema Diagnosis and Follow-up through Computed Tomography Image Analysis.

Massimo Chimenti, Enrico Fantini, Massimo Miniati, Simonetta Monti, and Marco Tampucci
Supervised Machine Learning Methods for Quantification of Pulmonary Fibrosis

Manuel Stritt, Roman Bär, Joël Freyss, Julia Marrie, Enrico Vezzali, Edgar Weber, and Anna Stalder

First Conference Day: August 30, 2011			
Session Chair: P	Session Chair: Petra Perner		
09.00 am	Welcome to DSA (MLDM, ICDM, MDA)		
	Petra Perner		
09.15 am	Invited Talk		
	Interaction Detection With TreeNet Boosted Tree Ensembles		
	Dan Steinberg		
10.00 am	Coffee Break		
Time Series ar	nd Frequent Item Set Mining (MLDM)		
Session Chair: I			
10.15 am	Unsupervised Discovery of Motifs Under Amplitude Scaling and Shifting in Time Series		
	Databases		
	Tom Armstrong and Eric Drewniak		
10.45am	Static Load Balancing of Parallel Mining of Frequent Itemsets Using Reservoir Sampling		
20112	Robert Kessl		
11.15 am	GA-TVRC: A Novel Relational Time Varying Classifier to Extract Temporal Information		
	Using Genetic Algorithms		
	Ísmail Güneş, Zehra Çataltepe, and Şule Gündüz Öğüdücü		
11.45 am	Break		
Classification	and Decision Theory (MLDM)		
Session Chair: V			
12.00	Quadratically Constrained Maximum a Posteriori Estimation for Binary Classifier		
12.00	Tatsuya Yokota and Yukihiko Yamashita		
00.30 pm	Hubness-Based Fuzzy Measures for High-Dimensional k-Nearest Neighbor Classification		
00.20 pm	Nenad Tomašev, Miloš Radovanović, Dunja Mladenić, and Mirjana Ivanović		
WehMining/Ir	nformation Mining (MLDM)		
Session Chair: V			
01.00 pm	Recognizing Noun Phrase Patterns by a Graphical Model		
01.00 pm	Minhua Huang and Robert M. Haralick		
01.30 pm	Lunch		
	or Industrial Processes (ICDM)		
Session Chair: O			
02.30 pm	Robust, Non-Redundant Feature Selection for Yield Analysis in Semiconductor anufacturing		
02.30 pm	Eric St. Pierre and Eugene Tuv		
03.00 pm	Integrated Use of ICA and ANN to Recognize the Mixture Control Chart Patterns in a Process		
03.00 pm	Yuehjen E. Shao, Yini Lin, and Ya-Chi Chan		
03.30 pm	Optimized Fuzzy Decision Tree Data Mining for Engineering Applications		
03.30 pm	Liam Evans and Niels Lohse		
04.00 pm	Coffee Break		
•	ata Mining (ICDM)		
Session Chair: G			
04.15 pm	Unsupervised Classification of Hyperspectral Images on Spherical Manifolds		
04.13 pm	Dalton Lunga and Okan Ersoy		
04.45 pm	Recognition of Porosity in Wood Microscopic Anatomical Images		
04.43 pm	Shen Pan and Mineichi Kudo		
Data Mining :			
_	n Telecommunications (ICDM)		
Session Chair: G			
05.15 pm	Applying User Signatures on Fraud Detection in Telecommunications		
06.00	João Lopes, Orlando Belo, and Carlos Vieira		
06.00 pm-	Poster Session MLDM & Opening of Industrial Exhibition		
07.00 pm	Session Chair: Petra Perner		

