New ID	Old ID from Easychir	Authors	Title
		Main Track: Emerging HPC Architectures	
1	23	Enrico Calore, Alessandro Gabbana, Fabio Rinaldi, Sebastiano F. Schifano and Raffaele Tripiccione	Early performance assessment of the ThunderX2 processor for lattice based simulations
2	104	Krzysztof Rojek	CFD code adaptation to the FPGA architecture
3	41	Mate Cobrnic, Alen Duspara, Leon Dragic, Igor Piljic, Mario Kovac and Hrvoje Mlinaric	An Area Efficient and Reusable HEVC 1D-DCT Hardware Accelerator
4	129	Lukasz Kuczynski, Tomasz Chmiel, Maciej Brzezniak and Norbert Meyer	Efficiency comparison of x86 and ARM server platforms in software-defined storage systems
		Main Track: Performance Analysis and Scheduling in HPC Systems	
5	9	Maciej Drozdowski, Gaurav Singh and Jędrzej Marszałkowski	Isoefficiency Maps for Divisible Computations in Hierarchical Memory Systems
6	91	M. Yusuf Özkaya, Anne Benoit and Umit Catalyurek	Is Acyclic Directed Graph Partitioning Effective for Locality-Aware Scheduling?
7	139	Jan Kwiatkowski	Granularity analysis as a method of performance analysis of parallel/distributed applications
		Main Track: Numerical Algorithms and Parallel Scientific Computing	
8	94	Matthias Korch and Tim Werner	Multi-Workgroup Tiling to Improve the Locality of Explicit One-Step Methods for ODE Systems with Limited Access Distance on GPUs
9	64	Davor Davidovic and Enrique S. Quintana-Orti	Structure-Aware Calculation of Many-Electron Wave Function Overlaps on Multicore Processors
10	67	Charles Murray and Tobias Weinzierl	Lazy Stencil Integration in multigrid algorithms
11	56	Filip Pawlowski, Bora Ucar and Albert-Jan Yzelman	High performance tensor--vector multiples on shared memory systems
12	70	Paweł Augustynowicz and Andrzej Paszkiewicz	Efficient modular squaring in binary fields on CPU supporting AVX and GPU
13	78	Carl Christian Kjelgaard Mikkelsen and Mirko Myllykoski	Parallel Robust Computation of Generalized Eigenvectors of Matrix Pencils
14	73	Mirko Myllykoski and Carl Christian Kjelgaard Mikkelsen	Introduction to StarNEig --- A Task-based Library for Solving Nonsymmetric Eigenvalue Problems
15	108	Kamil Halbiniak, Lukasz Szustak and Lukasz Kuczynski	Exploration of OpenCL Hybrid Programming for Numerical Modeling of Solidification
16	24	Angelika Schwarz and Carl Christian Kjelgaard Mikkelsen	Robust Task-Parallel Solution of the Triangular Sylvester Equation
17	79	Beata Dmitruk and Przemysław Stpiczyński	Vectorized Parallel Solver for Tridiagonal Toeplitz Systems of Linear Equations
18	82	Carola Kruse, Masha Sosonkina, Mario Arioli, Nicolas Tardieu and Ulrich Ruede	Parallel performance of an iterative solver based on the Golub-Kahan bidiagonalization
19	76	Linus Seelinger, Anne Reinarz and Robert Scheichl	A High-Performance Implementation of a Robust Preconditioner for Heterogeneous Problems
20	51	Viviana Arrigoni and Annalisa Massini	Hybrid Solver for Quasi Block Diagonal Linear Systems
21	50	Michal Kravcenko, Jan Zapletal, Xavier Claeys and Michal Merta	Parallel adaptive cross approximation for the multi-trace formulation of scattering problems
22	14	Daisuke Takahashi	Implementation of Parallel 3-D Real FFT with 2-D Decomposition on Intel Xeon Phi Clusters
23	62	Doru Thom Popovici, Devangi Parikh, Daniele G. Spampinato and Tze Meng Low	Exploiting Symmetries of Small Prime-Sized DFTs
24	21	Victor Gergel and Evgeniy Kozinov	Parallel Computations for Various Scalarization Schemes in Multicriteria Optimization Problems
		Main Track: Environment and Framework for Parallel Computing	
25	77	Tim Cramer, Manoel Römmer, Boris Kosmynin, Erich Focht and Matthias Mueller	OpenMP Target Device Offloading for the SX-Aurora TSUBASA Vector Engine
26	97	Camille Coti and Allen D. Malony	On the Road to DiPOSH: Adventures in High-Performance OpenSHMEM
