Wednesday, October 6

Languages II — Chairman: H.P. Zima

09:00 - 10:00 **L. Snyder** (U. of Washington, USA)
Foundations of Practical Parallel Programming Languages

10:00 - 10:30 **C.W. Keßler**, **W.J. Paul** (D)
Automatic Parallelization by Pattern-Matching

10:30 - 10:45 *Coffee Break*

10:45 - 11:15 **S. Kalogeropulos** (INMOS Ltd., UK)
Identifying the available Parallelism using Static Analysis

Programming Environments — Chairman: G. Haring

11:15 - 12:15 **Al Geist** (Oakridge National Lab, USA)
PVM 3 Beyond Network Computing

12:30 - 14:00 *Lunch*

14:00 - 14:30 **W. Schreiner** , **H. Hong** (RISC-Linz, A)
The Design of the PACLIB Kernel for Parallel Algebraic Computation

14:30 - 15:00 **P. Fritzson**, **N. Andersson** (U. of Linköp., S)
Generating Parallel Code from Equations in the Object Math Programming Environment

15:00 - 15:30 **B. Ries** (Intel ESDC, D)
The Paragon Performance Monitoring Environment

Final Program

Second International Conference

of the

Austrian Center for Parallel Computation

October 4 - 6, 1993

Gmunden, Austria

Program Overview

	Sunday, Oct 3	Monday, Oct 4
08:30-09:00		Opening Addresses
09:00-10:00		**Architectures** Invited Lecture J. Ffitch
10:00-10:30		B. Robic, J. Silc "Honeycomb Architecture."
10:30-10:45		Coffee Break
10:45-11:15		J. Schepers "Pipeline Interlocks"
11:15-11:45		**Algorithms**
11:45-12:15		Invited Lecture W. Hoover
12:30- 14:00		Lunch
14:00-14:30		A.G. Neto "Relaxed Timing"
14:30-15:00		J. Lampe "Parallelization - A Case Study"
15:00-15:30		M. Lucka "Fourier Transform"
15:30-15:45		Coffee Break
15:45-16:15	**Villa Toscana:**	C. Limongelli, H.W. Loidl "Rational Number Arithmetic"
16:15-16:45		S. Stifter "Non-Synchronized Motions"
16:45-17:15	Registration	A. Spalt "Volume Visualization"
17:30 - 18:30		
18:30 -	Welcome Reception	

Tuesday, October 5

14:30 - 15:00 **N.A. Gollwitzer** (nCUBE, D)
ncUBE 2E: Deskside MPP Power for Scientific and Commercial Applications

15:00 - 15:30 **P. Schuller** (intel, D)
Paragon Product Update

15:30 - 15:45 Coffee Break

Industrial Program II

Chairman: O. Steinhauser

15:45 - 16:15 **S. Marchart** (SNI, A)
Parallel Computing on the KSR1

16:15 - 16:45 **M. Mörtinger** (Bacher Systems, A)
Sun Microsystems' Multiprocessing Strategy

16:45 - 17:15 **W. Kroy** (Cray Research, D)
High Performance Parallel Computing at Cray Research

17:30 - 18:30 Boat trip on Lake Traunsee

18:45 - Conference Banquet
in restaurant "Schwan" at Lake Traunsee

Tuesday, October 5

Languages I
Chairman: H.P. Zima

09:00 - 10:00 **P. Mehrotra** (NASA Langley, USA)
Data Parallel Programming: The Promises and Limitations of High Performance Fortran

10:00 - 10:30 **W. Hasselbring** (U. of Essen, D)
Prototyping Parallel Algorithms with PROSET-Linda

10:30 - 10:45 Coffee Break

Industrial Program I
Chairman: W. Kleinert

10:45 - 11:15 **J. Krebs** (digital, D)
Alpha AXP Workstation Farms

11:15 - 11:45 **J. Reusch** (MasPar, D)
Data Parallel Solutions for Data Intensive Applications

