



AutoTuning and Adaptivity approach for Energy efficient eXascale HPC systems

Deliverable D6.6: Dissemination of the Foreground Knowledge: Activities and Plans (Dissemination Plan 3)

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Executive Summary: This report describes the final dissemination activities realized by the project partners in **Task 6.1 “Dissemination”** under the leadership of UPORTO. The deliverable consists of the dissemination tables collecting the results of the main activities done during the project and the dissemination plans going beyond the end of the project.

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1 Introduction

Recognizing the importance of the dissemination activities, the ANTAREX consortium undertook various activities to increase the visibility of the project and of the main results achieved. The main intention was to widely promote ANTAREX achievements through different communication channels. This report enumerates the dissemination activities done during the project and describes some plans going beyond the end of the project. The dissemination activities done addressed the importance of making both the society, general public and scientific communities aware of the ANTAREX findings and main innovations.

2 Dissemination Activities

The dissemination activities are presented and classified in following tables.

Table 1: Publications in International Journals

NO.	Title	Authors	Title of the periodical or the series	Number, date or frequency	Publisher	Place of publication	Year of publication	Relevant pages	Permanent identifiers (if available)	Is/Will open access provided ?
<i>Publications in International Journals (in chronological order)</i>										
J1	COBAYN: Compiler Autotuning Framework using Bayesian Networks	Amir Hossein Ashouri, Giovanni Mariani, Gianluca Palermo, Eunjung Park, John Cavazos, Cristina Silvano	ACM Transactions on Architecture and Code Optimization	Volume 13 Issue 2, June 2016	ACM	ACM DL	2016	21:1--21:25	DOI 10.1145/2928270	https://re.public.polimi.it/retrieve/handle/11311/1026239/331071/COBAYN_green_open_access.pdf
J2	Thermal Analysis and Interpolation Techniques for a Logic + WideIO Stacked DRAM Test Chip	Francesco Beneventi, Andrea Bartolini, Pascal Vivet, and Luca Benini	IEEE Transactions on computer-aided design of integrated circuits and systems	vol. 35, no. 4, pp. 623-636	IEEE	IEEE	2016	623-636	10.1109/TCAD.2015.2474382	https://www.research-collection.ethz.ch/handle/20.500.11850/115001
J3	Quantifying the Impact of Variability and Heterogeneity on the Energy Efficiency for a Next-Generation Ultra-Green Supercomputer	Francesco Fraternali, Andrea Bartolini, Carlo Cavazzoni, Luca Benini	IEEE Transactions on Parallel and Distributed Systems	vol. 29, no. 7, pp. 1575-1588	IEEE	IEEE	2018	1575-1588	10.1109/TPDS.2017.2766151	https://www.research-collection.ethz.ch/handle/20.500.11850/226859

NO.	Title	Authors	Title of the periodical or the series	Number, date or frequency	Publisher	Place of publication	Year of publication	Relevant pages	Permanent identifiers (if available)	Is/Will open access provided ?
J4	MiCOMP: Mitigating the Compiler Phase-Ordering Problem Using Optimization Sub-Sequences and Machine Learning	Amir Hossein Ashouri, Andrea Bignoli, Gianluca Palermo, Cristina Silvano, Sameer Kulkarni, John Cavazos:	ACM Transactions on Architecture and Code Optimization	Volume 14 Issue 3, Sept. 2017	ACM	ACM DL	2017	29:1-29:28	DOI 10.1145/3124452	https://re.public.polimi.it/retrieve/handle/11311/1032361/331084/MiCOMP_green_open_access.pdf
J5	mARGOT: a Dynamic Autotuning Framework for Self-aware Approximate Computing	Davide Gadioli, Emanuele Vitali, Gianluca Palermo, Cristina Silvano	IEEE Transactions on Computers	Volume TBD Issue TBD, Date TBD	IEEE	USA	2018	TBD	DOI 10.1109/TC.2018.2883507	http://home.deib.polimi.it/silvano/Paper1_IEEE/mARGOT_GreenOpenAccess.pdf
J6	Aspect composition for multiple target languages using LARA	Pedro Pinto, Tiago Carvalho, João Bispo, Miguel António Ramalho, João M. P. Cardoso	Computer Languages Systems & Structures	53: 1-26	Elsevier	Elsevier	2018		https://doi.org/10.1016/j.cl.2017.12.003	https://repositorio-aberto.up.pt/handle/10216/117169
J7	libVersioningCompiler: An easy-to-use library for dynamic generation and invocation of multiple code versions	Stefano Cherubin, Giovanni Agosta	SoftwareX	vol 7	Elsevier	Online	2018	95-100	https://doi.org/10.1016/j.softx.2018.03.006	https://www.sciencedirect.com/science/article/pii/S2352711018300426
J8	Feasibility Analysis Of Using the MAUI Scheduler for Job Simulation of Large-scale PBS Based Clusters	Georg Zitzlsberger, Branislav Jansik, Jan Martinovič	IADIS International Journal on Computer Science and Information Systems	Vol 13	IADIS Press	Online	2018	47-61		http://www.iadisportal.org/ijsis/papers/2018130204.pdf

NO.	Title	Authors	Title of the periodical or the series	Number, date or frequency	Publisher	Place of publication	Year of publication	Relevant pages	Permanent identifiers (if available)	Is/Will open access provided ?
Publications Submitted to International Journals (Available in Open Access)										
J9	Robust identification of thermal models for in-production High-Performance-Computing clusters with machine learning-based data selection	Federico Pittino, Roberto Diversi, Luca Benini, Andrea Bartolini	IEEE Transactions on computer-aided design of integrated circuits and systems		IEEE			-		https://arxiv.org/abs/1810.01865
J10	COUNTDOWN: a Run-time Library for Performance-Neutral Energy Saving in MPI Applications	Daniele Cesarini, Andrea Bartolini, Pietro Bonfà, Carlo Cavazzoni, Luca Benini	IEEE Transactions on Parallel and Distributed Systems		IEEE			-		https://arxiv.org/abs/1806.07258
J11	On-line Application Autotuning Exploiting Ensemble Models	Tomas Martinovic, Davide Gadioli, Gianluca Palermo, Cristina Silvano	IEEE Transactions on Computers		IEEE	--	-	-	-	https://arxiv.org/abs/1901.06228
J12	Tunable Approximations to Control Time-to-Solution in an HPC Molecular Docking Mini-App	Davide Gadioli, Gianluca Palermo, Stefano Cherubin, Emanuele Vitali, Giovanni Agosta, Candida Manelfi, Andrea R. Beccari, Carlo Cavazzoni, Nico Sanna, Cristina Silvano	IEEE Transactions on Computers		IEEE	--	-	-	-	https://arxiv.org/abs/1901.06363

NO.	Title	Authors	Title of the periodical or the series	Number, date or frequency	Publisher	Place of publication	Year of publication	Relevant pages	Permanent identifiers (if available)	Is/Will open access provided ?
J13	An Efficient Monte Carlo-based Probabilistic Time-Dependent Routing Calculation Targeting a Server-Side Car Navigation System	Emanuele Vitali, Davide Gadioli, Gianluca Palermo, Martin Golasowski, Joao Bispo, Pedro Pinto, Jan Martinovic, Katerina Slaninova, Joao M. P. Cardoso, Cristina Silvano	IEEE Transactions on Emerging Topics in Computing		IEEE	-	-	-	-	https://arxiv.org/abs/1901.06210
J14	Exploiting OpenMP & OpenACC to Accelerate a Molecular Docking Mini-App	Emanuele Vitali, Davide Gadioli, Gianluca Palermo, Andrea Beccari, Carlo Cavazzoni, Cristina Silvano	Journal of Supercomputing	-	Springer	--	-	-	-	https://arxiv.org/abs/1901.06229
J15	The ANTAREX Domain Specific Language for High Performance Computing	C. Silvano, G. Agosta, A. Bartolini, A. R. Beccari, L. Benini, L. Besnard, J. Bispo, R. Cmar, J. Cardoso, C. Cavazzoni, D. Cesarini, S. Cherubin, F. Ficarelli, D. Gadioli, M. Golasowski, A. Libri, J. Martinovič, G. Palermo, P. Pinto, E. Rohou, K. Slaninová, E. Vitali	Microprocessors and Microsystems Embedded Hardware Design (MICPRO),		Elsevier					https://arxiv.org/abs/1901.06175

Table 2: Publications in International Conferences

NO.	Title	Authors	Title of the periodical or the series	Number, date or frequency	Publisher	Place of publication	Year of publication	Relevant pages	Permanent identifiers (if)	Is/Will open access provided?
Publications in International Conferences 2015										
C1	<i>ANTAREX - AutoTuning and Adaptivity approach for Energy Efficient eXascale HPC Systems</i>	Cristina Silvano, Giovanni Agosta, Andrea Bartolini, Andrea Beccari, Luca Benini, João M. P. Cardoso, Carlo Cavazzoni, Radim Cmar, Jan Martić, Gianluca Palermo, Martin Palkovic, Erven Rohou, Nico Sanna, and Katerina Slaninová	18th IEEE International Conference on Computational Science and Engineering	Annual	IEEE	IEEE Xplore	2015	343-346	DOI: 10.1109/CSE.2015.58	https://re.public.polimi.it/retrieve/handle/11311/985503/331056/CSE2015_green_open_access.pdf
Publications in International Conferences 2016										
C2	<i>The ANTAREX Approach to Autotuning and Adaptivity for Energy Efficient HPC Systems</i>	Cristina Silvano, Giovanni Agosta, Stefano Cherubin, Davide Gadioli, Gianluca Palermo, Andrea Bartolini, Luca Benini, Jan Martinovic, Martin Palkovic, Katerina Slaninová, João Bispo, João M. P. Cardoso, Rui Abreu, Pedro Pinto, Carlo Cavazzoni, Nico Sanna, Andrea R. Beccari, Radim Cmar, Erven Rohou	Proceedings of the ACM International Conference on Computing Frontiers	Annual	ACM	ACM DL	2016	288-293	DOI 10.1145/2903150.2903470	https://re.public.polimi.it/retrieve/handle/11311/996071/330974/cf2016_green_open_access.pdf

NO.	Title	Authors	Title of the periodical or the series	Number, date or frequency	Publisher	Place of publication	Year of publication	Relevant pages	Permanent identifiers (if)	Is/Will open access provided?
C4	AutoTuning and Adaptivity approach for Energy efficient eXascale HPC systems: the ANTAREX Approach	Cristina Silvano, Giovanni Agosta, Andrea Bartolini, Andrea R. Beccari, Luca Benini, João Bispo, Radim Cmar, João M. P. Cardoso, Carlo Cavazzoni, Jan Martinovic, Gianluca Palermo, Martin Palkovic, Pedro Pinto, Ervenohou, Nico Sanna, and Katerina Slaninová	Design, Automation & Test in Europe Conference & Exhibition	Annual	IEEE	IEEE Xplore	2016	708-713	http://ieeexplore.ieee.org/document/7459400/	https://re-public.polimi.it/retrieve/handle/11311/1026276/331020/DATE-2016_green_open_access.pdf
C5	Evaluation of Synchronization Protocols for fine-grain HPC sensor data time-stamping and collection	Antonio Libri, Andrea Bartolini, Michele Magno and Luca Benini	2016 International Conference on High Performance Computing & Simulation (HPCS)	Annual	IEEE	IEEE Xplore	2016	818-825	10.1109/HPCSim.2016.7568419	https://www.research-collection.ethz.ch/handle/20.500.11850/124772
C6	Cooling-Aware Node-level Task Allocation for Next-Generation Green HPC Systems	Francesco Benventi, Andrea Bartolini, Carlo Cavazzoni and Luca Benini	2016 International Conference on High Performance Computing & Simulation (HPCS)	Annual	IEEE	IEEE Xplore	2016	690-696	10.1109/HPCSim.2016.7568402	https://www.research-collection.ethz.ch/handle/20.500.11850/125003
Publications in International Conferences 2017										
C7	LARA as a Language-Independent Aspect-Oriented Programming Approach	Pedro Pinto, Tiago Carvalho, João Bispo and João MP Cardoso	32nd ACM/SIGAPP SAC Symposium on Applied Computing (SAC'17)	32nd, Annual	ACM	ACM DL	2017	to appear	10.1145/3019612.3019749	https://repositorio-aberto.up.pt/handle/10216/117187
C8	Expressing and Applying C++ Code Transformations for the HDF5 API Through a DSL	Martin Golasowski, João Bispo, Jan Martinovic, Katerina Slaninová, João MP Cardoso	16th International Conference on Computer Information Systems and Industrial Management Applications (CISIM 2017)	16th, Annual	Springer	LNCS	2017	303-314	10.1007/978-3-319-59105-6_26	https://repositorio-aberto.up.pt/handle/10216/117187

