CERN School of Computing 2019



Contribution ID: 111 Type: not specified

Guest talk: Using MPI and OpenMP in building High Performance Applications

Tuesday 24 September 2019 10:00 (1 hour)

The hybrid nature of the new systems —distributed memory across nodes and shared memory within each node—poses challenges to application developers. The goal of this talk is to emphasize the differences between distributed and shared memory models, by presenting their fundamental operations and related developing strategies. Two traditional programming models are considered: MPI as a representative of the distributed memory model, and OpenMP that offers a very simple and in the same time efficient way to specify multi-threading computation. We intend to present also how to create a basic hybrid program based on both, and how this approach could efficiently exploits the hardware facilities.

Summary

Presenter: NICULESCU, Virginia (UBB)

Track Classification: Additional lectures