

Preface

This volume contains the papers presented at the 13th Annual Conference on Algorithmic Learning Theory (ALT 2002), which was held in Lübeck (Germany) during November 24–26, 2002. The main objective of the conference was to provide an interdisciplinary forum discussing the theoretical foundations of machine learning as well as their relevance to practical applications. The conference was colocated with the Fifth International Conference on Discovery Science (DS 2002).

The volume includes 26 technical contributions which were selected by the program committee from 49 submissions. It also contains the ALT 2002 invited talks presented by Susumu Hayashi (Kobe University, Japan) on “Mathematics Based on Learning”, by John Shawe-Taylor (Royal Holloway University of London, UK) on “On the Eigenspectrum of the Gram Matrix and Its Relationship to the Operator Eigenspectrum”, and by Ian H. Witten (University of Waikato, New Zealand) on “Learning Structure from Sequences, with Applications in a Digital Library” (joint invited talk with DS 2002). Furthermore, this volume includes abstracts of the invited talks for DS 2002 presented by Gerhard Widmer (Austrian Research Institute for Artificial Intelligence, Vienna) on “In Search of the Horowitz Factor: Interim Report on a Musical Discovery Project” and by Rudolf Kruse (University of Magdeburg, Germany) on “Data Mining with Graphical Models”. The complete versions of these papers are published in the DS 2002 proceedings (Lecture Notes in Artificial Intelligence, Vol. 2534).

ALT has been awarding the *E. Mark Gold Award* for the most outstanding paper by a student author since 1999. This year the award was given to Daniel Reidenbach for his paper “A Negative Result on Inductive Inference of Extended Pattern Languages.”

This conference was the 13th in a series of annual conferences established in 1990. Continuation of the ALT series is supervised by its steering committee consisting of: Thomas Zeugmann (Univ. Lübeck, Germany) Chair, Arun Sharma (Univ. of New South Wales, Australia) Co-chair, Naoki Abe (IBM T.J. Watson Research Center, USA), Peter Bartlett (Australian National Univ., Australia), Klaus Peter Jantke (DFKI, Germany), Roni Khardon (Tufts Univ., USA), Phil Long (National Univ. of Singapore), Heikki Mannila (Nokia Research Center), Akira Maruoka (Tohoku Univ., Japan), Luc De Raedt (Albert-Ludwigs-Univ., Germany), Takeshi Shinohara (Kyushu Institute of Technology, Japan), and Osamu Watanabe (Tokyo Institute of Technology, Japan).

We would like to thank all individuals and institutions who contributed to the success of the conference: the authors for submitting papers, the invited speakers for accepting our invitation and lending us their insight into recent developments in their research areas and the sponsors for their generous financial support. We are particularly grateful to Mrs. Lisa Dräger for funding the *E. Mark Gold Award* this year.

Furthermore, we would like to express our gratitude to all program committee members for their hard work in reviewing the submitted papers and participating in on-line discussions. We are also grateful to the external referees whose reviews made a considerable contribution to this process.

We are also grateful to DS 2002 chairs Steffen Lange (DFKI GmbH, Germany) and Ken Satoh (National Institute of Informatics, Japan) for their effort in coordinating with ALT 2002, and to Andreas Jakoby and Thomas Zeugmann for their excellent work as the local arrangements chairs. Last, but not least, Springer-Verlag provided excellent support in preparing this volume.

September 2002

Nicolò Cesa-Bianchi
Masayuki Numao
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Organization

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