#### Second Conference Day: August 31, 2011

	Room 1
Spectroscopy	(MDA)
Session Chair: P	
09.00 am	A Unified Framework for Peak Detection and Alignment: Application to HR-MAS 2D NMR Spectroscopy  Alream Polichith, Christophe Collet, and Jean Paul Armsnach
9.30 am	Akram Belghith, Christophe Collet, and Jean-Paul Armspach
9.30 am	Interpretation of (RAMAN) Spectrometer-Signals Based on Delta Modulation and Similarity-Based Classification - Label-Free Screening of Bio-Molecular Interactions Based on Raman Spectroscopy
	Petra Perner, Anja Attig, and Oleg Machno
10.00 am	Coffee Break
	rdial Diagnosis (MDA)
Session Chair: M	<u> </u>
10.15 am	Computational Methods for Pericardial Fat Evaluation  Giuseppe Coppini, Riccardo Favilla, Paolo Marraccini, Davide Moroni, Gabriele Pieri, and  Ovidio Salvetti
10.45 am	A Novel Analysis Method to Characterize Heartbeat Dynamics through the Microcanonical Multiscale Formalism
	Oriol Pont, Michel Haïssaguerre, Hussein Yahia, Nicolas Derval, and Mélèze Hocini
<b>Medical Imag</b>	e Analysis and Interpretation (MDA)
Session Chair: D	Pavide Moroni
11.15 am	Watermarking Stack of Grayscale Face Images as Dynamic Multi-Objective Optimization
	Problem
	Bassem S. Rabil, Robert Sabourin, and Eric Granger
11.45 am	Gaussian Noise and Discrete Cosine Transform Image Compression on Transmission of
	Dermatological Images
	Kamil Dimililer and Cemal Kavalcıoğlu
00.15 pm	Automatic Recognition of Mitotic HEp-2 Cells
	Gennaro Percannella, Paolo Soda, and Mario Vento
00.45 pm	Lunch
_	nosis and Web-based Medical Diagnosis (MDA)
Session Chair: C	
01.45 pm	A Web Infrastructure for Emphysema Diagnosis and Follow-up through Computed
	Tomography Image Analysis.
	Massimo Chimenti, Enrico Fantini, Massimo Miniati, Simonetta Monti,
02.15 mm	and Marco Tampucci  Supervised Marking Learning Methods for Quantification of Dulmanary Fibracia
02.15 pm	Supervised Machine Learning Methods for Quantification of Pulmonary Fibrosis  Manuel Stritt, Roman Bär, Joël Freyss, Julia Marrie, Enrico Vezzali, Edgar Weber, and  Anna Stalder
02.45 pm	Built-in Models for Diagnosis Availability
	Calin Ciufudean, Otilia Ciufudean, and Constantin Filote
03.15 pm	Coffee Break
Aspects of Ma	chine Learning and Data Mining (MLDM)
Session Chair: M	Makoto Haraguchi
03.30 pm	Detection of Communities and Bridges in Weighted Networks
	Tanwistha Saha, Carlotta Domeniconi, and Huzefa Rangwala
04.00 pm	Techniques for Improving Filters in Power Grid Contingency Analysis  Robert Adolf, David Haglin, Mahantesh Halappanavar, Yousu Chen, and Zhenyu Huang

04.30 pm	Comparing proximity measures for continuous and binary data: topological approach
	Djamel Abdelkader Zighed and Rafik Abdesselam
05.00 pm	Relational Fuzzy Clustering with Multiple Kernels
	Naouel Baili and Hichem Frigui
05.30 pm	Multi-Label Classification with Constrained Minimum Cut
	Guangzhi Qu and Hui Wu
07.00 pm	Banquet and Welcome and Presentation Ceremony of our VIP Participants