NO.	Title	Authors	Title of the periodical or the series	Number, date or frequency	Publisher	Place of publication	Year of publication	Relevant pages	Permanent identifiers (if)	Is/Will open access provided?
C9	Server-Side Navigation Service Benchmarking Tool	Martin Golasowski, Kateřina Slaninová, Jiří Ševčík, Vít Ptošek, David Vojtek	Proceedings of the 14th International Symposium on Operational Research, SOR 2017	14th, Annual	SLOVENIAN SOCIETY OF INFORMATION SCIENCE	online	2017	85-90		http://fgg-web.fgg.uni-lj.si/~sdrobne/sor/SOR%2717%20-
C10	Prediction horizon vs. efficiency of optimal dynamic thermal control policies in HPC nodes	Daniele Cesarini, Andrea Bartolini, Luca Benini	IFIP/IEEE International Conference on Very Large Scale Integration (VLSI-SoC), 2017	25th, Annual	IFIP/IEEE	IFIP/IEEE	2017	to appear	10.1109/VLSI-SoC.2017.8203471	https://www.research-collection.ethz.ch/handle/20.500.11850/11850
C11	Continuous learning of HPC infrastructure models using big data analytics and in-memory processing tools	Francesco Beneventi, Andrea Bartolini, Carlo Cavazzoni, Luca Benini	Design, Automation Test in Europe Conference Exhibition (DATE)	2017	IEEE	IEEE	2017		10.23919/DATE.2017.7927143	https://www.research-collection.ethz.ch/handle/20.500.11850/11850
C12	Implications of Reduced-Precision Computations in HPC: Performance, Energy and Error	S. Cherubin, G. Agosta, I. Lasri, E. Rohou, O. Sentieys	International Conference on Parallel Computing (ParCo)	2017, Biannual	IOS Press	Amsterdam, New York, Tokio: IOS Press	2017		http://ebooks.iospress.nl/bookseries/advances-in-parallel-computing	https://hal.inria.fr/hal-01633790/file/ParCo_final.pdf

NO.	Title	Authors	Title of the periodical or the series	Number, date or frequency	Publisher	Place of publication	Year of publication	Relevant pages	Permanent identifiers (if)	Is/Will open access provided?
C13	The ANTAREX tool flow for monitoring and autotuning energy efficient HPC systems	Cristina Silvano, Giovanni Agosta, Jorge Barbosa, Andrea Bartolini, Andrea R. Beccari, Luca Benini, Joao Bispo, João M. P. Cardoso, Carlo Cavazzoni, Stefano Cherubin, Radim Cmar, Davide Gadioli, Candida Manelfi, Jan Martinovič, Ricardo Nobre, Gianluca Palermo, Martin Palkovič, Pedro Pinto, Erven Rohou, Nico Sanna, Kateřina Slaninová	Proceedings - 2017 17th International Conference on Embedded Computer Systems: Architectures, Modeling, and Simulation, SAMOS 2017	17th, Annual	IEEE	Samos, Greece	2017	308-316	10.1109/SAMOS.2017.8344645	https://re-public.polimi.it/retrieve/handle/11311/1060897/331092/SAMOS2017_green_open_access.pdf
Publications in International Conferences 2018										
C14	Multinode Approach for Map Data Processing	Vít Ptošek, Kateřina Slaninová	6th International Doctoral Symposium on Applied Computation and Security Systems ACSS 2018	6th, Annual	Springer Singapore	Singapore	2018	91-104	10.1007/978-981-13-3250-0_7	https://dspace.vsb.cz/handle/10084/133435
C15	Vertex importance extension of betweenness centrality algorithm	Jiří Hanzelka, Michal Běloch, Jan Martinovič, Kateřina Slaninová	2nd International Conference on Data Management, Analytics and Innovation, ICDMAI 2018	2nd, Annual	Springer Singapore	Singapore	2018	61-72	10.1007/978-981-13-1402-5_5	https://dspace.vsb.cz/handle/10084/133441
C16	Exploitation of HPC Infrastructure Services for Real-Time Critical Small Requests	Jiří Ševčík, Martin Golasowski, Jan Martinovič, David Vojtek, Jan Faltýnek	30th European Modeling and Simulation Symposium, EMSS 2018	30th, Annual	Dime University of Genoa	Genoa	2018	218-225	Abstract available on Scopus	https://dspace.vsb.cz/handle/10084/133451
C17	Real time traffic simulator for self-adaptive navigation system validation	Vít Ptošek, Jiří Ševčík, Jan Martinovič, Kateřina Slaninová, Lukáš Rapant, Radim Cmar	30th European Modeling and Simulation Symposium, EMSS 2018	30th, Annual	Dime University of Genoa	Genoa	2018	274-283	Abstract available on Scopus	https://dspace.vsb.cz/handle/10084/133452

NO.	Title	Authors	Title of the periodical or the series	Number, date or frequency	Publisher	Place of publication	Year of publication	Relevant pages	Permanent identifiers (if)	Is/Will open access provided?
C18	Embedded Operating System Optimization through Floating to Fixed Point Compiler Transformation	Daniele Cattaneo, Antonio Di Bello, Stefano Cherubin, Federico Terraneo, Giovanni Agosta	Euromicro Conference on Digital System Design (DSD)	21st, Annual			2018		10.1109/DSD.2018.00042	https://re-public.polimi.it/retrieve/handle/11311/1071599/330604/2018_DSD_
C19	SOCRATES - A seamless online compiler and system runtime autotuning framework for energy-aware applications	Davide Gadioli, Ricardo Nobre, Pedro Pinto, Emanuele Vitali, Amir H. Ashouri, Gianluca Palermo, Joao Cardoso, Cristina Silvano	Proceedings of the 2018 Design, Automation and Test in Europe Conference and Exhibition, DATE 2018	2018, Annual	IEEE	Dresden, Germany	2018	1143-1146	10.23919/DATE.2018.8342183	https://re-public.polimi.it/retrieve/handle/11311/1060873/330731/socrates-
C20	Autotuning and adaptivity in energy efficient HPC systems: The ANTAREX toolbox	Cristina Silvano, Gianluca Palermo, Giovanni Agosta, Amir H. Ashouri, Davide Gadioli, Stefano Cherubin, Emanuele Vitali, Luca Benini, Andrea Bartolini, Daniele Cesarini, Joao Cardoso, Joao Bispo, Pedro Pinto, Riccardo Nobre, Erven Rohou, Loic Besnard, Imane Lasri, Nico Sanna, Carlo Cavazzoni, Radim Cmar, Jan Martinovič, Kateřina Slaninová, Martin Golasowski, Andrea R. Beccari, Candida Manelfi	2018 ACM International Conference on Computing Frontiers, CF 2018 - Proceedings	15th, Annual	ACM	Ischia, Italy	2018	270-275	10.1145/3203217.3205338	https://re-public.polimi.it/retrieve/handle/11311/1060889/330580/CF18_ANTAREX_open.pdf
C21	A scalable framework for online power modelling of high-performance computing nodes in production	Federico Pittino, Francesco Beneventi, Andrea Bartolini, Luca Benini	2018 International Conference on High Performance Computing & Simulation (HPCS)	July 2018	IEEE	Orleans, France	2018	300-307	10.1109/HPCS.2018.00058	https://www.research-collection.ethz.ch/handle/20.500.11850/309034.3

NO.	Title	Authors	Title of the periodical or the series	Number, date or frequency	Publisher	Place of publication	Year of publication	Relevant pages	Permanent identifiers (if available)	Is/Will open access provided?
C22	An OpenMP based Parallelization Compiler for C Applications	Hamid Arabnejad, João Bispo, Jorge Manuel Gomes Barbosa, João M. P. Cardoso	IEEE International Symposium on Parallel and Distributed Processing with Applications (ISPA 2018)	16th, Annual	IEEE	Melbourne, Australia	2018			https://repositorio-aberto.up.pt/handle/10216/11810

Table 3: Publications in International Workshops

NO.	Title	Authors	Title of the periodical or the series	Number, date or frequency	Publisher	Place of publication	Year of publication	Relevant pages	Permanent identifiers (if available)	Is/Will open access provided ?
Publications in International Workshops 2016										
W1	<i>Compiler Phase Ordering as an Orthogonal Approach for Reducing Energy Consumption</i>	Ricardo Nobre, Luís Reis, João M.P. Cardoso	Compilers for Parallel Computing (CPC)	July 6-8, 2016	CPC 2016	Valladolid, Spain	July 6-8, 2016	online	https://cpc2016.infor.uva.es/wp-content/uploads/2016/06/CPC2016_paper_26.pdf	https://arxiv.org/abs/1807.00638
W2	<i>Stack Size Estimation on Machine-Independent Intermediate Code for OpenCL Kernels</i>	Stefano Cherubin, Michele Scandale, Giovanni Agosta	7th Workshop on Parallel Programming and Run-Time Management Techniques for Many-core Architectures, 5th Workshop on Design Tools and Architectures for Multicore Embedded Computing Platforms	Jan. 18, 2016	ACM	Prague, Czech Republic	2016	1-6	DOI 10.1145/2872421.2872425	https://republic.polimi.it/retrieve/handle/11311/996070/330741/2016_PARMA-DITAM_Stack_open.pdf
W3	<i>An Evaluation of Autotuning Techniques for the Compiler</i>	Amir Hossein Ashouri, Gianluca Palermo, Cristina Silvano	RES4ANT Workshop at DATE2016 Conference	March 18, 2016	CEUR	Dresden, Germany	2016	1-6	http://ceur-ws.org/Vol-1643/paper-05.pdf	http://ceur-ws.org/Vol-1-

NO.	Title	Authors	Title of the periodical or the series	Number, date or frequency	Publisher	Place of publication	Year of publication	Relevant pages	Permanent identifiers (if available)	Is/Will open access provided ?
	<i>Optimization Problems</i>									1643/paper-05.pdf
W4	Automatic Pruning of Autotuning Parameter Space for OpenCL Applications	Ahmet Erdem, Gianluca Palermo, Cristina Silvano	RES4ANT Workshop at DATE2016 Conference	March 18, 2016	CEUR	Dresden, Germany	2016	1-6	http://ceur-ws.org/Vol-1643/paper-05.pdf	http://ceur-ws.org/Vol-1643/paper-08.pdf
W5	Application Adaptation at Runtime through Dynamic Knobs Autotuning	Davide Gadioli, Gianluca Palermo, Cristina Silvano	RES4ANT Workshop at DATE2016 Conference	March 18, 2016	CEUR	Dresden, Germany	2016	1-6	http://ceur-ws.org/Vol-1643/paper-05.pdf	http://ceur-ws.org/Vol-1643/paper-09.pdf
Publications in International Workshops 2017										
W6	<i>Benefits in Relaxing the Power Capping Constraint</i>	Daniele Cesarini, Andrea Bartolini, Luca Benini	ANDARE 2017 Workshop @PACT 2017 Conference	Sept. 11, 201	ACM	Portland, Oregon, USA	2017		doi:10.1145/3152821.3152878	https://www.research-collection.ethz.ch/handle/20.500.11850/224609
Publications in International Workshops 2018										
W7	<i>Aspect-Driven Mixed-Precision Tuning Targeting GPUs</i>	Ricardo Nobre, Luís Reis, João Bispo, Tiago Carvalho, João M. P. Cardoso, Stefano Cherubin, Giovanni Agosta	PARMA-DITAM@HIPEAC 2018: 26-31	January 2018	ACM	New York, NY, USA	2018	pp. 26-31	10.1145/3183767.3183776	https://republic.polimi.it/retrieve/handle/11311/1060887/330614/2018_PARMA-DITAM_aspect-driven-mixed_open.pdf
W8	<i>AutoPar-Clava: An Automatic Parallelization source-to-source tool for</i>	Hamid Arabnejad, João Bispo, Jorge G. Barbosa, João M. P. Cardoso:	PARMA-DITAM@HIPEAC 2018: 13-19	January 2018	ACM	New York, NY, USA	2018	pp. 32-38	0.1145/3183767.3183770	https://repositorio-aberto.up.pt/handle/10216/111508