11:45 - 12:15 **R. Humphries** (Silicon Graphics, USA)
Parallel Processing with 64-bit Streaming Superscalar RISC Architecture

12:30 - 14:00 Lunch

14:00 - 14:30 **W. Brandstätter** (AVL, A)
Fluid Flow and Combustion Simulation on Massively Parallel Systems

Program Overview

Tuesday, Oct 5	Wednesday, Oct 6
Languages I Invited Lecture P. Mehrotra	**Languages II** Invited Lecture L. Snyder
W. Hasselbring "PROSET-Linda"	C.W. Keßler, W.J. Paul "Autom. Parallel. by Pattern-Matching"
Coffee Break	Coffee Break
J. Krebs (digital) "Alpha AXP Workstation Farms"	S. Kalogeropulos "Static Analysis"
J. Reusch (MasPar) "Data Parallel Solutions"	**Programming Environments** Invited Lecture Al Geist
R. Humphries (Silicon Graphics) "Parallel Proc. with RISC Arch."	
Lunch	Lunch
W. Brandstätter (AVL) "Simulation on M. P. Systems"	W. Schreiner, H. Hong "PACLIB Kernel"
N.A. Gollwitzer (nCUBE) "nCUBE 2E: Deskside MPP Power"	P. Fritzson, N. Andersson "Generating Parallel Code"
P. Schuller (intel) "Paragon Product Update"	B. Ries "Paragon Environment"
CoffeeBreak	
S. Marchart (SNI) "Parallel Comp. on the KSR1"	
M. Mörtinger (Bacher Systems) "Sun's Multiprocessing Strategy"	
W. Kroj (Cray Research) "High Perf. Parall. Comp. at Cray Res."	
Boat Trip	
Conference Banquet	

Sunday, October 3

16:00 - 18:30 Registration
at the Villa Toscana (Registration Desk)

18:45 - Welcoming Reception
at the Villa Toscana

Monday, October 4

08:30 Opening Addresses given by

Prof. H. P. Zima (ACPC)
Dir. E. Herrmann(Mayor of Gmunden)
Dir. G. Eder (Toscana Congress)

Architectures — Chairman: W. Händler

09:00 - 10:00 **J. Ffitch** (U. of Bath, UK)
Parallel Architectures and how to ignore them

10:00 - 10:30 **B. Robic**, **J. Silc** (U. of Ljubljana, Slovenia)
High-Performance Computing on a Honeycomb Architecture

10:30 - 10:45 Coffee Break

10:45 - 11:15 **J. Schepers** (SIEMENS AG, D)
Refined Local Instruction Scheduling Considering Pipeline Interlocks

Algorithms I — Chairman: B. Buchberger

11:15 - 12:15 **W. Hoover** (U. of California, USA)
Invited Lecture

12:15 Greetings given by
Dr. Ch. Leitl (Landesrat, Upper Austria)

12:30 - 14:00 Lunch

14:00 - 14:30 **A.G. Neto** (U. of Sao Paulo, Brasil)
Further Results of the Relaxed Timing Model for Distributed Simulation

14:30 - 15:00 **J. Lampe** (Tech. U. of Dresden, D)
Parallelization - A Case Study

15:00 - 15:30 **M. Lucka** (Slov. Ac. of Sciences, Slov. Rep.)
An effective algorithm for computation of two-dimensional fourier transform for NxM matrices

Algorithms II — Chairman: P. Zinterhof

15:45 - 16:15 **C. Limongelli** (U. “La Sapienza”, I),
H.W. Loidl (RISC-Linz, A): Rational Number Arithmetic by Parallel P-adic Algorithms

16:15 - 16:45 **S. Stifter** (RISC-Linz, A)
Shortest Non-Synchronized Motions - Parallel Versions of Shared Memory CREW Models

16:45 - 17:15 **A. Spalt** (U. of Linz, A)
A Pipeline Algorithm for Interactive Volume Visualization