SPECIAL ISSUE FROM RANDOM'09: EDITORS' FOREWORD

ODED GOLDREICH AND SALIL VADHAN

The interplay of randomness and complexity has played a central role in the theory of computation for several decades. This fruitful interplay was celebrated in *computational complexity*'s special issue on the 10th RANDOM conference (see Vol. 17 (1), 2008).

We thought it may be nice to continue this tradition every few years, and the 13th RANDOM conference held in Berkeley in August 2009, which featured several papers with clear complexity-theoretic aspects, seems to provide a good opportunity.

The specific papers appearing in this special issue represent a few of the relations between randomness and complexity. The relations between various forms of pseudorandomness and complexity theory are represented in the paper of Kinne et al. on typically correct derandomization. The paper of Ben Eliezer et al. refers to the average-case complexity of approximating polynomials. The paper of Bogdanov and Qiao studies the conjecture that certain NC_0 circuits (based on expander graphs) yield one-way functions. Lastly, the paper of Goldreich et al. presents hierarchy theorems in the context of Property Testing.

ODED GOLDREICH
Department of Computer Science,
Weizmann Institute of Science,
Rehovot, Israel.
`oded.goldreich@weizmann.ac.il`

SALIL VADHAN
School of Engineering
and Applied Sciences,
Harvard University,
Cambridge, MA 02138, USA.
`salil@eecs.harvard.edu`