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# CARLA 2017

*High Performance Computing Conference Latin America*

*Buenos Aires (Argentina) – Colonia del Sacramento (Uruguay)*

*20 – 22 September, 2017*

## *Schedule and agenda*

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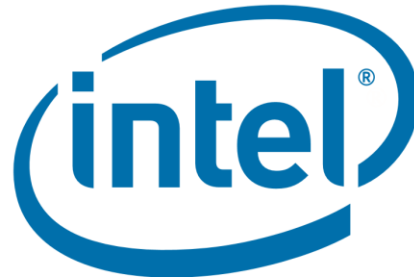


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*CARLA 2017 - Latin America High Performance Computing Conference  
Buenos Aires (Argentina) – Colonia del Sacramento (Uruguay)*

*Schedule*

	Wednesday, September 20	Thursday, September 21	Friday, September 22
08:00	Registration	Trip to Colonia	
09:00	Opening session		Parallel and Distributed Algorithms
10:00	Keynote talk: Andrei Tchernykh	Students session	HPC projects and solutions in Latin America
10:40	Coffee	Ongoing work	
11:00	Keynote talk: Nicolás Erdödy	National Supercomputing Center (Uruguay) Presentation	Parallel and Distributed Algorithms
11:40	HPC Infrastructures and Datacenters		Keynote talk: Mateo Valero
12:40	HPC Industry and Education	Keynote talk: Pascal Bouvry	
13:00	Lunch	Lunch and city tour	Lunch
14:30	Technical session: IBM	HPC Applications and tools Featured talk: Santiago Iturriaga	Grid, cloud and federations
15:15	Technical session: ATOS		
16:00	Coffee	Featured talk: Cooperation with Max Plank Society	Closing session
16:15	Technical session: SIASA/Intel		
17:00	Technical session: DINATECH	Keynote talk: Panagiotis Tsarchopoulos	
17:45	GPU, multicores, accelerators	Keynote talk: Angelo Steffanel	
		Big Data and Data Management	
20:00		Return to Buenos Aires	
21:30		Conference Dinner	



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**Agenda**

<b>Wednesday, September 20</b>	
8:00	Registration
9:20	Opening session
10:00	Keynote talk: Towards understanding uncertainty in cloud computing Andrei Tchernykh, Scientific Center for Research and High Education (CICESE), Ensenada (Baja California), Mexico
10:40	Coffee
11:00	Keynote talk: SKA: The ultimate big data project Nicolás Erdödy, Open Parallel Ltd, New Zealand
11:40 – 12:40	Session “HPC infrastructures and datacenters”
11:40	Daniel Nemirovsky, Tugberk Arkose, Nikola Markovic, Mario Nemirovsky, Osmán Unsal, Adrián Cristal, Mateo Valero A deep learning mapper (DLM) for scheduling on heterogeneous systems
12:00	Jonathan Muraña, Sergio Nesmachnow, Santiago Iturriaga, Andrei Tchernykh Power consumption Analysis for energy characterization of scientific workloads in multicores
12:20	David Vinazza, Alejandro Otero, Alejandro Soba, Esteban Mocskos Initial experiences from TUPAC supercomputer
12:40 – 13:00	Session “HPC Industry and Education”
12:40	Arnaud Renard, Jean-Matthieu Etancelin, Michael Krajecki romeoLAB: A high performance training platform for HPC, GPU and deep learning
13:00	Lunch
14:30	Technical session – IBM, Mariano Batista
15:15	Technical session – ATOS, Leonardo Fialho
16:00	Coffee
16:15	Technical session – SIASA/Intel, Luis Toscano/Sergio Vera
17:00	Technical session – DINATECH/HPE, Mariano Figallo



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17:45 – 18:45	<i>Session “GPU, multicores, accelerators”</i>
17:45	<i>José Aliaga, Ernesto Dufrechou, Pablo Ezzatti, Enrique Quintana-Ortí Evaluating the NVIDIA Tegra processor as a low-power alternative for sparse GPU computations</i>
18:05	<i>Pablo Carvalho, Lucia Drummond, Cristiana Bentes, Esteban Clua, Edson Cataldo, Leandro Marzulo Analysis and characterization of GPU benchmarks for kernel concurrency efficiency</i>
18:25	<i>Víctor Martínez, Matheus Serpa, Fabrice Dupros, Edson Luiz Padoin, Philippe Navaux Performance prediction of acoustic wave numerical kernel on Intel Xeon Phi processor</i>
18:45	<i>Habib Daneshpajouh, Pierre Delisle, Jean-Charles Boisson, Michael Krajecki, Nordin Zakaria Parallel batch self-organizing map on graphics processing unit using CUDA</i>