27	105	Victor Malyshkin	Fragmented Programming System LuNA. Short review
		Main Track: Environments and Frameworks for Distributed/Cloud Computing	
28	74	Roman Wiatr, Vladyslav Lyutenko, Miłosz Demczuk, Renata Słota and Jacek Kitowski	Click-fraud detection for online advertising
29	110	Marek Tudruj and Adam Smyk	Parallel Graph Partitioning Optimization under PEGASUS DA Application Global State Monitoring
30	88	Bartosz Balis, Michał Orzechowski, Krystian Pawlik, Maciej Pawlik and Maciej Malawski	Cloud infrastructure automation for scientific workflows
		Main Track: Applications of Parallel Computing	
31	90	Steven Chien, Ivy Peng and Stefano Markidis	Posit NPB: Assessing the Precision Improvement in HPC Scientific Applications
32	40	Lukas Krenz, Leonhard Rannabauer and Michael Bader	A High-Order Discontinuous Galerkin Solver with Dynamic Adaptive Mesh Refinement to Simulate Cloud Formation Processes
33	86	Evgeny Kuznetsov, Nikolay Kondratyuk, Mikhail Logunov, Vsevolod Nikolskiy and Vladimir Stegailov	Performance and portability of state-of-art molecular dynamics software on modern GPUs
34	46	Iosif Meyerov, Sergei Bastrakov, Aleksei Bashinov, Evgeny Efimenko, Alexander Panov, Elena Panova, Igor Surmin, Valentin Volokitin and Arkady Gonoskov	Exploiting Parallelism on Shared Memory in the QED Particle-in-Cell Code PICADOR with Greedy Load Balancing
35	10	Michael Quell, Paul Manstetten, Andreas Hoessinger, Siegfried Selberherr and Josef Weinbub	Parallelized Construction of Extension Velocities for the Level-Set Method

36	99	Marcin Czajkowski, Krzysztof Jurczuk and Marek Kretowski	Relative Expression Classification Tree. A Preliminary GPU-based Implementation
37	101	Roman Wyrzykowski, Kamil Halbiniak, Lukasz Szustak and Adam Kulawik	Dynamic Workload Distribution for Solidification Modeling on Multi- and Manycore Platforms
		Main Track: Parallel Non-numerical Algorithms	
38	60	Joel Fuentes, Wei-Yu Chen, Guei-Yuan Lueh, Arturo Garza and Isaac Scherson	SIMD-node Transformations for Non-Blocking Data Structures
39	26	Hironobu Kobayashi, Yasuaki Ito and Koji Nakano	Stained Glass Image Generation using Voronoi Diagram and its GPU Acceleration
40	54	Anna Sasak-Okoń	Modifying queries strategy for Graph-Based Speculative Query Execution for RDBMS
		Main Track: Soft Computing with Applications	
41	98	Krzysztof Jurczuk, Marcin Czajkowski and Marek Kretowski	Accelerating GPU-based Evolutionary Induction of Decision Trees - Fitness Evaluation Reuse
42	29	Hatem Khalloof, Phil Ostheimer, Wilfried Jakob, Shadi Shahoud, Clemens Duepmeier and Veit Hagenmeyer	A Distributed Modular Scalable and Generic Framework for Parallelizing Population-Based Metaheuristics
43	103	Danuta Rutkowska and Krzysztof Wiaderek	Parallel Processing of Images Represented by Linguistic Description in Databases
44	22	Wojciech Kwedlo and Michał Łubowicz	An OpenMP parallelization of the K-means algorithm accelerated using KD-trees
45	53	Włodzimierz Funika and Paweł Koperek	Evaluating the use of policy gradient optimization approach for automatic cloud resource provisioning
46	83	Łukasz Karbowiak	Improving performance and energy consumption in automatic labeling by image transformations on CPU and GPU
		Special Session on GPU Computing	
47	31	Takahiro Inoue, Hiroki Tokura, Koji Nakano and Yasuaki Ito	Efficient Triangular Matrix Vector Multiplication on the GPU
48	58	Dominik Ernst, Georg Hager, Gerhard Wellein and Jonas Thies	Performance Engineering for a Tall & Skinny Matrix Multiplication Kernel on GPUs
49	65	Daichi Mukunoki, Takeshi Ogita and Katsuhisa Ozaki	Accurate and Reproducible BLAS Routines with Ozaki Scheme for Many-core Architectures
50	36	Tao Chang, Emeric Brun and Christophe Calvin	Portable Monte Carlo Transport Performance Evaluation in the PATMOS Prototype
