Supercomputing and Distributed Systems Camping School 2022

Sharing High Performance Knowledge since 2010

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General Co-Chair

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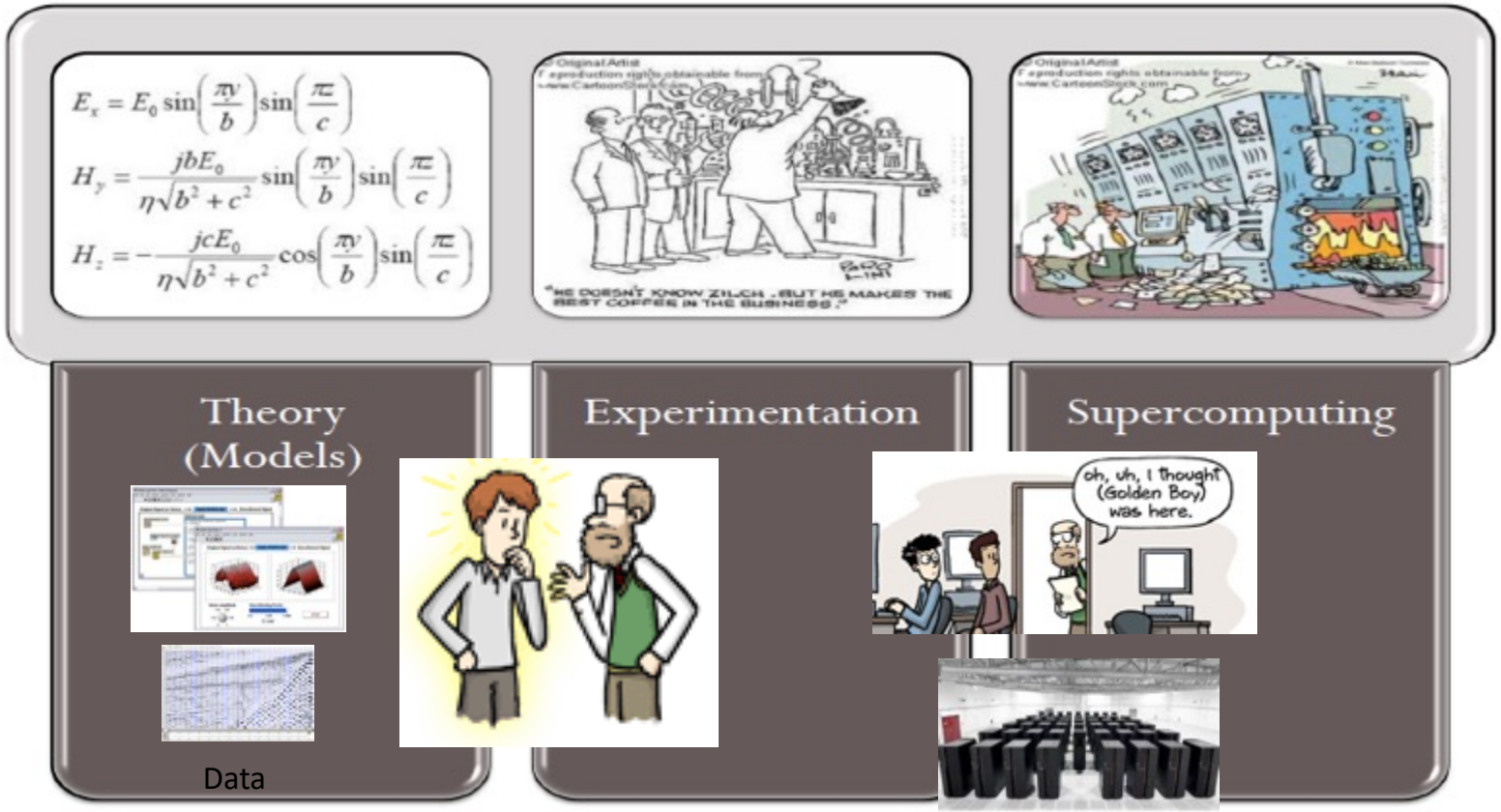
@SuperCCamp

Bucaramanga, Colombia November 2022

#SCCAMPH

Science and Advanced Technology for All



Decision Takers

Citizens, All

Experts- Scientists (Biologists, Architects, Pysiciens)

Experts Scientists – Computer and Informatics Informatic, Math Applied

Technology - Infrastructure

SC-CAMP Spirit

SC-Camp is a **summer school** and **non-profit event** about **Super Computing and Distributed Systems**. It proposes a series of courses around the thematic of High Performance Computing (HPC) with an important focus on **practical sessions**.

SC-Camp exploit HPC infrastructures from **anywhere**, even located in the middle of the **nature**.

SC-Camp is an initiative of **researchers** from **different countries** inspired by share the **HPC knowledge** as an itinerant event to a different place every year.

HPC Outreach since 2010…








- 2010- Catay (Piedecuesta), Colombia
- 2011- Universidad de Costa Rica, Turrialba, Costa Rica
- 2012- Universidad de los Andes, Vegasol (Mérida), Venezuela
- 2013- Instituto Tecnológico de Colima , Colima, México
- 2014- Centro Colombiano de Biologia Computacional y Bioinformatica (BIOS), Manizales, Colombia
- 2015- Centro de Investigación Avanzada, Abacus-CINVESTAV, Toluca (Edo. De México), México
- 2016- Centro de Investigacion e Innovación en Bioinformatica y Fotonica, Universidad del Valle, Cali, Colombia
- 2017- Escuela Superior de Ingenieria, Cadiz, Spain
- 2018- Đại học Công nghệ Thông tin Hữu nghị Việt Nam - Hàn Quốc
- 2019- Madrid, Spain – CIEMAT
- 2020- SCCAMPV (RedCLARA)
- 2021- SCCAMPV2 (RENATA, Colombia)
- **2022- SCCAMPH (SC3UIS, Colombia and CADS, México)**
- 2023 – Universidad de Cartagena, Colombia (May)
- *2024 – (5 Candidates: Senegal, Vietnam, Camerun, Luxembourg and France)!*

