ID de Contribution: **23** Type: **Non spécifié**

Discussion 2: use of alternative hardware

jeudi 11 mars 2021 15:00 (45 minutes)

With new technologies emerging (e.g., deep learning), scientific computing environment are becoming more and more heterogeneous. Several parallel computing devices (GPGAs, GPUs, etc) can be exploited to accelerate traditional algorithms and include deep learning components in the processing workflows. A wide set of dedicated computing devices (TPUs, IPUs, ...) are targeting specific use cases, e.g., convolutional neural networks, recurrent networks, graph networks. Neuromorphic computing opens the possibility to use spiking neural networks for signal processing. On a longer term, quantum computing might offer interesting alternatives to solve large combinatoric problems. With private companies dictating the direction followed by innovation, big scientific collaborations might have to adapt their data processing to follow this trend, which could offer specific advantages.

Orateur: PIERINI, Maurizio (CERN)

Classification de Session: Common approaches