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006.3/12 Disciplina

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Invited Talks (Abstracts) -- Theory-Practice Interplay in Machine Nota di contenuto

> Learning – Emerging Theoretical Challenges -- Are We There Yet? --The Growing Semantic Web -- Privacy in Web Search Query Log Mining -- Highly Multilingual News Analysis Applications -- Machine Learning Journal Abstracts -- Combining Instance-Based Learning and Logistic

Regression for Multilabel Classification -- On Structured Output

Training: Hard Cases and an Efficient Alternative -- Sparse Kernel SVMs via Cutting-Plane Training -- Hybrid Least-Squares Algorithms for Approximate Policy Evaluation -- A Self-training Approach to Cost

Sensitive Uncertainty Sampling -- Learning Multi-linear

Representations of Distributions for Efficient Inference -- Cost-

Sensitive Learning Based on Bregman Divergences -- Data Mining and Knowledge Discovery Journal Abstracts -- RTG: A Recursive Realistic Graph Generator Using Random Typing -- Taxonomy-Driven Lumping for Sequence Mining -- On Subgroup Discovery in Numerical Domains -- Harnessing the Strengths of Anytime Algorithms for Constant Data

Streams -- Identifying the Components -- Two-Way Analysis of High-Dimensional Collinear Data -- A Fast Ensemble Pruning Algorithm Based on Pattern Mining Process -- Regular Papers -- Evaluation Measures for Multi-class Subgroup Discovery -- Empirical Study of Relational Learning Algorithms in the Phase Transition Framework --Topic Significance Ranking of LDA Generative Models --Communication-Efficient Classification in P2P Networks -- A Generalization of Forward-Backward Algorithm -- Mining Graph Evolution Rules -- Parallel Subspace Sampling for Particle Filtering in Dynamic Bayesian Networks -- Adaptive XML Tree Classification on Evolving Data Streams -- A Condensed Representation of Itemsets for Analyzing Their Evolution over Time -- Non-redundant Subgroup Discovery Using a Closure System -- PLSI: The True Fisher Kernel and beyond -- Semi-supervised Document Clustering with Simultaneous Text Representation and Categorization -- One Graph Is Worth a Thousand Logs: Uncovering Hidden Structures in Massive System Event Logs -- Conference Mining via Generalized Topic Modeling -- Within-Network Classification Using Local Structure Similarity -- Multi-task Feature Selection Using the Multiple Inclusion Criterion (MIC) -- Kernel Polytope Faces Pursuit -- Soft Margin Trees -- Feature Weighting Using Margin and Radius Based Error Bound Optimization in SVMs -- Margin and Radius Based Multiple Kernel Learning -- Inference and Validation of Networks -- Binary Decomposition Methods for Multipartite Ranking -- Leveraging Higher Order Dependencies between Features for Text Classification -- Syntactic Structural Kernels for Natural Language Interfaces to Databases -- Active and Semi-supervised Data Domain Description -- A Matrix Factorization Approach for Integrating Multiple Data Views -- Transductive Classification via Dual Regularization --Stable and Accurate Feature Selection -- Efficient Sample Reuse in EM-Based Policy Search -- Applying Electromagnetic Field Theory Concepts to Clustering with Constraints -- An ?1 Regularization Framework for Optimal Rule Combination -- A Generic Approach to Topic Models --Feature Selection by Transfer Learning with Linear Regularized Models -- Integrating Logical Reasoning and Probabilistic Chain Graphs --Max-Margin Weight Learning for Markov Logic Networks -- Parameter-Free Hierarchical Co-clustering by n-Ary Splits -- Mining Peculiar Compositions of Frequent Substrings from Sparse Text Data Using Background Texts -- Minimum Free Energy Principle for Constraint-Based Learning Bayesian Networks -- Kernel-Based Copula Processes -- Compositional Models for Reinforcement Learning -- Feature Selection for Value Function Approximation Using Bayesian Model Selection -- Learning Preferences with Hidden Common Cause Relations -- Feature Selection for Density Level-Sets -- Efficient Multistart Strategies for Local Search Algorithms -- Considering Unseen States as Impossible in Factored Reinforcement Learning -- Relevance Grounding for Planning in Relational Domains.

Sommario/riassunto

This book constitutes the refereed proceedings of the joint conference on Machine Learning and Knowledge Discovery in Databases: ECML PKDD 2009, held in Bled, Slovenia, in September 2009. The 106 papers presented in two volumes, together with 5 invited talks, were carefully reviewed and selected from 422 paper submissions. In addition to the regular papers the volume contains 14 abstracts of papers appearing in full version in the Machine Learning Journal and the Knowledge Discovery and Databases Journal of Springer. The conference intends to provide an international forum for the discussion of the latest high quality research results in all areas related to machine learning and knowledge discovery in databases. The topics addressed are application of machine learning and data mining methods to real-world

problems, particularly exploratory research that describes novel learning and mining tasks and applications requiring non-standard techniques.