Preface — COLT2012

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These proceedings contain the 41 papers accepted to, and presented at, the 25th Conference on Learning Theory (COLT), held in Edinburgh, Scotland on June 25–27, 2012. These papers were selected from 139 submissions by the program committee, with additional help from external expert reviewers. In one instance, two submissions were merged, at the recommendation of the program committee, to form the single paper titled Online Optimization with Gradual Variations. Of the 41 accepted papers, the paper "Exact Recovery of Sparsely Used Dictionaries" by Spielman, Wang and Wright received the best paper award, and the paper "Distributed Learning, Communication Complexity, and Privacy" by Balcan, Blum, Fine and Mansour, received an honorable mention as the runner up to the best paper. During the conference, an additional paper was selected as the best student paper, based on both the paper and its presentation.

These proceedings also contain the five open problems selected from among ten submitted. Selection of the open problems was handled by Alexander Rakhlin, the Open Problem Chair, and was based on reviews of the submitted open problems by members of the program committee as well as additional external reviewers (in one case of a conflict of interest with the Open Problem Chair, a decision was made by the Program Chairs). In addition to the 41 papers and five open problems published in these proceedings, the conference also included two "announcements" of recently published journal papers, two invited talks, one by Andrew Ng on "Machine Learning and AI via Large Scale Brain Simulations" and one by Dimitris Achlioptas on "Algorithmic Phase Transitions in Constraint Satisfaction Problems," and an invited tutorial on "Mirror Descent Algorithms for Large-Scale Convex Optimization" by Arkadi Nemirovski.

This year, COLT was co-located, and partially overlapped, with the 29th International Conference on Machine Learning (ICML): the second day of COLT overlapped with the ICML tutorials (Nemirovski's tutorial was a joint tutorial) and the final day of COLT overlapped with the first day of ICML technical sessions, and featured Achlioptas' talk, and another ICML invited talk, and the best paper of both conferences, in joint plenary sessions.

In addition to the entire program committee and all the external reviewers, we would like to thank the COLT General Chair, Jyrki Kivinen, the COLT Publicity and Publications Chair Robert Williamson, the COLT System Administrator Adam Bohlander, and the ICML Local Arrangements Chair Charles Sutton, who also took take of local coordination and arrangements for COLT. We also greatly enjoyed working with the ICML Program Chairs, John Langford and Joelle Pineau,

and would like to thank them for helping bring together an integrated COLT and ICML program. Finally, we would like to thank our generous sponsors: Microsoft Research, Google, The Heilbronn Institute for Mathematical Research and NICTA.

Shie Mannor and Nathan Srebro,
COLT 2012 Program Chairs.

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