NO.	Title	Authors	Title of the periodical or the series	Number, date or frequency	Publisher	Place of publication	Year of publication	Relevant pages	Permanent identifiers (if available)	Is/Will open access provided ?
	<i>C code applications</i>									
W9	<i>Evaluation of NTP/PTP Fine-Grain Synchronization Performance in HPC Clusters</i>	Antonio Libri, Andrea Bartolini, Daniele Cesarini, Luca Benini	ANDARE 2018 Workshop @PACT 2018 Conference	November 2018	ACM	Limassol, Cyprus	2018		10.1145/3295816.3295819	https://www.research-collection.ethz.ch/handle/20.500.11850/306928
W10	<i>DiG: Enabling Out-of-Band Scalable High-Resolution Monitoring for Data-Center Analytics, Automation and Control</i>	Antonio Libri, Andrea Bartolini, Luca Benini	DAAC 2018 Workshop @SC'18 Conference	November 2018	IEEE	Dallas, Texas, USA	2018			https://www.research-collection.ethz.ch/handle/20.500.11850/306925
W11	<i>COUNTDOWN - A Run-time Library for Application-agnostic Energy Saving in MPI Communication Primitives</i>	Daniele Cesarini, Andrea Bartolini, Luca Benini	ANDARE 2018 Workshop @PACT 2018 Conference	November 2018	ACM	Limassol, Cyprus	2018			https://www.research-collection.ethz.ch/handle/20.500.11850/313834
W12	<i>The D.A.V.I.D.E. Big-data-powered Fine-grain Power and Performance Monitoring Support</i>	Andrea Bartolini, Andrea Borghesi, Antonio Libri, Francesco Beneventi, Daniele Gregori, Simone Tinti, Cosimo Gianfreda, Piero Altoè	BigDAW 2018 : International Workshop on Big Data Analytics - Proceedings of the 15th ACM International Conference on Computing Frontiers	15th, Annual	ACM	Ischia, Italy	2018		10.1145/3203217.3205863	https://www.research-collection.ethz.ch/handle/20.500.11850/286393
W13	<i>Accelerating a Geometric Approach to Molecular Docking with OpenACC</i>	Emanuele Vitali, Davide Gadioli, Gianluca Palermo, Andrea Beccari, Cristina Silvano	Proceedings of the 6th International Workshop on Parallelism in Bioinformatics (PBio 2018)	6th, Annual	ACM	Barcelona, Spain	2018	45-52	10.1145/3235830.3235835	https://republic.polimi.it/retrieve/handle/11311/1065654/330736/AutorAcceptedManuscript

NO.	Title	Authors	Title of the periodical or the series	Number, date or frequency	Publisher	Place of publication	Year of publication	Relevant pages	Permanent identifiers (if available)	Is/Will open access provided ?
										cript.pdf
W14	<i>Design space pruning and computational workload splitting for autotuning OpenCL applications</i>	Ahmet Erdem, Davide Gadioli, Gianluca Palermo, Cristina Silvano	Proceedings of the Rapido'18 Workshop on Rapid Simulation and Performance Evaluation: Methods and Tools	2018, Annual	ACM	Manchester, UK	2018		10.1145/3180665.3180669	https://republic.polimi.it/retrieve/handle/11311/1063266/330905/rapido18-workshop-paper.pdf

Table 4: Editions of International Proceedings

NO.	Title	Editors	Title of the periodical or the series	Number, date or frequency	Publisher	Place of publication	Year of publication	Relevant pages	Permanent identifiers (if available)	Is/Will open access provided ?
<i>Editions of International Proceedings (in chronological order)</i>										
P1	Proceedings of the PARMA-DITAM 2016 Workshop, 7th Workshop on Parallel Programming and Run-Time Management Techniques for Many-core Architectures, 5th Workshop on Design Tools and Architectures for Multicore Embedded Computing Platforms	Cristina Silvano, João M. P. Cardoso, Giovanni Agosta, Michael Hübner	2016. Proceedings of the 7th Workshop on Parallel Programming and Run-Time Management Techniques for Many-Core Architectures and the 5th Workshop on Design Tools and Architectures for Multicore Embedded Computing Platforms. ACM, New York, NY, USA.	Annual	ICPS: ACM International Conference Proceeding Series	ACM DL	2016		ISBN 978-1-4503-4052-6	http://dl.acm.org/citation.cfm?id=2872421
P2	Proceedings of the PARMA-DITAM 2017 Workshop, 8th Workshop on Parallel Programming and Run-Time Management Techniques for Many-core Architectures, 6th Workshop on Design Tools and Architectures for Multicore Embedded Computing Platforms	Cristina Silvano, João M. P. Cardoso, Giovanni Agosta, Michael Hübner	2017. Proceedings of the 8th Workshop and 6th Workshop on Parallel Programming and Run-Time Management Techniques for Many-Core Architectures and Design Tools and Architectures for Multicore Embedded Computing Platforms. ACM, New York, NY, USA.	Annual	ICPS: ACM International Conference Proceeding Series	ACM DL	2017		ACM ISBN: 978-1-4503-4877-5	https://dl.acm.org/citation.cfm?id=3029580&picked=prox

NO.	Title	Editors	Title of the periodical or the series	Number, date or frequency	Publisher	Place of publication	Year of publication	Relevant pages	Permanent identifiers (if available)	Is/Will open access provided ?
P3	Proceedings of the ANDARE 2017	Cristina Silvano, João M. P. Cardoso, Andrea Bartolini, Jorge Barbosa	<i>2017. Proceedings of the 1st Workshop on Autotuning and Adaptivity Approaches for Energy Efficient HPC Systems. ACM, New York, NY, USA.</i>	Annual	ICPS: ACM International Conference Proceeding Series	ACM DL	2017		ACM ISBN: 978-1-4503-5363-2	https://dl.acm.org/citation.cfm?id=3152821&pick
P4	Proceedings of the PARMA-DITAM 2018 Workshop, 9th Workshop on Parallel Programming and Run-Time Management Techniques for Many-core Architectures, 7th Workshop on Design Tools and Architectures for Multicore Embedded Computing Platforms	Cristina Silvano, João M. P. Cardoso, Giovanni Agosta, Michael Hübner	<i>2018. Proceedings of the 9th Workshop and 7th Workshop on Parallel Programming and Runtime Management Techniques for Manycore Architectures and Design Tools and Architectures for Multicore Embedded Computing Platforms. ACM, New York, NY, USA.</i>	Annual	ICPS: ACM International Conference Proceeding Series	ACM DL	2018		ACM ISBN: 978-1-4503-6444-7	https://dl.acm.org/citation.cfm?id=3183767&picked=prox
P5	Proceedings of the ANDARE 2018	Cristina Silvano, João M. P. Cardoso, Andrea Bartolini, Jorge Barbosa	<i>2018. Proceedings of the 2nd Workshop on Autotuning and Adaptivity Approaches for Energy Efficient HPC Systems. ACM, New York, NY, USA.</i>	Annual	ICPS: ACM International Conference Proceeding Series	ACM DL	2018		ACM ISBN: 978-1-4503-6591-8	to appear

Table 5: Publications in International Books and Book Chapters

NO.	Title	Authors	Title of the periodical or the series	Number, date or frequency	Publisher	Place of publication	Year of publication	Relevant pages	Permanent identifiers (if available)	Is/Will open access provided?
<i>Publications in International Books (in chronological order)</i>										
B1	Embedded Computing for High Performance: Efficient Mapping of Computations Using Customization, Code Transformations and Compilation	João M. P. Cardoso, José Gabriel Coutinho, and Pedro C. Diniz	-	-	Morgan Kaufmann (Elsevier)	Morgan Kaufmann (Elsevier): https://www.elsevier.com/books/embedded-computing-for-high-performance/cardoso/978-0-12-804189-5	June 15, 2017	320	eBook ISBN: 9780128041994 Paperback ISBN: 9780128041895	
B2	On-line Book: ANTAREX: Lessons Learned	João Bispo, Pedro Pinto, João M.P. Cardoso, Jorge G. Barbosa, Hamid Arabnejad, Davide Gadioli, Emanuele Vitali, Gianluca Palermo, Cristina Silvano, Stefano Cherubin, Giovanni Agosta, Loic Besnard, Antonio Libri, Daniele Cesarini, Andrea Bartolini, and Luca Benini	-	-	Self-published	-	2018	-	-	http://antarex-project.eu/dissemination#book

NO.	Title	Authors	Title of the periodical or the series	Number, date or frequency	Publisher	Place of publication	Year of publication	Relevant pages	Permanent identifiers (if available)	Is/Will open access provided?
Publications in International Book Chapters (in chronological order)										
BC1	Energy Saving and Thermal Management Opportunities in a Workload-Aware MPI Runtime for a Scientific HPC Computing Node	Daniele Cesarini, Andrea Bartolini, Luca Benini	Parallel Computing is Everywhere	<i>Volume: 32, Advances in Parallel Computing, March 2018</i>	IOS Press	Amsterdam, New York, Tokio: IOS Press	2018	277-286	Online: 978-1-61499-843-3 Print: 978-1-61499-842-6	https://www.research-collection.ethz.ch/handle/20.500.11850/313829
BC2	<i>Implications of Reduced-Precision Computations in HPC: Performance, Energy and Error</i>	S. Cherubin, G. Agosta, I. Lasri, E. Rohou, O. Sentleys	Parallel Computing is Everywhere	<i>Volume: 32, Advances in Parallel Computing, March 2018</i>	IOS Press	Amsterdam, New York, Tokio: IOS Press	2018		10.3233/978-1-61499-843-3-297	https://hal.inria.fr/hal-01633790/file/ParCo_fin_al.pdf
BC3	Modeling and Evaluation of Application-Aware Dynamic Thermal Control in HPC Nodes	Daniele Cesarini, Andrea Bartolini, Luca Benini	VLSI-SoC Book '17		Springer	Springer	2018		To appear	https://www.research-collection.ethz.ch/handle/20.500.11850/313830

Table 6: Participations to International Conferences and Symposia

NO.	Type of activities	Main Leader	Title	Place	Date/Period	Type of audience	Size of audience	Countries addressed
Participations to International Conferences and Symposia 2015								
P1	Participation to Conference	POLIMI	CSW 2015: ANTAREX -- AutoTuning and Adaptivity approach for Energy efficient eXascale HPC systems	Milan, Italy	settembre 21, 2015	Scientific Community and Industry	140	Int.
P2	Participation to Conference	POLIMI	18th IEEE International Conference on Computational	Porto, Portugal	October 21-23, 2015	Scientific Community and Industry	100	Int.

NO.	Type of activities	Main Leader	Title	Place	Date/Period	Type of audience	Size of audience	Countries addressed
			Science and Engineering, CSE 2015					
P3	Participation to Conference	UPORTO	18th IEEE International Conference on Computational Science and Engineering, CSE 2015	Porto, Portugal	October 21-23, 2015	Scientific Community and Industry	100	Int.
P4	Participation to Tutorial	UPORTO	Programming GPUs with CUDA, a tutorial co-located with IEEE CSE and IEEE EUC Conferences	Porto, Portugal	outubro 20, 2015	Scientific Community	30	Int.
Participations to International Conferences and Symposia 2016								
P5	Participation to Conference	CINECA, IT4I	SC'2015 BOF: Taking on Exascale Challenges: Key Lessons and International Collaboration Opportunities Delivered by European Cutting-Edge HPC Initiative	Austin, Texas, USA	November 15-20, 2016	Scientific Community and Industry	60	Int.
P6	Participation to Conference	POLIMI	CGO'2016: A Predictive Modeling Framework For Compiler Phase-ordering Problem	Barcelona, Spain	March 12th - 18th 2016	Scientific Community and Industry	100	Int.
P7	Participation to Conference	POLIMI	DATE2016-EU-Track: AutoTuning and Adaptivity approach for Energy efficient eXascale HPC systems: the ANTAREX Approach	Dresden, Germany	March 16, 2016		45	Int.
P8	Participation to Conference	ETHZ, IT4I	SC16	Salt Lake City, USA	Nov 2016	Scientific Community and Industry	10000	Int.