	Room 2
WebMining/I	nformation Mining (MLDM)
Session Chair: K	Crzysztof Grabczewski
09.00 am	Authorship Similarity Detection from Email Messages
	Xiaoling Chen, Peng Hao, R.Chandramouli, and K. P. Subbalakshmi
09.30 am	Comparing the One-Vs-One and One-Vs-All Methods in Benthic Macroinvertebrate Image
	Classification
	Henry Joutsijoki and Martti Juhola
10.00 am	Coffee Break
10.15 am	An Investigation Concerning the Generation of Text Summarisation
	Classifiers using Secondary Data
	Matias Garcia-Constantino, Frans Coenen, PJ. Noble, Alan Radford, Christian Setzkorn
	and Aine Tierney
	and Decision Theory (MLDM)
Session Chair: E	
10.45 am	ACE-Cost: Acquisition Cost Efficient Classifier by Hybrid Decision
	Tree with Local SVM Leaves
	Liyun Li, Umut Topkara, and Nasir Memon
11.15 am	Informative Variables Selection for Multi-Relational Supervised Learning
	Dhafer Lahbib, Marc Boullé, and Dominique Laurent
11.45 am	Decisions: Algebra and Implementation
	Antonina Danylenko, Jonas Lundberg, and Welf Löwe
_	nformation Mining (MLDM)
Session Chair: E	rik Pauwels
00.15 pm	Incremental Web-Site Boundary Detection Using Random Walks
	Ayesh Alshukri, Frans Coenen, and Michele Zito
00.45 pm	Lunch
Clustering (N	MLDM)
Session Chair: A	ana Fred
01.45 pm	Hierarchical Clustering with High Order Dissimilarities
	Helena Aidos and Ana Fred
02.15 pm	Clust-XPaths: Clustering of XML Paths
	Amina Madani, Omar Boussaid, and Djamel Eddine Zegour
02.45 pm	Comparing Clustering and Metaclustering Algorithms
	Elio Lozano and Edgar Acuña
03.15 pm	Coffee Break
Classification	and Decision Theory (MLDM)
Session Chair: A	alexander Ulanov
03.30 pm	Separability of Split Value criterion with weighted separation gains
_	Krzysztof Grabczewski
04.00 pm	Granular Instances Selection for fuzzy modeling
	S.Sakinah S.Ahmad and Witold Pedrycz
04.30 pm	Parameter-free Anomaly Detection for Categorical Data
	Shu Wu and Shengrui Wang
05.00 pm	End conference day
07.00 pm	Banquet and Welcome and Presentation Ceremony of our VIP Participants

Third Conference Day: September 1, 2011			
Session Chair: P	Session Chair: Petra Perner		
09.00 am	Invited Talk		
09.00 am	Intelligent Pattern Recognition and Applications		
	- Biometrics, Biomedical Imaging, Modeling and Simulation		
	Patrik S.P. Wang		
	Turk 5.1. Wang		
Theoretical As	spects of Data Mining (ICDM)		
Session Chair: P	etra Perner		
09.45 am	Fast Data Acquisition in Cost-Sensitive Learning		
	Victor S. Sheng		
10.15 am	How to interpret Decision Trees?		
	Petra Perner		
10.45 am	Coffee Break		
Data Mining i	n Medicine (ICDM)		
Session Chair: W			
11.00 am	Application of a Unified Medical Data Miner (UMDM) for Prediction, Classification,		
	Interpretation and Visualization on Medical Datasets: the Diabetes Dataset Case		
	Nawaz Mohamudally and Dost Muhammad Khan		
11.30 am	Characterizing Cell Types through Differentially Expressed Gene Clusters Using a Model-		
	based Approach		
	Juliane Perner and Elena Zotenko		
12.00	Melanoma Diagnosis and Classification Web Center System. The Non-Invasive Diagnosis		
	Support Subsystem		
	Wiesław Paja and Mariusz Wrzesień		
00.30 pm	Experiments with Hybridization and Optimization of the Rules Knowledge Base for		
1	Classification of MMPI Profiles		
	Jerzy Gomuła, Wiesław Paja, Krzysztof Pancerz, Teresa Mroczek, and Mariusz Wrzesień		
01.00 pm	Lunch		
<b>Applications</b>	in Medicine (MLDM)		
Session Chair: L			
02.00 pm	Detection of Phenotypes in Microarray Data using Force-directed Placement Transforms		
1	Dragana Veljkovic Perez and Kay A. Robbins		
02.30 pm	On the Temporal Behavior of EEG Recorded During Real Finger Movement		
F	Bashar Awwad Shiekh Hasan		
03.00 pm	A Machine Learning and Data Mining Framework to Enable Evolutionary Improvement in		
	Trauma Triage		
	Douglas A. Talbert, Matt Honeycutt and Steve Talbert		
03.30 pm	A Decision Support System Based on the Semantic Analysis of Melanoma Images Using		
	Multi-Elitist PSO and SVM		
	Weronika Piatkowska, Jerzy Martyna, Leszek Nowak, and Karol Przystalski		
04.00 pm	Coffee Break		
	nformation Mining (MLDM)		
Session Chair: K	_		
04.15 pm	Topic Sentiment Change Analysis		
0 1.10 piii	Yu Jiang, Weiyi Meng, and Clement Yu		
04.45 pm	Adaptive Context Modeling for Deception Detection in Emails		
04.43 pm	Peng Hao, Xiaoling Chen, Na Cheng, R.Chandramouli, and K.P. Subbalakshmi		
05 15	Contrasting Correlations by an Efficient Double-Clique Condition		
05.15 pm			
	Aixiang Li, Makoto Haraguchi and Yoshiaki Okubo		

