

<http://www.geant4.org>

One slide for summary

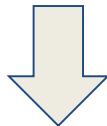
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Fundamental Interactions /Advanced Modeling Solutions

The path forward: Geant4 on HPC

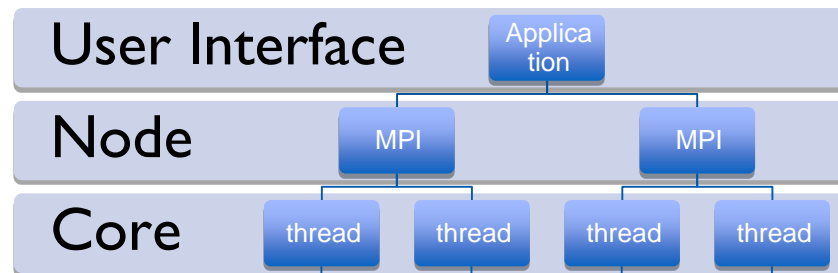
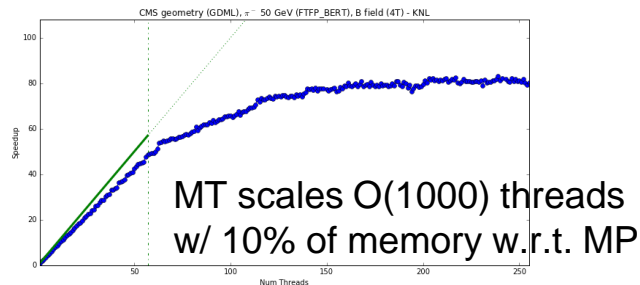
To use HPC systems:

1. Introduce multithreading parallelism (**DONE**)
2. Introduce multi-process parallelism (**DONE**)
3. Study strategy to distribute code efficiently (**DONE**)
4. Containers for workload deployment (**DONE**)
5. Leverage accelerators (**BEING STUDIED**)

Will anyway benefit also traditional systems (GRIDs)



Testing Geant4 at Mira@ANL (BlueGene/Q) with up to 3 million threads



MPI introduced for easy-to-use multi-process jobs