NO.	Type of activities	Main Leader	Title	Place	Date/Period	Type of audience	Size of audience	Countries addressed
P9	Participation to Conference	IT4I, POLIMI, UPORTO	10th International Conference on High-Performance and Embedded Architectures and Compilers (HiPEAC'2016)	Prague, Czech Republic	January 18-20, 2016	Scientific Community and Industry	500	Int.
P10	Participation to Conference	IT4I, POLIMI, UPORTO, ETHZ, CINECA, SYGIC	Computing System Week	Porto, Portugal	April 20-22, 2016	Scientific Community and Industry	150	Int.
P11	Participation to Conference	IT4I	15th International Conference on Computer Information Systems and Industrial Management Applications, CISIM 2016	Vilnius, Lithuania	September 14-16, 2016	Scientific Community and Industry	40	Int.
Participations to International Conferences and Symposia 2017								
P12	Participation to Conference	IT4I, POLIMI, UPORTO, SYGIC, ETHZ	12th International Conference on High-Performance and Embedded Architectures and Compilers (HiPEAC'2017)	Stockholm, Sweden	January 23-25, 2017	Scientific Community and Industry	500	Int.
P13	Participation to Conference	IT4I	16th International Conference on Computer Information Systems and Industrial Management Applications, CISIM 2017	Bialystok, Poland	June 16-18, 2017	Scientific Community and Industry	40	Int.
P14	Participation to Conference	ETHZ	Parallel Computing Conference (PARCO 2017)	Bologna, Italy	September 12-15, 2017	Scientific Community and Industry	100	Int.
Participations to International Conferences and Symposia 2018								

NO.	Type of activities	Main Leader	Title	Place	Date/Period	Type of audience	Size of audience	Countries addressed
P15	Participation to Conference	IT4I	17th International Conference on Computer Information Systems and Industrial Management Applications, CISIM 2018	Olomouc, Czech Republic	September 27-29, 2018	Scientific Community and Industry	40	Int.
P16	Participation to Conference	POLIMI	EuroMicro Conference on Digital Systems Design, DSD 2018	Prague, Czech Republic	August 29-31, 2018	Scientific Community and Industry	50	Int.
P17	Participation to Conference	SYGIC, IT4I	Transport Research Arena 2018 (TRA Vienna 2018)	Vienna, Austria	April 16-19, 2018	Scientific Community and Industry	1000	Int.
P18	Participation to Conference	SYGIC, IT4I	ICT 2018 Vienna - Imagine Digital Connect Europe	Vienna, Austria	December 4-6, 2018	Scientific Community and Industry	1000	Int.
P19	Participation to Conference	UPORTO	IEEE ISPA 2018 (16th IEEE International Symposium on Parallel and Distributed Processing with Applications)	Melbourne, Australia.	Dec. 1-13 2018	Scientific Community and Industry	70	Int.
Participations to International Conferences and Symposia 2019								
P20	Participation to Conference	SYGIC	ConnecteDriver Conference 2019 - Smart mobility	Brussels, Belgium	February 6-7, 2019	Scientific Community and Industry	100	Int.

Table 7: Participations to International Workshops

NO.	Type of activities	Main leader	Title	Place	Date/Period	Type of audience	Size of audience	Countries addressed
Participations to International Workshops 2015								
PW1	Participation to Workshop	POLIMI	EXDCI: ANTAREX -- AutoTuning and Adaptivity appRoach for Energy efficient eXascale HPC systems	Rome, Italy	September 29-30, 2015	Scientific Community and Industry	70	Int.
PW2	Participation to Workshop	ETHZ	EXDCI: ANTAREX -- AutoTuning and Adaptivity appRoach	Rome, Italy	September 29-30, 2015	Scientific Community and Industry	70	Int.

NO.	Type of activities	Main leader	Title	Place	Date/Period	Type of audience	Size of audience	Countries addressed
			for Energy efficient eXascale HPC systems					
Participations to International Workshops 2016								
PW3	Participation to Workshop	UPORTO, POLIMI, IT4I	PARMA-DITAM'2016, Workshop colocated with HiPEAC'2016	Prague, Czech Republic	January 18th, 2016	Scientific Community and Industry	60	Int.
PW4	Participation to Workshop	POLIMI	Presentation of ANTAREX at FEAT workshop	Amsterdam, The Netherlands	March 17, 2016	Scientific Community	NA	Int.
PW5	Participation to Workshop	ETHZ	Presentation at Dagstuhl Seminar 16052 with focus on Dark Silicon: From Embedded to HPC Systems	Dagstuhl Schloss, Germany	January 31th, February 2nd	Scientific Community and Industry	30	Int.
PW6	Participation to Workshop	ETHZ	Presentation at the International Workshop on Dynamic Code Autotuning, colocated with CGO16	Barcelona Spain	11-13 March	Scientific Community and Industry	40	Int.
PW7	Participation to Workshop	ETHZ, IT4I	European HPC Summit Week 2016	Prague, Czech Republic	May 9-12, 2016	Scientific Community and Industry	220	Int.
PW8	Participation to Workshop	ETHZ	Presentation at the Workshop on Energy-efficient Servers for Cloud and Edge Computing (EnESCE) co-located with HiPEAC'2016	Stockholm, Sweden	January 20, 2016	Scientific Community and Industry	200	Int.
Participations to International Workshops 2017								
PW9	Participation to Workshop	SYGIC, PORTO, POLIMI, IT4I	PARMA-DITAM'2017, Workshop co-located with HiPEAC'2017	Stockholm, Sweden	January 25th, 2017	Scientific Community and Industry	55	Int.
PW10	Participation to Workshop	ETHZ	OpenPOWER Summit 2017 – US	Las Vegas, USA	43177	Scientific Community and Industry	40	Int.
PW11	Participation to Workshop	POLIMI, UPORTO, ETHZ, IT4I	HPCAFE'2017	Barcelona, Spain	May 19, 2017	Scientific Community and Industry	50-	Int.
Participations to International Workshops 2018								
PW12	Participation to Workshop	ETHZ	OpenPOWER Summit 2018 – Europe	Amsterdam, NL	October 3-4, 2018	Scientific Community and Industry	40	Int.
PW13	Participation to Workshop	POLIMI, UPORTO, ETHZ, IT4I, CINECA	HPCAFE-2018 Workshop co-located to European HPC Summit Week 2018 - PRACEdays 2018	Ljubljana, Slovenia	May 28 to June 1, 2018	Scientific Community and Industry	50-	Int.

NO.	Type of activities	Main leader	Title	Place	Date/Period	Type of audience	Size of audience	Countries addressed
PW14	Participation to Workshop	POLIMO, ETHZ	EETHPC-2018 Workshop co-located with ISC2018	Frankfurt, Germany	June 28, 2018	Scientific Community and Industry	45-	Int.
PW15	Participation to Workshop	POLIMI, UPORTO, ETHZ	ANDARE 2018 Workshop co-located with PACT2018	Limassol, Cyprus	November 4	Scientific Community and Industry	30-	Int.

Table 8: Keynote and Invited Talks

NO.	Type of activities	Main leader	Title	Place	Date/Period	Type of audience	Size of audience	Countries addressed
Keynote and Invited Talks								
T1	Talk at Green ICT @ IRISA	INRIA	ANTAREX: AutoTuning and Adaptivity appRoach for Energy efficient eXascale HPC systems	IRISA, Rennes, France	Nov. 30, 2015	Scientific Community	40	Int.
T2	Invited Talk @ Workshop on Computational Science Infrastructure and Applications for Academic Development in the ICTP	ETHZ	Trends in Energy, Power and Thermal Efficiency of HPC systems	Trieste, Italy	October 2015	Scientific Community	35 -	Int.
T3	Keynote @ 18th IEEE International Conference on Computational Science and Engineering (CSE'2015) / 13th IEEE/IFIP International Conference on Embedded and Ubiquitous Computing (EUC'2015)	POLIMI	Design Space Exploration and Application Autotuning for Runtime Adaptivity in Multicore Architectures	Porto, Portugal	October 21, 2015	Scientific Community	80	Int.
T4	Invited Talk at the ETP4HPC (European Technology Platform for High Performance Computing) - EXDCI (European eXtreme Data and Computing Initiative) Workshop	POLIMI	The ANTAREX Approach to Autotuning and Adaptivity for Energy Efficient HPC Systems	Rome	September 29/30, 2015	Scientific Community	60	Int.
T5	Invited Talk at Thematic Section on Challenges and	POLIMI	The ANTAREX Approach to Autotuning and	Milan	September 29/30, 2015	Scientific Community	80	Int.

NO.	Type of activities	Main leader	Title	Place	Date/Period	Type of audience	Size of audience	Countries addressed
	opportunities in next-generation HPC Systems for Real-Time Applications, HiPEAC Computing System Week, Milan		Adaptivity for Energy Efficient HPC Systems					
T6	Invited Talk at the Special Session on FET-HPC Projects @ 18th IEEE International Conference on Computational Science and Engineering (CSE'2015) / 13th IEEE/IFIP International Conference on Embedded and Ubiquitous Computing (EUC'2015)	POLIMI	The ANTAREX Approach to Autotuning and Adaptivity for Energy Efficient HPC Systems	Porto, Portugal	outubro 23, 2015	Scientific Community	80	Int.
T7	Invited Talk at 1st Workshop about Computational Challenges on Climate Modelling and Weather Prediction (CLIMA'2016), co-located with the 12th International Meeting on High-Performance Computing for Computational Science (VECPAR 2016)	UPORTO	"AutoTuning and Adaptivity approach for Energy efficient eXascale HPC systems: The ANTAREX Approach"	University of Porto, Porto, Portugal. [the presentation included a demo presented by João Bispo, FEUP/UP]	July 1, 2016	Scientific Committee	20	Int.
T8	Talk at Nesus Cost Action (http://www.nesus.eu/)	UPORTO	"ANTAREX: AutoTuning and Adaptivity approach for Energy efficient eXascale HPC systems"	Jožef Stefan Institute, Ljubljana, Slovenia	July 8th, 2016	Scientific Community	50	Int.
T9	Panel at 1st ReS4AnT - DATE 2016	UPORTO	Moore's law is still alive! So why resource awareness	Dresden, Germany	March 18, 2016	Scientific Community	50	Int.
T10	Talk at 1st ReS4AnT - DATE 2016	UPORTO	A DSL-based Approach for Cross Layer Programming: Monitoring,	Dresden, Germany	March 18, 2016	Scientific Community	50	Int.

NO.	Type of activities	Main leader	Title	Place	Date/Period	Type of audience	Size of audience	Countries addressed
			Adaptivity and Tuning					
T11	Invited Talk @ European HPC Summit week: EXDCI Workshop	IT4I	ANTAREX: AutoTuning and Adaptivity appRoach for Energy efficient eXascale	Prague, Czech Republic	May 9-10, 2016	Scientific Community	50	Europe
T12	Invited Talk @ PARMA-DITAM 2016 Workshop	IT4I	Programming tools and algorithms for exascale systems	Prague, Czech Republic	Jan 18, 2016	Scientific Community	45	Int.
T13	Invited talk @ Workshop about Computational Challenges on Climate Modelling and Weather Prediction (CLIMA'2016)	UPORTO	AutoTuning and Adaptivity appRoach for Energy efficient eXascale HPC systems: The ANTAREX Approach	Porto, Portugal	July 1st, 2016	Scientific Community	40	Europe
T14	Seminar @ The University of Texas at Austin, Electrical and Computer Engineering, Computer Architecture Seminar	POLIMI	Design Space and Application Autotuning for Runtime Adaptivity in Multicore Architectures	Austin, Texas, USA	June 3rd, 2016	Scientific Community	about 50	Int.
T15	Seminar @ Brain Inspired Computing Group, IBM Research, Austin	POLIMI	Design Space and Application Autotuning for Runtime Adaptivity in Multicore Architectures	Austin, Texas, USA	June 9th, 2016	Industry	about 25	Int.
T16	Keynote @ ACM International Conference on Computing Frontiers (CF'2016)	ETHZ	Sub-PicoJoule per Operation scalable computing - Why, When, How?	Como, Italy	May 16 - 18, 2016	Scientific Community	100	Int.
T17	Invited Talk @ ACM International Conference on Computing Frontiers (CF'2016)	POLIMI	The ANTAREX Approach to Autotuning and Adaptivity for Energy Efficient HPC Systems	Como, Italy	May 16 - 18, 2016	Scientific Community	45	Int.
T18	Keynote @ ICT-Energy: Minimizing Energy Consumption of Computing to the Limit, workshop co-located with HiPEAC'2016	ETHZ	Sub-pj per operation scalable computing - the next challenge	Prague, Czech Republic	Jan. 18, 2016	Scientific Community	45	Int.
T19	Invited Talk @ International Workshop on	ETHZ	Trends in Energy and Thermal efficiency of High	Barcelona, Spain	March 12, 2016	Scientific Community	50	Int.

