

Workshop: Introduction to parallel computing I

Wednesday, 25 November 2020 13:20 (0:20)

Content

We review the basic concepts of parallel computing with examples from high energy physics and cosmic rays. We describe in detail the use of the message passing interface (MPI) to perform high performance computing (HPC) on clusters of central processing units (CPUs). We also describe the use of the compute unified device architecture (CUDA) to perform HPC on graphics processing units (GPUs). During this workshop we make use of the google colaboratory tool which is a free Jupyter notebook environment that runs entirely in the cloud by using any web browser as interface. The only prerequisite for this workshop is a basic knowledge of scientific programming in Python and C.

Summary

Primary author(s) : Dr. VILLASEÑOR, Luis (University of Morelia)

Presenter(s) : Dr. VILLASEÑOR, Luis (University of Morelia)