Invited Papers

On Iterative Algorithms with an Information Geometry Background  p. 1
Visual Analytics: Combining Automated Discovery with Interactive Visualizations p. 2
Some Mathematics behind Graph Property Testing p. 3
Finding Total and Partial Orders from Data for Seriation p. 4
Computational Models of Neural Representations in the Human Brain (Extended Abstract) p. 5

Regular Contributions

Statistical Learning

Generalization Bounds for Some Ordinal Regression Algorithms  p. 7
Approximation of the Optimal ROC Curve and a Tree-Based Ranking Algorithm p. 22
Sample Selection Bias Correction Theory p. 38
Exploiting Cluster-Structure to Predict the Labeling of a Graph p. 54
A Uniform Lower Error Bound for Half-Space Learning p. 70
Generalization Bounds for K-Dimensional Coding Schemes in Hilbert Spaces p. 79
Learning and Generalization with the Information Bottleneck p. 92

Probability and Stochastic Processes

Growth Optimal Investment with Transaction Costs p. 108
Online Regret Bounds for Markov Decision Processes with Deterministic Transitions p. 123

On-Line Probability, Complexity and Randomness p. 138
Prewential Randomness p. 154
Some Sufficient Conditions on an Arbitrary Class of Stochastic Processes for the Existence of a Predictor p. 169
Nonparametric Independence Tests: Space Partitioning and Kernel Approaches p. 183

Boosting and Experts

Supermartingales in Prediction with Expert Advice p. 199
Aggregating Algorithm for a Space of Analytic Functions p. 214
Smooth Boosting for Margin-Based Ranking p. 227
Learning with Continuous Experts Using Drifting Games p. 240
Entropy Regularized LPBoost p. 256

Active Learning and Queries

Optimally Learning Social Networks with Activations and Suppressions p. 272
Active Learning in Multi-armed Bandits p. 287
Query Learning and Certificates in Lattices p. 303
Clustering with Interactive Feedback p. 316
Active Learning of Group-Structured Environments p. 329
Finding the Rare Cube p. 344

Inductive Inference

Iterative Learning of Simple External Contextual Languages p. 359
Topological Properties of Concept Spaces p. 374
Dynamically Delayed Postdictive Completeness and Consistency in Learning p. 389