IBM HAIFA LABS

Invitation to IBM Haifa Leadership Seminar

Compiler and Architecture Seminar 2004

December 19, 2004

9:15 Arrival

9:30 Welcome

Michael Rodeh, Director, IBM Haifa Labs

9:45 Chip-level Integration Tradeoffs—the New Frontier for Microprocessor Design

Jaime H. Moreno, IBM T.J. Watson Research Center

10:15 Everything You Always Wanted to Know about SCALABILITY and Were Afraid to Ask

Ronny Ronen, Intel Israel

10:45 Dynamically Controlled Resource Allocation in SMT Processors

Francisco J. Cazorla, UPC, Enrique Fernandez, University of Las Palmas de Gran Canaria, Alex Ramirez, UPC, Mateo Valero, UPC

11:15 Coffee break

11:35 Inthreads: Code Generation and Implementation Notes

Alex Gontmakher, Assaf Schuster, Gregory Shklover, Computer Science department, Technion

12:05 Inserting Data Prefetches into Loops in Dynamically Translated Code in IA-32EL

Tevi Devor, Intel Israel

12:35 An Efficient Parallel Heap Compaction Algorithm

Diab Abuaiadh, Yoav Ossia, Erez Petrank, Uri Silbershtein, IBM Haifa Labs

13:05 Lunch

14:00 Keynote: Trends in Compilers and Programming Languages at Apple Computer

Ted Goldstein, Apple Computer

15:00 Autovectorization in GCC

Dorit Naishlos, IBM Haifa Labs

15:30 Break

15:50 Validating the Translation of an Industrial Optimizing Compiler

Ira Gordin, Raya Leviathan, Dept. of Computer Science, Weizmann Institute of Science and Amir Pnueli, New York University

16:20 Stabilization Preserving and Enforcing Compiler

Olga Brukman, Shlomi Dolev, Yinnon Haviv, Computer Science department, Ben-Gurion University and Mooly Sagiv, Computer Science department, Tel Aviv University

16:50 Panel: Computer Architecture and Software Interactions—Outlook for the Future

Ted Goldstein, Apple Computer,
Jaime H. Moreno, IBM T.J. Watson Research Center,
Ronny Ronen, Intel Israel,
Alex Ramirez, UPC

Moderated by: David Bernstein, IBM Haifa Labs

17:20 Concluding Remarks