

CARLA|2021

LATIN AMERICA HIGH PERFORMANCE COMPUTING CONFERENCE

HOSTED BY



UNIVERSIDAD DE
GUADALAJARA



Support by



CARLA es la conferencia internacional de computación de alto rendimiento (HPC) en América Latina para fomentar el crecimiento, el intercambio de ideas y técnicas de investigación en áreas de supercómputo e inteligencia artificial.

CARLA is an international conference aimed to provide a forum to foster the growth and increase the strength of the High Performance Computing (HPC) community in Latin America through the exchange and dissemination of new ideas, techniques, and research in HPC and its applications areas. Started in 2014.

CARLA has become the flagship conference for HPC in the region. We invite the international community to share their advances on both HPC and HPC&AI (convergence between HPC and Artificial Intelligence) as those key areas are becoming the predominant engine for innovation and development.

In 2021, the Latin America High Performance Computing Conference (CARLA 2021) will be held in GUADALAJARA from October 6 -8 2021. We expect contributions from faculty members, researchers, specialists and graduate students around the world.

PARTICIPATING COUNTRIES



Argentina



Brazil



Chile



Uruguay



Colombia



Costa Rica



Ecuador



España



Mexico



Venezuela



UNIVERSIDAD DE
GUADALAJARA



PREVIOUS EDITIONS

The event has been held for 7 consecutive years in the following countries:



CARLA 2020
Cuenca, Ecuador



CARLA 2019
Turrialba, Costa Rica



CARLA 2018
Colombia



CARLA 2017
Argentina - Uruguay



CARLA 2016
Mexico City, Mexico



CARLA 2015
Petrópolis, Brazil



CARLA 2014
Valparaíso, Chile

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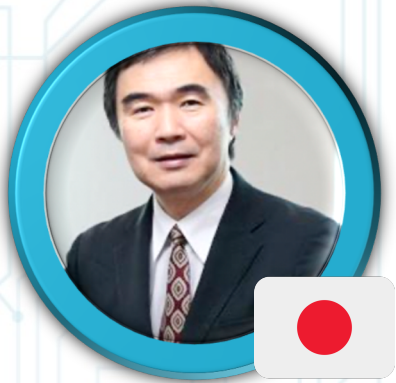
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LATIN AMERICA HIGH PERFORMANCE COMPUTING CONFERENCE

BOARD COMMITTEE



Keynote speakers



Satoshi Matsuoka

Satoshi Matsuoka had been a Full Professor at the Global Scientific Information and Computing Center (GSIC), the Tokyo Institute of Technology since 2001, and the director of the joint AIST-Tokyo Tech



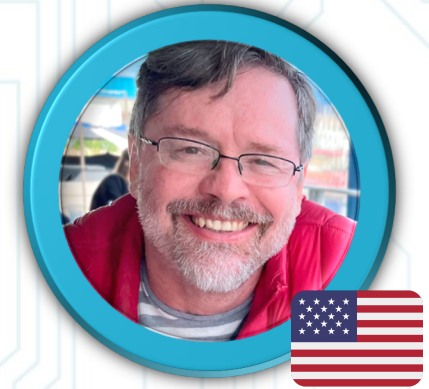
Katherine Yelick

Katherine Yelick is the Robert S. Pepper Distinguished Professor of Electrical Engineering and Computer Sciences and the Associate Dean for Research in the Division of Computing, Data Science and Society (CDSS) at the University of California, Berkeley



Walfredo Cirne

Dr. Walfredo Cirne has worked on the many aspects of parallel scheduling and cluster management for the past 25 years. He is currently with the Technical Infrastructure Group at Google in Mountain View, California



Frank Würthwein

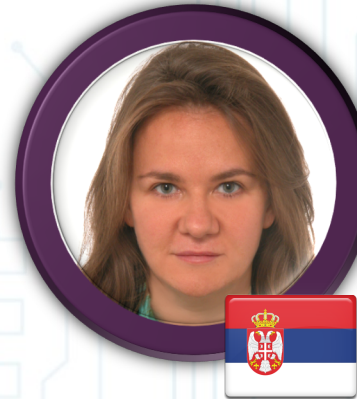
Prof. Wuerthwein has dHTC group at the San Diego Supercomputer Center operates global workflow and data infrastructures for open science from individual researchers to global collaborations like CMS, LIGO, and IceCube

Invited speakers



Jose E. Moreira
[HPC](#)

José E. Moreira is a Distinguished Research Staff Member in the Scalable Systems Department at the Thomas J. Watson Research Center



Natasa Przulj
[HPC & AI](#)

Professor Natasa Przulj is an ICREA Research Professor and a Group Leader at Barcelona Supercomputing Center. She is a leader in network science and AI algorithms for biomedical data fusion applied to precision medicine.



