



Final Call for Papers

HLPP-2019: 12th International Symposium on High-Level Parallel Programming and Applications

Linköping, Sweden
July 3–5, 2019

<https://www.ida.liu.se/conferences/hlpp2019>

As processor and system manufacturers increase the amount of both inter- and intra-chip parallelism it becomes crucial to provide the software industry with high-level, clean and efficient tools for parallel programming. Parallel and distributed programming methodologies are currently dominated by low-level techniques such as message passing, or equivalently unstructured shared memory mechanisms. Higher-level, structured approaches offer many possible advantages and have a key role to play in the scalable exploitation of ubiquitous parallelism.

Since 2001 the HLPP series of workshops/symposia has been a forum for researchers developing state-of-the-art concepts, tools and applications for high-level parallel programming. The general emphasis is on software quality, programming productivity and high-level performance models. The 12th Symposium on High-Level Parallel Programming and Applications will be held in Linköping, Sweden.

HLPP 2019 invites papers on all topics in high-level parallel programming, its tools and applications including, but not limited to, the following aspects:

- High-level parallel programming and performance models (BSP, CGM, LogP, MPM, etc.) and tools
- Declarative parallel programming methodologies based on functional, logical, data-flow, actor, and other paradigms
- Algorithmic skeletons, patterns, etc. and constructive methods
- High-level parallelism in programming languages and libraries (e.g, Haskell, Scala, C++, etc.): semantics and implementation
- Verification of declarative parallel and distributed programs
- Efficient code generation, auto-tuning and optimization for parallel programs
- Model-driven software engineering for parallel systems
- Domain-specific languages: design, implementation and applications
- High-level programming models for heterogeneous/hierarchical platforms with accelerators, e.g., GPU, Many-core, DSP, VPU, FPGA, etc.
- High-level parallel methods for large structured and semi-structured datasets
- Applications of parallel systems using high-level languages and tools
- Teaching experience with high-level tools and methods

Each submitted paper will be read by the program committee and designated reviewers and judged on scientific merit, readability, originality and relevance. Informal proceedings with the camera-ready versions of accepted papers will be available at the symposium. Authors of accepted and presented papers will be invited to submit a revised version of their paper for publication in a special issue of *International Journal of Parallel Programming* (Springer) after the symposium.

HLPP-2019 will also offer *tutorials* and an *open poster session* for (esp., EU) research projects in the scope of HLPP. For poster abstract submission see the web page.

Organization

Christoph Kessler, Linköping Univ., Sweden
Suejb Memeti, Linköping Univ., Sweden

Program Committee

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Important dates

Apr. 25, 2019 Paper submission deadline (extended)
May 24, 2019 Notification of acceptance
June 1, 2019 Poster abstract submission
Jul. 3, 2019 Tutorials (afternoon)
Jul. 4–5 Symposium

Cooperation

Linköping University, Dept. of Computer and Information Science (IDA)

IEEE Computer Society, Swedish Section