		Special Session on Parallel Matrix Factorizations	
51	28	Marek Parfieniuk	A parallel factorization for generating orthogonal matrices
52	71	Martin Bečka and Gabriel Okša	Preconditioned Jacobi SVD Algorithm outperforms PDGESVD
53	95	Piyush Sao and Ramakrishnan Kannan	Multifrontal Non-negative Matrix Factorization
54	81	Leon Bobrowski and Cezary Boldak	Matrices inversion with the layered Gauss-Jordan transformation
		Workshop on Language-Based Parallel Programming Models	
55	37	Przemyslaw Stpiczynski	Parallel Fully Vectorized Marsa-LFIB4: Algorithmic and Language-Based Optimization of Recursive Computations
56	16	Ami Marowka	Studying the Performance of Vector-based Quicksort Algorithm
57	1	Marek Palkowski and Wlodzimierz Bielecki	Parallel Tiled Cache and Energy Efficient Code for Zuker's RNA Folding
58	39	Jan H. Meinke, Rene Halver and Godehard Sutmann	Examining performance portability with Kokkos for an Ewald Sum Coulomb Solver
59	44	Shunsuke Suita, Takahiro Nishimura, Hiroki Tokura, Koji Nakano, Yasuaki Ito, Akihiko Kasagi and Tsuguchika Tabaru	Efficient cuDNN-compatible Convolution-Pooling on the GPU
60	80	Jannis Klinkenberg, Philipp Samfass, Michael Bader and Christian Terboven	Reactive Task Migration for Hybrid MPI+OpenMP Applications
		Workshop on Models, Algorithms and Methodologies for Hybrid Parallelism in new HPC Systems	
61	3	Luisa d'Amore and Rosalba Cacciapuoti	Ab-initio Functional Decomposition of Kalman Filter: a feasibility analysis on Constrained Least Squares Problems
62	32	Ivan Lirkov	Performance Analysis of a Parallel Denoising Algorithm on Intel Xeon Computer System
63	69	Giuliano Laccetti, Marco Lapegna, Valeria Mele and Diego Romano	An adaptive strategy for dynamic data clustering with the K-means algorithm
64	84	Raffaele Montella, Diana Di Luccio, Sokol Kosta, Aniello Castiglione and Antonio Maratea	Security and storage issues in Internet of Floating Things edge-cloud data movement
		Workshop on Power and Energy Aspects of Computation	
65	127	Wojciech Piatek, Ariel Oleksiak and Wojciech Szeliga	Thermal and power-aware fans management of heterogeneous server system
66	131	Tomasz Ciesielczyk and Ariel Oleksiak	Evaluation of power capping approach for heterogeneous servers
67	135	Adam Krzywaniak and Pawel Czarnul	Performance/energy aware optimization of parallel applications on GPUs under power capping
68	132	Lukasz Szustak, Tomasz Olas and Pawel Gepner	Impact of Performance Optimizations for CFD Application on Energy and Power Consumption of Intel Xeon Scalable Processors
69	136	Alberto Cabrera, Francisco Almeida, Vicente Blanco and Dagoberto Castellanos-Nieves	Improving energy consumption in iterative problems using machine learning
70	141	Sebastien Varrette, Frederic Pinel, Emmanuel Kieffer and Pascal Bouvry	Automatic Software Tuning of Parallel Programs for Energy-Aware Executions

		Special Session on Tools for Energy Efficient Computing	
71	87	Ondrej Vysocky, Lubomir Riha and Andrea Bartolini	Overview of application instrumentation for performance analysis and tuning
72	114	Enrico Calore, Alessandro Gabbana, Sebastiano Fabio Schifano and Raffaele Tripiccione	Energy-efficiency tuning of a Lattice Boltzmann simulation using MERIC
73	121	Daniele Cesarini, Carlo Cavazzoni and Andrea Bartolini	Evaluating the Advantage of Reactive MPI-aware Power Control Policies
74	122	Daniele De Sensi and Marco Danelutto	Application-Aware Power Capping using Nornir
		Workshop on Scheduling for Parallel Computing	
75	34	Oscar García Lorenzo, Tomás F. Pena, José Carlos Cabaleiro, Francisco F. Rivera and Juan Angel Lorenzo Del Castillo	A new hardware counters based thread migration strategy for NUMA systems