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## Thursday, September 21

6:45	<i>Trip to Colonia</i> <i>Meeting point: Colonia Express, Av. Elvira Rawson de Dellepiane 155</i> <i>Puerto Madero Sur, Buenos Aires</i>
10:00 – 11:00	<i>Students session</i>
10:00	<i>Leonardo Piñeyro, Sergio Nesmachnow</i> <i>Parallel processing of intra-cranial electroencephalogram readings on distributed memory systems</i>
10:20	<i>Germán Schnyder, Sergio Nesmachnow, Gonzalo Tancredi</i> <i>Distributed cosmic ray detection using cloud computing</i>
10:40	<i>Ezequiel Malamud</i> <i>[On-going work] Towards efficient Lattice-Boltzmann method implementation on single-box computers</i>
11:00 -12:00	<i>National Supercomputing Center Presentation</i> <i>Round table</i>
12:20	<i>Keynote talk: High Performance Computing as a Service</i> <i>Pascal Bouvry, University of Luxembourg (Luxembourg)</i>
13:00	<i>Lunch and city tour</i>
15:00	<i>Featured talk: Energy aware scheduling in distributed computing systems.</i> <i>Santiago Iturriaga, Universidad de la República, Uruguay</i>
15:00 -16:20	<i>Session “HPC Applications and tools”</i>
15:00	<i>Alejandro Soba</i> <i>PRIMULA: A framework based on finite elements to address multi scale and multi physics problems</i>
15:20	<i>Manuel Rodríguez-Pascual, José A. Moríñigo, Rafael Mayo-Garcia</i> <i>Benchmarking performance: influence of task location on cluster throughput</i>
15:40	<i>Maximiliano Geier, Esteban Mocskos</i> <i>SherlockFog: finding opportunities for MPI applications in fog and edge computing</i>
16:00	<i>Cristian Galleguillos, Zeynep Kiziltan, Alessio Netti</i> <i>AccaSim: an HPC simulator for workload management</i>
16:20 – 16:45	<i>Featured talk: Cooperation with Max Plank Society - Andreas Trepte</i>
16:45	<i>Keynote talk: High Performance Computing Research in Europe</i> <i>Panagiotis Tsarchopoulos, Competitive Electronics Industry, European Commission (Belgium)</i>



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17:15	<i>Keynote talk: Harvesting the mist: expanding HPC with the help of surrounding resources</i> <i>Luiz Angelo Steffanel, Université de Reims Champagne-Ardenne (France)</i>
17:50 – 18:30	<i>Session “Big data and data management”</i>
17:50	<i>Otávio Carvalho, Manuel Garcia, Eduardo Roloff, Emmanuell Carreño, Philippe Navaux</i> <i>IoT workload distribution impact between edge and cloud computing in a smart grid application</i>
18:10	<i>Andrea Sánchez-Tapia, Marinez de Siqueira, Rafael Lima, Felipe Barros, Guilherme Gall, Luiz Gadelha, Luís Alexandre da Silva, Carla Osthoff</i> <i>Model-R: A framework for scalable and reproducible ecological niche modeling</i>
20:00	<i>Return to Buenos Aires</i>
21:30	<i>Conference dinner</i>

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## Friday, September 22

9:00 – 11:20	<i>Session “Parallel and Distributed Algorithms”</i>
9:00	<i>Alejandro Corbellini, Alejandro Zunino, Cristian Mateos Diaz, Silvia Schiaffino, Daniela Godoy Task scheduling for processing big graphs in heterogeneous commodity clusters</i>
9:20	<i>Esteban Meneses Exploring application-level message-logging in scalable HPC programs</i>
9:40	<i>Lucia Damiani, Ariel I. Diaz, Javier Iparraguirre, Anibal Blanco Accelerated numerical optimization with explicit consideration of model constrains</i>
10:00 – 11:40	<i>HPC projects in Latin America Round table: Andrés Marconne (SIASA), Luis Casuscelli (ATOS), Mariano Batista (IBM), Alexis Cerato (DINATECH), Pablo Loyber (SMN), Ana María llois, Mario Storti, Carlos Jaime Barrios, Esteban Mocskos, Sergio Nesmachnow</i>
11:40 - 12:40	<i>Parallel and Distributed Algorithms</i>
11:40	<i>Renzo Massobrio, Sergio Nesmachnow, Bernabé Dorronsoro Support vector machine acceleration for Intel Xeon Phi manycore processors</i>
12:00	<i>Diego Carrasco, Pablo Cappagli, Flavio Colavecchia A fast GPU dose calculation algorithm based on convolution/superposition for radiotherapy</i>
12:20	<i>Nestor Rocchetti, Daniel Frascarelli, Sergio Nesmachnow, Gonzalo Tancredi Performance improvements of a parallel multithreading self-gravity algorithm</i>
12:40	<i>Keynote talk: From classical to runtime aware architectures Mateo Valero, Barcelona Supercomputing Center (Spain)</i>
13:20	<i>Lunch</i>
15:00 – 16:40	<i>Session “Grid, cloud and federations”</i>
15:00	<i>Leonardo Jesus, Lucia Drummond, Daniel Oliveira Eeny Meeny Miny Moe: choosing the fault tolerance technique for my cloud workflow</i>
15:20	<i>Vanessa Miranda, Andrei Tchernykh, Jorge M. Cortés-Mendoza, Mikhail Babenko, Gleb Radchenko, Sergio Nesmachnow, Zihui Du Experimental analysis of secret sharing schemes for cloud storage based on RNS</i>
15:40	<i>Fermin Armenta, Luis-Angel Galaviz-Alejos, Andrei Tchernykh, Gleb Radchenko, Alexander Drozdov, Oleg Sergiyenko, Ramin Yahyapour Bi-objective heterogeneous consolidation in cloud computing</i>
16:00	<i>Jaime Chavarriaga, César Forero-González, Jesse Padilla-Agudelo, Andrés Muñoz, Rodolfo Cáliz-Ospino, Harold Castro Scaling the deployment of virtual machines in UnaCloud</i>





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16:20	<i>Yisel Garí, David Monge, Cristian Mateos Diaz, Carlos García Garino Markov decision process to dynamically adapt spots instances ratio on the autoscaling of scientific workflows in the cloud</i>
16:40	<i>Closing session</i>

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