Contribution ID: **75**   Type: **Talk**

Understanding and Controlling Processor Affinity

Tuesday, 5 December 2017 11:50 (25 minutes)

HPC content

The absolute and relative position of processes in a compute node can often affect the performance of a parallel application.

The default layout of processes (affinity) is often sufficient for optimal performance. However, with complex coding parallelism, such as hybrid computing, and the diversity in compute node configurations, it may be necessary for the application user to control affinity for a particular platform.

After reviewing the basics of kernel scheduling (how affinity masks work), different methods for controlling and viewing where processes can run will be explored (for pure OpenMP, pure MPI, and hybrid applications).

Primary author: Dr KENT, Milfeld (TACC)

Presenter: Dr KENT, Milfeld (TACC)

Session Classification: HPC

Track Classification: HPC Techniques and Computer Science