

Table of Contents

INVITED LECTURES

Tailoring Representations to Different Requirements	1
<i>Katharina Morik</i>	
Theoretical Views of Boosting and Applications	13
<i>Robert E. Schapire</i>	
Extended Stochastic Complexity and Minimax Relative Loss Analysis	26
<i>Kenji Yamanishi</i>	

REGULAR CONTRIBUTIONS

Neural Networks

Algebraic Analysis for Singular Statistical Estimation	39
<i>Sumio Watanabe</i>	
Generalization Error of Linear Neural Networks in Unidentifiable Cases . . .	51
<i>Kenji Fukumizu</i>	
The Computational Limits to the Cognitive Power of the Neuroidal Tabula Rasa	63
<i>Jiří Wiedermann</i>	

Learning Dimension

The Consistency Dimension and Distribution-Dependent Learning from Queries	77
<i>José L. Balcázar, Jorge Castro, David Guijarro, and Hans-Ulrich Simon</i>	
The VC-Dimension of Subclasses of Pattern Languages	93
<i>Andrew Mitchell, Tobias Scheffer, Arun Sharma, and Frank Stephan</i>	
On the V_γ Dimension for Regression in Reproducing Kernel Hilbert Spaces	106
<i>Theodoros Evgeniou and Massimiliano Pontil</i>	

Inductive Inference

On the Strength of Incremental Learning.....	118
<i>Steffen Lange and Gunter Grieser</i>	
Learning from Random Text	132
<i>Peter Rossmanith</i>	
Inductive Learning with Corroboration	145
<i>Phil Watson</i>	

Inductive Logic Programming

Flattening and Implication	157
<i>Kouichi Hirata</i>	
Induction of Logic Programs Based on ψ -Terms.....	169
<i>Yutaka Sasaki</i>	
Complexity in the Case Against Accuracy: When Building One Function-Free Horn Clause Is as Hard as Any	182
<i>Richard Nock</i>	
A Method of Similarity-Driven Knowledge Revision for Type Specifications.....	194
<i>Nobuhiro Morita, Makoto Haraguchi, and Yoshiaki Okubo</i>	

PAC Learning

PAC Learning with Nasty Noise	206
<i>Nader H. Bshouty, Nadav Eiron, and Eyal Kushilevitz</i>	
Positive and Unlabeled Examples Help Learning	219
<i>Francesco De Comit�, Fran�ois Denis, R�mi Gilleron, and Fabien Letouzey</i>	
Learning Real Polynomials with a Turing Machine	231
<i>Dennis Cheung</i>	

Mathematical Tools for Learning

Faster Near-Optimal Reinforcement Learning: Adding Adaptiveness to the E^3 Algorithm	241
<i>Carlos Domingo</i>	
A Note on Support Vector Machine Degeneracy.....	252
<i>Ryan Rifkin, Massimiliano Pontil, and Alessandro Verri</i>	

Learning Recursive Functions

Learnability of Enumerable Classes of Recursive Functions from “Typical” Examples	264
<i>Jochen Nessel</i>	

On the Uniform Learnability of Approximations to Non-recursive Functions	276
<i>Frank Stephan and Thomas Zeugmann</i>	

Query Learning

Learning Minimal Covers of Functional Dependencies with Queries	291
<i>Montserrat Hermo and Víctor Lavín</i>	

Boolean Formulas Are Hard to Learn for Most Gate Bases	301
<i>Víctor Dalmau</i>	

Finding Relevant Variables in PAC Model with Membership Queries	313
<i>David Guijarro, Jun Tarui, and Tatsuo Tsukiji</i>	

On-Line Learning

General Linear Relations among Different Types of Predictive Complexity	323
<i>Yuri Kalnishkan</i>	

Predicting Nearly as Well as the Best Pruning of a Planar Decision Graph	335
<i>Eiji Takimoto and Manfred K. Warmuth</i>	

On Learning Unions of Pattern Languages and Tree Patterns	347
<i>Sally A. Goldman and Stephen S. Kwek</i>	

Author Index	365
---------------------------	-----

Algorithmic Learning Theory

10th International Conference, ALT '99 Tokyo, Japan,

December 6-8, 1999 Proceedings

Watanabe, O.; Yokomori, T. (Eds.)

1999, XII, 372 p., Softcover

ISBN: 978-3-540-66748-3