

# Preface

This volume contains papers presented at the Fourth European Conference on Computational Learning Theory, which was held at Nordkirchen Castle, in Nordkirchen, NRW, Germany, from March 29 to 31, 1999. This conference is the fourth in a series of bi-annual conferences established in 1993.

The EuroCOLT conferences are focused on the analysis of learning algorithms and the theory of machine learning, and bring together researchers from a wide variety of related fields. Some of the issues and topics that are addressed include the sample and computational complexity of learning specific model classes, frameworks modeling the interaction between the learner, teacher and the environment (such as learning with queries, learning control policies and inductive inference), learning with complex models (such as decision trees, neural networks, and support vector machines), learning with minimal prior assumptions (such as mistake-bound models, universal prediction, and agnostic learning), and the study of model selection techniques. We hope that these conferences stimulate an interdisciplinary scientific interaction that will be fruitful in all represented fields.

Thirty-five papers were submitted to the program committee for consideration, and twenty-one of these were accepted for presentation at the conference and publication in these proceedings. In addition, Robert Schapire (AT & T Labs), and Richard Sutton (AT & T Labs) were invited to give lectures and contribute a written version to these proceedings. There were a number of other joint events including a banquet and an excursion to Münster. The IFIP WG 1.4 Scholarship was awarded to András Antos for his paper “Lower bounds on the rate of convergence of nonparametric pattern recognition”.

The EuroCOLT’99 conference was sponsored by the DFG (Deutsche Forschungsgemeinschaft) and by IFIP through WG 1.4.

We want to thank everybody who helped to make this meeting possible: the authors for submitting papers, the Program Committee and referees for their effort in composing the program, the Steering Committee, the sponsors, the local organizers, and Springer-Verlag. Thanks to Norbert Klasner and Karsten Tinnefeld for their help in preparing the proceedings, and thanks to Margret Vaupel for her administrative support. The program committee wishes to thank everybody who acted as subreferee.

January 1999

Paul Fischer and Hans Simon  
Conference Chairs  
EuroCOLT’99

# Organization

EUROCOLT'99 is organized by the department of Computer Science, University of Dortmund.

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