06.00 pm -	Poster and Industry Paper Session ICDM
07.00 pm	Session Chair: Petra Perner
06.00 pm –	Workshop DMLS
07.30 pm	Session Chair: Isabelle Bichindaritz

	Fourth Conference Day: September 2, 2011
Machina Laan	ning and Image Mining (MLDM)
Session Chair: G	
09.00 am	Mining Spatial Trajectories using Non-Parametric Density Functions
09.00 am	Chun-Sheng Chen, Christoph F. Eick, and Nouhad J. Rizk
09.30 am	A Comparison between Haralick's Texture Descriptor and the Texture Descriptor based on
07.30 am	Random Sets for Biological Images
	Anja Attig and Petra Perner
10.00 am	Exploring Synergetic E_ects of Dimensionality Reduction and Resampling Tools on
10.00 am	Hyperspectral Imagery Data Classification
	J. S. Sánchez, V. García, and R. A. Mollineda
10.30 am	Coffee Break
10.45 am	Estimating Image Segmentation Difficulty
10.43 am	Dingding Liu, Yingen Xiong, Kari Pulli and Linda Shapiro
Classification	and Decision Theory (MLDM)
	lexander Ulanov
11.15 am	Fuzzy Semi-Supervised Support Vector Machines Houda Benbrahim
11 45	
11.45 am	GENCCS: A Correlated Group Difference Approach to Contrast Set Mining
00.15	Mondelle Simeon and Robert Hilderman
00.15 pm	Lunch
	spects of Data Mining (ICDM)
Session Chair: \	
01.15 pm	Improvements over adaptive local hyperplane to achieve better classification
0.4.4-	Hongmin Cai
01.45 pm	Prognostic Models Based on Linear Separability
02.15	Leon Bobrowski
02.15 pm	One Class Classification for Anomaly Detection: Support Vector Data Description Revisited
02.45	Eric J. Pauwels and Onkar Ambekar
02.45 pm	Comparing Classifiers and Metaclassifiers
00.17	Elio Lozano and Edgar Acuña
03.15 pm	Coffee Break
Data Warehou	
Session Chair: Y	
03.30 pm	Graph-Based Data Warehousing Using the Core-Facets Model
	Dung N. Lam, Alexander Y. Liu, and Cheryl E. Martin
Data Mining i	n Marketing (ICDM)
Session Chair: Y	Yanbo Wang
04.00 pm	General Sales Forecast Models for Automobile Markets based on Time Series Analysis and
	Data Mining Techniques
	Marco Hülsmann, Detlef Borscheid, Christoph M. Friedrich, and Dirk Reith
Data Mining i	n Agriculture (ICDM)
Session Chair: M	
04.30 pm	Exploratory Hierarchical Clustering for Management Zone Delineation in Precision
*	Agriculture
	Georg Ruß and Rudolf Kruse
05.00 pm	High Classification Rates for Continuous Cow Activity Recognition using Low-cost GPS
1	Positioning Sensors and Standard Machine Learning Techniques
	Torben Godsk and Mikkel Baun Kjærgaard
05.30 pm	Mining Pixel Evolutions in Satellite Image Time Series for Agricultural Monitoring
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	Andreea Julea, Nicolas Méger, Christophe Rigotti, Emmanuel Trouvé, Philippe Bolon, and Vasile Lăzărescu
Aspects of Data Mining (ICDM)	
Session Chair: Juliane Perner	
06.00 pm	Text Mining Scientific Papers: a Survey on FCA-based Information Retrieval Research
	Jonas Poelmans, Paul Elzinga, Stijn Viaene, Guido Dedene, Sergei O. Kuznetsov
06.30 pm	Comparing binary proximity measures
	Djamel Abdelkader Zighed and Rafik Abdesselam

