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[SORS: Yet Another Stencil Kernel \(YASK\): scaling-out HPC optimization for Intel® Xeon® and Xeon Phi? processors](#)

Objectives

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Abstract: Stencil computation is an important class of algorithms used in a large variety of scientific-simulation applications, especially those arising from finite-difference solutions of differential equations representing the behavior of physical phenomenon such as heat dispersion or seismic activity. This talk provides a brief review of stencil computation and Intel® Xeon® and Xeon Phi™ processors, and it describes the YASK (Yet Another Stencil Kernel) framework that simplifies the tasks of defining stencil functions, generating high-performance code targeted for various Intel platforms, and running tuning experiments. A couple of example YASK features are explained, performance results are given, and future work is described.



Short Bio: Chuck Yount received

his PhD degree in ECE from Carnegie Mellon University in Pittsburgh, Pennsylvania, USA. He is currently a Principal Engineer in the Software and Services Group at Intel Corporation. His work includes developing

analysis and optimization techniques for HPC applications on many-core products including the YASK open-source software framework for stencil-code optimization.



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