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Nota di contenuto	Invited Talks -- From Region Based Image Representation to Object Discovery and Recognition -- Learning on Manifolds -- Classification and Trees -- Structural Patterns in Complex Networks through Spectral Analysis -- Structural Descriptions -- Graph Embedding Using an Edge-Based Wave Kernel -- A Structured Learning Approach to Attributed Graph Embedding -- Machine Learning -- Combining Elimination Rules in Tree-Based Nearest Neighbor Search Algorithms -- Localized Projection Learning -- Entropy-Based Variational Scheme for Fast Bayes Learning of Gaussian Mixtures -- Structural Learning -- Learning Graph Quantization -- High-Dimensional Spectral Feature Selection for 3D Object Recognition Based on Reeb Graphs -- Dissimilarity-Based Multiple Instance Learning -- A Game Theoretic Approach to Learning Shape Categories and Contextual Similarities -- Poster Session -- A Comparison between Two Representatives of a Set of Graphs: Median vs. Barycenter Graph -- Impact of Visual Information on Text and Content Based Image Retrieval -- Automatic Traffic Monitoring from Satellite Images Using Artificial Immune System --

Graduated Assignment Algorithm for Finding the Common Labelling of a Set of Graphs -- Affinity Propagation for Class Exemplar Mining -- Guided Informative Image Partitioning -- Visual Alphabets on Different Levels of Abstraction for the Recognition of Deformable Objects -- Graph Embedding Based on Nodes Attributes Representatives and a Graph of Words Representation -- Extracting Plane Graphs from Images -- Indexing Tree and Subtree by Using a Structure Network -- Attributed Graph Matching for Image-Features Association Using SIFT Descriptors -- A Causal Extraction Scheme in Top-Down Pyramids for Large Images Segmentation -- Fast Population Game Dynamics for Dominant Sets and Other Quadratic Optimization Problems -- What Is the Complexity of a Network? The Heat Flow-Thermodynamic Depth Approach -- New Partially Labelled Tree Similarity Measure: A Case Study -- Complete Search Space Exploration for SITG Inside Probability -- Commute-Time Convolution Kernels for Graph Clustering -- Geometric Methods -- Non-Euclidean Dissimilarities: Causes and Informativeness -- Non-parametric Mixture Models for Clustering -- Structural Methods for Vision -- A Probabilistic Approach to Spectral Unmixing -- A Game-Theoretic Approach to the Enforcement of Global Consistency in Multi-view Feature Matching -- An Algorithm for Recovering Camouflage Errors on Moving People -- Clustering -- Semi-supervised Clustering Using Heterogeneous Dissimilarities -- On Consensus Clustering Validation -- Pairwise Probabilistic Clustering Using Evidence Accumulation -- Exploring the Performance Limit of Cluster Ensemble Techniques -- Contour Grouping by Clustering with Multi-feature Similarity Measure -- Poster Session -- A Psychophysical Evaluation of Texture Degradation Descriptors -- Content-Based Tile Retrieval System -- Performance Improvement in Multiple-Model Speech Recognizer under Noisy Environments -- On Feature Combination for Music Classification -- Information Theoretical Kernels for Generative Embeddings Based on Hidden Markov Models -- Dynamic Linear Combination of Two-Class Classifiers -- Large-Scale Text to Image Retrieval Using a Bayesian K-Neighborhood Model -- Maximum a Posteriori Based Kernel Classifier Trained by Linear Programming -- Improvement of the Disc Harmonic Moments Descriptor by an Exponentially Decaying Distance Transform -- Feature Level Fusion of Face and Palmprint Biometrics -- Scale and Rotation Invariant Detection of Singular Patterns in Vector Flow Fields -- Using K-NN SVMs for Performance Improvement and Comparison to K-Highest Lagrange Multipliers Selection -- Automatic Speech Segmentation Based on Acoustical Clustering -- An Efficient Iris and Eye Corners Extraction Method -- Dissimilarity-Based Methods -- An Empirical Comparison of Kernel-Based and Dissimilarity-Based Feature Spaces -- The Dissimilarity Representation as a Tool for Three-Way Data Classification: A 2D Measure -- Regularising the Ricci Flow Embedding -- Spherical Embedding and Classification -- Language -- Language Detection and Tracking in Multilingual Documents Using Weak Estimators -- Similarity Word-Sequence Kernels for Sentence Clustering -- Bayesian Adaptation for Statistical Machine Translation -- A Generative Score Space for Statistical Dialog Characterization in Social Signalling -- Multiple Classifiers -- A Modular Approach to Training Cascades of Boosted Ensembles -- A Linear Combination of Classifiers via Rank Margin Maximization -- Combination of Dichotomizers for Maximizing the Partial Area under the ROC Curve -- Graphs -- Ihara Coefficients: A Flexible Tool for Higher Order Learning -- A New Spectral Bound on the Clique Number of Graphs -- Large Sample Statistics in the Domain of Graphs -- Statistical Pattern Recognition -- Analysis of the Multi-Dimensional Scale Saliency Algorithm and Its

Application to Texture Categorization -- Interactive Image Retrieval Using Smoothed Nearest Neighbor Estimates -- Kernel Fusion of Multiple Histogram Descriptors for Robust Face Recognition -- Structural Methods for OCR -- Efficient OCR Post-Processing Combining Language, Hypothesis and Error Models -- Rejection Threshold Estimation for an Unknown Language Model in an OCR Task -- A New Editing Scheme Based on a Fast Two-String Median Computation Applied to OCR.

Sommario/riassunto

This volume in the Springer Lecture Notes in Computer Science (LNCS) series contains the papers presented at the S+SSPR 2010 Workshops, which was the seventh occasion that SPR and SSPR workshops have been held jointly. S+SSPR 2010 was organized by TC1 and TC2, Technical Committees of the International Association for Pattern Recognition(IAPR), andheld inCesme, Izmir, whichis a seaside resort on the Aegean coast of Turkey. The conference took place during August 18–20, 2010, only a few days before the 20th International Conference on Pattern Recognition (ICPR) which was held in Istanbul. The aim of the series of workshops is to create an international forum for the presentation of the latest results and exchange of ideas between researchers in the ?elds of statistical and structural pattern recognition. SPR 2010 and SSPR 2010 received a total of 99 paper submissions from many di?erent countries around the world, giving it a truly international perspective, as has been the case for previous S+SSPR workshops. This volume contains 70 accepted papers, 39 for oral and 31 for poster presentation. In addition to par- lel oral sessions for SPR and SSPR, there were two joint oral sessions of interest to both SPR and SSPR communities. Furthermore, to enhance the workshop experience, there were two joint panel sessions on “Structural Learning” and “Clustering,” in which short author presentations were followed by discussion. Another innovation this year was the ?lming of the proceedings by Videol- tures.