Collaborative Workshop UAG-UdeG, Mexico and BSC

Objectives

Universidad Autónoma de Guadalajara (UAG) and Universidad de Guadalajara (UdeG) are two well-known Mexican universities located in Guadalajara, 3rd most important city in the country and Mexican Silicon Valley (e.g., tech companies like Oracle, Intel, IBM and Motorola operate there). UAG and UdeG computer science programs are recognized by the Mexican Council of Science and Technology (CONACyT) as “international quality programs” and most of their students benefit from CONACyT financial support for conducting their studies and realizing up to 6 months internships abroad. Looking to consolidate their educational offer, we will receive the visit of a group of professors and students from both institutions, from 12-14th July, interested in discovering BSC-UPC research lines for establishing new academic and research collaborations.

This event is organised under the Severo Ochoa Program of Excellence in BSC and the attendance is by invitation only.

Academic Staff

Pablo Noriega B.V. (pablo@iiia.csic.es)

Tenured Scientist, IIIA-CSIC (Artificial Intelligence Research Center)

https://www.iiia.csic.es/staff/pablo-noriega

Research Interests:

- Open Regulated Multiagent Systems
- Agreement Technologies
- Social Intelligence

Guillaume Houzeaux (guillaume.houzeaux@bsc.es)

Physical and Numerical Modelling Group Manager
Research Interests:

- Respiratory system
- Multiphysics
- Computational fluid mechanics - Incompressible flows
- Alya - High Performance Computational Mechanics

Antonio J. Peña (antonio.pena@bsc.es)

NVIDIA GPU Center of Excellence Manager

Neural networks for data-streams
Memory hierarchy for GPU acceleration
Preemptive multiprogramming on GPUs
Data Placement for Heterogeneous Memory Systems
Message Passing Interface (MPI)

Vassil Alexandrov (vassil.alexandrov@bsc.es)

Extreme Computing Group Manager

Extremescale algorithms/scalable algorithms
Extremescale visualization and simulation
Extremescale mathematics

Judit Gimenez (judit@bsc.es)

Performance Tools Group Manager

Performance Analytics
Data Placement for Heterogeneous Memory Systems

Vicenç Beltran Querol (vbeltran@bsc.es)

Researchers, Programming Models Group

Parallel Programming Models
The OmpSs Programming Model
- Domain Specific Languages

**Mauricio Hanzich** ([mauricio.hanzich@bsc.es](mailto:mauricio.hanzich@bsc.es))

*HPC Software Engineering Group Manager*


Research Interests:

- HPC Geophysical Applications
- BSIT: Barcelona Subsurface Imaging Tools
- Electromagnetic Modeling and Inversion
- Atmospheric Impact Services
- Natural Language Processing

**Maria Jose Rementeria Nuñez** ([maria.rementeria@bsc.es](mailto:maria.rementeria@bsc.es))

*Life Science Group, Social Link Analytics Team Leader*

Research Interests:

- Machine learning and deep learning techniques applied to industrial and scientific problems
- Big data visualization and analytics

**Miquel Moreto** ([miquel.moreto@bsc.es](mailto:miquel.moreto@bsc.es))

*Researcher, Computer Architecture Group*

Research Interests:

- Runtime aware architectures
- Parallel programming models
- Critical real-time embedded system
- Power and temperature-aware OS

**Adrián Cristal** ([adrian.cristal@bsc.es](mailto:adrian.cristal@bsc.es))

*Computer Architecture for Parallel Paradigms Group Manager*


Research Interests:

- Hardware Support for Big Data
- Resilient architecture and runtimes
- Improving Virtual Memory

**Osman Unsal** ([osman.unsal@bsc.es](mailto:osman.unsal@bsc.es))

*Computer architecture for parallel paradigms group manager*

Research Interests:

- Hardware Support for Big Data
- Resilient architecture and runtimes, fault tolerance
- Transactional memory
- FPGAs

Petar Radojkovic (petar.radojkovic@bsc.es)

Memory systems team leader, Heterogeneous architectures Group

http://www.petarradojkovic.com/

Research Interests:

- Memory systems for HPC
- Detection and analysis of DRAM field errors
- Analysis of memory system requirements of HPC applications
- Simulation and evaluation of novel memory systems

Isaac Rudomin (isaac.rudomin@bsc.es)

Crowd simulation team leader, Extreme Computing Group

https://sites.google.com/site/rudominisaac/

Research Interests:

- Computer Graphics
- Crowd Simulation, Generation, Animation, Visualization