NO.	Type of activities	Main leader	Title	Place	Date/Period	Type of audience	Size of audience	Countries addressed
	Dynamic Code Auto-Tuning (DCAT2016), part of the workshop programme of the 2016 International Symposium for Code Generation and Optimization (CGO'2016)		Performance computing infrastructure					
T20	Invited Talk @ Dagstuhl Seminar 16052, Dark Silicon: From Embedded to HPC Systems	ETHZ	Multiscale Energy-Thermal Management for Green Supercomputers	Dagstuhl Schloss, Germany	January 2016	Scientific Community	45	Int.
T21	Short talk at ACM Conference on Languages, Compilers, Tools, and Theory for Embedded Systems (LCTES'2016)	UPORTO	"The LARA-based Compiler Toolsuite,"	Santa Barbara, California, USA	June 13-14, 2016	Scientific Community and Industry.	40	Int.
T22	Seminar, at Eni S.p.A. – Upstream and Technical Services	POLIMI	The ANTAREX Approach to Autotuning and Adaptivity for Energy Efficient HPC Systems	San Donato Milanese (Milan)	February 21st, 2017	Industry	10	Int.
T23	Invited Talk @ PARMA-DITAM 2017 Workshop	SYGIC	"GPS Navigation companies needs and experiences with high performance computing"	Stockholm, Sweden	January 25, 2017	Scientific Community	30	Int.
T24	Invited Talk @ CINECA	ETHZ	DiG - High Resolution Out-of-Band Power Monitoring	Bologna, Italy	December 7, 2017	Scientific Community, Industry	20	Int.
T25	Invited Talk @ EETHPC workshop co-located with ISC High Performance 2018	ETHZ	MULTITHERMAN: Out-of-band High-Resolution HPC Power and Performance Monitoring Support for Big-Data Analysis	Ljubljana, Slovenia	May 30, 2018	Scientific Community, Industry, General Public	80	Int.
T26	Invited Talk @ EETHPC workshop co-located with ISC High Performance 2018	ETHZ	Out-of-band High-Resolution HPC Power and Performance Monitoring Support for Big-Data Analysis	Frankfurt, Germany	June 27, 2018	Scientific Community, Industry, General Public	20	Int.

NO.	Type of activities	Main leader	Title	Place	Date/Period	Type of audience	Size of audience	Countries addressed
T27	Short talk at the IT4I booth at SC 18	IT4I	Supercomputing platform for smart cities	Dallas, USA	Nov. 13, 2018	Scientific Community, General Public	20	Int.
T28	Short talk at the IT4I booth at SC 18	IT4I	Mobility aware traffic distribution	Dallas, USA	Nov 14, 2018	Scientific Community, General Public	20	Int.
T29	Invited Talk @ PRACE Training DAVIDE @CINECA	ETHZ	Introduction to the DAVIDE GPU OpenPOWER Cluster	Bologna, Italy	Apr. 7, 2018	Scientific Community, Industry	20	Int.
T30	Talk at the OpenPower ADG workshop	ETHZ	Combining out-of-band monitoring with AI and big data for datacenter automation in OpenPOWER	Dallas, USA	Nov. 14, 2018	Scientific Community, General Public	30	Int.
T31	Talk at the EEHPC workshop at SC 18	ETHZ	Challenges in Holistic Monitoring and Data Integration	Dallas, USA	Nov. 14, 2018	Scientific Community, General Public	40	Int.
T32	Talk at the OpenPOWER Summit 2018 – Europe	ETHZ	Combining out-of-band monitoring with AI and big data for datacenter automation in OpenPOWER	Amsterdam, NL	Oct. 4, 2018	Industrial and Scientific Computing	40	Int.
T33	Bird of Feather	ETHZ	Combine Out-of-band monitoring with AI and big data for datacenter automation	Dallas, USA	11-16 Nov., 2018	Scientific Community and Industry	70	Int.
T34	Invited Lecturer at the PRACE training course: PCP DAVIDE OpenPower cluster: user experiences and scientific cases. @CINECA	ETHZ	Overview Power Measurement Infrastructure DAVIDE - Andrea Bartolini	Bologna, Italy	10 Dec. 2018	Scientific Community, General Public	20	Int.
T35	Invited Lecturer at SOSC 2018 Second International PhD School Open Science Cloud	ETHZ	Predictive Models for Thermal Modelling	Perugia, Italy	16 Sept. 2018	Scientific Community, General Public	40	Int.
T36	Short presentations at the ANTAREX booth at TRA Vienna 2018	SYGIC	Supercomputing platform for smart cities	Vienna, Austria	April 16-19, 2018	Scientific Community, General Public	20	Int.
T37	Talk at the ICT 2018 Vienna	SYGIC	Intelligent Navigation System for Smart Cities	Vienna, Austria	5 Dec. 2018	Scientific Community	80	Int.

NO.	Type of activities	Main leader	Title	Place	Date/Period	Type of audience	Size of audience	Countries addressed
						and Industry		
T38	Invited talk at the 2nd International Conference on Data Management, Analytics & Innovation ICDMAI 2018	IT4I	Accessible HPC Platform for Executing Scientific Pipelines on Supercomputing Facilities	Pune, India	Jan. 19, 2018	Scientific Community	200	Int.
T39	Session Speaker at ConnectedDriver 2019 conference	SYGIC	Intelligent Car Navigation Eco-system for Smart Cities	Brussels, Belgium	February 6-7, 2019	Scientific Community and Industry	65	Int.

Table 9: Demonstrations, Exhibition and Booths at International Events

NO.	Type of activities	Main leader	Title	Place	Date/Period	Type of audience	Size of audience	Countries addressed
Exhibitions/Booths								
B1	EXDCI Booth	IT4I	ANTAREX: AutoTuning and Adaptivity appRoach for Energy efficient eXascale	SC16, Salt Lake City, USA	November 14-17, 2016	Scientific Community and Industry	min. 150	Int.
B2	IT4I Booth	IT4I	ANTAREX: AutoTuning and Adaptivity appRoach for Energy efficient eXascale	SC16, Salt Lake City, USA	November 14-17, 2016	Scientific Community and Industry	min. 150	Int.
B3	Energy Efficient HPC Working Group Booth	ETHZ		SC16, Salt Lake City, USA	November 14-17, 2016	Scientific Community and Industry	min. 150	Int.
B4	University Booth at Design Automation & Test in Europe DATE 2017	UPORTO	A Target-Aware Compiler to Translate MATLAB into C and OpenCL	EPFL, Lausanne, Switzerland	March 27-31, 2017	Scientific Community and Industry	1400 at DATE 2017	Int.
B5	IT4I Booth	IT4I	Expressing and Applying C++ Code Transformations for the HDF5 API Through a DSL	ISC High Performance conference 2017, Frankfurt, Germany	June 19-21, 2017	Scientific Community and Industry	50	Int.
B6	University Booth at Design Automation & Test in	POLIMI	mARGOT: Application Adaptation through Runtime Autotuning	EPFL, Lausanne, Switzerland	March 27-31, 2017	Scientific Community and Industry	1400 at DATE 2017	Int.

NO.	Type of activities	Main leader	Title	Place	Date/Period	Type of audience	Size of audience	Countries addressed
	Europe DATE 2017							
B7	Booth	UPORTO + POLIMI + IT4I	ANTAREX @HiPEAC booth at ISC High Performance.	Frankfurt, Germany	June 21, 2017	Scientific Community and Industry	min. 30	Int.
B8	Booth	UPORTO + POLIMI + IT4I	ANTAREX @HiPEAC booth at ISC High Performance.	Frankfurt, Germany	June 27, 2018	Scientific Community and Industry	min. 30	Int.
B9	Sygic + IT4I Booth	Sygic	Supercomputing Platform for Smart Cities	TRA 2018, Vienna, Austria	April 16-19, 2018	General Public, Scientific Community and Industry	min. 300	Int.
B10	IT4I Booth	IT4I	ANTAREX Tools and What-if Analysis for Smart Cities	SC18, Dallas, USA	November 11-16, 2018	Scientific Community and Industry	min. 150	Int.
B11	University Booth at Design Automation & Test in Europe DATE 2018	UPORTO /POLIMI	Clava + mArgot = C/C++ to C/C++ Compiler and Runtime Autotuning Framework	Dresden, Germany	March 19-23, 2018	Scientific Community and Industry	min. 150	Int.

Table 10: Presentations of Posters at International Events

NO.	Type of activities	Main leader	Title	Place	Date/Period	Type of audience	Size of audience	Countries addressed
Posters								
Poster1	Poster	POLIMI	ANTAREX: AutoTuning and Adaptivity appRoach for Energy efficient eXascale HPC systems	18th IEEE International Conference on Computational Science and Engineering / 13th IEEE/IFIP International Conference on Embedded and Ubiquitous Computing	October 23, 2015	Scientific Community	80	Int.
Poster2	Poster	POLIMI	<i>The ANTAREX Approach to Autotuning and Adaptivity for Energy Efficient HPC Systems</i>	Poster at 13th IEEE/IFIP Int. Conf. on Embedded and Ubiquitous	October 21-23, 2015	Scientific Community and Industry	about 100	Int.

NO.	Type of activities	Main leader	Title	Place	Date/Period	Type of audience	Size of audience	Countries addressed
				Computing (EUC2015) / 18th IEEE Int. Conf. on Computational Science and Engineering (CSE2015), Porto (Portugal), Porto, Portugal				
Poster3	Poster	POLIMI	Stack Size Estimation on Machine-Independent Code for OpenCL Kernels	EuroLLVM2016, Barcelona, Spain	March 17-18, 2016	Scientific Community	40	Int.
Poster4	Poster	UPORTO	The LARA-based Compiler Toolsuite	LCTES'2016, Santa Barbara, California, USA	June 13-14, 2016	Scientific Community	60	Int.
Poster5	Poster	IT4I	ANTAREX: AutoTuning and Adaptivity appRoach for Energy efficient eXascale	HPC systems PRACE Scientific & Industrial Conference, PRACEdays 2016, Prague, Czech Republic	May 10-12, 2016	Scientific Community	220 at PRACEdays 2016	Int.
Poster6	Poster	IT4I	DSL and Autotuning Tools for Code Optimization on HPC Inspired by Navigation Use Case	SC16, Salt Lake City, USA	November 15, 2016	Scientific Community	11,100 at SC16	Int.
Poster7	Poster	POLIMI	ANTAREX: AutoTuning and Adaptivity appRoach for Energy efficient eXascale HPC systems	10th International Conference on High-Performance and Embedded Architectures and Compilers (HiPEAC'2016)	January 20, 2016	Scientific Community	500	Int.
Poster8	Poster	IT4I	Generating C++ Code for HDF5 Using LARA DSL	12th International Conference on High-Performance and Embedded Architectures and Compilers (HiPEAC'2017), Stockholm, Sweden	January 23, 2017	Scientific Community	500	Int.

NO.	Type of activities	Main leader	Title	Place	Date/Period	Type of audience	Size of audience	Countries addressed
Poster9	Poster	IT4I	Architecture for Map Data Acquisition and Processing	12th International Conference on High-Performance and Embedded Architectures and Compilers (HiPEAC'2017), Stockholm, Sweden	January 23, 2017	Scientific Community	500	Int.
Poster10	Poster	INRIA	ANTAREX: AutoTuning and Adaptivity appRoach for Energy efficient eXascale HPC systems	Teratec Forum, Paris, France	June 27-28, 2017	Scientific Community	N/A	Int.
Poster11	Poster	IT4I	<i>Expressing and Applying C++ Code Transformations for the HDF5 API Through a DSL</i>	ISC High Performance conference 2017, Frankfurt, Germany	June 18-22, 2017	Scientific Community and Industry	3000 at ISC	Int.
Poster12	Poster	IT4I	Architecture for Map Data Acquisition and Processing	PRACE days 2017, Barcelona, Spain	June 16, 2017	Scientific Community	200	Int.
Poster13	Poster	IT4I	Generating C++ Code for HDF5 Using LARA DSL	PRACE days 2017, Barcelona, Spain	June 16, 2017	Scientific Community	200	Int.
Poster14	Poster	IT4I	ANTAREX: AutoTuning and Adaptivity appRoach for Energy efficient eXascale HPC systems	European HPC Summit Week 2018, Ljubljana, Slovenia	May 29, 2018	Scientific Community	80	Int.
Poster15	Poster	ETHZ	MULTITHERMAN: Out-of-band High-Resolution HPC Power and Performance Monitoring Support for Big-Data Analysis	European HPC Summit Week 2018, Ljubljana, Slovenia	May 28 to Jun 01, 2018	Scientific Community	80	Int.
Poster16	Poster	IT4I	ANTAREX Tools and What-if Analysis for Smart Cities	SC16, Salt Lake City, USA	November 11-16, 2018	Scientific Community, Industry	11,100 at SC16	Int.
Poster17	Poster	IT4I	Job simulation for large-scale PBS based clusters with the Maui Scheduler	SC16, Salt Lake City, USA	November 13, 2018	Scientific Community	11,100 at SC16	Int.
Poster18	Poster	IT4I	Validation of the Self-Adaptive Navigation SyValidation of the Self-Adaptive Navigation System by Enhanced HPC Traffic Simulator	The Platform for Advanced Scientific Computing (PASC) 2018, Basel, Switzerland	July 2-4, 2018	Scientific Community	11,100 at SC16	Int.

