PROGRAM OF PPAM 2005

SUNDAY, SEPTEMBER 11
9:00 - 11:00 Registration
11:00 - 18:45 Tutorials (Including lunch)
19:00 Welcome Reception

MONDAY, SEPTEMBER 12
8:40 Opening
9:00 - 10:30 Invited talks
10:30 - 10:50 Coffee break
10:50 - 12:10 Contributed papers
Track A: GRID APPLICATION AND MIDDLEWARE WORKSHOP
Track B: PERFORMANCE ANALYSIS AND PREDICTION
Track C: PARALLEL/DISTRIBUTED ALGORITHMS
Track D: PARALLEL DATA MINING
12:10 - 12:55 Invited talk
12:55 - 14:40 Poster Session 1 + Lunch
14:40 - 16:00 Invited talks (In parallel)
16:00 - 16:20 Coffee break
16:20 - 18:25 Contributed papers
Track A: GRID APPLICATION AND MIDDLEWARE WORKSHOP
Track B: APPLICATIONS OF PARALLEL/DISTRIBUTED/GRID COMPUTING
Track C: LaSCoG
Track D: EVOLUTIONARY COMPUTING
18:45 Traveling to Skrzynki and barbecue

TUESDAY, SEPTEMBER 13
8:30 - 9:45 Contributed papers
Track A: GRID APPLICATION AND MIDDLEWARE WORKSHOP
Track B: GRID RESOURCE MANAGEMENT WORKSHOP
Track C: COMPUTER METHODS
Track D: HPC LINEAR ALGEBRA LIBRARIES
9:45 - 10:10 Coffee break
10:10 - 12:15 Contributed papers
Track A: WLPP
Track B: GRID RESOURCE MANAGEMENT WORKSHOP
Track C:
10:10 - 11:25 GRID PROGRAMMING
11:25 - 12:15 TOOLS FOR CLUSTERS AND GRIDS
Track D: HPC LINEAR ALGEBRA LIBRARIES
12:15 - 13:00 Invited talk
13:00 - 14:40 Poster Session 2 + Lunch
14:40 - 16:00 Invited talks (In parallel)
16:00 - 16:20 Coffee break
16:20 - 18:00 Contributed papers
Track A: PERFORMANCE ANALYSIS AND PREDICTION
Track B: PARALLEL AND DISTRIBUTED ARCHITECTURES
Track C: TOOLS FOR CLUSTERS AND GRIDS
Track D: WORKSHOP ON PARALLEL BIO–COMPUTING
18:30 Guided tour of Old Market Square
20:00 Conference Dinner

WEDNESDAY, SEPTEMBER 14
9:00 - 9:45 Invited talk
9:45 - 10:10 Coffee break
10:10 - 12:40 Contributed papers
Track A: WORKSHOP ON SCHEDULING FOR PARALLEL COMPUTING
Track B: DEPENDABILITY OF THE DISTRIBUTED SYSTEMS
Track C:
10:10 - 11:50 GRID ARCHITECTURES, ENABLING TECHNOLOGIES
11:50 - 12:40 APPLICATIONS OF PARALLEL/DISTRIBUTED/GRID COMPUTING
Track D: PARALLEL NUMERICS
12:40 - 13:25 Invited talk
13:35 Lunch

PROGRAM OF PPAM 2005

SUNDAY, SEPTEMBER 11	
9:00 - 11:00 Registration	
11:00 - 14:15 Tutorials (in parallel)	
Enterprise GRID solutions : Eliminating Isolated Technology Islands with Infiniband	CISCO
Using CLUSTERIX: National Cluster of Linux Systems	CLUSTERIX Team
14:15 - 15:30 Lunch	
15:30 - 18:45 Tutorials (in parallel)	
Upgrading Cluster Performance with InfiniBand* and the Intel MPI Library	Tom Lehmann, Intel Corporation
Scientific programming for heterogeneous networks	Alexey Lastovetsky, Alexey Kalinov
19:00 Welcome Reception in the Congress Center	

