

# Preface

Machine Learning has become a key enabling technology for many engineering applications and theoretical problems alike. To further discussions and to disseminate new results, a Summer School was held on February 11–22, 2002 at the Australian National University.

The current book contains a collection of the main talks held during those two weeks in February, presented as tutorial chapters on topics such as Boosting, Data Mining, Kernel Methods, Logic, Reinforcement Learning, and Statistical Learning Theory. The papers provide an in-depth overview of these exciting new areas, contain a large set of references, and thereby provide the interested reader with further information to start or to pursue his own research in these directions. Complementary to the book, a recorded video of the presentations during the Summer School can be obtained at

<http://mlg.anu.edu.au/summer2002>

It is our hope that graduate students, lecturers, and researchers alike will find this book useful in learning and teaching Machine Learning, thereby continuing the mission of the Summer School.

Canberra, November 2002

Shahar Mendelson  
Alexander Smola

Research School of Information Sciences and Engineering,  
The Australian National University

# Thanks and Acknowledgments

We gratefully thank all the individuals and organizations responsible for the success of the workshop.

## Local Arrangements, Co-located Conferences Help

Special thanks go to John Lloyd for making this Summer School possible, to Di Kossatz and Michelle Moravec who handled the local arrangements, to Gunnar Rättsch for his help with the manuscripts, to Dennis Andriolo, Joe Elso, Kim Holburn, and Teddy Mantoro for IT support, to Annie Lau, Petra Philips, Kristy Sim, Cheng Soon-Ong, and the students at the Computer Sciences Laboratory for their help throughout the course of the Summer School.

## Sponsoring Institutions

Research School of Information Sciences and Engineering, Australia  
The National Institute of Engineering and Information Science, Australia

## Speakers

Brian Anderson  
Peter Bartlett  
Peter Hall  
Markus Hegland  
Jyrki Kivinen  
John Lloyd  
Ron Meir

Shahar Mendelson  
Gunnar Rättsch  
Bernhard Schölkopf  
Arun Sharma  
Alex Smola  
Robert Williamson