Lucia Drummond
[HPC](#)

Drummond has been working in the field of parallel and distributed computing for many years. More recently, she has been investigating issues related to the modeling and design of task scheduling and resource dimensioning strategies in computational clouds



Nayat Sánchez-Pi
[HPC & AI](#)

She is a senior scientist at Inria and currently is the Director of the Inria Research Center in Chile. In 2018, she was also appointed CEO of the Inria Chile Foundation, and, since then, she leads the CIRIC Center of Excellence

Workshops Invited Speakers



José María Cela
HPC and Energy

Director of the Department of Computer Applications in Science and Engineering at the Barcelona Supercomputing Center (BSC)



Salvador Elías Venegas Andraca
Advanced Computing Trends

Professor of Computer Science and head of the Quantum Information Processing group at TEC de Monterrey and the founding director of The Unconventional Computing Lab



Luis Eliécer Cadenas
HPC Collaboration between Europe and LA

Executive Director - RedCLARA and specialist in academic networks and the Latin American ICT scene



Latin American Women on HPC



Judith Percino Zacarías

Autonomous University of Puebla, creating the Group of Polymers. creation of the National Laboratory of Southeast Mexico Supercomputer (LNS-BUAP)



Raquel Torres Peralta

Professor-Researcher in the Department of Industrial Engineering and Coordinator of the Information Systems Engineering career at the University of Sonora



Karen Salomé Caballero Mora

Worked on the MATHUSLA (CERN) proposal, and on the LAGO and Escaramujo experiments.



Marcela Mercado Reyes
BioCARLA

Works as the Public Health Research Director at the Colombian National Institute of Health



Eliu Huerta
Americas HPC Collaboration

Director of the Center for Artificial Intelligence Innovation at the National Center for Supercomputing Applications at the University of Illinois at Urbana-Champaign



Antonio Russo
Good practices in HPC

He worked for the academia for CONICET in Argentina, and he is currently HPC Systems Specialist Ecole polytechnique fédérale de Lausanne (EPFL).

Paneles

PANEL 1: Cooperación con África en HPC e Inteligencia Artificial

Jueves 7 de octubre, 8:00 am

Nombre	Estatus	Puesto
Happy Sithole	Aceptado	Gerente del National Integrated Cyber-Infrastructure System. (NICIS) (https://nicis.ac.za/)
Philippe Navaux	Aceptado	Presidente de SCALAC (https://scalac.redclara.net)
Luis E. Cadenas	Aceptado	Director Ejecutivo de RedCLARA (https://redclara.net)
Matthew Mtumbuka	Aceptado	Director Ejecutivo de Ubuntunet Alliance (https://ubuntunet.net)
Moderador		
Bianca Amaro	Aceptado	LA Referencia

Coordinadores del Panel:

- Luis Eliecer



Luis E. Cadenas



Philippe Navaux



Bianca Amaro



Happy Sithole



Matthew Mtumbuka



Paneles

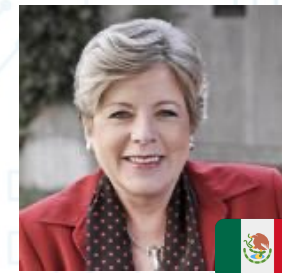
PANEL 2: Políticas Públicas en infraestructuras de Red y Servicios de Cómputo Avanzado

Viernes 8 de octubre, 8:00 am

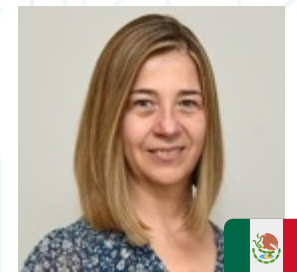
Nombre	Estatus	Rol
Antonio García Ceballos	Pendiente	Infraestructura, BID
Jean-Eric Paquet	Confirmado	Director General de Investigación e Innovación, UE
Alicia Bárcenas	Pendiente	Secretaria Ejecutiva, CEPAL
Aideé Orozco	Pendiente	Directora Adjunta de Desarrollo Tecnológico, Vinculación e Innovación CONACYT
Adolfo Cuevas	Pendiente	Presidente IFT
Moderador		
Salma Jalife	Aceptado	MODERADOR Experto tema