MONDAY, SEPTEMBER 12	
8:40 Opening	
9:00 - 9:45 Invited talk	
Chairperson:	**B. Szymanski**
An Overview of High Performance Computing and Self Adapting Numerical Software	Jack Dongarra, University of Tennessee and ORNL
9:45 - 10:30 Invited talk	
From dual-core to many-core, is the industry ready?	Ben Bennet, Intel
10:30 - 10:50 Coffee break	
10:50 - 12:10 Contributed papers	
Track A: GRID APPLICATION AND MIDDLEWARE WORKSHOP	
Chairperson:	**J. Rokicki**
The Grid Portlets Web Application: A Grid Portal Framework	M. Russell, J. Novotny, O. Wehrens
Real-time visualisation in the grid using Unicore middleware	P. Bala, K. Benedyczak, A. Nowinski, K. Nowinski
P2P Computing System with Remote Method Invocation over JXTA	P. Jurczyk, M. Golenia, M. Malawski, D. Kurzyniec, M. Bubak, V. S. Sunderam
Track B: PERFORMANCE ANALYSIS AND PREDICTION	
Chairperson:	**J. Brzezinski**
A new diagonal blocking format and model of cache behavior for sparse matrices	P. Trvdik, I. Simecek
Total Exchange Performance Modelling under Network Contention	L. A. Barchet-Steffenel, G. Mounie
Data Access Time Estimation for the CASTOR HSM System	M. Kuta, D. Nikolov, R. Slota, J. Kitowski
Track C: PARALLEL AND DISTRIBUTED NON–NUMERICAL ALGORITHMS	
Chairperson:	**M. Kubale**
A new algorithm for generation of exactly m-block set partitions in associative model	Z. Kokosinski
The Distributed Stigmergic Algorithm for Multiparameter Optimization	J. Silc, P. Korosec
Frequency of co-operation of parallel simulated annealing processes	Z. J. Czech, B. Wieczorek
Track D: PARALLEL DATA MINING	
Chairperson:	**W. Kwedlo**
Improving Parallelism in Structurala Data Mining	M. Cai, I. Jonyer, M. Paprzycki
Online Balancing of a R–Tree Indexed Distributed Spatial Data Warehouse	M. Gorawski, R. Chechelski
Resumption of Data Extraction Process in Parallel Data Warehouses	M. Gorawski, P. Marks

12:10 - 12:55 Invited talk	
Chairperson:	**J. Dongarra**
Grids for Streaming Data	Geoffrey Fox, Indiana University
12:55 - 14:40 Poster Session 1 + Lunch	
Chairperson:	**M. Paprzycki, R. Wyrzykowski**
14:40 - 15:20 Invited talks (In parallel)	
Chairpersons:	**T. Lehmann, R. Ciegis**
Infiniband in the Context of High Performance Computing	Cisco
Massively Parallel Implementation of Interior Point Methods for Very Large Scale Optimization	Jacek Gondzio, University of Edinburgh
15:20 - 16:00 Invited talks (In parallel)	
Building a future ready datacenter - physical infrastructure for high density applications	Tomasz Starzec, APC
New Data Storage Formats for Dense Matrices Lead to Variety of High-Performance Algorithms (Solving Linear Systems of Equations)	Jerzy Wasniewski, Technical University of Denmark
16:00 - 16:20 Coffee break	
16:20 - 18:25 Contributed papers	
Track A: GRID APPLICATION AND MIDDLEWARE WORKSHOP	
Chairperson:	**W. Ziegler**
Matrix-Matrix Multiplication in a Client Server Computing Environment: Experiments with NetSolve	L. DAmore, G. Laccetti, M. Lapegna
Development of a Grid Service for Scalable Decision Tree Construction from Grid Databases	P. Brezany, Ch. Kloner, A. Min Tjoa
Abstract Workflow Composition in K-WfGrid Project Environment	T. Gubala, M. Bubak, M. Malawski, K. Rycerz
Manageable Dynamic Execution Environments on the Grid using Virtual Machines	S. S. Dharanikota, R. Ratering
Towards Checkpointing Grid Architecture	G. Jankowski, J. Kovacs, N. Meyer, R. Januszewski, R. Mikolajczak
Track B: APPLICATIONS OF PARALLEL/DISTRIBUTED/GRID COMPUTING	
Chairperson:	**J. Kitowski**
Parallel Resolution of the Satisfiability Problem (SAT) with OpenMP and MPI	D. Singer, A. Vagner
Parallel tool for solution of multiphase flow problems	R. Ciegis, A. Jakusev, V. Starikocius
Iterative Reconstruction of Tomographic Scans in Dynamic SMP Clusters with Communication on the Fly	B. Butrylo, M. Tudruj, L. Masko

