

Table of Contents

Invited Paper

Technology of Text Mining	1
<i>A. Visa</i>	
Evaluation of Clinical Relevance of Clinical Laboratory Investigations by Data Mining	12
<i>U. Sack and M. Kamprad</i>	

Case-Based Reasoning and Associative Memory

Temporal Abstractions and Case-Based Reasoning for Medical Course Data: Two Prognostic Applications	23
<i>R. Schmidt and L. Gierl</i>	
Are Case-Based Reasoning and Dissimilarity-Based Classification Two Sides of the Same Coin?	35
<i>P. Perner</i>	
FAM-Based Fuzzy Inference for Detecting Shot Transitions	52
<i>S.-W. Jang, G.-Y. Kim, and H.-I. Choi</i>	

Rule Induction and Grammars

Rule-Based Ensemble Solutions for Regression	62
<i>N. Indurkha and S. M. Weiss</i>	
Learning XML Grammars	73
<i>H. Fernau</i>	
First-Order Rule Induction for the Recognition of Morphological Patterns in Topographic Maps	88
<i>D. Malerba, F. Esposito, A. Lanza, and F.A. Lisi</i>	

Clustering and Conceptual Clustering

Concepts Learning with Fuzzy Clustering and Relevance Feedback	102
<i>B. Bhanu and A. Dong</i>	
LC: A Conceptual Clustering Algorithm	117
<i>J.F. Martínez-Trinidad and G. Sánchez-Díaz</i>	

Data Mining on Signal, Images, Text and Temporal-Spatial Data

Data Mining Approach Based on Information-Statistical Analysis:
Application to Temporal-Spatial Data 128
B.K. Sy and A.K. Gupta

A Hybrid Tool for Data Mining in Picture Archiving System 141
P. Perner and T. Belikova

Feature Selection for a Real-World Learning Task 157
D. Kollmar and D.H. Hellmann

Automatic Identification of Diatoms Using Decision Forests 173
S. Fischer and H. Bunke

Validation of Text Clustering Based on Document Contents 184
J. Toivonen, A. Visa, T. Vesanen, B. Back, and H. Vanharanta

Nonlinear Function Learning and Neural Net Based Learning

Statistical and Neural Approaches for Estimating Parameters
of a Speckle Model Based on the Nakagami Distribution 196
M.P. Wachowiak, R. Smolíková, M.G. Milanova, and A.S. Elmaghraby

How to Automate Neural Net Based Learning 206
R. Linder and S.J. Pöpl

Nonlinear Function Learning and Classification
Using Optimal Radial Basis Function Networks 217
A. Krzyżak

Learning for Handwriting Recognition

Local Learning Framework for Recognition
of Lowercase Handwritten Characters 226
J.-x. Dong, A. Krzyżak, and C.Y. Suen

Mirror Image Learning for Handwritten Numeral Recognition 239
M. Shi, T. Wakabayashi, W. Ohyama, and F. Kimura

Statistical and Evolutionary Learning

Face Detection by Aggregated Bayesian Network Classifiers 249
T.V. Pham, M. Worring, and A.W.M. Smeulders

Towards Self-Exploring Discriminating Features 263
Y. Wu and T.S. Huang

PCA-Based Model Selection and Fitting for Linear Manifolds	278
<i>A. Imiya and H. Ootani</i>	
Statistics of Flow Vectors and Its Application to the Voting Method for the Detection of Flow Fields	293
<i>A. Imiya and K. Iwawaki</i>	
On the Use of Pairwise Comparison of Hypotheses in Evolutionary Learning Applied to Learning from Visual Examples	307
<i>K. Krawiec</i>	
Featureless Pattern Recognition in an Imaginary Hilbert Space and Its Application to Protein Fold Classification	322
<i>V. Mottl, S. Dvoenko, O. Seredin, C. Kulikowski, and I. Muchnik</i>	
Content-Based Image Retrieval	
Adaptive Query Shifting for Content-Based Image Retrieval	337
<i>G. Giacinto, F. Roli, and G. Fumera</i>	
Content-Based Similarity Assessment in Multi-segmented Medical Image Data Bases	347
<i>G. Potamias</i>	
Author Index	363