Jean-Eric Paquet



Alicia Bárcenas



Salma Jalife



Aidee Orozo



Adolfo Cuevas

Coordinadores del Panel:
- Luis Eliecer y Salma Jalife

Workshops

Octubre 4 y 5

MON 04/10	TUE 05/10
08:00 - 11:00 h. Workshop Latin American Women on HPC. View details ▶	08:00 - 11:00 h. Workshop HPC Collaboration between Europe and Latin America View details ▶
11:00 - 14:00 h. Energy Workshop View details ▶	11:00 - 14:00 h. BioCARLA View details ▶
15:00 - 18:00 h. Advanced Computing Trends Workshop View details ▶	13:00 - 16:00 h. Workshop Americas HPC Collaboration View details ▶
	15:00 - 18:00 h. Workshop Good practices in HPC Management View details ▶

56 horas de contenido

- 4 conferencias magistrales
- 4 conferencias de invitados
- 6 pláticas de IES e industria
- 14 trabajos de investigación
- 2 paneles de debate
- 1 presentacion de posters

Conferences

Octubre 6 al 8

Participacion de la UDG en el programa

WED 06/10	THU 07/10	FRI 08/10
08:00 h Connection tests	08:00 h Panel "Africa - Latin American HPC and AI Cooperation"	08:00 h Panel "Public Policies and Regulation on Network infrastructures and HPC-AI Services"
09:00 h Opening		
09:30 h Keynote Satoshi Matsuoka	09:30 h Keynote Katherine Yelick	09:30 h Keynote Frank Würthwein
10:30 h Invited Speaker HPC José Moreira	10:30 h Keynote Walfredo Cirne	10:30 h Invited Speaker HPC Lucia Drummond
11:30 h TRACK HPC 1-5	11:30 h TRACK HPC & AI 1-5	11:30 h TRACK HPC 6-7 TRACK HPC & AI 6-7
13:00 h Universidad de Guadalajara Presentation	13:00 h CNS - IPICYT Presentation	13:00 h CUDI Presentation
13:30 h Time Break	13:30 h Time Break	13:30 h Time Break
14:30 h Invited Speaker HPC & AI Natasza Przulj	14:30 h Sponsor talk	14:30 h Invited Speaker HPC & AI Nayat Sanchez
15:30 h Sponsor Talk	15:30 h Sponsor Talk	15:30 h Sponsor Talk
16:30 h Special Event	16:30 h Posters HPC Posters HPC & AI	16:30 h Closing

Tutoriales

Septiembre 27,28 y 30 y Octubre 11 al 15

MON 27/09	TUE 28/09	THU 30/09		
08:00 h Working with a Resource Manager on a HPC Structure 08:00 - 12:00 MODULE I 12:00 - 13:00 Break 13:00 - 17:00 MODULE II View details ▶	08:00 h OpenMP: Basic Programming 08:00 - 12:00 MODULE I 12:00 - 13:00 Break View details ▶	08:00 h Introduction to Cluster Configuration and Management 08:00 - 12:00 MODULE I 12:00 - 13:00 Break 13:00 - 17:00 MODULE II View details ▶		
	13:00 h Introduction to MPI 13:00 - 17:00 MODULE I View details ▶			
MON 11/10	TUE 12/10	WED 13/10	THU 14/10	FRI 15/10
08:00 h Performance Analysis Tools 08:00 - 12:00 MODULE I 12:00 - 13:00 Break 13:00 - 17:00 MODULE II View details ▶	08:00 h Performance Analysis Tools 08:00 - 12:00 MODULE III View details ▶	08:00 h Introduction to SYCL 08:00 - 12:00 MODULE I View details ▶	08:00 h Biological AI 08:00 - 12:00 MODULE I 12:00 - 13:00 Break 13:00 - 17:00 MODULE II View details ▶	08:00 h Quantum Computing 08:00 - 12:00 MODULE I 12:00 - 13:00 Break 13:00 - 17:00 MODULE II View details ▶