76	35	Dalibor Klusacek, Mehmet Soysal and Frederic Suter	Alea - Complex Job Scheduling Simulator
77	43	Joanna Berlińska	Makespan Minimization in Data Gathering Networks with Dataset Release Times
		Workshop on Applied High Performance Numerical Algorithms for PDEs	
78	120	Leszek Marcinkowski and Talal Rahman	Overlapping Schwarz Preconditioner for Fourth Order Multiscale Elliptic Problems
79	124	Jan Valdman	MATLAB Implementation of C1 finite elements: Bogner-Fox-Schmit rectangle
80	125	Konrad Sakowski, Leszek Marcinkowski, Pawel Kempisty, Pawel Strak and Stanislaw Krukowski	Derivation of composite discontinuous Galerkin methods for discontinuous solutions
81	128	Piotr Krzyzanowski	Simple preconditioner for a thin membrane difussion problem
82	133	Maria Gokieli and Andrzej Szczepańczyk	A numerical scheme for evacuation dynamics
83	144	Salah Alrabeei, Mahmood Jokar and Leszek Marcinkowski	Additive Average Schwarz with adaptive Coarse space for Morley FE
		Minisymposium of HPC Applications in Physical Science	
84	20	Marianna Vasilakaki, Nikolaos Ntallis and Kalliopi Trohidou	Application of Multiscale Computational Techniques to the study of Magnetic Nanoparticle Systems
85	59	Michał Antkowiak and Łukasz Kucharski	clique: a Parallel Tool for the Molecular Nanomagnets Simulation and Modelling
86	107	Jacek Wojtkiewicz and Marek Pilch	Modelling of Limitations of Bulk Heterojunction Architecture in Organic Solar Cells
87	142	Krzysztof Lewandowski, Michał Banaszak, Karolina Gębicka, Anna Kotlarska, Agata Krzywicka and Aneta Łasoń	Monte Carlo Study of Spherical and Cylindrical Micelles in Multiblock Copolymer Solutions
88	112	Jacek Wojtkiewicz, Bartosz Brzostowski and Marek Pilch	Electronic and optical properties of nanotubes directed to its applications in solar cells
		Minisymposium on High Performance Computing Interval Methods	
89	134	Nathalie Revol	The MPFI Library: Towards IEEE 1788-2015 Compliance
90	13	Bartlomiej Kubica, Laxman Bokati, Olga Kosheleva and Vladik Kreinovich	Softmax and McFadden's Discrete Choice under Interval (and Other) Uncertainty
91	102	Iwona Skalna, Marcin Pietroń and Milan Hladik	Parallel improvements of monotonicity approach
92	113	Malgorzata Aleksandra Jankowska and Andrzej Marciniak	The first approach to the interval generalized finite differences
93	143	Bartlomiej Kubica and Arkadiusz Orłowski	An interval calculus based approach to determining the area of integration of the entropy
94	115	Andrzej Marciniak, Małgorzata Jankowska and Tomasz Hoffmann	An Interval Difference Method of Second Order for Solving an Elliptic BVP
95	2	Bartlomiej Kubica and Jaroslaw Kurek	A parallel method of verifying solutions for systems of two nonlinear equations
		Workshop on Complex Collective Systems	
96	48	Jakub Gasior, Franciszek Seredynski, Rolf Hoffmann and Dominique Désérable	Heterogenous Automata-Based Multi-agent Systems
97	109	Martha Mitsopoulou, Nikolaos Dourvas, Ioakeim Georgoudas and Georgios Sirakoulis	A Cellular Automata based Electronic System to Study and Optimize Crowd Behavior in Airport Areas
98	119	Ekaterina Kirik, Tatyana Vitova, Andrey Malyshev and Egor Popel	A conjunction of the discrete-continuous pedestrian dynamics model SigmaEva with fundamental diagrams
99	137	Karolina Tytko, Maria Mamica, Agnieszka Pękala and Jarosław Wąs	Crowd Pressure - Simulating Pedestrians' Motion in Different Scenarios Basing On Modified Social Force Model
100	138	Łukasz Gosek, Fryderyk Muras, Przemysław Michałek and Jarosław Wąs	Traffic prediction based on modified Nagel-Schreckenberg model. Case study for traffic in the city of Darmstadt.
101	140	Paweł Renc, Maciej Bielech, Tomasz Pęcak, Piotr Morawiecki, Mateusz Paciorek, Wojciech Turek, Aleksander Byrski and Jarosław Wąs	HPC Large-scale Pedestrian Simulation Based on Proxemics Rules