Service Oriented Architecture for Risk Assessment of Natural Disaster	M. Maliska, B. Simo, M. Ciglan, P. Slizik, L. Hluchy
Modeling of People Flow in Public Transport Vehicles	B. Gudowski, J. Was
Track C: WORKSHOP ON LARGE SCALE COMPUTATIONS ON GRID	
Chairperson:	**P. Stpiczynski**
Matchmaking of Mathematical Web Services	S. A. Ludwig, W. Naylor, O. F. Rana, J. Padget
A Web Computing Environment for Parallel Algorithms in Java	O. Bonorden, J. Gehweiler, F. Meyer auf der Heide
Porting CFD towards Grids. A Case Study	D. Petcu, D. Vizman, M. Paprzycki
Parallelization of Numerical CFD Codes in Cluster and Grid Environments	J. Rokicki, M. Krause, M. Wichulski
Real Terrain Visualisation with a Distributed PC-Cluster	J. Lebiedz, K. Mieloszyk, B. Wiszniewski
Track D: EVOLUTIONARY COMPUTING	
Chairperson:	**F. Seredynski**
Parallelizing Evolutionary Algorithms for Clustering Data	W. Kwedlo
Hierarchical Representation and Operators in Evolutionary Design	B. Strug
Optimised Scheduling of Grid Resources Using Hybrid Evolutionary Algorithms	W. Jakob, A. Quinte, K. U. Stucky, W. Suss
Grid-based evolutionary optimization of structures	W. Kus, T. Burczynski
Evolutionary Adaptation in Non-stationary Environments: a Case of Study	A. Obuchowicz, D. Wawrzyniak
18:45 Traveling to Skrzynki and barbecue	

TUESDAY, SEPTEMBER 13	
8:30 - 9:45 Contributed papers	
Track A: GRID APPLICATION AND MIDDLEWARE WORKSHOP	
Chairperson:	**N. Meyer**
A Grid Service for Management of Multiple HLA Federate Processes	K. Rycerz, M. Bubak, M. Malawski, P. M. A. Sloot
Best Practices of User Account Management with Virtual Organization Based Access to Grid	J. Denemark, M. Jankowski, A. Krenek, L. Matyska, N. Meyer, M. Ruda, P. Wolniewicz
Algorithms for Automatic Data Replication in Grid Environment	R. Slota, L. Skital, D. Nikolow, J. Kitowski
Track B: GRID RESOURCE MANAGEMENT WORKSHOP	
Chairperson:	**R. Yahyapour**
Grid Workflow Language Using High-Level Petri Nets	M. Alt, A. Hoheisel, H.-W. Pohl, S. Gorlatch
Towards a Language for a Satisfaction-based Selection of Grid Services	S. Andreozzi, P. Ciancarini, D. Montesi, R. Moretti
Agent-based Grid Scheduling with Calana	M. Dalheimer, F.-J. Pfreundt, P. Merz
Track C: COMPUTER METHODS	
Chairperson:	**R. Blaheta**
Mesh Adaptation Based on Discrete Data	B. Glut, T. Jurczyk
Computer Analysis of the Sensitivity of the Integrated Assessment Model MERGE-5I	V. Maksimov, L. Schrattenholzer, Y. Minullin
An Efficient Tree Algorithm of RNG in Crypto Module	J. Hong, K. Kim
Track D: HPC LINEAR ALGEBRA LIBRARIES FOR COMPUTERS WITH MULTILEVEL MEMORIES	
Chairperson:	**J. Wasniewski**
The Standards and Data Structures of Dense Linear Algebra: Introduction to the Workshop	J. Wasniewski, F. Gustavson
Adapting Linear Algebra Codes to the Memory Hierarchy Using a Hypermatrix Scheme	J. R. Herrero, J. J. Navarro
A Cache Oblivious Algorithm for Matrix Multiplication Based on Peano's Space Filling Curve	M. Bader, Ch. Zenger
9:45 - 10:10 Coffee break	
10:10 - 12:15 Contributed papers	
Track A: WORKSHOP ON LANGUAGE–BASED PARALLEL PROGRAMMING MODELS	
Chairperson:	**A. Marowka**
A Parallel Numerical Library for Co-Array Fortran	R. W. Numrich
Java Programs Optimization Based on the Most-Often-UsedPaths Approach	E. Laskowski, M. Tudruj, R. Olejnik, B. Toursel

