

# Lecture Notes in Computer Science

907

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# Theory and Practice of Parallel Programming

International Workshop TPPP '94  
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## Preface

Parallel Programming is now the major field in computer science in both theoretical and practical aspects. Virtually all researchers and practitioners in programming issues related to parallel/concurrent/distributed programming.

TPPP'94 is the first International Workshop on Theory and Practice of Parallel Programming, held at Gonryo-Kaikan, Tohoku University, Sendai, Japan, November 7, 8 and 9, 1994. It focused on theoretical foundations of parallel languages and parallel programming, their implementation issues, and practices of parallel programming. Specific topics included: models of computation, logic, proof, specification of programs, semantics of languages, implementation issues of languages and systems, and architectural support for parallelism and massively parallel computation.

The workshop program consisted of 9 invited lectures and 15 contributed talks with extensive discussions. The invited speakers were:

Vaughan Pratt (Stanford University)

Manfred Broy (Technische Universität München)

Benjamin Pierce (Edinburgh University, now at Cambridge University)

Robert H. Halstead, Jr. (DEC Cambridge Research Lab)

Christian Queinnec (Ecole Polytechnique)

John H. Reppy (AT&T Bell Laboratories)

Suresh Jagannathan (NEC Princeton Research Institute)

Naoki Kobayashi (University of Tokyo)

Taiichi Yusasa (Toyohashi University of Technology).

This volume contains all the invited speakers' papers as well as those of contributors, each of which is an improved/updated version of one prepared for the preliminary proceedings of the workshop, reflecting comments and discussions during the workshop. The following people helped with additional reviewing comments for the contributed papers: Manfred Broy, Robert H. Halstead, Jr., Christian Queinnec, Naoki Kobayashi, Satoshi Matsuoka, Atsushi Ohori, Taiichi Yuasa. We would like to express our sincere gratitude to them and to all the authors for submitting their papers to this volume.

The invited speakers of TPPP'94 were partially supported by the invitation programs of Ministry of Education and Culture (Mombusho) and International Information Science Foundation (IISF) and the research projects on parallel programming conducted by the workshop organizers. Special thanks go to Masahiko Ohtomo (the workshop secretary), Noriko Kusama, Shin-ichi Kawamoto, Kenji Takahashi, Tomohito Uchida, and all those who helped organize, and participated in, the workshop for their invaluable contributions. Finally, we thank Alfred Hofmann of Springer-Verlag for his assistance in this book's publication.

February 1995

Takayasu Ito  
Akinori Yonezawa  
Workshop Co-Organizers  
TPPP'94

## Contents

### Invited Talk 1

<i>Time and Information in Sequential and Concurrent Computation</i> .....	1
Vaughan Pratt (Stanford Univ.)	

<i>Notes on P-Algebra 1: Process Structure</i> .....	25
Kohei Honda (Keio Univ.)	

<i>Simulating Guarded Programs in Linear Logic</i> .....	45
Max I. Kanovich (Tohoku Univ. and Russian Humanities State Univ.)	

### Invited Talk 2

<i>Sharing Mutable Objects and Controlling Groups of Tasks in a Concurrent and Distributed Language</i> .....	70
Christian Queinnec (Ecole Polytechnique and INRIA-Rocquencourt)	

<i>Multi-threaded PaiLisp with Granularity Adaptive Parallel Execution</i> .....	94
Shin-ichi Kawamoto, Takayasu Ito (Tohoku Univ.)	

<i>StackThreads: An Abstract Machine for Scheduling Fine-Grain Threads on Stock CPUs</i> .....	121
Kenjiro Taura, Satoshi Matsuoka, Akinori Yonezawa (Univ. of Tokyo)	

### Invited Talk 3

<i>Higher-Order Concurrent Linear Logic Programming</i> .....	137
Naoki Kobayashi, Akinori Yonezawa (Univ. of Tokyo)	

<i>A Parallel Object-Oriented Language OCore</i> .....	167
Hiroki Konaka, Takashi Tomokiyo, Munenori Maeda, Yutaka Ishikawa, Atsushi Hori (Real World Computing Partnership)	

### Invited Talk 4

<i>Concurrent Objects in a Process Calculus</i> .....	187
Benjamin C. Pierce (Edinburgh Univ.), David N. Turner (Univ. of Glasgow)	

<i>A Formalism for Remotely Interacting Processes</i> .....	216
Ichiro Satoh, Mario Tokoro (Keio Univ.)	

<i>ProCSuS: A Meta System for Concurrent Process Calculi Based on SOS</i> ..	229
Atsushi Togashi, Sen Yoshida, Sigetomo Kimura, Norio Shiratori (Tohoku Univ.)	

### Invited Talk 5

<i>First-class Synchronous Operations</i> .....	235
John H. Reppy (AT&T Bell Laboratories)	

### Invited Talk 6

<i>Self-Describing Files + Smart Modules = Parallel Program Visualization</i> ..	253
Robert H. Halstead, Jr. (DEC Cambridge Research Lab)	

<i>A Performance Debugger for a Parallel Logic Programming Language Fleng</i> .....	284
Junichi Tatemura, Hanpei Koike, Hidehiko Tanaka (Univ. of Tokyo)	
<i>First Class Continuation Facilities in Concurrent Programming Language Harmony/2</i> .....	300
Ken Wakita (Tokyo Institute of Technology)	
<b>Invited Talk 7</b>	
<i>Locality Abstractions for Parallel and Distributed Computing</i> .....	320
Suresh Jagannathan (NEC Research Institute, Princeton)	
<i>An Algorithm for Efficient Global Garbage Collection on Massively Parallel Computers</i> .....	346
Tomio Kamada, Satoshi Matsuoka, Akinori Yonezawa (Univ. of Tokyo)	
<i>I/O Mode Analysis in Concurrent Logic Programming</i> .....	356
Kazunori Ueda (Waseda Univ.)	
<b>Invited Talk 8</b>	
<i>Advanced Component Interface Specification</i> .....	369
Manfred Broy (Technische Universität München)	
<i>Graph Notation for Concurrent Combinators</i> .....	393
Nobuko Yoshida (Keio Univ.)	
<i>A Calculus for Exploiting Data Parallelism on Recursively Defined Data</i> ...	413
Susumu Nishimura, Atsushi Ohori (Kyoto Univ.)	
<b>Invited Talk 9</b>	
<i>The Data-Parallel C Language NCX and Its Implementation Strategies</i> ....	433
Taiichi Yuasa, Toshiro Kijima (Toyohashi Univ. of Technology), Yutaka Konishi (Aichi College of Technology)	
<i>A Dataflow-Based Massively Parallel Programming Language "V" and Its Implementation on a Stock Parallel Machine</i> .....	457
Shigeru Kusakabe, Makoto Amamiya (Kyushu Univ.)	
<i>Programming with Distributed Data Structure for EM-X Multiprocessor</i> ....	472
Mitsuhsa Sato, Yuetsu Kodama, Hirofumi Sakane, Yoshinori Yamaguchi, Satoshi Sekiguchi (Electrotechnical Laboratory), Shuichi Sakai (Tsukuba Research Center)	
<i>List of Workshop Participants</i> .....	485