Preface

This volume contains the proceedings of the *Fourth Asian Computing Science Conference* (ASIAN98), held December 8–10, 1998, in Manila, the Philippines. The previous three ASIAN conferences were also published as Lecture Notes in Computer Science, Volumes 1023 (Bangkok, 1995), 1179 (Singapore, 1996), and 1345 (Kathmandu, 1997).

Initiated in 1995 by the Asian Institute of Technology in partnership with INRIA and UNU, the ASIAN conference series aims at providing a forum in Asia for the exchange of the most recent research ideas and results in computer science and information technology. While each year features several emphasized themes, the 1998 conference focuses on the research areas of (1) formal reasoning and verification, (2) programming languages, (3) data and knowledge representation, and (4) networking and Web computing.

There were 43 submissions to the conference, out of which 17 were chosen for presentation and inclusion in this proceedings. The papers were submitted from Australia, Brazil, China, France, Germany, India, Italy, Japan, Korea, New Zealand, the Philippines, Russia, Singapore, Spain, Switzerland, Taiwan, Thailand, the United Kindom, and the United States of America. The program committee meeting was held virtually over the Internet. The selection was finalized after a fifteen-day period of lively discussion. Each paper was carefully reviewed and received at least three reports.

In addition to 17 highly selective papers, this year's conference also features a keynote speech by Jeannette M. Wing (Carnegie Mellon University) on *Formal Methods: Past, Present, and Future*, two invited talks by Susumu Hayashi (Kobe University) on *Testing Proofs by Examples* and Claude Kirchner (INRIA) on *The Rewriting Calculus as a Semantics of ELAN*, and two tutorials by Tomasz Janowski (UNU/IIST) on *Semantics and Logic for Provable Fault-Tolerance* and R.K. Shyamasundar (TIFR) on *Mobile Computation: Calculus and Languages*.

We would like to take this opportunity to thank our sponsors, the steering committee for the organization, the program committee and the reviewers for the excellent and conscientious job in evaluating the papers, the local committee for the local arrangements, Bill McCune and Claude Kirchner for generously providing the package for Web PC management and technical help in setting it up, and assistants Camel Dai and Takeomi Kato for managing the website. Without the collective work of everyone this conference would not have been possible.

September 1998   Jieh Hsiang, Atsushi Ohori
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