Table 11: Organization of Events

NO.	Type of activities	Main leader	Title	Place	Date/Period	Type of audience	Size of audience	Countries addressed
Organization of Events								
E1	Workshop organization	POLIMI + UPORTO	PARMA-DITAM'2016, Workshop colocated with HiPEAC'2016	Stockholm, Sweden	January 18th, 2016	Scientific Community and Industry	60	Int.
E2	Workshop organization	UPORTO	1st Workshop about Computational Challenges on Climate Modelling and Weather Prediction (CLIMA'2016), co-located with the 12th International Meeting on High-Performance Computing for Computational Science (VECPAR 2016)	University of Porto, FEUP, Porto, Portugal	July 1st, 2016.	Scientific Community	25	Int.
E3	Tutorial	UPORTO	LARA Tutorial: A DSL-based Approach for Cross Layer Programming: Monitoring, Adaptivity and Tuning	Porto, Portugal	April 20-22, 2016	Scientific Community and Industry	37	Int.
E4	Event organization	UPORTO	HiPEAC Computing System Week (CSW)	Porto, Portugal	Apr. 20, 2016	Scientific Community and Industry	120	Int.
E5	Thematic Session Organization	UPORTO (University of Innsbruck + INESC-ID)	Programming Models and Tools towards Energy-efficient Exascale Computing Systems	Porto, Portugal	Apr. 20, 2016	Scientific Community and Industry	49	Int.
E6	Organization Committee	UPORTO	12th International Meeting on High Performance Computing for Computational Science (VECPAR'2016)	University of Porto, FEUP, Porto, Portugal	June 28-30, 2016	Scientific Community	35	Int.
E7	Event organization	IT4I	PRACEdays 2016	Prague, Czech Republic	May 10-12, 2016	Scientific Community	220	Int.
E8	Conference organization	IT4I	10th International Conference on High-Performance and Embedded Architectures and Compilers (HiPEAC'2016)	Prague, Czech Republic	January 18-20, 2016	Scientific Community	640	Int.
E9	Workshop organization	ETHZ	International Workshop on Energy-aware high performance Heterogeneous Architectures and Accelerators	Innsbruck, Austria	July 18-22, 2016	Scientific Community	40	Int.
E10	Workshop organization	POLIMI	RES4ANT Workshop at DATE2016 Conference	Dresden, Germany	March 18, 2016	Scientific Community	40	Int.
E11	Workshop organization	POLIMI + UPORTO	PARMA-DITAM'2017, Workshop colocated with HiPEAC'2017	Stockholm, Sweden	January 25th, 2017	Scientific Community and Industry	55	Int.

NO.	Type of activities	Main leader	Title	Place	Date/Period	Type of audience	Size of audience	Countries addressed
E12	Workshop organization	UPORTO (ALLSCALE + READEX FET-HPC projects)	HPCAFE-2017: High-Performance Computing Approaches for Monitoring, Exploring, Optimizing and Autotuning (European HPC Summit Week 2017)	Barcelona, Spain	May 19, 2017	Scientific Community and Industry	40	Int.
E13	Workshop organization	UPORTO+*OLIMI+ETHZ	ANDARE: Workshop on Autotuning and adaptivity Approaches for Energy efficient HPC Systems	Portland, Oregon, USA	Sept. 9, 2017	Scientific Community	30	Int.
E14	Workshop organization	UPORTO	HeteroPar: Workshop on Algorithms, Models and Tools for Parallel Computing on Heterogeneous Platforms (in Euro-Par 2017)	Santiago de Compostela, Spain	Aug. 28-29, 2017	Scientific Community	40	Int.
E15	Workshop organization	UPORTO+*OLIMI+ETHZ	ANDARE: Workshop on Autotuning and adaptivity Approaches for Energy efficient HPC Systems	Limassol, Cyprus	Nov. 4, 2018	Scientific Community	14	Int.
E16	PRACE On Demand Event/School	IT4I+POLIMI+UPORTO	ANTAREX: Monitoring, Compilation and Autotuning Approach for Energy-Efficient HPC Systems	Ostrava, Czech Republic	Oct 22-23, 2018	Scientific Community	14	Int.
E17	Workshop organization	UPORTO (ALLSCALE + READEX + ExCAPE FET-HPC projects)	HPCAFE-2018: High-Performance Computing Approaches for Monitoring, Exploring, Optimizing and Autotuning (European HPC Summit Week 2018)	Ljubljana, Slovenia	28 May to 01 June, 2018	Scientific Community and Industry	40	Int.
E18	Workshop organization	Organized jointly with the FET-HPC projects: READEX, ANTAREX, and GEOPM, As part of the ISC High Performance 2018	EETHPC - Energy Efficiency Tools for High Performance Computing	FRANKFURT AM MAIN, Germany	June 28, 14:00-18:00, 2018	Scientific Community and Industry	30	Int.
E19	Tutorial	UPORTO	Clava+LARA: A Source-to-source C/C++ Compiler for Instrumentation and Code Transformations (IEEE 16th International Conference on Industrial Informatics (INDIN'2018))	Porto, Portugal	18-20 July, 2018	Scientific Community and Industry	10	Int.

NO.	Type of activities	Main leader	Title	Place	Date/Period	Type of audience	Size of audience	Countries addressed
E20	Bird of Feather	ETHZ	Data Analytics for System and Facility Energy Management (Supercomputing 2018)	Dallas, USA	11-16 November, 2018	Scientific Community and Industry	70	Int.
E21	PRACE Training School	ETHZ	Data Analytics for System and Facility Energy Management (Supercomputing 2018)	Dallas, USA	11-16 November, 2018	Scientific Community and Industry	70	Int.

Table 12: Press Releases

NO.	Type of activities	Main leader	Title	Place	Date/Period	Type of audience	Countries addressed
PR1	Newsletter	IT4I	IT4I Newsletter	https://www.it4i.cz/wp-content/uploads/2015/10/newsletter-2015-01.pdf	2015	Scientific Community	Czech Republic
PR2	Press Release	POLIMI	The ANTAREX project in High Performance Computing wins H2020 grant	http://www.deib.polimi.it/eng/news/details/413	Apr. 14, 2015	Scientific Community	Int.
PR3	Press Release	POLIMI	Il progetto ANTAREX vince un finanziamento H2020 in High Performance Computing	http://www.deib.polimi.it/ita/notizie/dettagli/413	Apr. 14, 2015	Scientific Community	Italy
PR4	Press Release	CINECA	The ANTAREX project in HPC wins H2020 grant	https://www.cineca.it/en/news/antarex-project-hpc-wins-h2020-grant	May 19, 2015	Scientific Community	Int.
PR5	Press Release	CINECA	ANTAREX Project in HPC Wins H2020 Grant	https://www.cineca.it/en/news/antarex-project-hpc-wins-h2020-grant-0	May 22, 2015	Scientific Community	Int.
PR6	Newsletter	CINECA	CINECA Magazine	https://www.cineca.it/it/content/cineca-magazine	July, 2015	Scientific Community	Italy
PR7	Newsletter	UPO RTO	IEEE Computer Society TCCP Newsletter	http://www.ipdps.org/ipdps2016/June2016-TCCP-Newsletter.pdf	June 2016	Scientific Community	Int.
PR8	Press Release	UPO RTO	HPCwire: ANTAREX Project in HPC Wins H2020 Grant	https://www.hpcwire.com/off-the-wire/antarex-project-hpc-wins-h2020-grant/	March 18, 2016	Scientific Community / Industry	Int.
PR9	Press Release	POLIMI	HiPEAC Newsletter no. 45	https://www.hipeac.net/assets/publications/newsletter/hipeacinfo45.pdf	Jan. 2016	Scientific Community	Int.
PR10	Press Release	POLIMI	Polimi, da Antarex nuove tecniche supercalcolo ad alta efficienza	https://it.notizie.yahoo.com/polimi-da-antarex-nuove-tecniche-supercalcolo-ad-alta-efficienza-115012878.html	Sept. 2016	Civil Society	Italy

NO.	Type of activities	Main leader	Title	Place	Date/Period	Type of audience	Countries addressed
PR11	Press Release	POLIMI	Il supercomputer diventa green: Polimi a capo di Antarex	http://www.corrierecomunicazioni.it/it-world/43397_il-supercomputer-diventa-green-polimi-a-capo-di-antarex.htm	Sept. 2016	Civil Society	Italy
PR12	Press Release	POLIMI	Milano, Politecnico: progetto nuove tecnologie supercalcolo "Green	http://www.newsagielle.it/DetailNews_Display/Universita/milano-politecnico-progetto-nuove-tecnologie-supercalcolo-green	Sept. 2016	Civil Society	Italy
PR13	Press Release	POLIMI	Supercalcolo «green», il Politecnico di Milano alla guida di un consorzio europeo	http://www.ilsole24ore.com/art/tecnologie/2016-09-13/supercalcolo-green-politecnico-milano-guida-un-consorzio-europeo-182921.shtml?uuid=AD30uhJB	Sept. 2016	Civil Society	Italy
PR14	Press Release	POLIMI	Antarex, nuove tecnologie di supercalcolo "green	http://www.galileonet.it/2016/09/antarex-nuove-tecnologie-supercalcolo-green/	Sept. 2016	Scientific Community	Italy
PR15	Press Release	POLIMI	Ricerca: al Politecnico di Milano arriva Antarex, il supercalcolo diventa green	http://www.meteoweb.eu/2016/09/ricerca-al-politecnico-di-milano-arriva-antarex-il-supercalcolo-diventa-green/747741/	Sept. 2016	Civil Society	Italy
PR16	Press Release	POLIMI	Supercalcolatori "green": il Politecnico di Milano coordina il progetto europeo ANTAREX	https://www.researchitaly.it/progetti/supercalcolatori-green-il-politecnico-di-milano-coordina-il-progetto-europeo-antarex/	Oct. 2016	Scientific Community	Italy
PR17	Press Release	POLIMI	Antarex Supercalcolo green: progetto europeo coordinato da PolIMI	http://byinnovation.eu/antarex-supercalcolo-green-progetto-europeo-coordinato-da-polimi/	Sept. 2016	Industry	Italy
PR18	Press Release	POLIMI	POLITECNICO, ATENEO COORDINA PROGETTO NUOVE TECNOLOGIE SUPERCALCOLO "GREEN"	Omnimilano	Sept. 2016	Civil Society	Italy
PR19	Newsletter	IT4I	IT4I Newsletter	https://www.it4i.cz/wp-content/uploads/2017/06/Newsletter-2017-Q2-EN.pdf	Q2/2017	Scientific Community	Czech and English
PR20	Newsletter	IT4I	IT4I Newsletter	https://www.it4i.cz/wp-content/uploads/2018/07/Newsletter_Q2_2018_EN.pdf	Q2/2018	Scientific Community	Czech and English
PR21	Press Release	SYGIC	Innovation Radar Prize: Best early stage Innovation	https://ec.europa.eu/futurium/en/innovation-radar-prize/best-early-stage-innovation-2018	Nov. 2018	Scientific Community	Int.
PR22	Press Release	SYGIC	Collaborative Navigation - Innovation from ANTAREX	https://www.alliancy.fr/actualites/intelligence-artificielle/2018/12/10/lalgorithme-de-calcul-ditineraire	Dec. 2018	Civil Society	France

NO.	Type of activities	Main leader	Title	Place	Date/Period	Type of audience	Countries addressed
				collaboratif-de-sygic-une-innovation-europeenne			
PR23	Press Release	SYGIC	Collaborative Navigation - Innovation from ANTAREX	https://computerwelt.at/news/innovation-von-sygic-verkehrskoordinierung-durch-kollaborativen-streckenfuhrungsalgorithmus/	Dec. 2018	Civil Society	Austria
PR24	Press Release	SYGIC	Sygic nominated for the EU Innovation Prize	https://www.mojandroid.sk/sygic-algorytmus-europska-cena-za-najlepsiu-inovaci-u-2018/	Nov. 2018	Civil Society	Slovakia