#### Fifth Conference Day: September 3, 2011

Room 1		
Theory of Leas	Theory of Learning (MLDM)	
Session Chair: M		
09.00 am	Investigation in Transfer Learning: Better way to apply transfer learning between agents	
	Luiz Antonio Celiberto Junior and Jackson P. Matsuura	
09.30 am	Exploration Strategies for Learned Probabilities in Smart Terrain	
	John Sullins	
10.00 am	Sensitivity Analysis for Weak Constraint Generation	
	Jamshaid G. Mohebzada, Michael M. Richter, and Guenther Ruhe	
10.30 am	Coffee Break	
10.45 am	Dictionary learning Based on Laplacian Score in Sparse Coding	
	Jin Xu and Hong Man	
<b>Aspects of Dat</b>	a Mining (ICDM)	
Session Chair: W	Vieslaw Paja	
11.15 am	Methods in Case-based Classification in Bioinformatics: Lessons Learned	
	Isabelle Bichindaritz	
11.45 am	Prediction of batch-end quality for an industrial polymerization process	
	Geert Gins, Bert Pluymers, Ilse Y. Smets, Jairo Espinosa, and Jan F.M. Van Impe	
00.15 pm	Lunch	
WebMining/In	formation Mining (ICDM)	
Session Chair: W	l'ieslaw Paja	
01.15 pm	Towards a Spatial Instance Learning Method for Deep Web Pages	
	Ermelinda Oro and Massimo Ruffolo	
Classification a	and Decision Theory (MLDM)	
	abelle Bichindaritz	
01.45 pm	Spherical Nearest Neighbor Classification: Application to Hyperspectral Data	
•	Dalton Lunga and Okan Ersoy	
02.15 pm	Adaptive Kernel Diverse Density Estimate for Multiple Instance Learning	
	Tao Xu, Iker Gondra, and David Chiu	
02.45 pm	Boosting Inspired Process for Improving AUC	
	Victor S. Sheng and Rahul Tada	
03.15 pm	Coffee Break	
03.30 pm	Smoothing Multinomial Naïve Bayes in the Presence of Imbalance	
_	Alexander Y. Liu and Cheryl E. Martin	
04.00 pm	Collective Classification Using Heterogeneous Classifiers	
	Zehra Cataltepe, Abdullah Sonmez, Kadriye Baglioglu, and Ayse Erzan	
Clustering (N	TLDM)	
Session Chair: Isabelle Bichindaritz		
04.30 pm	A Practical Approach for Clustering Transaction Data	
1	Mohamed Bouguessa	
	· ·	
05.15 pm	Discussion and Best Paper Award	

Room 2	
09.00 am	Workshop CBR-MD
	Session Chair: Petra Perner
12.00	Workshop DMA
	Session Chair: Georg Ruß
02.15 pm	Workshop DMM
	Session Chair: Petra Perner
06.00 pm	Workshop Get-To-Gether

