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Introduction to HPC

Sunday, 2 December 2018 09:00 (1h 30m)

Where to begin? HPC as a field, a technology, and a tool for a diversity of disciplines that are enabled by it is an interplay of foundational concepts, rapidly evolving knowledge, and skill sets including programming. This one-day tutorial is presented as a beginners' guide to supercomputing to expose the novice to the breadth of issues needed to begin to understand and use such systems for real-world problems. Included are basic concepts, HPC architecture, benchmarking, parallel programming using OpenMP and MPI, basics of GPU accelerators, and libraries. Participants will be shown live demonstrations of all of these techniques and given opportunities for hands-on experience using the CHPC Petaflops scale supercomputer in South Africa. Questions will be welcome from the attendees throughout the presentations.

Presenter Biography

Primary author: Prof. STERLING, Thomas (Indiana University)

Co-author: Dr BRODOWICZ, Maciej (Indiana Univeristy)

Presenters: Prof. STERLING, Thomas (Indiana University);   Dr BRODOWICZ, Maciej (Indiana Univeristy)

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