

Table of Contents

Editors' Introduction	1
<i>M.M. Richter, C.H. Smith, R. Wiehagen, and T. Zeugmann</i>	

Inductive Logic Programming and Data Mining

Scalability Issues in Inductive Logic Programming (<i>Invited Lecture</i>)	11
<i>S. Wrobel</i>	

Inductive Inference

Learning to Win Process-Control Games Watching Game-Masters	31
<i>J. Case, M. Ott, A. Sharma, and F. Stephan</i>	
Closedness Properties in EX-identification of Recursive Functions	46
<i>K. Apsitis, R. Freivalds, R. Simanovskis, and J. Smotrovs</i>	

Learning via Queries

Lower Bounds for the Complexity of Learning Half-Spaces with Membership Queries	61
<i>V.N. Shevchenko, and N.Yu. Zolotykh</i>	
Cryptographic Limitations on Parallelizing Membership and Equivalence Queries with Applications to Random Self-Reductions	72
<i>M. Fischlin</i>	
Learning Unary Output Two-Tape Automata from Multiplicity and Equivalence Queries	87
<i>G. Melideo, and S. Varricchio</i>	
Computational Aspects of Parallel Attribute-Efficient Learning	103
<i>P. Damaschke</i>	
PAC Learning from Positive Statistical Queries	112
<i>F. Denis</i>	

Prediction Algorithms

Structured Weight-Based Prediction Algorithms (<i>Invited Lecture</i>)	127
<i>A. Maruoka, and E. Takimoto</i>	

Inductive Logic Programming

Learning from Entailment of Logic Programs with Local Variables	143
<i>M.K.R. Krishna Rao, and A. Sattar</i>	
Logical Aspects of Several Bottom-Up Fittings	158
<i>A. Yamamoto</i>	
Learnability of Translations from Positive Examples	169
<i>N. Sugimoto</i>	
Analysis of Case-Based Representability of Boolean Functions by Monotone Theory	179
<i>K. Satoh</i>	

Learning Formal Languages

Locality, Reversibility, and Beyond: Learning Languages from Positive Data	191
<i>T. Head, S. Kobayashi, and T. Yokomori</i>	
Synthesizing Learners Tolerating Computable Noisy Data	205
<i>J. Case, and S. Jain</i>	
Characteristic Sets for Unions of Regular Pattern Languages and Compactness	220
<i>M. Sato, Y. Mukouchi, and D. Zheng</i>	
Finding a One-Variable Pattern from Incomplete Data	234
<i>H. Sakamoto</i>	
A Fast Algorithm for Discovering Optimal String Patterns in Large Text Databases	247
<i>H. Arimura, A. Wataki, R. Fujino, and S. Arikawa</i>	

Inductive Inference

A Comparison of Identification Criteria for Inductive Inference of Recursive Real-Valued Functions	262
<i>E. Hirowatari, and S. Arikawa</i>	
Predictive Learning Models for Concept Drift	276
<i>J. Case, S. Jain, S. Kaufmann, A. Sharma, and F. Stephan</i>	
Learning with Refutation	291
<i>S. Jain</i>	
Comparing the Power of Probabilistic Learning and Oracle Identification under Monotonicity Constraints	306
<i>L. Meyer</i>	

Learning Algebraic Structures from Text Using Semantical Knowledge <i>F. Stephan and Y. Ventsov</i>	321
--	-----

Inductive Logic Programming

LIME: A System for Learning Relations (<i>Invited Lecture</i>) <i>E. McCreath, and A. Sharma</i>	336
---	-----

Miscellaneous

On the Sample Complexity for Neural Trees <i>M. Schmitt</i>	375
Learning Sub-classes of Monotone DNF on the Uniform Distribution <i>K.A. Verbeurgt</i>	385
Using Attribute Grammars for Description of Inductive Inference Search Space <i>U. Sarkans, and J. Bārzdīņš</i>	400
Towards the Validation of Inductive Learning Systems <i>G. Grieser, K.P. Jantke, and S. Lange</i>	409
Consistent Polynomial Identification in the Limit <i>W. Stein</i>	424

Author Index	439
--------------	-----

Algorithmic Learning Theory

9th International Conference, ALT'98, Otzenhausen,
Germany, October 8-10, 1998 Proceedings

Richter, M.M.; Smith, C.H.; Wiehagen, R.; Zeugmann, Th.
(Eds.)

1998, XI, 444 p. 1 illus., Softcover

ISBN: 978-3-540-65013-3