A Hybrid MPI/OpenMP Implementation of a Parallel 3-D FFT on SMP Clusters	D. Takahashi
SILC: a Flexible and Environment Independent Interface to Matrix Computation Libraries	T. Kajiyama, A. Nukada, H. Hasegawa, R. Suda, A. Nishida
Vertex-magic Total Labelling of a Graph by Distributed Constraint Solving in the Mozart System	A. Meissner, K. T. Zwierzynski
Track B: GRID RESOURCE MANAGEMENT WORKSHOP	
Chairperson:	**J. Nabrzyski**
HMM: a Static Mapping Algorithm to Map Parallel Applications on Grids	R. Baraglia, R. Ferrini, P. Ritrovato
Comparison of Workflow Scheduling Strategies on the Grid	M. Wieczorek, R. Prodan, T. Fahringer
Two Levels Job-Scheduling Strategies for Computational Grid	A. Tchernykh, J. M. Ramirez, A. Avetisyan, N. Kuzjurin, D. Grushin, S. Zhuk
A Meta-Scheduling Service for Co-allocating Arbitrary Types of Resources	O. Waldrich, P. Wieder, W. Ziegler
Intelligent GRID Scheduling System	R. Gruber, V. Keller, P. Kuonen, M.-Ch. Sawley, B. Schaeh, A. Tolou, M. Torruella, T.-M. Tran
Track C:	
10:10 - 11:25 GRID PROGRAMMING	
Chairperson:	**P. Bala**
GridSpace – Semantic Programming Environment for the Grid	T. Gubala, M. Bubak
Alchemi+: An Agent-based Approach to Grid Programming	R. Mafi, H. Deldari
Applications control on Grid with synchronizers	D. Kopanski, M. Tudruj, J. Borkowski
11:25 - 12:15 TOOLS AND ENVIRONMENTS FOR CLUSTER AND GRID COMPUTING	
Chairperson:	**J. Silc**
Distributed Architecture System for Computer Performance Testing	A. J. Mesones, E. Herruzo, G. Bandera, J. I. Benavides, O. Plata
Grid Access and User Inteface in Clusterix	T. Kuczynski, P. Kopta, R. Wyrzykowski
Track D: HPC LINEAR ALGEBRA LIBRARIES FOR COMPUTERS WITH MULTILEVEL MEMORIES	
Chairperson:	**J. Wasniewski**
Measuring the scalability of heterogeneous parallel systems	A. Kalinov