Table 13: Training and Engagement of MSc and PhD Students

Name	Title	Related ANTAREX WP(s)	Partner	Supervisor (and co-superv.)	MSc		PhDs		Post-Doc	
					Ongoing	Concluded (date of concl.)	Ongoing	Concluded (date of concl.)	Ongoing	Concl.
Jiří Hanzelka	Ing.	WP5	IT4I	Jiří Dvorský (Jan Martinovič)			Start 1 Sept. 2015			
Daniele Cesarini	Ing.	WP3	ETHZ	Luca Benini			Start 1 Nov, 2015			
Vít Ptošek	Ing.	WP5	IT4I	Jan Martinovič (Kateřina Slaninová)			Start 1 Sept. 2016			
Martin Golasowski	Ing.	WP5, WP2, WP3	IT4I	Jiří Dvorský (Jan Martinovič)			Start 1 Sept. 2016			
Radek Tomis	Ing.	WP5	IT4I	Vít Vondrák (Jan Martinovič)			Start 1 Sept. 2016			
Tomáš Martinovič	Ing.	WP5, WP2	IT4I	Marek Lampart			Start 1 Sept. 2016	5 Dec. 2018		
Antonio Libri	Ing.	WP3	ETHZ	Luca Benini			Start 1 Sept. 2016			
Andrea Bartolini	Ing.	WP3	ETHZ	Luca Benini					Start 1 Sept. 2016	
Silvio Valerio de Pasquale	Ing.	WP3	POLIMI	Cristina Silvano		29 Sept. 2016				
Martin Moudrý	Ing.	WP5	IT4I	Jan Martinovič		30 Apr. 2018				
Jan Faltýnek	Ing.	WP5	IT4I	Jan Martinovič		30 May 2018	Start 1 Sept. 2018			
Georg Zitzlsberger	Ing.	WP5	IT4I	Jan Martinovič			Start 1 Sept. 2018			

Name	Title	Related ANTAREX WP(s)	Partner	Supervisor (and co-superv.)	MSc		PhDs		Post-Doc	
					Ongoing	Concluded (date of concl.)	Ongoing	Concluded (date of concl.)	Ongoing	Concl.
Amir H. Ashouri	Ing.	WP2	POLIMI	Gianluca Palermo (Cristina Silvano)				Dec. 2016		
Ioannis Stamelakos	Ing.	WP3	POLIMI	Gianluca Palermo (Cristina Silvano)				Dec. 2016		
Ricardo Nobre	Ing.	WP2, WP3	UPTO	João Cardoso				Dec. 2017		
Monica Cecere	Ing.	WP3	POLIMI	Cristina Silvano		28 Apr. 2017				
Antonio Di Bello	Ing.	WP2	POLIMI	Giovanni Agosta		21 Dec. 2018				
Daniele Cattaneo	Ing.	WP2	POLIMI	Giovanni Agosta		21 Dec. 2018				
Alberto Bendin	Ing.	WP3	POLIMI	Cristina Silvano	x					
Leonardo Arcari	Ing.	WP3	POLIMI	Gianluca Palermo	x					
Emanuele Vitali	Ing.	WP3	POLIMI	Gianluca Palermo			x			
Davide Gadioli	Ing.	WP3	POLIMI	Gianluca Palermo			x			

Table 14: Other Activities

NO.	Type of activities	Main leader	Title	Place	Date/Period	Type of audience	Countries addressed
O1	Other	UPTO	ANTAREX Logo	N/A	2015	Scientific Community and Industry	Int.
O2	Annual Report	CINECA	CINECA HPC report	http://www.hpc.cineca.it/content/cineca-hpc-report-0	2015	Scientific Community	Int.
O3	Presentation	CINECA	ANTAREX Project, CINECA SuperComputing Applications and Innovation Department - SCAI (FETHPC), Giornata Nazionale di Lancio dei Bandi 2016-17 in Horizon 2020	Sapienza Università di Roma - Dip. Di Fisica - Aula Amaldi - Piazzale Aldo Moro 5	Oct. 29, 2015	Scientific Community	Italy
O4	Other	POLIMI-INRIA	Internship	INRIA Rennes	September 26 - October 29, 2016	Scientific Community	France

NO.	Type of activities	Main leader	Title	Place	Date/Period	Type of audience	Countries addressed
O5	Flyers	UPORTO	ANTAREX Infographic	ANTAREX Website	2016	Scientific Community and Industry	Int.
O6	Posters	UPORTO	ANTAREX Diagram	Poster	2016	Scientific Community and Industry	Int.
O7	Flyers	UPORTO	ANTAREX Brochure	Conference	2016	Scientific Community and Industry	Int.
O8	Tool	UPORTO	MANET Online Demo	N/A	2016	Scientific Community	Int.
O9	Articles published in the popular press	UPORTO	Na FEUP, há quem queira acelerar supercomputadores (e medicamentos também)	Exame Informática Online + Press	2016	Civil Society	Portugal
O10	Articles published in the scientific press	UPORTO	FEUP integra projeto europeu de investigação em supercomputação	Revista Engenharia No. 56, Primavera 2016	2016	Scientific Community	Portugal
O11	Blog	SYGIC	http://www.sygic.com/blog/building-new-navigation-system-for-smart-cities	N/A	July 3, 2016	Business	Int.
O12	Contest	UPORTO	1st Programming for Optimization and Performance (POP'16)	UORTO	Oct. 19, 2016	Students and Researchers	National
O13	Web	IT4I	IT4I Projects	http://www.it4i.cz/about-us/projects/?lang=en	-	Scientific Community	Int.
O14	Web	POLIMI	ANTAREX - AutoTuning and Adaptivity appRoach for Energy efficient eXascale HPC systems, POLIMI Research Projects	http://www.deib.polimi.it/eng/research-projects/dettagli/242	-	Scientific Community	Int.
O15	Web	CINECA	AutoTuning and Adaptivity appRoach for Energy efficient eXascale HPC systems - Cineca Project	https://www.cineca.it/en/progetti/antarex	-	Scientific Community	Int.
O16	Interview	POLIMI	Brief interview to Giovanni Agosta (POLIMI) on ANTAREX for the FEATart workshop	http://www.feartart.eu/index.php?id=34	March. 17, 2016	Civil Society	Int.
O17	Yearbook HPC	IT4I	Czech-ing into the world of HPC, Yearbook HPC 2016-2017 of Scientific	http://content.yudu.com/web/tzly/0A41915/HPCYEARBOOK1617/html/index.html	Nov., 2016	Scientific Community, Business	Int.

NO.	Type of activities	Main leader	Title	Place	Date/ Period	Type of audience	Countries addressed
			Computing World, page 12.				
O18	Twitter	IT4I	Link at the article about ANTAREX project in HPCwire	https://twitter.com/IT4Innovations/status/713285802202165248	March 25, 2016	Civil Society	Czech Republic
O19	Twitter	IT4I	antarex_project post with info about presenting ANTAREX poster at PRACEdays 2016 retweeted	https://twitter.com/antarex_project/status/733436082063331328	May 20, 2016	Civil Society	Czech Republic
O20	Twitter	IT4I	ANTAREX project, Info about cooperation with Sygic - Building new navigation system for smart cities	https://twitter.com/IT4Innovations/status/743027195568918529	June 15, 2016	Civil Society	Czech Republic
O21	Facebook	IT4I	Info about ANTAREX project with a link to Sygic article	https://www.facebook.com/IT4Innovations/posts/1150327245009604?_tn=-R	July 15, 2016	Civil Society	Czech Republic
O22	Facebook	IT4I	Presentation of ANTAREX project at SC16 poster session	https://www.facebook.com/IT4Innovations/photos/a.192256387483366/1301824636526530/?type=3&permPage=1	Nov. 16, 2016	Civil Society	Czech Republic
O23	Facebook	IT4I	The ambassador of Switzerland visited IT4I and mention about ANTAREX	https://goo.gl/ByxRrR	March 27, 2017	Civil Society	Czech Republic
O24	Facebook	IT4I	IT4I grant office team and mention about ANTAREX	https://goo.gl/M2d8L4	May 26, 2017	Civil Society	Czech Republic
O25	Facebook	IT4I	Post from ISC17 and presentation of ANTAREX project at HiPEAC booth	https://goo.gl/Svd7nw	June 20, 2017	Civil Society	Czech Republic
O26	Other	POLIMI-INRIA	Internship	INRIA Rennes	March 7 - April 7, 2017	Scientific Community	France
O27	Annual Report	IT4I	IT4Innovaions Annual Report for 2016	https://www.it4i.cz/wp-content/uploads/2017/06/Review-2016_EN_preview.pdf	2017	Scientific Community, Business	Int.
O28	Other	IT4I - UPORTO	Internship	UPTO Porto	Sept. 30 - October 10 2017	Scientific Community	Czech Republic, Portugal

NO.	Type of activities	Main leader	Title	Place	Date/Period	Type of audience	Countries addressed
O29	Annual Report	IT4I	IT4Innovations Annual Report for 2017	https://www.it4i.cz/wp-content/uploads/2018/03/1b_Review-2017_EN_preview.pdf	2018	Scientific Community, Business	Int.
O30	Presentation	INRIA-IRISA	ANTAREX project: Clava/Lara	INRIA-IRISA Rennes	Dec. 12, 2018	engineers and Researchers	National
O31	Web	IT4I	Invitation to PRACE On Demand Event/School ANTAREX: Monitoring, Compilation and Autotuning Approach for Energy-Efficient HPC Systems	https://www.it4i.cz/2018/09/invitation-to-the-15-day-workshop-antarex-monitoring-compilation-and-autotuning-approach-for-energy-efficient-hpc-systems-22-23102018/?lang=en	Sept. 14, 2018	Scientific Community, Civil Society	Int.
O32	Web	IT4I	Invitation to PRACE On Demand Event/School ANTAREX: Monitoring, Compilation and Autotuning Approach for Energy-Efficient HPC Systems	https://www.vsb.cz/info/?&reportId=36243&categoryId=221&lang=en	Sept. 25, 2018	Scientific Community, Civil Society	Int.
O33	Web	IT4I	Online voting for the European Innovation Radar Prize 2018	https://www.it4i.cz/2018/10/online-voting-for-the-european-innovation-radar-prize-2018-by-12th-november/?lang=en	Oct. 31, 2018	Civil Society	Int.
O34	Web	IT4I	Hyperloom and the online navigation system nominated for the Innovation Radar Prize	https://www.vsb.cz/en/news-detail/?reportId=37513&linkBack=%2Fen%2Funiversity%2Fnews%2Fall-news%2Findex.html	Nov. 1, 2018	Civil Society	Int.
O35	Twitter	IT4I	ADAS lab presenting Antarex project at TRA conference in Vienna	https://twitter.com/IT4Innovations/status/986584863485636609	April 18, 2018	Civil Society	Int.
O36	Twitter	IT4I	Invitation to ANTAREX School, retweeted by PRACE and HiPEAC	https://twitter.com/IT4Innovations/status/1042774728996478981	Sept. 20, 2018	Civil Society	Int.

NO.	Type of activities	Main leader	Title	Place	Date/ Period	Type of audience	Countries addressed
O37	Twitter	IT4I	Reminder of ANTAREX School	https://twitter.com/IT4Innovations/status/1049917987887697920	Oct. 10, 2018	Civil Society	Int.
O38	Twitter	IT4I	Innovation Radar Prize 2018, intelligent navigation system	https://twitter.com/IT4Innovations/status/1058347627010494465	Nov. 2, 2018	Civil Society	Int.
O39	Linkedin	IT4I	Invitation to ANTAREX School	https://www.linkedin.com/feed/update/urn:li:activity:6448541520344817664	Sept. 20, 2018	Civil Society	Int.
O40	Linkedin	IT4I	Reminder of ANTAREX School	https://www.linkedin.com/feed/update/urn:li:activity:6455688263662338048	Oct. 10, 2018	Civil Society	Int.
O41	Linkedin	IT4I	Innovation Radar Prize 2018, intelligent navigation system	https://www.linkedin.com/feed/update/urn:li:activity:6464113933157433344	Nov. 2, 2018	Civil Society	Int.
O42	Facebook	IT4I	ANTAREX project presentation at Transport Research Arena conference	https://goo.gl/X3Vmqy	April 18, 2018	Civil Society	Czech Republic
O43	Facebook	IT4I	Post from EMSS2018 and presentation on our cooperation on navigation system development	https://www.facebook.com/IT4Innovations/photos/a.192256387483366/2437721869603462/?type=3&permPage=1	Sept. 19, 2018	Civil Society	Czech Republic
O44	Facebook	IT4I	Innovation Radar Prize 2018	https://www.facebook.com/IT4Innovations/posts/2533076100068038?tn=-R	Oct. 31, 2018	Civil Society	Czech Republic
O45	Other	UPORTO - IT4I	Internship	IT4I Ostrava	October 22-29 2018	Scientific Community	Czech Republic, Portugal
O46	Other	IT4I - POLIMI	Internship	POLIMI Milano	June 1 – Nov. 30 2018	Scientific Community	Czech Republic, Portugal
O47	Competition	SYGIC	Innovation Radar: The intelligent online navigation system for citizens	ICT Vienna	Dec. 4-6, 2018	Business and Academic	EU
O48	Press release	SYGIC	https://www.sygic.com/press/sygics-collaborative-routing-algorithm-has-become-one-of-the-top-european-innovations	NA	Dec. 7, 2018	Civil Society	Int.

