Foreword

The papers in this special issue were selected from those presented at the Eighth International Workshop on Algorithmic Learning Theory (ALT’97), held in Sendai, Japan, October 6–8, 1997. These papers went through the normal review process of TCS.

The annual ALT workshops provide a forum for theoretical studies of machine learning. In recent years, the area has become mature. The problems become well-defined and many well-studied. The papers presented in this issue perhaps reflect this trend. The paper by W. Maass is an invited paper. He summarizes and compares various neural network models. The paper by S. Jain, S. Lange, and J. Nessel studies the identification of r.e. languages from good examples. J. Case, S. Jain, and A. Sharma present positive and negative results on synthesizing noise-tolerant language learners. V. Vovk studies good and bad experts in the context of the Brier game. L. Gurvits studies a necessary and sufficient condition for the learnability of a class of linearly bounded of functionals in Banach spaces. A. Ambainis, K. Apsitis, R. Freivalds, and C. Smith present further results on hierarchies or probabilistic and team FIN-learning. T. Erlebach, P. Rossmanith, H. Stadtherr, A. Steger, T. Zeugmann give different kinds of efficient learning algorithms for one-variable pattern languages. E. Takimoto, A. Maruoka, and V. Vovk present new and simpler algorithms for pruning a decision tree.

We thank the authors for submitting their contributions in a timely fashion and the anonymous referees for their great assistance.

Ming Li
Guest Editor

University of Waterloo
Department of Computer Science
Waterloo, Ont.
Canda N2L 3G1