A Variable Group Block Distribution Strategy for Dense Factorizations on Networks of Heterogeneous Computers	A. Lastovetsky, R. Reddy
Minimizing Associativity Conflicts in Morton Layout	J. Thiyagalingam, O. Beckmann, P. H. J. Kelly
On using an hybrid MPI-Thread programming for the implementation of parallel sparse direct solver on a network of SMP nodes	P. Henon, P. Ramet, J. Roman
Taking Advantage of the Shared Explicit Cache System Based Critical Section in the Shared Memory Parallel Architectures	T. Madajczak
12:15 - 13:00 Invited talk	
Chairperson:	**K. Keahey**
Blue Gene and PetaScale Computing	Eric Kronstadt, IBM
12:55 - 14:40 Poster Session 2 + Lunch	
Chairperson:	**M. Paprzycki, R. Wyrzykowski**
14:40 - 15:20 Invited talk	
Chairpersons:	**G. Fox**
Virtualization: Towards more Flexible and Efficient Grids	Kate Keahey, Argonne National Laboratory
15:20 - 16:00 Invited talk	
Grid Technology for the Collaborative Enterprise	Ziga Turk, University of Ljubljana
16:00 - 16:20 Coffee break	
16:20 - 18:00 Contributed papers	
Track A: PERFORMANCE ANALYSIS AND PREDICTION	
Chairperson:	**J. Kwiatkowski**
Parallel computing in Java. Looking for the most effective RMI	R. Metkowski, P. Bala
Towards Distributed Monitoring and Performance Analysis Services in K-WfGrid Project	H-L. Truong, B. Balis, M. Bubak, J. Dziwisz, T. Fahringer, A. Hoheisel
A Study on Load Imbalance in Parallel Hypermatrix Multiplication using OpenMP	J. R. Herrero, J. J. Navarro
Towards the performance visualization of webservice based applications	M. Bubak, W. Funika, M. Koch, D. Dziok, A. D. Malony, M. Smetek, R. Wismuller
Track B: PARALLEL AND DISTRIBUTED ARCHITECTURES	
Chairperson:	**Z. Czech**
Evaluation of the Acknowledgment Reduction in a SoftwareDSM System	K. Kise, T. Katagiri, H. Honda, T. Yuba
Multi-version Coherence Protocol for Replicated Shared Objects	J. Brzezinski, J. Kobusinski, D. Wawrzyniak

Dynamic SMP Clusters in SoC Technology – Towards Massively Parallel Fine Grain Numerics	M. Tudruj, L. Masko
Checkpointing Speculative Distributed Shared Memory	A. Danilecki, A. Kobusinska, M. Szychowiak
Track C: TOOLS AND ENVIRONMENTS FOR CLUSTER AND GRID COMPUTING	
Chairperson:	**A. Lastovetsky**
Domus – An Architecture for Cluster-oriented Distributed Hash Tables	J. Rufino, A. Pina, A. Alves, J. Exposto
Bridging the gap between cluster and grid computing	A. Alves, A. Pina
Clusterix Data Management System and Its Integration with Applications	L. Kuczynski, K. Karczewski, R. Wyrzykowski
Remote Parallel I/O in Grid Environments	R. Berrendorf, M-A. Hermanns, J. Seidel
Track D: WORKSHOP ON PARALLEL BIO–COMPUTING	
Chairperson:	**J. Blazewicz**
The parallel genetic algorithm for designing DNA randomizations in a combinatorial protein experiment	J. Blazewicz, B. Dziurdza, W. T. Markiewicz, C. Oguz
Introducing Dependencies into Alignment Analysis and Its Use for Local Structure Prediction in Proteins	Sz. Nowakowski, K. Fidelis, J. Tiuryn
A Parallel Algorithm for Solving the reversal Median Problem	M. Bernt, D. Merkle, M. Middendorf
Parallel implementation of logical analysis of data (LAD) for discriminatory analysis of protein mass spectrometry data	K. Puszynski
18:30 Guided tour of Old Market Square in Poznan	
20:00 Conference Dinner	