3 Software Demonstrators

A set of ANTAREX tools and libraries are available either as open-source or as demos. The following are the most representative ones:

CLAVA is a C/C++ source-to-source compiler based on Clang that supports the LARA DSL.

- <http://specs.fe.up.pt/tools/clava/> (Online Demo)

libVersioningCompiler enables runtime compilation of source code and dynamic loading of a specified C/C++ function. It also provides support for versioning of the compiled functions.

- <https://github.com/skeru/libVersioningCompiler> (Repository)

mARGOt is C++ framework to enable dynamic adaptation of applications, in order to face changes in the execution environment or in the application requirements.

- https://gitlab.com/margot_project/core (Repository)

Examon is a highly scalable framework for performance and energy monitoring of HPC servers.

- <https://github.com/fbeneventi/examon> (Repository)

Power Manager is a power capper that selects the best performance point for each core in order to maintain a power constraint.

- <http://bit.ly/2nRRh75> (Library)

3.1 *Summer/Fall School*

As described in D6.5 [3], we have organized an ANTAREX school as a PRACE on-demand event. The event was 1.5 days long, in October 22-23, 2018, at IT4Innovations, Ostrava, Czech Republic.

3.2 *ANTAREX Online Book*

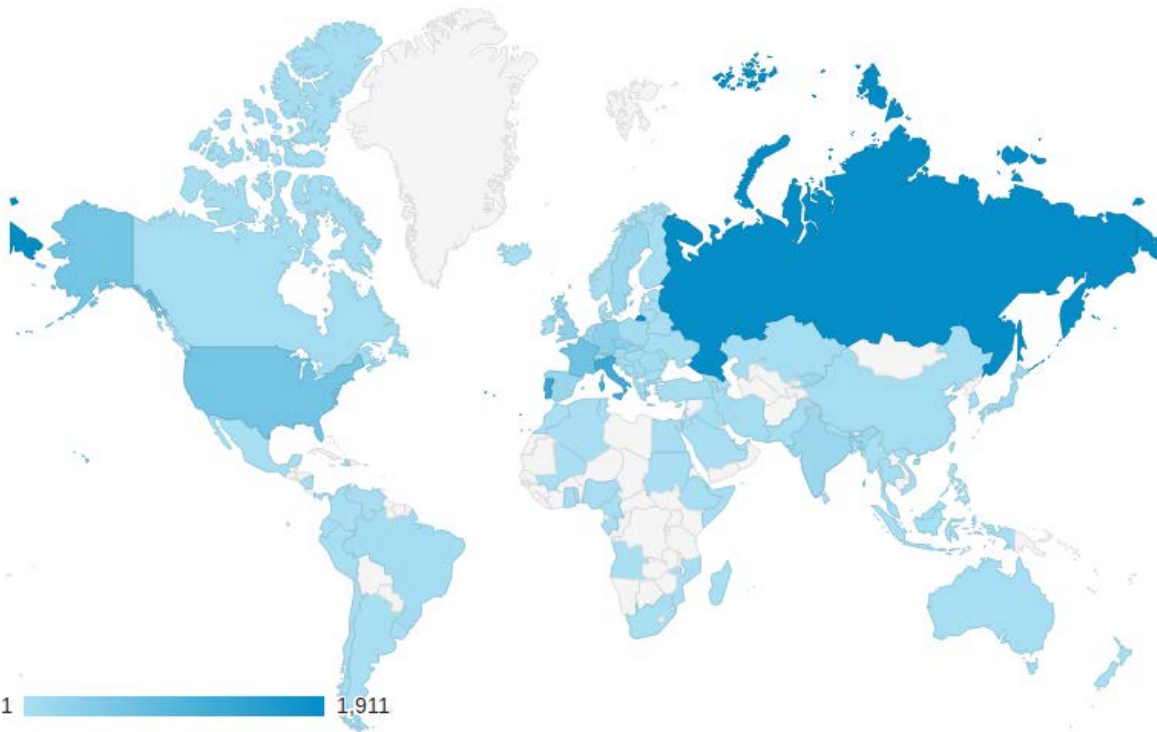
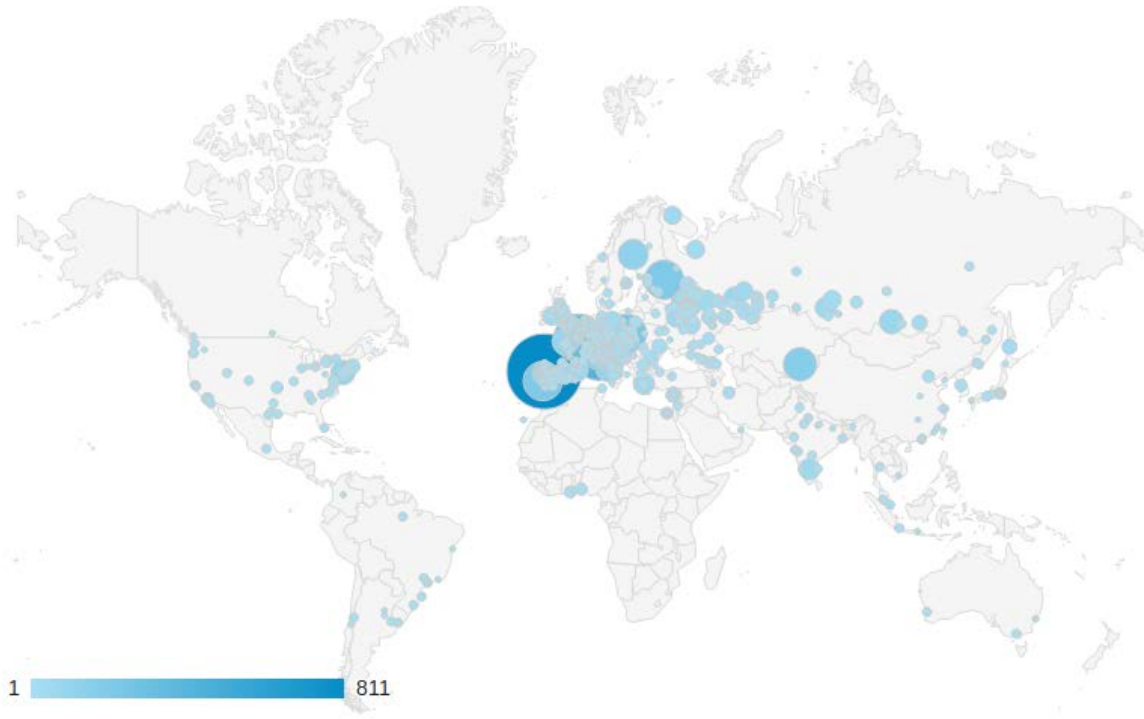
As described in D6.7 [4] an online book has been released. It consists of 10 chapters about main ANTAREX tools and libraries. The book can be accessed at:

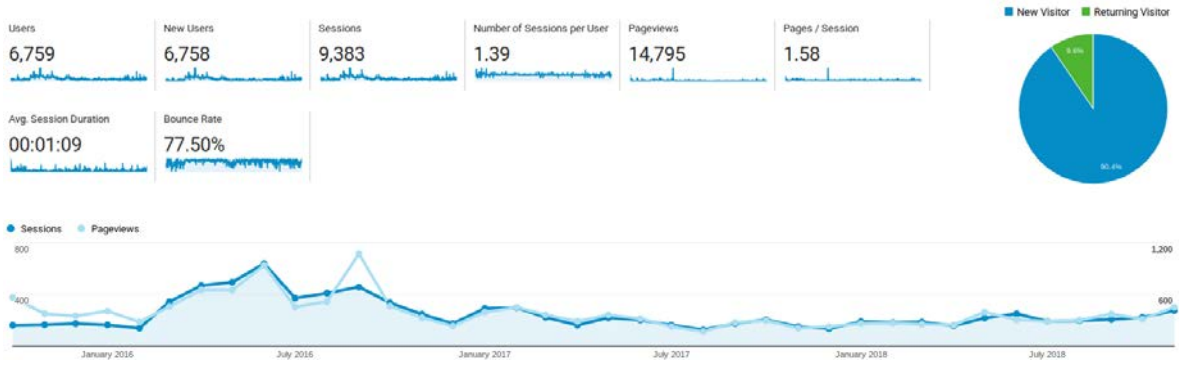
<http://antarex-project.eu/dissemination#book>.

3.3 *Public Website*

The public project website for ANTAREX (<http://www.antarex-project.eu/>) aggregates information about all the work done on the ANTAREX project. It includes activities, news, published work and access to the tools developed during the project.

The following images show the information regarding the ANTAREX website accesses from September 2015 to November, 2018. During this period the website had 9,389 visits (3,661 visits in the last 19 months, i.e., M20-M39, and 9.6% representing IPs revisiting the website). Below are the images showing the accesses to the ANTAREX website by location, by country, and the sessions timeline.





4 Planned Dissemination Activities

In this section we list the planned dissemination activities.

4.1 *Journal Publications*

Three journal papers are being prepared for submission to prestigious international journals and another 7 papers have been submitted to prestigious international journals and are currently in the reviewing process. These journals include IEEE/ACM Transactions and Elsevier Software-X. The ANTAREX webpage with the overall dissemination activities will be updated according to the results of the reviewing processes.

4.2 *Confirmed Organization of Events*

Two of the partners (POLIMI and UPORTO) are involved in the organization of the PARMA-DITAM'2019 workshop (co-located with the HiPEAC Conference).

4.3 *Main Dissemination Events*

Press releases and social networks: in the period until the project review meeting we plan to make efforts regarding press releases, especially for each ANTAREX significant achievement (“success story”).

Dissemination using videos and web-based demonstrators: We plan to prepare 5-minute promotional videos ready for the review meeting. The short videos will show the use of the technology (e.g., LARA and the tool flow). These video will be posted on the ANTAREX web pages.

Contacts to Industry and Other Research Groups: The ANTAREX partners will continue to disseminate the project results through the industrial contacts. We planned a number of visits to companies and research groups in order to increase the visibility of the ANTAREX achievements. We intend to use the privileged contacts the ANTAREX members have in order to make meetings in companies.

4.4 *Tutorials*

We plan to organize tutorials in prestigious events (e.g., ISC High Performance 2019). Although we have material ready for a one or one and a half-day tutorial, we plan to work on additional examples and documentation, especially to include in tutorials the latest achievements and the experiences included in the journal papers under review.

5 Conclusions

During the last reporting period of the ANTAREX project, we enforced the dissemination activities, focusing on several types of activities planned to spread out the final achievements of the project.

The high research content and innovation of the ANTAREX project are reflected by the joint publications that we hope that can achieve a high research impact.

The dissemination efforts tried to address a wider audience at international level, including research communities with interests on the topics addressed by the ANTAREX project.

6 References

- [1] ANTAREX Consortium, “Deliverable D6.2: Dissemination of the Foreground Knowledge: Activities and Plans (Dissemination Plan 1),” ANTAREX, H2020-FETHPC-1-2014 ANTAREX-671623, H2020, June 8th, 2016. <http://www.antarex-project.eu/>
- [2] ANTAREX Consortium, “Deliverable D6.3: Dissemination of the Foreground Knowledge: Activities and Plans (Dissemination Plan 2),” ANTAREX, H2020-FETHPC-1-2014 ANTAREX-671623, H2020, April 5, 2017. <http://www.antarex-project.eu/>
- [3] ANTAREX Consortium, “Deliverable D6.5: Workshops/Tutorials/Schools on Project Achievements,” ANTAREX, H2020-FETHPC-1-2014 ANTAREX-671623, H2020, December, 2018. <http://www.antarex-project.eu/>
- [4] ANTAREX Consortium, “Deliverable D6.7: ANTAREX Online Project Book (Draft),” ANTAREX, H2020-FETHPC-1-2014 ANTAREX-671623, H2020, December, 2018. <http://www.antarex-project.eu/>