

HLPP 2021 14th International Symposium on International Symposium on High-Level Parallel Programming and Applications

Online Event — July 12-13, 2021

<https://www.cs.ubbcluj.ro/hlpp2021>

Aims and Scope

As processor and system manufacturers adjust their roadmaps towards increasing levels of both inter and intra-chip parallelism, so the urgency of reorienting the mainstream software industry towards these architectures grows. At present, popular parallel and distributed programming methodologies are dominated by low-level techniques such as send/receive 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.

HLPP symposia provide a forum for discussion and research about such high-level approaches to parallel and distributed programming.

Topics

HLPP 2021 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 (e.g. BSP, CGM, LogP, MPM, etc.) and tools
- Declarative parallel and distributed 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. OCaml, Haskell, Scala, C++, etc.): semantics and implementation
- Verification of declarative parallel and distributed programs
- Efficient code generation, auto-tuning and optimization for parallel and distributed programs
- Model-driven software engineering for parallel and distributed 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 and distributed systems using high-level languages and tools
- Teaching experience with high-level tools and methods for parallel and distributed computing

Important Dates

- Abstract submission:, **Extended: May 9, 2021**
- Paper submission: , **Extended: May 16, 2021**
- Notification: June 14, 2021
- Draft proceedings version: July 5, 2021
- Journal paper submission: September 11, 2021
- Journal paper publications: Mid 2022

Submission

Papers submitted to HLPP 2021 must describe original research results and must not have been published or simultaneously submitted anywhere else. As it is traditional for HLPP symposia, the accepted papers will be distributed at the symposium in draft proceedings, and revised papers will be published in a special issue of *International Journal of Parallel Programming*.

Manuscripts must be prepared with the Springer IJSS latex macro package using the single column option (`\documentclass[smallexended]{svjour3}`) and submitted via the EasyChair Conference Management System as one pdf file. The strict page limit for initial submission and camera-ready version is 20 pages in the aforementioned format.

Each paper will receive a minimum of three reviews by members of the international technical program committee. Papers will be selected based on their originality, relevance, technical clarity and quality of presentation. At least one author of each accepted paper must register for the HLPP 2021 symposium and present the paper.

After the symposium the authors of the accepted papers will have ample time to revise their papers and to incorporate the potential comments and remarks of their colleagues. We expect the HLPP 2021 special issue of the *International Journal of Parallel Programming* (IJPP) to appear online-first by the end of the year and the printed edition in mid-2022.

Organization

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- [Frédéric Louergue](#), Université d'Orléans, France

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- Gaétan Hains, Huawei Paris Research Center, France
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Past HLPP Symposia

<https://hlpp.eu>