WEDNESDAY, SEPTEMBER 14	
9:00 - 9:45 Invited talk	
Chairperson:	**M. Tudruj**
Open MPI: The challenge of Heterogeneous Computing	Rich L. Graham, Los Alamos National Laboratory
9:45 - 10:10 Coffee break	
10:10 - 12:40 Contributed papers	
Track A: WORKSHOP ON SCHEDULING FOR PARALLEL COMPUTING	
Chairperson:	**M. Drozdowski**
Load Balancing Strategies in a Web Computing Environment	O. Bonorden, J. Gehweiler, F. Meyer auf der Heide
Multi-installment divisible load processing in heterogeneous systems with limited memory	M. Drozdowski, M. Lawenda
Articial Immune Systems Applied to Multiprocessor Scheduling	G. Wojtyla, K. Rzadca, F. Seredynski
Chromatic scheduling of 1-and 2-processor UET tasks on dedicated machines with availability constrains	K. Giaro, M. Kubale
Asymmetric Scheduling and Load Balancing for Real-Time on Linux SMP	E. Piel, P. Marquet, J. Soula, J-L. Dekeyser
Scheduling Moldable Tasks for Dynamics SMP Clusters in soC Technology	L. Masko, P-F. Dutot, G. Mounie, D. Trystram, M. Tudruj
Track B: DEPENDABILITY OF THE DISTRIBUTED SYSTEMS	
Chairperson:	**H. Krawczyk**
Dependable Information Service for Distributed Systems	J. Kwiatkowski, P. Karwaczynski, M. Pawlik
A Model of Exception Propagation in Distributed Applications	P. L. Kaczmarek, H. Krawczyk
Fault-tolerant Protocols for Scalable Distributed Data Structures	K. Sapiecha, G. Lukawski
Parallel Processing Subsystems with Redundancy in a Distributed Environment	A. Kosowski, M. Malafiejski, P. Zylinski
Quantifying the security of composed systems	M. Walter, C. Trinitis
Safety of an Object-Based Version Vector Consistency Protocol of Session Guarantees	J. Brzezinski, C. Sobaniec
Track C: **10:10 - 11:50 GRID ARCHITECTURES, ENABLING TECHNOLOGIES**	
Chairperson:	**B. Wiszniewski**
xIndex: A Peer-to Peer Extension of WS-MDS Index Service	U. Jovanovic, J. Mocnik, M. Novak, G. Pipan
A broker based architecture for automated discovery and invocation of stateful services	M. Babik, L. Hluchy

Practical Experience in Building an Agent System for Semantics-Based Provision and Selection of Grid Services	G. Nimar, V. Vlassov, K. Popov
Maximal group membership in ad hoc networks	M. Filali, V. Issarny, P. Mauran, G. Padiou, P. Queinnec
11:50 - 12:40 APPLICATIONS OF PARALLEL/DISTRIBUTED/GRID COMPUTING	
Chairperson:	**D. Petcu**
Parallel Processing in Discrimination between Models of Dynamic System	B. Kuczewski, P. Baranowski, D. Ucinski
Execution of a Bioinformatics Application in a Joint IRISGrid/EGEE Testbed	J. L. Vazquez-Poletti, E. Huedo, R. S. Montero, I. M. Llorente
Track D: PARALLEL NUMERICS	
Chairperson:	**P. Arbenz**
A Note on the Numerical Inversion of the Laplace Transform	P. Stpiczynski
An Efficient Parallel Solution of Complex Toeplitz Linear Systems	P. Alonso, A. M. Vidal
Monitoring the Block Conjugate Gradient Convergence within the Inexact Inverse Subspace Iteration	C. Balsa, M. Dayde, R. Guivarc,h, J. Palma, D. Ruiz
FPGA Implementation of the Conjugate Gradient Method	O. Maslennikow, V. Lepekha, A. Sergyienko
Parallel Schwarz Methods: Algebraic Construction of Coarse Problems, Implementation and Testing	R. Blaheta, P. Byczanski, O. Jakl, J. Stary
Optimization of Parallel FDTD Computations Based on Structural Redeployment of Marco Data Flow Nodes	A. Smyk, M. Tudruj
12:40 - 13:25 Invited talk	
Chairperson:	**R. Graham**
IOS: A Middleware for Decentralized Distributed Computing	Boleslaw Szymanski, Rensselaer Polytechnic Institute
13:25 Closing Remarks	
13:35 Lunch	