HiStencils 2014

1st International Workshop on High-Performance Stencil Computations

January 21, 2014 | Vienna, Austria

In conjunction with HiPEAC 2014, January 20-22, 2014

Stencil computations are an important class of codes used in a variety of application domains ranging from image and video processing to simulation and computational science applied in several areas of natural science. Today, real-world stencil codes are often hand-tuned which requires a huge amount of engineering effort given the variety of stencil codes in use. Therefore, simplifying the task of constructing stencil codes that deliver high performance has become an important topic in research. HiStencils is intended to bring together researchers, students and practitioners dealing with, among others, performance optimzation, code generation and software technology for stencil computations. Topics of interest include, but are not limited to:

- performance optimization of stencil computations
- auto-tuning and machine learning for stencil codes
- software technology for stencil computations
- stencil code generation for GPUs, accelerators and distributed systems
- stencil applications in embedded systems
- hardware/high-level synthesis for stencil codes
- harnessing stencil computations for exascale performance
- static analysis and verification of stencil codes
- theoretical aspects of stencil computations
- multigrid stencil methods
- tool demonstration

Important Dates

Submission deadline:	October 25, 2013
Notification of decision:	November 29, 2013
Final version due:	December 15, 2013
Workshop:	January 21, 2014

Keynote Speaker

The HiStencils 2014 keynote will be given by Rochus Schmid (Ruhr-Universität Bochum).

Support

HiStencils is kindly supported by DFG priority programme 1648.

Submissions & Special Issue

Submissions should not exceed 8 pages (recommended 6 pages) formatted as per ACM proceedings format. Please send your submission by the deadline to histencils@exastencils.org. Proceedings will be published online and distributed to the participants. Publication at HiStencils will not prevent later publication in conferences or journals of the presented work. Selected submissions will be invited for a special issue of the journal “Parallel Processing Letters” after the workshop.

Program Committee

Matthias Bolten (Bergische Universität Wuppertal, DE), Mike Clark (NVIDIA, US), Francisco Gaspar (Universidad de Zaragoza, ES), Dominik Göddeke (TU Dortmund, DE), Frank Hannig (Friedrich-Alexander-Universität Erlangen-Nürnberg, DE), Paul Kelly (Imperial College London, UK), Hatem Ltaief (KAUST, SA), Olaf Schenk (Università della Svizzera Italiana, CH), Jan Treibig (Friedrich-Alexander-Universität Erlangen-Nürnberg, DE)

Contact us

To find out more about HiStencils 2014 visit us at http://www.exastencils.org/histencils/ or send any questions to Armin Größlinger and Harald Köstler: histencils@exastencils.org.