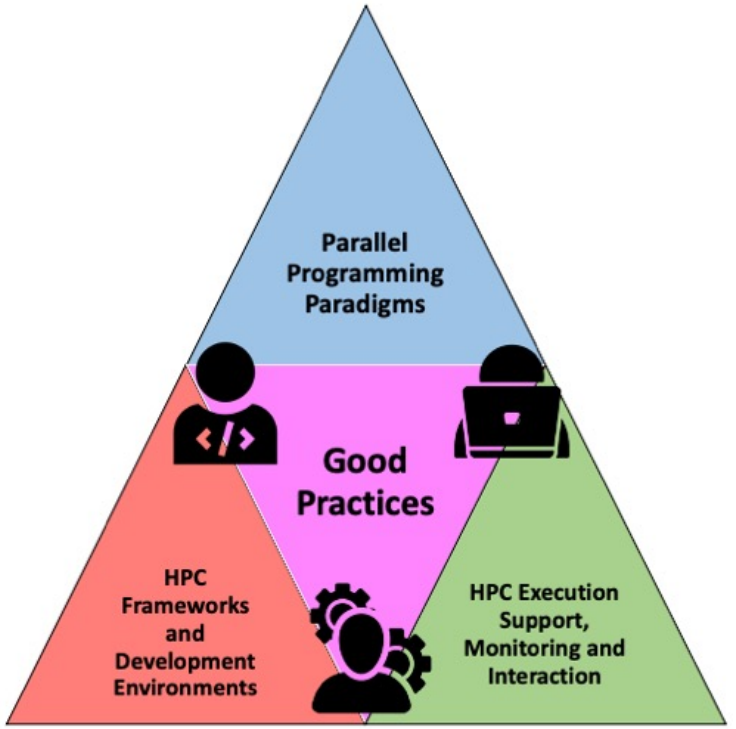
Some Numbers

- More than 500 students in 10 years participated at #SCCAMP
- Participants from 23 Countries (Alger, Colombia, Cuba, Panama, China, EAU, India, Venezuela, Japan, France, Germany, México, Costa Rica, Niger, Guatemala, Nicaragua, Spain, Belgium, USA, Switzerland, Italy and Vietnam)
- 6 Countries hosted #SCCAMP (Colombia, México, Venezuela, Costa Rica, Spain and Vietnam)
- 2 Education Networks Involved: RedCLARA and RENATA
- 3 Continents at world (America, Europe, and Asia)
- Inclusivity (25% of participants are women)
- 35 Instructors from 9 Countries among 8 versions (France, Brazil, Colombia, Chile, México, Luxembourg, Germany, Czech Republic, Spain, USA, Costa Rica, Greece, Serbia, Venezuela and Italy)
- International Governments and non-centralized institutions support SCCAMP
- Private Industry is involved in the support.
- Local Institution Hosting of each SCCAMP are strong partnership with us!
- **All instructors and speakers are volunteers!**

H - camp

#SCCAMPH Special Topics

- Good Practices in HPC Ecosystems Interaction
  - Including Parallel Programming, Scheduling, Debuggin and advanced topics in simulation
- New Trends in High Performance Computing
- Quantum Computing
- Big Data
- Edge and Fog Computing



H - camp

#SCCAMPH Agenda

First Part from Colombia - Mandatory Sessions
15-20 Attendees in Person
(No Limit for on-line attendees)

Time	Tuesday 24	Friday 25	Saturday 26
9:00 -9:15	Introduction to SCAMP H (In English and Spanish)	Good Practices for Parallel Computing Algorithms Design (In English and Spanish) Carlos J. Barrios	Good Practices for Parallel Computing Coding in OpenMP and MPI (In English and Spanish) Robinson Rivas
9:15-11:00	HPC Ecosystems Interaction (In English and Spanish) - Cesar Bernal and L. A Torres		

First Part from México -Mandatory Sessions
15-25 Attendees in Person
(No Limit for on-line attendees)

Time	Tuesday 8	Friday 9	Saturday 10
9:00 -9:15	Introduction to SCAMP H - Second Part (In English and Spanish) Carlos J. Barrios Hernandez	High-Performance Computing for the simulation of particles with the Discrete Element Method (In English) Xavier Besseron	Introduction to Collaborative Work and HPC Ecosystems (In English and Spanish) Robinson Rivas and Carlos J. Barrios Hernandez
9:15 - 11:00	Introduction to Quantum Computing Simulations (In English and Spanish) Gilberto Diaz and Carlos J. Barrios Hernandez		

Special Talks:

New PU's in Advanced Computing by Carlos Barrios

Edge-Cloud Continuum by Yiannis Georgieu

Big Data - HPC with Ryax platform by Pedro Velho

#SCCAMPH Special Acknowledgments

H - camp

Red CLARA

SCALAC

Universidad Central Caracas - Venezuela

Universidad de Guadalajara

UNIVERSITÉ DU LUXEMBOURG

Universidad Industrial de Santander

CONSTRUIMOS FUTURO

CYBELE

CATAI Collaboration France-Colombia

ryax technologies

CENTRO DE ANÁLISIS DE DATOS Y SUPERCÓMPUTO CADS

Super Computacion y Calculo Cientifico UIS

Thanks!

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Share your experiences using the Hashtag: #SCCAMPH

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