Posters MLDM	Posters MLDM	
Session Chair: Petra Perner		
	Rule Learning with Negation for Text Classification	
	Stephanie Chua and Frans Coenen	
	Distributed Evolutionary Optimization of Neural Network Topologies	
	Daniel Loy, Florian Schaefer, Sebastian Otte, and Dirk Krechel	
	Visual Attention Mechanisms for Data-Driven Multi-Scale Descriptor Extraction in Images	
	Ahmed Lakhssassi, Roman Palenichka, Michel Sayde and Marek Zaremba	
	Tuning Decision Tree Models by Imposing Visual Constraints	
	Gregor Stiglic, Simon Kocbek, Igor Pernek, and Peter Kokol	
	Combining Different Classifiers with Identical Features in Co-Training Method	
	Chang-Hwan Lee	
	RNN Based Sampling Technique for Effective Active Learning	
	Gaurav Maheshwari, Bhanukiran Vinzamuri, and Vikram Pudi	
	Validation of Click Fraud Detection Models	
	Wael Emara, Chamila Walgampaya, and Mehmed Kantardzic	
	Similarity-Based Attribute Selection with n-Grams	
	Alexander Ulanov, German Sapozhnikov, Georgy Shevlyakov, and Nickolay	
	Lyubomishchenko	
	Automatic Vehicle Number Plate Recognition by Mathematical	
	Morphology and Data Mining	
	Francisco Ortiz, Alfonso Naranjo and Alberto Gómez	
	Iris Recognition & Personal Authentication System Improve Efficiently	
	Anil Rajput, Niket Bhargava, Manmohan Singh, and Shivshakti Shrivastava	
	Concept Learning from Pieces of Information	
	Dominique Bouthinon	
	Using ISODATA to Cluster Microarray Genes Datasets	
	Rodolfo Garcia and Júlio Cesar Nievola	
	A Framework for Web Host Quality Detection	
	Ahmet Aycan Atak and Sule Gunduz Oguducu	
	Segmentation and classification of blood smear particles in noisy and degraded microscopic	
	images	
	M. Habibzadeha, A. Krzyżaka, T. Fevensa and A. Al-lahhamb	

Posters IC	DM
Session Cha	ir: Petra Perner
	Object Recognition in Herbarium Specimens
	Karl-Heinz Steinke, Martin Gehrke, and Robert Dzido
	Analysis of Patient Controlled Analgesia Demand Patterns
	Yuh-Jyh Hu, Rong-Hong Jan, Kuochen Wang, Yu-Chee Tseng, Tien-Hsiung Ku, and Shu-
	Fen Yang
	Label Recognition in Herbarium Specimens by using Database-Queries
	Martin Gehrke, Karl-Heinz Steinke, and Robert Dzido
	A Semantic Processing System (SPS) for Biomedical Literature Web Search
	Joseph Leone and Dong-Guk Shin
	COMESr - a Telemedical Assistance System for Early Recognition of Depression at Heart
	Failure
	Thomas Spittler, Michael Handwerker, Petra Friedrich and Bernhard Wolf
	Rank-r Updating Techniques for Fast Exact Cross-Validation
	Yi-Cheng Tseng and Yuh-Jye Lee
	Category-Based Intrusion Detection Using PCA
	Gholam Reza Zargar and, Peyman Kabiri
	Improving Keyphrase Extraction by Document Topic information
	Gaurav Singh and Anirvana Mishra
	Visualization and Exploration of Article's Revisions in Wikipedia
	Li Hao
	A CBR Approach for Extracting Coastal Aquaculture Area
	Liu Peng and Du Yunyan
	Gender Classification using Decision Trees
	A. Q. Sheraz and K. A. Naeem
	Statistical Procedure For Simultaneous Testing of Many Hypothesis
	Gurpreet Singh Bawa
	Topology Aware Functional Similarity of Protein Interaction Networks Based on Gene
	Ontology
	Fei Li, Xiuliang Cui, Dafei Xie, Xiaochen Bo, and Shengqi Wang
	Classifying Unbalanced Medical Dataset Using Hidden Markov Model and Particle Swarm
	Optimization
	Zahra Hajihashemi, Mohammed Khalilia and Mihail Popescu

Industry Paper ICDM	
	Applications of Just-In-Time Modeling to Product Quality Control in Steel Industry
	Hiroyasu Shigemori
	Two Client-Segmentation Methods for Compliance Risk Analysis
	Warwick Graco, Anthony Nolan, Hari Koesmarno and Garry Mitchell
	A Case Study of Data Mining in Retail Banking: Predict Attrition Risk of Vip Customers
	Yanbo Wang
	Auto Categorization of Food Safety Reports
	Zohreh Nazeri and Timothy B. Allison
	Implementing digital signal processing techniques and stochastic process theory for the on-
	line estimation of quality of combustion
	Marco A. Ortega and Fernando H. Rosales

