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PERFORMANCE-PORTABLE ALGORITHMS FOR UNSTRUCTURED MESH APPLICATIONS

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MINISYMPOSIUM

Recent advances in computational hardware have provided opportunities to diminish resolution constraints and increase computing speed in developing large-scale numerical models. However, utilizing the hardware at its maximal capabilities still remains a challenge. Developing algorithms that optimally leverage the hardware capabilities with performance-portable implementations, enabling the same code to execute correctly and efficiently across a wide range of CPU and GPU architectures, has therefore become an essential aspect of numerical modeling.

This mini-symposium will feature presentations on algorithms that optimally leverage the hardware capabilities with performance-portable implementations for unstructured mesh applications. Relevant topics include algorithms applied to high spatial and/or temporal resolution large-scale numerical models.