## **Program Workshop CBR-MD**

September 3, 2011		
Workshop Chair:	Workshop Chair: Petra Perner	
9.00 am	A Comparison Between CBR and MLC in Order to Indentify Aquaculture Area from a	
	Costal Image	
	Liu Peng and Du Yunyan	
9.30 am	A First Note on the Problem of Normalization and a Normalized Similarity Measure by	
	Online Data	
	Anja Attig and Petra Perner	
10.00 am	A Case-Based Retrieval System for Post-Operative Pain Treatment	
	Mobyen Uddin Ahmed and Peter Funk	
10.30 am	A Case-Based Driver's State Monitoring System Using Physiological Sensor Signals	
	Shahina Begum	
11.00 am	Case Selection Evaluation Methodology	
	Jose M. Juarez, Eduardo Lupiani, and Jose Palma	
11.30 am	Discussion	
12.00 am	End of Workshop	
5.15 pm	Final Discussion World Congress DSA	
5.45 pm	End of Conference	
6.00 pm	Workshop Get-To-Gether	

## Program Workshop DMM

	September 3, 2011	
Workshop Chair:	Workshop Chair: Petra Perner	
2.15 pm	Prediction of New Customer-Product Affinities from Rich Dyadic Data using Localized	
	Models	
	Aayush Sharma, Meghana Deodhar and Joydeep Ghosh	
2.45 pm	About the Use of Data Bases for Data Mining in Direct Marketing	
	Christiane Schatte and Petra Perner	
3.15 pm	Challenges and Techniques of Predictive Marketing	
	Andrea Ahlemeyer-Stube	
3.45 pm	Discussion	
4.00 pm	End of Workshop	
5.15 pm	Final Discussion World Congress DSA	
5.45 pm	End of Conference	
6.00 pm	Workshop Get-To-Gether	

# Program Workshop DMLS (together with Poster Session)

September 1, 2011		
Workshop Chair:	Workshop Chair: Isabelle Bichindaritz	
	Object Recognition in Herbarium Specimens	
	Karl-Heinz Steinke, Martin Gehrke, and Robert Dzido	
	Analysis of Patient Controlled Analgesia Demand Patterns	
	Yuh-Jyh Hu, Rong-Hong Jan, Kuochen Wang, Yu-Chee Tseng, Tien-Hsiung Ku, and Shu-	
	Fen Yang	
	Label Recognition in Herbarium Specimens by using Database-Queries	
	Martin Gehrke, Karl-Heinz Steinke, and Robert Dzido	
	A Semantic Processing System (SPS) for Biomedical Literature Web Search	
	Joseph Leone and Dong-Guk Shi	
	COMESr - a Telemedical Assistance System for Early Recognition of Depression at Heart	
	Failure	
	Thomas Spittler, Michael Handwerker, Petra Friedrich and Bernhard Wolf	

### **Program Workshop DMA**

September 3, 2011		
Workshop Chair:	Workshop Chair: Georg Ruß	
12.00	Meteorological Data Mining: a Case Study in the Brazil Semi-Arid.	
	Jarbas Nunes Vidal Filho, Artur Luiz Torres de Oliveira, Paulo Cesar Moura da Silva,	
	Rafael Castelo Guedes Martins, Danniel Cavalcante Lopes, Angélica Félix de Castro	
00.30 pm	HACC-spatial: Hierarchical Agglomerative Spatially Constrained Clustering	
	Georg Ruß	
01.00 pm	Recent Developments in Data Mining and Agriculture	
	A. Mucherino and G. Ruß	
01.30 pm	Discussion	
02.00 pm	End of Workshop	
5.15 pm	Final Discussion World Congress DSA	
5.45 pm	End of Conference	
6.00 pm	Workshop Get-To-Gether	